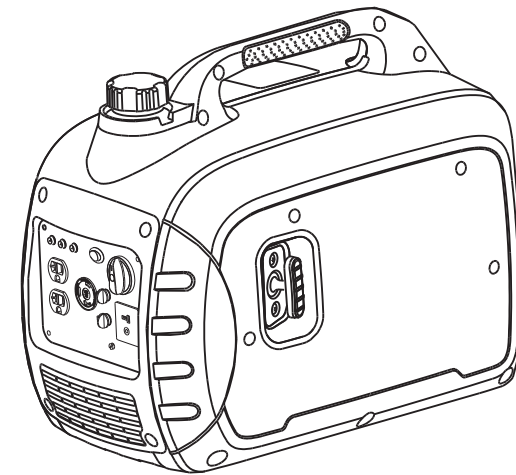


# INVERTER GENERATOR Owner's Manual

3000i



Tips—read this manual carefully before operating this generator.

Save this operating manual properly and carry it with the generator for the convenience of emergency query in the future. This manual constitutes one permanent element of the generator. This manual shall be provided along with the generator set when you lend or resell it.

Relevant information and technical specifications defined in this manual take effect when printing is approved, with the contents based on the equipment in production at time of publication. Manufacturer reserves the rights to modify and improve any parts described in the text without prior notice.

# Contents

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## Foreward


Thank you for purchasing a generator. We recommend that the operator read this manual carefully before use this generator, and fully comprehend all requirements and operating procedure concerning the generator. In case of any questions about this manual, contact the recent authorized dealer for startup, operation, maintenance program and so on. The technician will teach you how to use the generator in a correct and safe manner. We also recommend that the operator consult startup and operating procedure of this generator when buying it.

### Safety precautions

This generator will work in a safe, effective and reliable way only when it is kept, operated and maintained properly. Before operation or maintenance of the generator, the operator should:

- Know well and strictly observe local laws and regulations.
- Read and observe all safety warnings in this manual and on the device.
- Let your family get familiar with all safety warnings in this manual.

It is impossible for manufacturers to predict all hazardous circumstances that may occur, for this reason, warnings in this manual and caution signs on the generator set may not cover all hazardous circumstances. If we do not give extra cautions for operating procedures, methods or techniques, operate the generator in such ways that helps guarantee personal safety, make sure no damage to generator set arises there from.

To make sure safe operation, Please read carefully three vital safety warnings in this manual and on the generator, preceded by a safety alert symbol  including:

** DANGER** You WILL be KILLED or SERIOUSLY HURT if you don't follow instructions.

** WARNING** You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.

** CAUTION** You CAN be HURT if you don't follow instructions.

**NOTICE** Your generator or other property could be damaged if you don't follow instructions.

### Safety Information



#### ⚠ DANGER

Do not use it indoors.



#### ⚠ DANGER

Keep the machine clean and avoid spilt combustibles including gasoline on it.



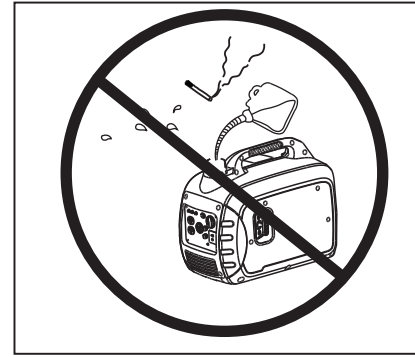
#### ⚠ WARNING

Do not use it in a wet condition.



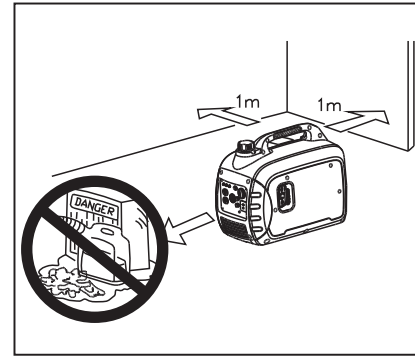
#### ⚠ WARNING

Turn the generator "OFF" when add fuel.



#### ⚠ WARNING

Don't add fuel near the flammable thing or cigarette.



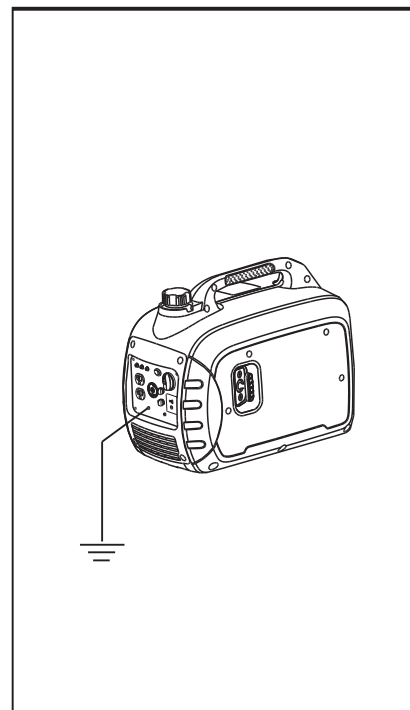
#### ⚠ WARNING

Keep children and pets away from the area of operation. Do not place flammable objects close to the outlet valve when generator operation. Keep it at least 1m away from inflammables.



### ⚠ WARNING

The generating set must not be connected to other power sources, such as the power company supply main. Protection against electrical shock depends on circuit breaker specially matched to the generating set. Due to high mechanical stresses only, tough rubber-sheathed flexible cable (in accordance with ICE 245 or the equivalent) should be used. When using extension lines or mobile distribution networks the total length of lines for a cross section of  $1.5 \text{ mm}^2$  should not exceed 60 m; for a cross section of  $2.5 \text{ mm}^2$  this should not exceed 100 m. Electrical equipment (including lines and plug connections) should not be defective.



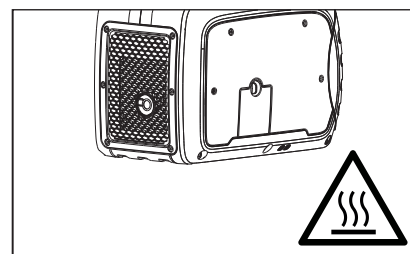
### ⚠ WARNING

It must realize safe grounding.

**NOTICE** Use the ground wire with enough electric flux.

Ground wire diameter :  $0.12 \text{ mm/A EX: } 10\text{A}-1.2 \text{ mm}$

There is a permanent conductor between the generator (stator winding) and the frame. The generator (stator winding) is isolated from the frame and from the ac receptacle ground pin. Electrical devices that require a grounded receptacle pin connection will not function if the receptacle ground pin is not functional.



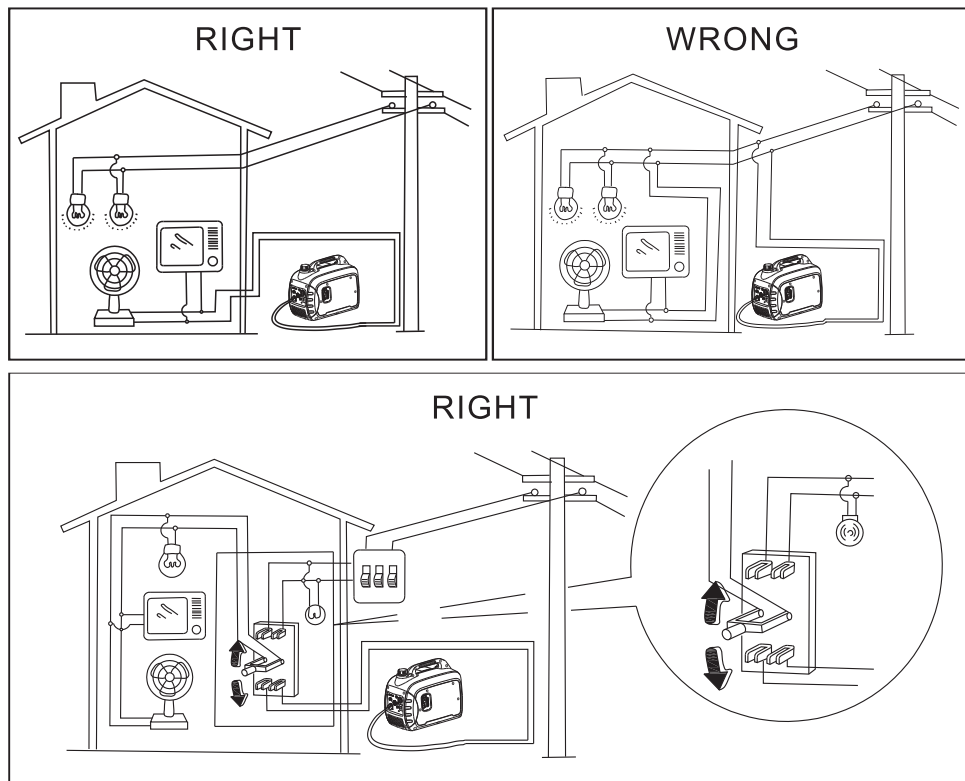
### ⚠ WARNING

The generator surface has high temperature, avoid scalding. Pay attention to the warnings on the generating set.

