



## Operation manual

### Power generator

3015 E-P/YHBA



**Important:**

**Read these operating instructions and the engine manufacturer's operating instructions carefully before use. Keep for future reference.**



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# INTRODUCTION

Congratulations on your purchase of your new GEKO generator.

This manual will provide you with a good basic understanding of the operation and maintenance of this machine.

If you have any questions regarding the operation or maintenance of your machine, please consult an GEKO dealer.

Particularly important information is distinguished in this manual by the following notations.



•This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



•A WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

## NOTICE

•A NOTICE indicates special precautions that must be taken to avoid damage to the machine or other property.

## TIP

•A TIP provides key information to make procedures easier or clearer.



•PLEASE READ AND UNDERSTAND THIS MANUAL COMPLETELY BEFORE OPERATING THE MACHINE.

## TIP

• GEKO continually seeks advance-ments in product design and quality. Therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your engine and this manual. If there is any question concerning this manual, please consult an GEKO dealer .

This manual should be considered a permanent part of this engine and should remain with this engine when resold.

Product and specifications are subject to change without notice.

Record the model and serial numbers as well as date and place of purchase for future reference. Have this information available when ordering parts and when making technical or warranty inquiries.

Customer Service
Model Number
Serial Number
Date of Purchase
Purchase Location

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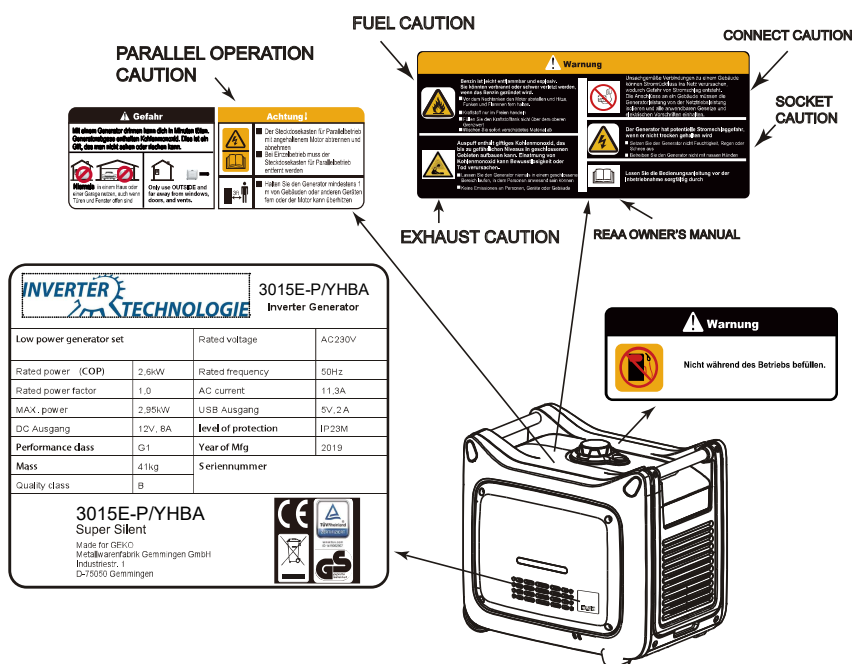
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# 1.LOCATION OF IMPORTANT LABELS

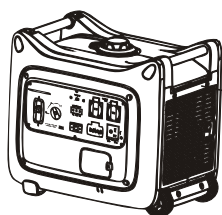
Please read the following labels carefully before operating this generator.

## TIP

- Maintain or replace safety and instruction labels, as necessary.

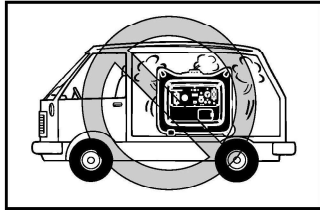


WEEE:Wast Electrical and Electronic Equipment (WEEE) Directive (2002/96/EC): Means the end user should recycle the waste electrical and electronic components according to local requirement, it cannot be disposal together with other trash.