### Connection to a home power supply

If the generator is to be connected to a home power supply as a standby, connection shall be performed by a professional electrician or by another person with proficient electrical skill.

When the loads are connected to the generator, please carefully check whether electrical connections are safe and reliable. Any improper connection may cause damage to the generator, or cause a fire.



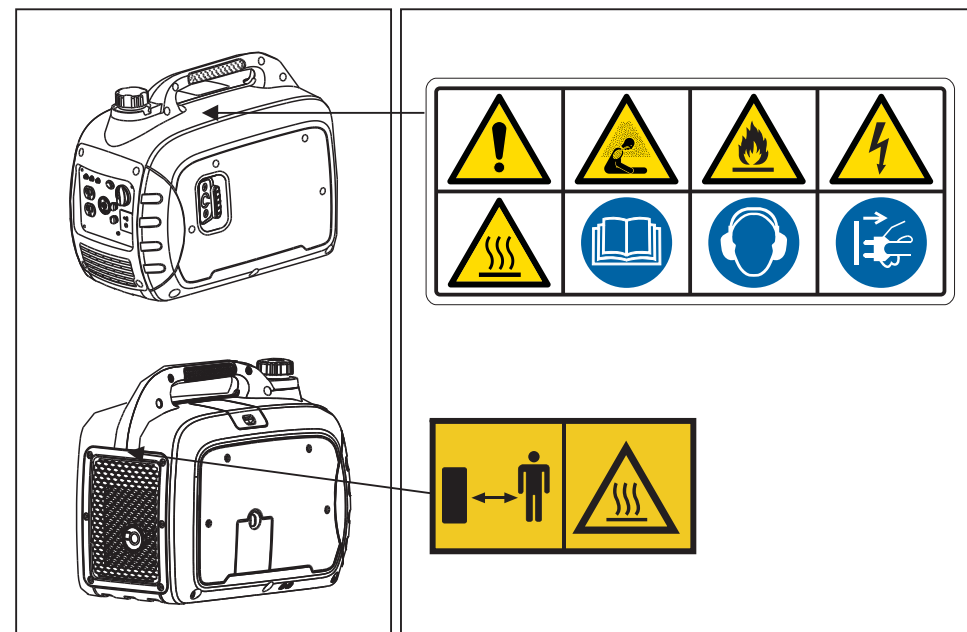
If the generator is to be connected to a home power supply as a standby, connection shall be performed by a professional electrician or by another person with proficient electrical skill.

When the loads are connected to the generator, please carefully check whether electrical connections are safe and reliable. Any improper connection may cause or damage to the generator.

### Others

Make sure Inverter ducted fan, muffler louver and the inverter bottom side cooling well and without chips, mud and water come in. it may damage the generator, inverter or alternator if the cooling vent blocked. Do not mix the generator with other stuff if moving, storing or running the unit, It may cause generator damage or bring property safety issue when the inverter in leakage.

There is the warning label on the machine to remind you of the safety regulations.



Read the safety instructions before using the generator.



Gases such as carbon monoxide (colourless and odourless gas) are produced during operation which may lead to suffocation. Only use the generator in well-ventilated areas.



Only fill the generator in well-ventilated areas and keep it away from open flames, sparks and cigarettes. Spilled fuel should be soaked up immediately.

Switch off the engine and let it cool down before filling the generator. Fuel is easily flammable and may even explode under certain circumstances.



Warning! Dangerous voltages are present when the generator is in operation. Generator must always be switched off before performing maintenance works.



Wear ear protection when operating the generator.



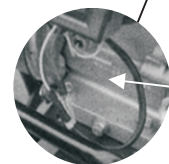
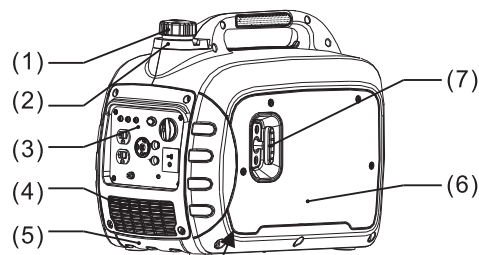
Disconnect all devices from the connections before performing maintenance works, before leaving the device and after switching it off.

### ⚠ WARNING

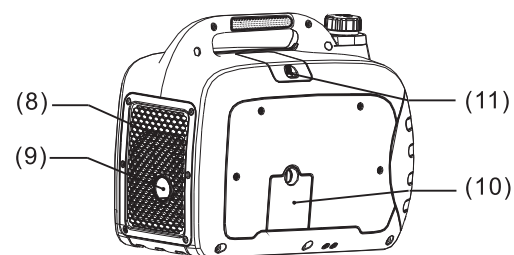
- A warning reminding the user that he shall conform to regulations of electrical safety applicable to the place where the generating sets are used.
- A warning on the requirements and the precautions to be respected by the user in the case of re-supply by generating sets of an installation, depending on existing protective measures in this installation and applicable regulations.

### Control Function

#### DESCRIPTION



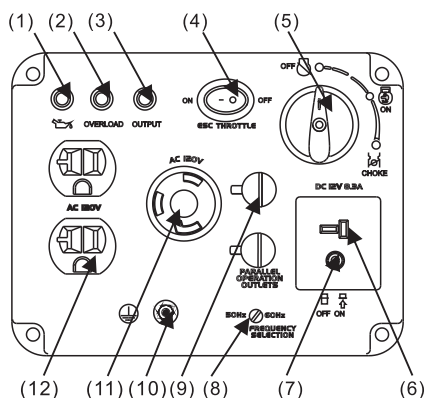
Serial number  
T\*\*\*YMM\*\*\*\*\*  
The YYMM is year  
and month of  
manufactured.



- (1) Fuel tank cap
- (2) Oiling port rubber sleeve
- (3) Control panel
- (4) Panel bed
- (5) The bottom plate frame
- (6) Oil filler cap
- (7) Recoil starter
- (8) Louver
- (9) Muffler
- (10) Oil observation window
- (11) Spark plug

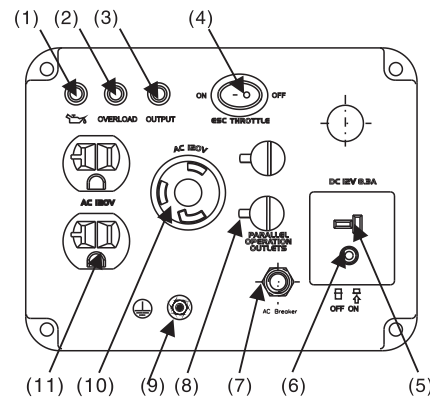
### CONTROL PANEL

100V 50Hz / 60Hz



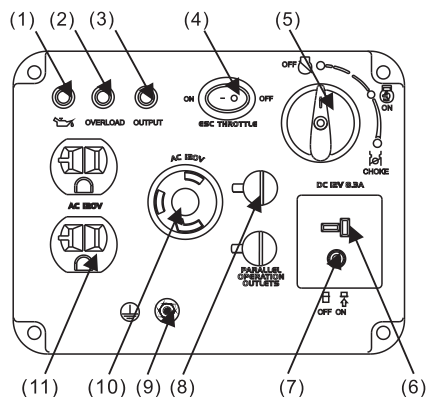
- (1) Oil warning light
- (2) Overload indicator light
- (3) AC pilot light
- (4) ESC(engine smart control)
- (5) 3 in 1 switch knob
- (6) DC receptacle
- (7) DC protector
- (8) FS switch
- (9) Parallel receptacle
- (10) Ground terminal
- (11) AC receptacle
- (12) AC receptacle

120V 60Hz (CSA)



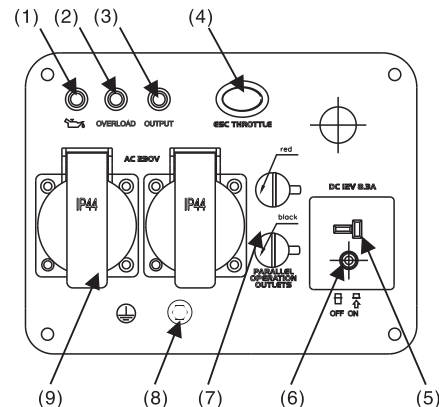
- (1) Oil warning light
- (2) Overload indicator light
- (3) AC pilot light
- (4) ESC(engine smart control)
- (5) DC receptacle
- (6) DC protector
- (7) AC Breaker
- (8) Parallel receptacle
- (9) Ground terminal
- (10) AC receptacle
- (11) AC receptacle

120V 60Hz



- (1) Oil warning light
- (2) Overload indicator light
- (3) AC pilot light
- (4) ESC(engine smart control)
- (5) 3 in 1 switch knob
- (6) DC receptacle
- (7) DC protector
- (8) Parallel receptacle
- (9) Ground terminal
- (10) AC receptacle
- (11) AC receptacle

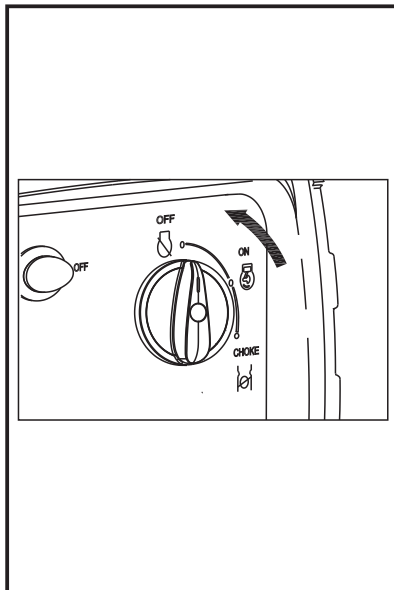
230V 50Hz



- (1) Oil warning light
- (2) Overload indicator light
- (3) AC pilot light
- (4) ESC(engine smart control)
- (5) DC receptacle
- (6) DC protector
- (7) Parallel receptacle
- (8) Ground terminal
- (9) AC receptacle



### CONTROL FUNCTION



#### 3 in 1 switch knob

- ① Engine/fuel valve "OFF"; Ignition circuit is switched off. Fuel is switched off. The engine will not run.
- ② Engine switch \fuel valve \chock. "ON" Ignition circuit is switched on. Fuel is switched on. Chock is switched on. The engine can be running.
- ③ Engine switch \fuel valve \chock. "ON" Ignition circuit is switched on. Fuel is switched on. Chock is switched on. The engine can be start.

TIP: The chock is not required to start a warm engine.

#### Oil warning light

When the oil level falls below the lower level, the oil warning light comes on and then the engine stops automatically. Unless you refill with oil, the engine will not start again.

Tip: If the engine stalls or does not start, turn the engine switch to "ON" and then pull the recoil starter. If the oil warning light flickers for a few seconds, the engine oil is insufficient. Add oil and restart.

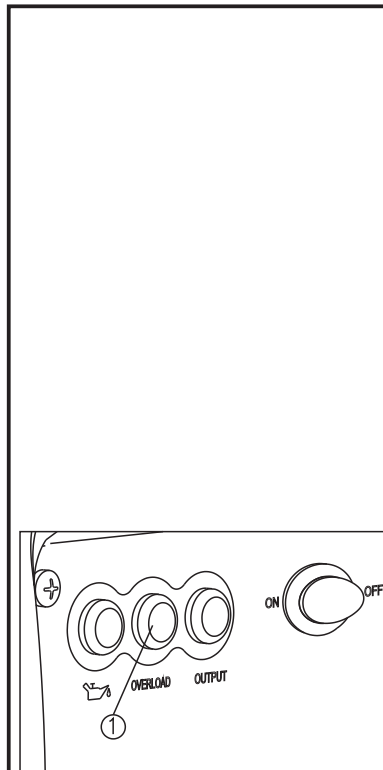
#### Overload indicator light (Red)

The overload indicator light ① comes on when an overload of a connected electrical device is detected, the inverter control unit overheats, or the AC output voltage rises. Then, the AC protector will trip, stopping power generation in order to protect the generator and any connected electric devices. The AC pilot light (Green) will go off and the overload indicator light (Red) will stay on, but the engine will not stop running.

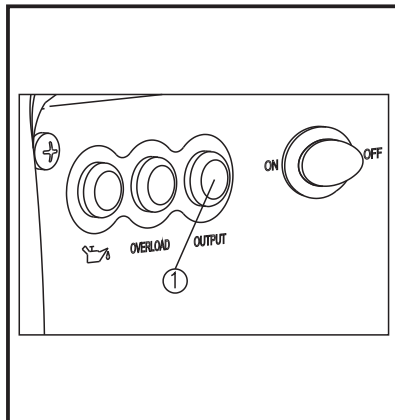
When the overload indicator light comes on and power generation stops, proceed as follows:

1. Turn off any connected electric devices and stop the engine.
2. Reduce the total wattage of connected electric devices within the rated output.
3. Check for blockages in the cooling air Inlet and around the control unit. If any blockages are found remove.
4. After checking, restart the engine.

TIP : The overload indicator light may come on for a few seconds at first when using electric devices that require a large starting current, such as a compressor or a submersible pump. However, this is not a malfunction.



### AC pilot light (Green)



The AC pilot light ① comes on when the engine starts and produces power.

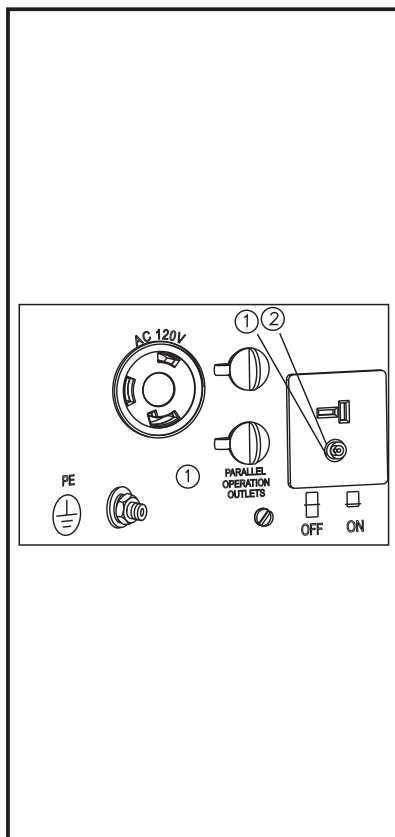
### DC protector

The DC protector turns to “OFF” ② automatically when electric device being connected to the generator is operating and current above the rated flows. To use this equipment again, turn on DC protector by pressing its button to “ON” ①.

- ① “ON” Direct current is output.
- ② “OFF” Direct current is not output.

#### NOTICE

Reduce the load of the connected electric device below the specified rated output of the generator if the DC protector turns off. If the DC protector turns off again, stop using the device immediately and consult a franchised dealer.



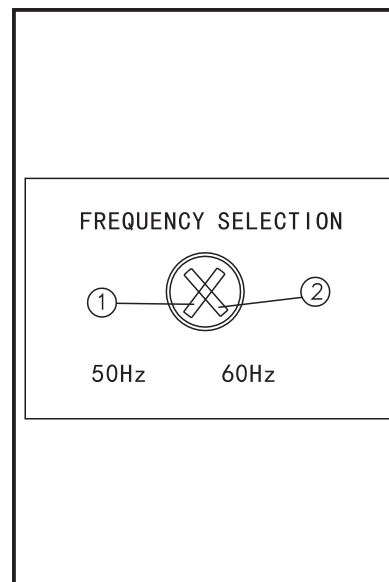
### Frequency selection (FS) switch Only for 100V product

- ① 50Hz
- ② 60Hz

If you need change the machine output frequency, please stop the generating set firstly, then adjust the position of frequency switch by screwdriver. Then restart it.

#### NOTICE

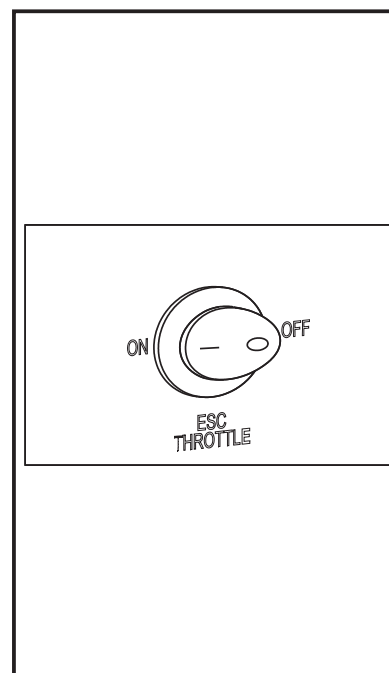
Frequency switch can change frequency only when the generator setting stops. The generator setting output frequency can't change if it operates.



### Engine smart control

- ① “ON”  
When the ESC switch is turned to “ON”, the economy control unit controls the engine speed according to the connected load. The results are better fuel consumption and less noise.
- ② “OFF”  
When the ESC switch is turned to “OFF”, the engine runs at the rated (3100r/min) Regard-less of whether is a load connected or not.

Tip: The ESC must be turned to “OFF” when using electric devices that require a large starting current, such as a compressor or a submersible pump.



### Fuel tank cap

1. Remove the fuel tank cap by turning it counterclockwise.
2. The fuel tank cap ② is provided with an air vent knob ① to stop fuel flow. The air vent knob must be turned to "ON". This will allow fuel to flow to the carburetor and the engine to run. When the engine is not in use, turn the air vent knob to "OFF" to stop fuel flow.

### Ground terminal

Ground terminal ① connects the earth line for prevention of electric shock. When the electric device is earthed, always the generator must be earthed.

### Parallel Operation Outlets

This is the terminal ① for connecting special cables for parallel running of two generator. The parallel running requires two generator and the special cables. (The rated output in parallel running is 3.0Kva and the rated current is 25.0A/120V;13.0A/230V.)