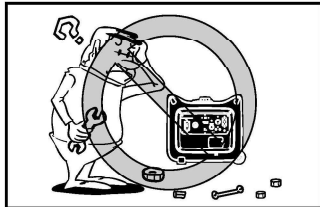


HINWEIS	WARUNG	NOTE	CAUTION
Für eine ordnungsgemäße Langzeitbedienun g sollte der Parkenschutz mindestens alle 100 Stunden, Wechs der Bedienungsanleitung beschrieben, sorgfältig gereinigt werden.	Hottes Abgasssystem kann schwere Verbrennungen verursachen. • Den Generator nicht anfassen, wenn der Motor läuft.	For proper long term operation the exhaust arrester should be cleaned thoroughly at least every 100 hours as described in the owner's manual.	A hot exhaust system can cause serious burns. • Avoid contact if the engine has been running.

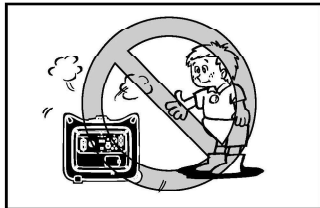
## 2.SAFETY INFORMATION



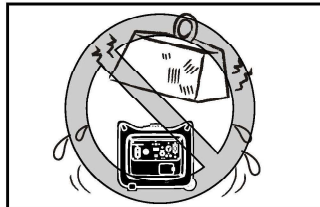
- This generator is not designed for on-board use. Do not use it while installed on the vehicle.



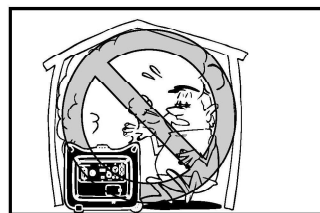
- Do not modify the generator or use it with its parts removed.



- Do not allow children to operate the generator.



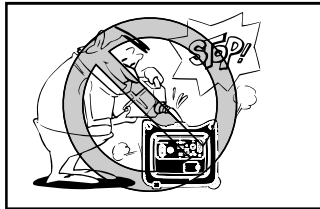
- Do not place any obstacles on the generator.



### EXHAUST FUMES ARE POISONOUS

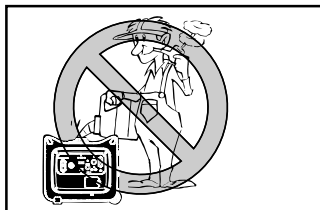
- Never operate the engine in a closed area or it may cause unconsciousness and death within a short time. Operate the engine in a well ventilated area.



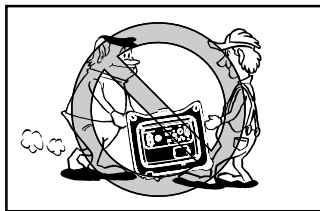


### **FUEL IS HIGHLY FLAMMABLE AND POISONOUS**

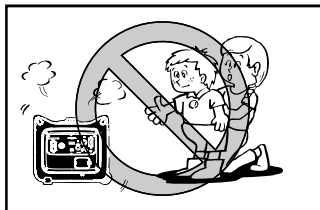
- Always turn off the engine when refuelling.



- Never refuel while smoking or in the vicinity of an open flame.
- Take care not to spill any fuel on the engine or muffler when refuelling.
- Do not leave the generator inside the vehicle or in the trunk.
- If you swallow any fuel, inhale fuel vapor, or allow any to get in your eye(s), see your doctor immediately. If any fuel spills on your skin or clothing, immediately wash with soap and water and change your clothes.

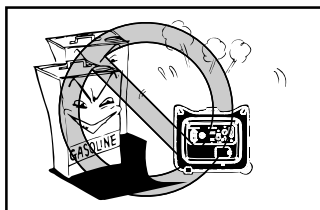


- When operating or transporting the generator, be sure it is kept upright. If it tilts, fuel may leak from the carburetor or fuel tank.

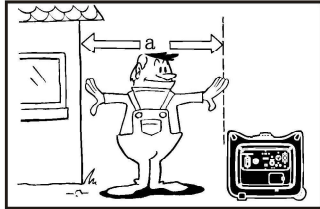


### **ENGINE AND MUFFLER MAY BE HOT**

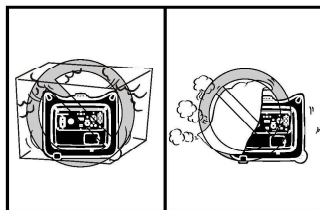
- Place the generator in a place where pedestrians or children are not likely to touch the generator.