The handing, operation procedure and the notes on usage are described in the PARALLEL RUNNING KIT OWNER'S MANUAL included in the Parallel.

### Pre-operation

#### NOTICE

Pre-operation checks should be made each time operation.

#### ⚠ WARNING

The engine and muffler will be very hot after the engine has been run. Avoid touching the engine and muffler while they are still hot with any part of your body or clothing during inspection or repair.

#### Fuel

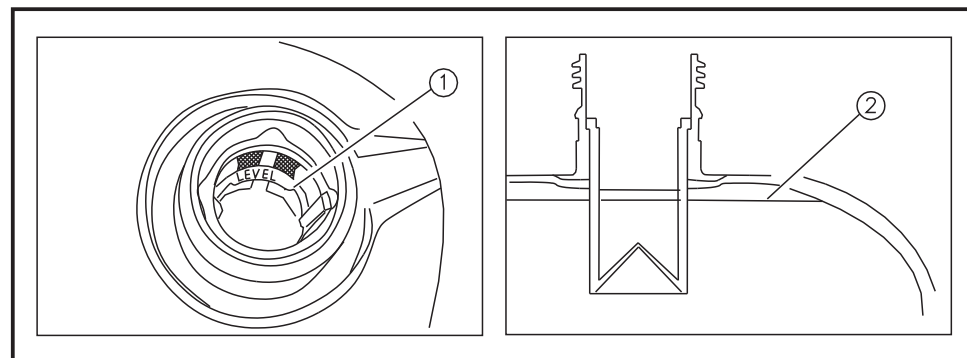
#### ⚠ WARNING

- Fuel is highly flammable and poisonous. Check "SAFETY INFORMATION"(See page 2-5) carefully before filling.
- Do not overfill the fuel tank, otherwise it may overflow when the fuel warms up and expands. After fill the fuel, make sure the fuel tank cap is tightened securely.
- Immediately wipe off spilled fuel with a clean.
- Use only unleaded gasoline. The use of leaded gasoline will cause severe damage to internal engine parts.

Remove the fuel tank cap and fill to the red mark.

Recommended fuel: Unleaded gasoline  
Fuel tank capacity: Total: 4.6L (1.21 US gal, 1.01 Imp gal)

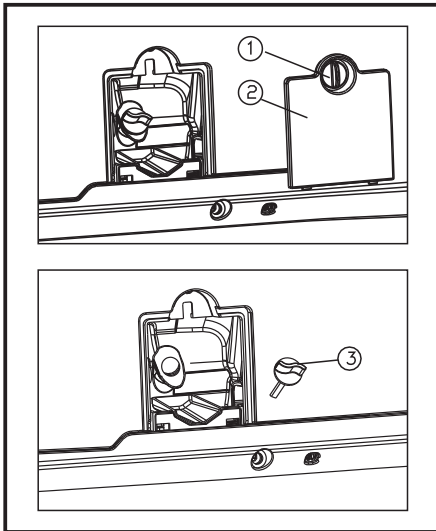
- ① Red line
- ② Fuel level



### Engine Oil

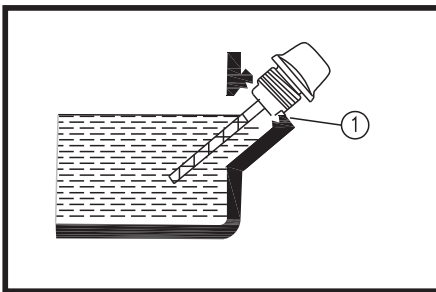
The generator has been shipped without engine oil. Do not start the engine till fill with the sufficient engine oil.

Do not tilt the generator when adding engine. This could result in overfilling and damage to the engine.



1. Place the generator on a level surface.
2. Remove the screws ①, and then remove the cover ②.
3. Remove the oil filler cap ③.
4. Fill with the specified amount of the recommended engine oil, and then install and tighten the oil filler cap.
5. Install the cover and tighten the screws.

### Oil level



Recommended engine oil:  
SAE 10W -30  
Recommended engine oil grade:  
API Service SE type or higher  
Engine oil quantity:  
0.6 L (0.16 US qt, 0.13 Imp qt)

### Operation

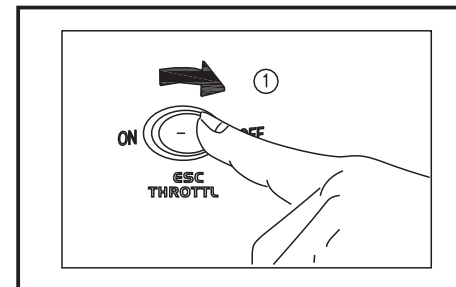
#### NOTICE

Never operate the engine in a closed area or it may cause unconsciousness and death within a short time. Operate the engine in a well ventilated area. The generator has been shipped without engine oil. Do not start the engine till fill with the sufficient engine oil.

#### TIP:

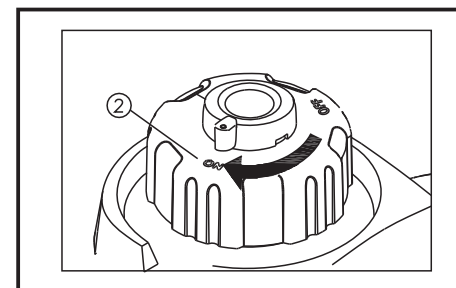
- The generator can be used with the rated output load at standard atmospheric conditions.
- “Standard atmospheric conditions ”; Ambient temperature 25c.
- Barometric pressure 100kPa; Relative humidity 30%
- The output of the generator varies due to change temperature, altitude (lower air pressure at higher altitude) and humidity.
- The output of the generator is reduced when the temperature, the humidity and the altitude are higher than standard atmospheric conditions.
- Additionally, the load must be reduced when using in confined areas, as generator cooling is affected.

### STARTING THE ENGINE

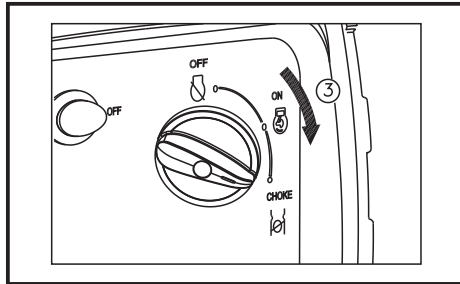


Before starting the engine, do not connect any electric devices.

Turn the ESC switch to “OFF” ①.



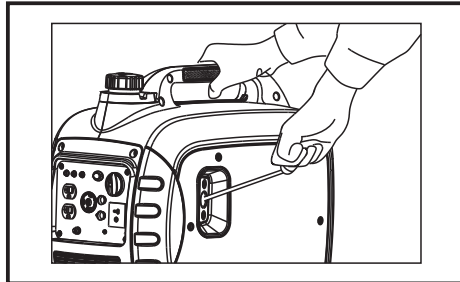
Turn the air vent knob to “ON” ②.



Turn the 3 in 1 switch to “CHOCK” ③

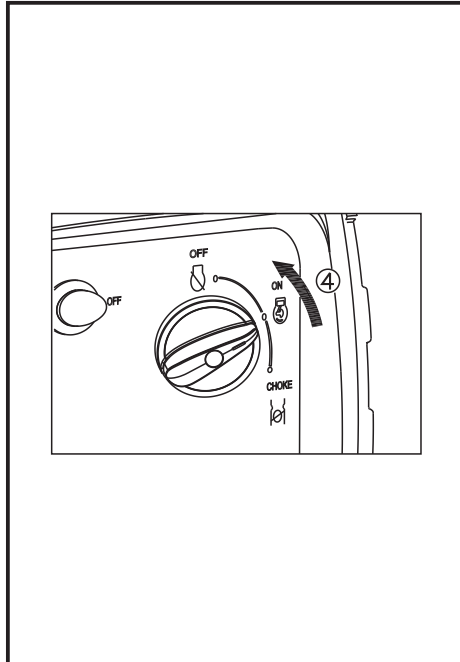
- Ignition circuit is switched on.
- Fuel is switched on.
- Chock is switched off.

TIP: The choke is not required to start a warm engine. Push the choke knob in to the position “ON”.



Pull slowly on the recoil starter until it is engaged, then pull it briskly.

TIP: Grasp the carrying handle firmly to prevent the generator from falling over when pulling the recoil starter.



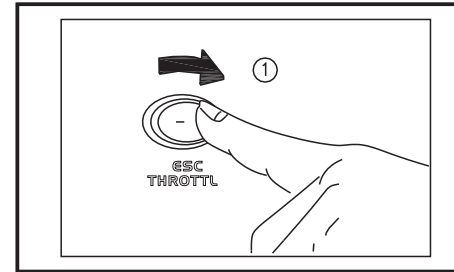
After the engine starts, warm up the engine until the engine does not stop when the choke knob is returned to the “ON” position ④.

TIP:

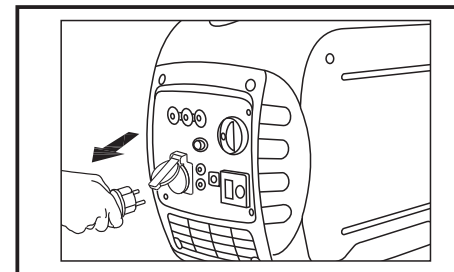
When starting the engine, with the ESC “ON” and there is no load on the generator:  
 In ambient temperature below 0°C (32°F), the engine will run at the rated (2600rpm) for 5 minutes to warm up the engine.  
 In ambient temperature below 5°C (41°F), the engine will run at the rated r/min (3600rpm) for 3 minutes to warm up the engine.  
 The ESC unit operates normally after the above time period, while the ESC is “ON”.

## STOP THE ENGINE

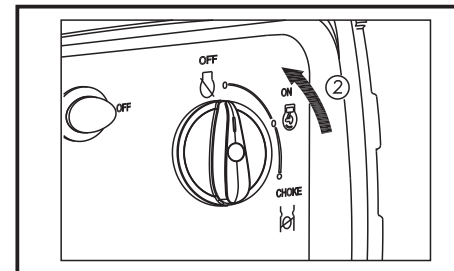
TIP: Turn off any electric devices.



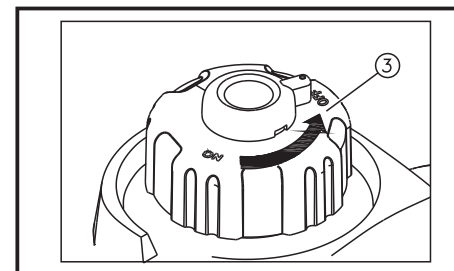
Turn the ESC to “OFF” ①



Disconnect any electric devices.



Turn the 3 in 1 switch to “OFF” ②,  
 a. Ignition circuit is switched off.  
 b. Fuel is switched off.



Turn the fuel tank cap air vent knob to “OFF” ③ after the engine has completely cooled down.



## ALTERNATING CURRENT (AC) CONNECTION

### **⚠ WARNING**

Be sure any electric devices are turned off before plugging them in.

### **NOTICE**

- Be sure all electric devices including the lines and plug connections are in good condition before connection to the generator.
- Be sure the total load is within generator rated output.
- Be sure the receptacle load current is within receptacle rated current.

TIP: Make sure to ground (Earth) the generator. When the electric device is earthed, always the generator must be earthed.

1. Start the engine.
2. Turn the ESC to "ON".
3. Plug in to AC receptacle.
4. Make sure the AC pilot light is on.
5. Turn on any electric devices.

TIP: The ESC must be turned to "OFF" before increasing engine speed to rated rpm.

- Most motorized appliances require more than their electrical rating for startup. When an electrical motor is started, the overload indicator (red) may come on. This is normal if the overload indicator (red) goes off within 4 seconds. If the overload indicator (red) stays on, consult your generator dealer.
- If the generator is connected to multiple loads or electricity consumers, please remember to first connect the one with the highest starting current. And last connect the one with the lowest starting current.
- If the generator is overload, or if there is a short circuit in a connected appliance, the overload indicator (red) will go ON. The overload indicator (red) will stay ON, and after about 4 seconds, current to the connected appliance(s) will shut off, and the output indicator (green) will go OFF. Stop both engines and investigate the problem. Determine if the cause is a short circuit in a connected appliance or an overload, correct the problem and restart the generator.



## BATTERY CHARGING

TIP:

- The generator DC rated voltage is 12V.
- Start the engine first, and then connect the generator to the battery for charging.
- Before starting to charge the battery, make sure that the DC protector is turned on.

1. Start the engine.
2. Connect the red battery charger lead to the positive (+) battery terminal.
3. Connect the black battery charger lead to the negative (-) battery terminal.
4. Turn the ESC "OFF" to start battery charging.

### **NOTICE**

- Be sure the ESC is turned off while charging the battery.
- Be sure to connect the red battery charger lead to the positive (+) battery terminal, and connect the black lead to the negative (-) battery terminal. Do not reverse these positions.
- Connect the battery charger leads to the battery terminals securely so that they are not disconnected due to engine vibration or other disturbances.
- Charge the battery in the correct procedure by following instructions in the owner's manual for the battery.
- The DC protector turns off automatically if current above the rated flows during battery haring. To restart charging the battery, turn he DC protector on by pressing its button to "ON". If the DC protector turns off again, top charging the battery immediately and consult a franchised dealer.

TIP:

- Follow instructions in the owner are manual for the battery to determine the end of battery charging.
- Measure the specific gravity of electrolyte to determine if the battery is fully charged. At full charge, the electrolyte specific gravity is between 1.26 and 1.28.



- It is advisable to check the specific gravity of the electrolyte at least once every hour to prevent overcharging the battery.

**⚠ WARNING**

- Never smoke or make and break connections at the battery while charging. Sparks may ignite the battery gas.
- Battery electrolyte is poisonous and dangerous, causing severe burns, etc. contains sulfuric (sulphuric) acid. Avoid contact with skin, eyes or clothing.

**Antidote:**

External- Flush with water.

INTERNAL- Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil.

Call physician immediately.

**EYES:** Flush with water for 15 minutes and get prompt medical attention. Batteries produce explosive gases. Keep sparks, flame, cigarettes, etc., away. Ventilate when charging or using in closed space. Always cover eyes when working near batteries.

**KEEP OUT OF REACH OF CHILDREN**

**AC PARALLEL OPERATION**

Before connection an appliance to either generator, make sure that it is in good working order and that its electrical rating does not exceed that of the receptacle.

During parallel operation, the ESC switch should be in the same position on both generators.

1. Connect the parallel operation cable between the generator to either an generator or companion generator following the instructions supplied with the cable kit.
2. Start the engines and make sure the output indicator (green) on each generator comes on.
3. Plug an appliance into the AC receptacle.
4. Turn on the appliance.



**AC Parallel Operation Applications**

**TIP:**

- Make sure that it is in good working order. A faulty appliance or power cord can create a potential for electrical shock.
- If an appliance begins to operate abnormally, becomes sluggish, or stops suddenly, turn it off immediately. Disconnect the appliance and determine whether the problem is the appliance, and determine whether the problem is the appliance or the rated load capacity of the generator has been exceeded.
- Make sure that the combined electrical rating of the tools or appliance do not exceed that of the generator. Never exceed the maximum may be used for no more than 30 minutes.
- Never connect different generator models.
- Don't remove the parallel operation cable when the generator operation.
- For single generator operation, the parallel operation cable must be removed.

**⚠ WARNING**




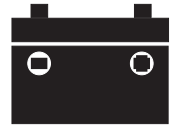
- Substantial overloading that continuously lights the overload indicator (red) may damage the generator
- Marginal overloading that temporarily light the overload indicator (red) may shorten the service life of the generator.
- Limit operation requiring maximum power to 30 minutes.
- Maximum power in parallel operation is: 5.0kVA.
- For continuous operation, do not exceed the rated power.
- Rated power in parallel operation is: 4.6kVA.

# 6

## Application Range

Inverter Generator Owner's Manual

When using the generator, make sure the total load is within rated output of a generator. Otherwise, generator damage may occur.

| AC           |  |  |  | DC<br> |
|--------------|---|---|---|---|
| Power factor | 1   | 0.8-0.95  | 0.4-0.75<br>(Efficiency 0.85)   |   |
| 3000i        | ~2300W  | ~1840W  | ~920W   | Rated voltage 12v<br>Rated current 8.3A   |

TIP:

- “~” means below.
- Application wattage indicates when each device is used by itself.
- The simultaneous usage of AC and DC power is possible but total wattage should not exceed the rated output.

EX:

| Generator rated output |              | 2300VA         |
|------------------------|--------------|----------------|
| Frequency              | Power factor |                |
| AC                     | 1.0          | ~2300W         |
|                        | 0.8          | ~1840W         |
| DC                     | --           | 100W(12V/8.3A) |

The overload indicator light comes on when total wattage exceeds the application range. (See page 12 for more details.).

### NOTICE

- Do not overload. The total load of all electrical appliances must not exceed the supply range of the generator. Overloading will damage the generator.
- When supplying precision equipment, electronic controllers, PCs, electronic computers, microcomputer based equipment or battery chargers, keep the generator a sufficient distance away to prevent electrical interference from the engine. Also ensure that electrical noise from the engine does not interfere with any other electrical devices located near the generator.
- If the generator is to supply medical equipment, advice should first be obtained from the manufacturer, a medical professional or hospital.
- Some electrical appliances or general-purpose electric motors have high starting currents, and cannot therefore be used, even if they lie within the supply ranges given in the above table. Consult the equipment manufacturer for further advice.

# 7

## Maintenance

Inverter Generator Owner's Manual

### Maintenance

Safety is an obligation of the owner. Periodic inspection, adjustment and lubrication will keep your generator in the safest and most efficient condition possible. The most important points of generator inspection and lubrication are explained on the following pages.

**WARNING** If you are not familiar with maintenance work, have a franchised dealer do it for safety.

#### Maintenance chart

**WARNING** Stop the engine before starting maintenance work.

Use only franchised dealer specified genuine parts for replacement. Ask an authorized franchised dealer for further attention.

| Item           | Routine   | Pre-operation check(daily) | 6 months or 100 Hr | 12 months or 300 Hr |
|----------------|---|----------------------------|--------------------|---------------------|
| Spark plug     | Check condition.<br>Clean and replace if necessary.         |                            | ○                  |                     |
| Fuel           | Check fuel level and leakage.                               | ○                          |                    |                     |
| Fuel hose      | Check fuel hose for cracks or damage, Replace if necessary. | ○                          |                    |                     |
| Oil            | Check oil level in engine.                                  | ○                          |                    |                     |
|                | Replace   |                            | ○ (1)              |                     |
| Air filter     | Check condition.<br>Clean.                                  |                            | ○ (2)              |                     |
| Muffler screen | Check condition.<br>Clean and replace if necessary.         |                            | ○                  |                     |
| Spark arrester | Check condition.<br>Clean and replace if necessary.         |                            | ○                  |                     |



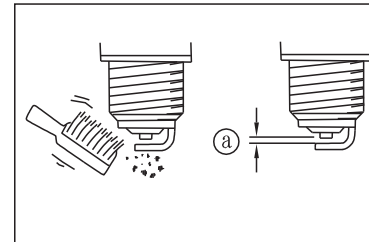
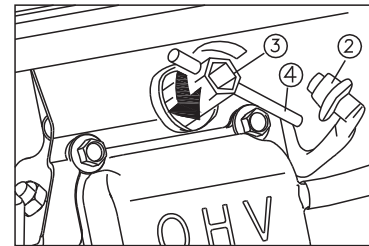
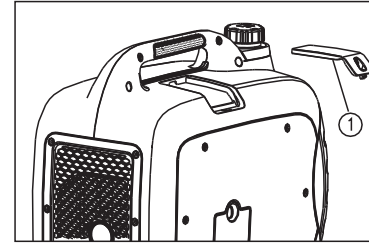
| Item  | Routine  | Pre-operation check(daily) | 6 months or 100 Hr | 12 months or 300 Hr |
|---|--|----------------------------|--------------------|---------------------|
| Fuel filter                                       | Clean and replace if necessary.                                |                            |                    | ○                   |
| Crankcase breather hose                           | Check hose weather for cracks or damage. Replace if necessary. |                            |                    | ○                   |
| Cylinder head                                     | Decarbonizes cylinder head More frequently if necessary        |                            |                    | ★                   |
| Valve clearance                                   | Check and adjust when engine is cold                           |                            |                    | ★                   |
| Fittings/ fasteners                               | Check all fittings and fasteners. Correct if necessary.        |                            |                    | ★                   |
| The point where abnormality was recognized by use |  | ○                          |                    |                     |

(1) Initial replacement of the engine oil is after before one month or after 20 hours of operation.

(2) The air filter needs to be cleaned more frequently when using in unusually wet or dusty areas.

★ Since these items require tools, date and technical skills, you should find a local dealer perform the service.

## SPARK PLUG INSPECTION



The spark plug is important engine components, which should be checked periodically.

1. Remove the spark plug cap ①, Insert the tool ④, through the hole from the outside of the cover.
2. Insert the handlebar ③ in to the tool ④ and turn it counterclockwise to remove the spark plug.
3. Check for discoloration and remove any carbon deposits. The porcelain insulator around the center electrode of spark plug should be a medium to light tan color.
4. Check the spark plug type and gap.

Standard spark plug:  
F7RTC  
spark plug  
Gap: 0.7-0.8mm (0.028-0.031in)

5. Install the spark plug.

### TIP:

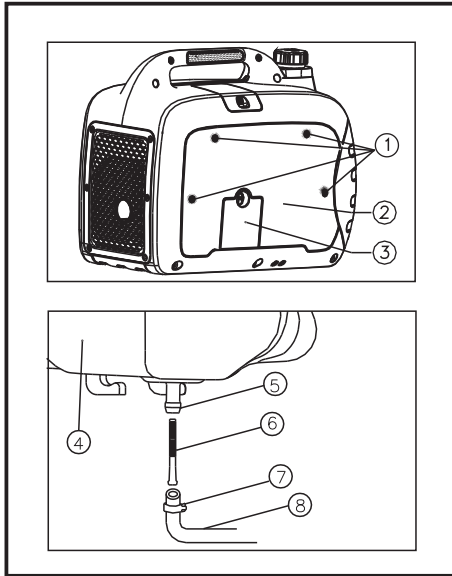
If a torque wrench is not available when installing a spark plug, a good estimate of the correct torque is 1/4-1/2 turn past finger tight. However, the spark plug should be tightened to the specified torque as soon as possible.

6. Install the spark plug cap and spark plug cover.

## CARBURETOR ADJUSTMENT

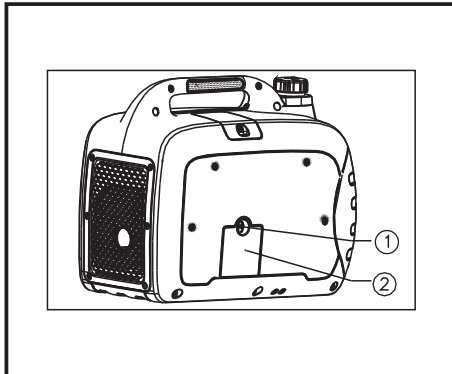
The carburetor is a vital part of the engine. Adjusting should be left to a dealer with the professional knowledge, specialized date, and equipment to do so properly.

## CLEAN FUEL FILTER

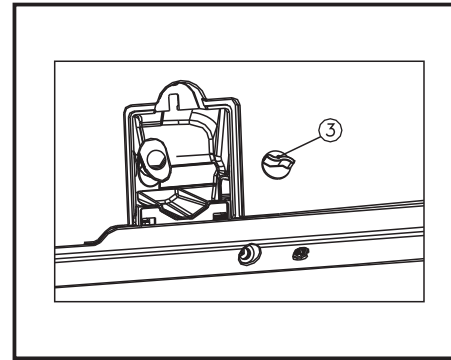


1. Remove the screw ① and then remove the cover ② and Oil observation window ③.
2. Drain the fuel in the fuel tank ④. Hold the tube clip ⑦ toward downward and pull out the fuel tube ⑧ which connect on the fuel tank, then disassemble fuel filter.
3. Put the fuel filter ⑥ into non-combustible or higher flash point solvent and clean it.
4. Assemble fuel filter to the main jet ⑤ on the fuel tank, then assemble fuel tube to main jet on the fuel tank and install tube clip.

## ENGINE OIL REPLACEMENT



- Avoid draining the engine oil immediately after stopping the engine. The oil is hot and should be handled with care to avoid burns.
1. Place the generator on a level surface and warm up the engine for several minutes.
  2. Unscrew but unloosen the screw ① and take off the sight glass of engine oil ②.

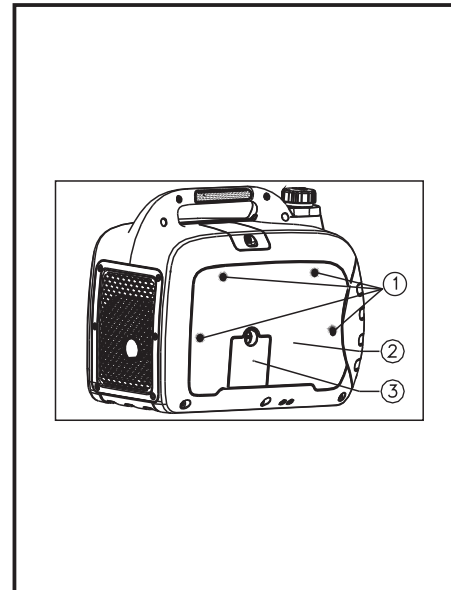


3. Remove the oil filler cap ③.
4. Place an oil pan under the engine. Tilt the enerator to drain the oil completely.
5. Add oil till to a suitable level, tighten oil filler cap.
6. Assembly the sight glass of engine oil.

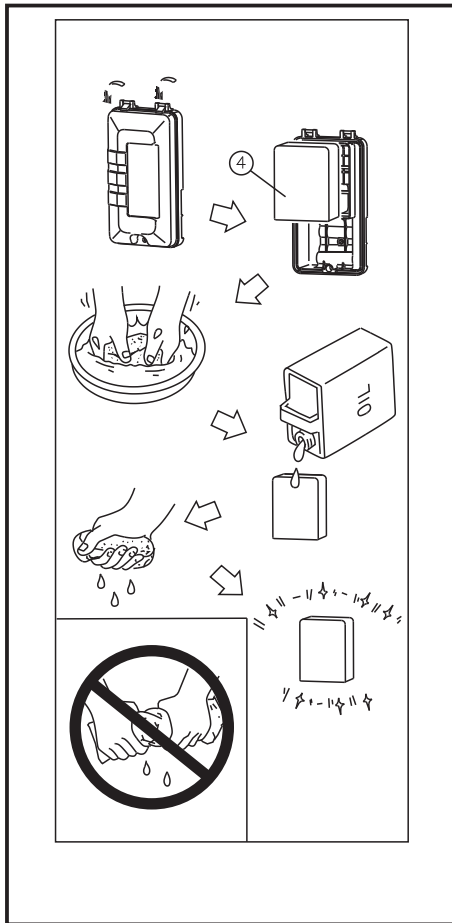
### NOTICE

- Do not tilt the generator when adding engine oil. This could result in overfilling and damage to the engine. Don't make foreign body fall into engine.
- Oil and gasoline could pollute the environment, don't throw it in the trash or pour it on the ground.

## AIR FILTER



1. Remove the screw ① and then remove the cover ② and Oil observation window ③.
2. Remove the air filter case cover and then remove the foam element ④ .



3. Wash the foam element in solvent and dry it.
4. Oil the foam element and squeeze out excess oil. The foam element should be wet but not dripping.

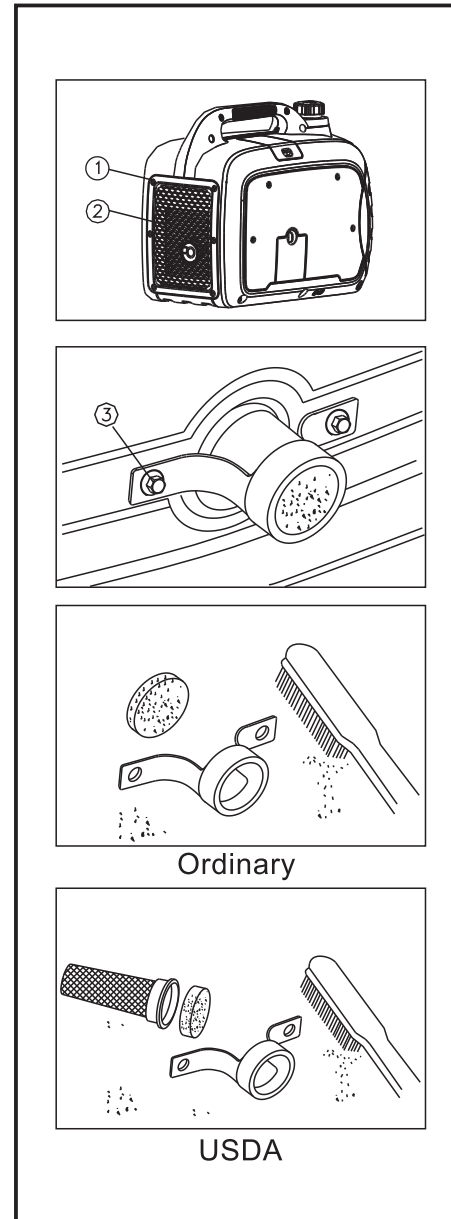
**NOTICE** Do not wring out the foam element when squeezing it. This could cause it to tear.

5. Insert the foam element into the air filter case.
- TIP:**  
Be sure the foam element seals properly against the air filter holder to avoid air leakage. The engine should never run without the foam element; excessive piston and cylinder wear may result.
6. Install the air filter case cover in its original position and tighten the screw.

## MUFFLER SCREEN

### ⚠ WARNING

The engine and muffler will be very hot after the engine has been run. Avoid touching the engine and muffler while they are still hot with any part of your body or clothing during inspection or repair.

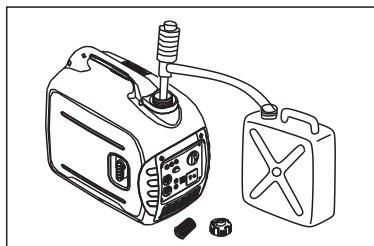
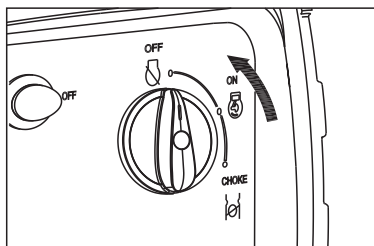


1. Unscrew 6 bolts ①, and take off shutter ②.
2. Loosen the bolt ③ and then remove the muffler screen.
3. Clean the carbon on the muffler screen by wire brush.
4. Check the muffler screen and spark arrester, replace if it damage.
5. Install spark arrester.
6. Install the cover and tighten the screws.

## Storage

Long term storage of your machine will require some preventive procedures to guard against deterioration.

### DRAIN THE FUEL



1. Turn the 3 in 1 switch to "OFF" ①.
2. Remove the fuel tank cap, remove the filter. Extract the fuel from the fuel tank into an approved gasoline container using a commercially available hand siphon. Then, install the fuel tank cap.
3. Fuel is highly flammable and poisonous. Check "SAFETY INFORMATION" (See page 1) carefully immediately wipe off spilled fuel with a clean, dry, soft cloth, since fuel may deteriorate painted surfaces or plastic parts.
4. Start the engine and leave it run until it stops. The engine stops in approx. 20 mins. Time by running out of fuel.

#### TIP:

- Do not connect with any electrical devices. (Unloaded operation).
  - Duration of the running engine depends on the amount of the fuel left in the tank.
5. Drain the fuel from the carburetor by loosening the drain screw on the carburetor float chamber.
  6. Turn the 3 in 1 switch to "OFF".
  7. Tighten the drain screw.

### ENGINE

Perform the following steps to protect the cylinder, piston ring, etc. from corrosion.

1. Remove the spark plug; pour about one table-spoon of SAE 10W-30 into the spark plug hole and reinstall the spark plug.
2. Recoil start the engine by turning over several times (with 3 in 1 switch knob off) to coat the cylinder walls with oil.
3. Pull the recoil starter until you feel compression. (This prevents the cylinder and valves from rusting).
4. Then stop pulling!
5. Clean the outside of engine and spray antirust additive.
6. Store the generator in a dry, well-ventilated place, with the cover placed over it.
7. Lay the engine vertically.

### Troubleshooting

#### ENGINE CAN'T START

##### 1. Fuel systems

- No gasoline in the fire chamber.
- No fuel in the fuel tank...add fuel.
- Fuel in tank.
- Clogged fuel filter .... Clean fuel filter.
- Clogged carburetor.... Clean carburetor.

##### 2. Engine oil system

- Oil level is low.... Add engine oil.

##### 3. Electrical systems

- Put the 1 in 3 switch to “CHOKE” and pull the recoil starter...Poor spark.
- Spark plug dirty with carbon or wet.... Remove carbon or wipe spark plug dry.
- Faulty ignition system.... Consult a franchised dealer.

#### GENERATOR WON'T PRODUCE POWER

- Safety device (DC protector) to “OFF”.... Press the DC protector to “ON”.
- The AC pilot light (Green) go off .... Stop the engine, and then restart.

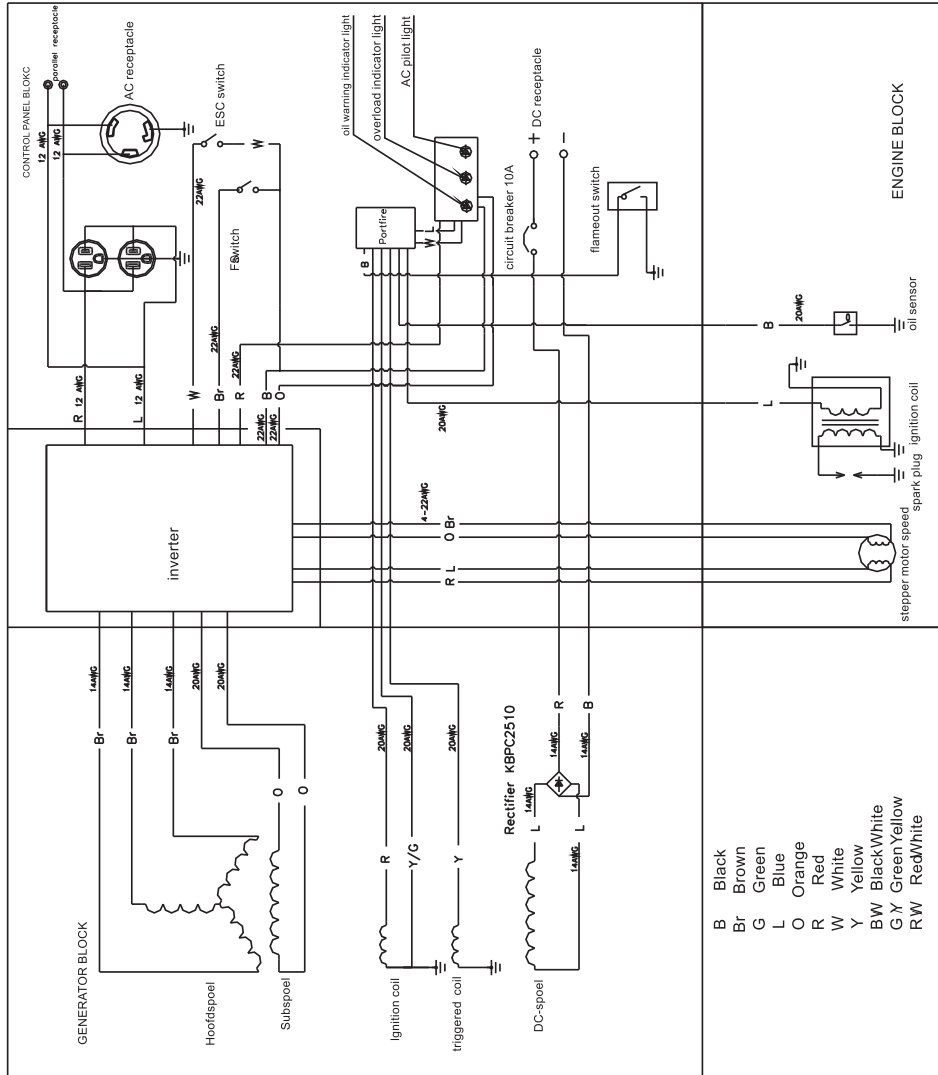
### Parameters

| Model No. |  | 3000i  |
|-----------|--|--|
| Generator | Type                                       | Inverter   |
|           | Rated frequency /Hz ※                      | 50/60/50&60  |
|           | Rated voltage /V ※                         | 100/110/120/230                                    |
|           | Max. output power /kW                      | 2.5  |
|           | Rated output power /kW                     | 2.3  |
|           | Power factor                               | 1.0  |
|           | AC output quality                          | ISO8528 G2   |
|           | THD/%                                      | ≤5   |
|           | Noise Level dB/LpA/LwA/K 4m (3/4 load)     | 64.7   |
|           | DC Output/ V-A                             | 12-8.3   |
|           | Overload Protect                           | DC   |
| AC        |  | Control by inverter overload protect program       |
| Engine    | Engine                                     | 165F-4   |
|           | Engine type                                | Single cylinder, 4-Stroke, forced air cooling, OHV |
|           | Displacement/cc                            | 149  |
|           | Fuel type                                  | Unleaded Gasoline                                  |
|           | Fuel Tank capacity/L                       | 4.0  |
|           | Continue Running Time (at rated power) / h | 2.7  |
|           | Engine Oil Capacity/L                      | 0.6  |
|           | Spark Model No.                            | F7RTC  |
|           | Starting mode                              | Recoil start                                       |
| Generator | Length×Width×Height/mm                     | 565×339×467  |
|           | Net weight/kg                              | 27   |

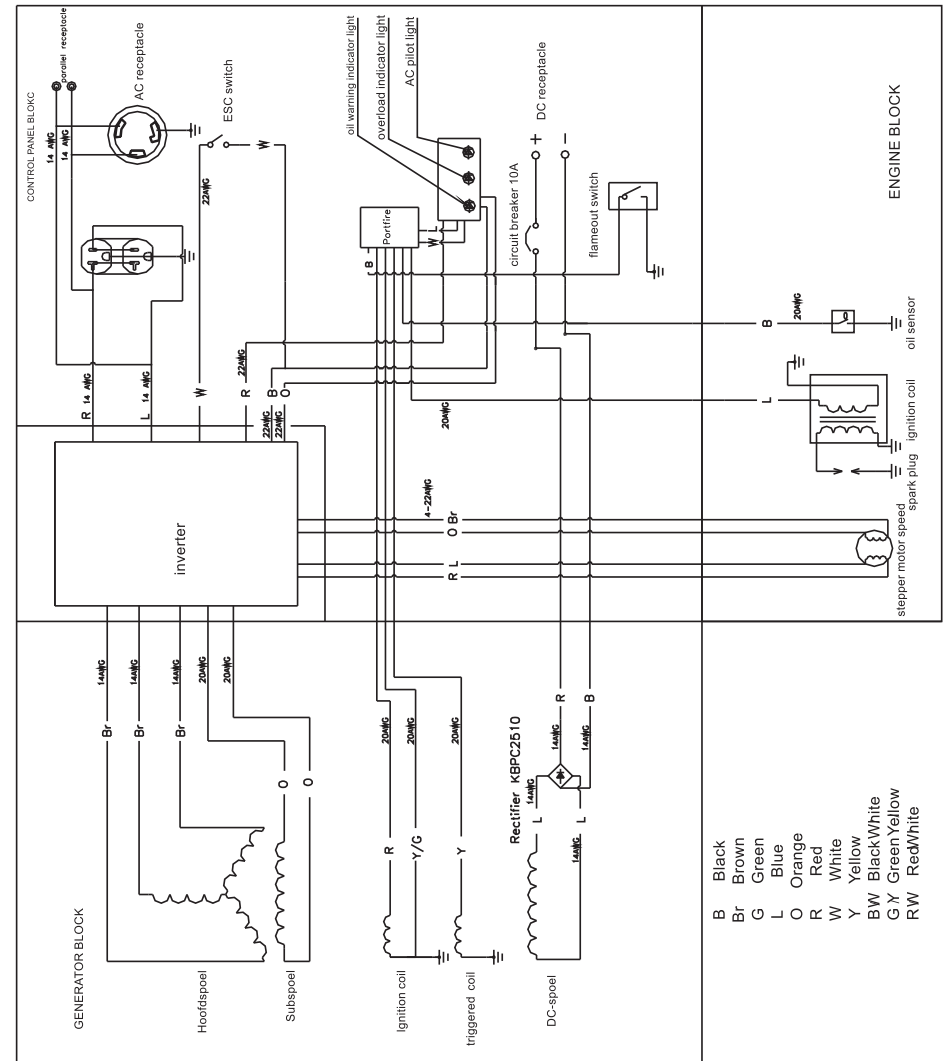
※ Only 230V 50Hz with data meter product is GS certificated.

### Electrical Schematic Diagram

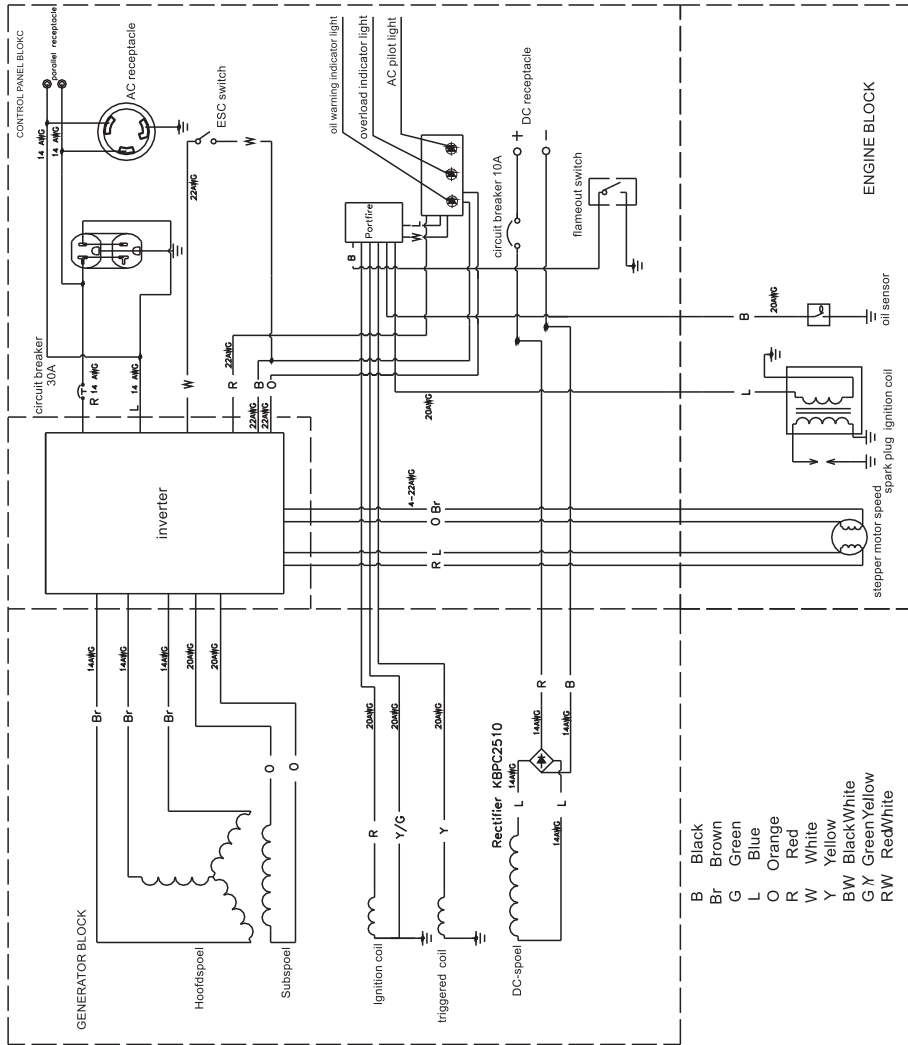
● 50Hz / 60Hz, 100V



● 60Hz, 120V



● 60Hz, 120V (CSA)



● 50Hz, 230V