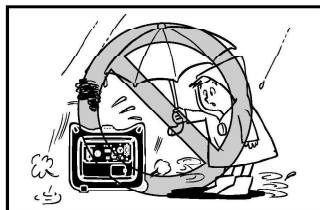
- Avoid placing any flammable materials near the exhaust outlet during operation.



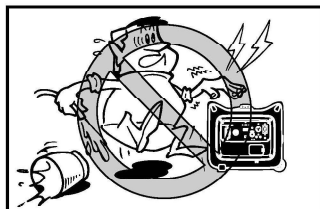
- Keep the generator at least 1 m (3 ft) from buildings or other equipment, or the engine may overheat.  
a = 1 m (3 ft)



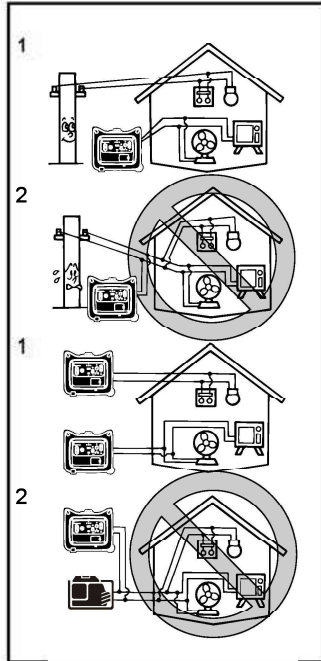
- Do not operate the engine with a dust cover or other objects covering it.
- When covering the generator, be sure to do so only after the engine and muffler have completely cooled down.



- ### ELECTRIC SHOCK PREVENTION
- Never operate the engine in rain or snow.



- Never touch the generator with wet hands or electrical shock will occur.



### CONNECTION NOTES

- Avoid connecting the generator to commercial power outlet.
- Do not try parallel with generators of any other brand.

1. Correct
2. Incorrect

### CONNECTION



The generating set shall not be connected to other power sources

### EXTENSION CORD NOTES

Extension cords should be protected by a tough flexible rubber sheath (IEC 245) or the equivalent to withstand mechanical stresses.

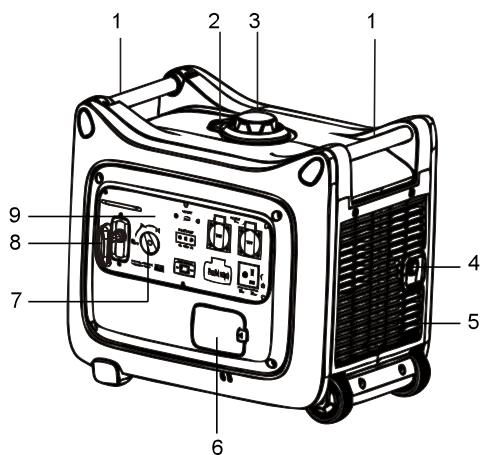
### Extension Cords

If an extension cord (not included) is used, make sure to use only appropriate certified cord; The total length of lines for a cross section of 1.5mm<sup>2</sup> should not exceed 60m; for a cross section of 2.5mm<sup>2</sup> this should not exceed 100m. having the correct gauge and length according to the following table:

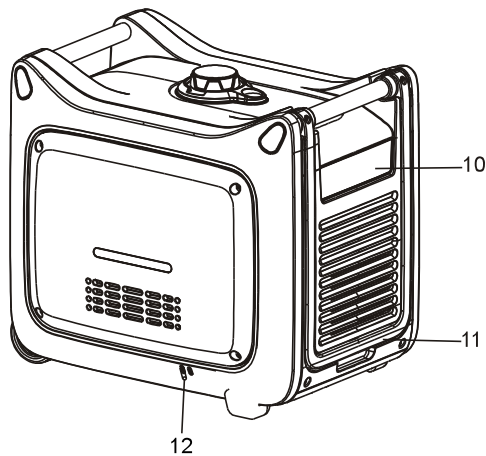
Nameplate Amps	Cord Lengths	
	(@full load)	0'-50'
0-8	1.5	2.5
8.1-15	2.5	2.5

Due to high mechanical stresses, only tough rubber-sheathed flexible cable (in accordance with IEC 60245-4) or the equivalent should be used

### 3.DESRIPTION

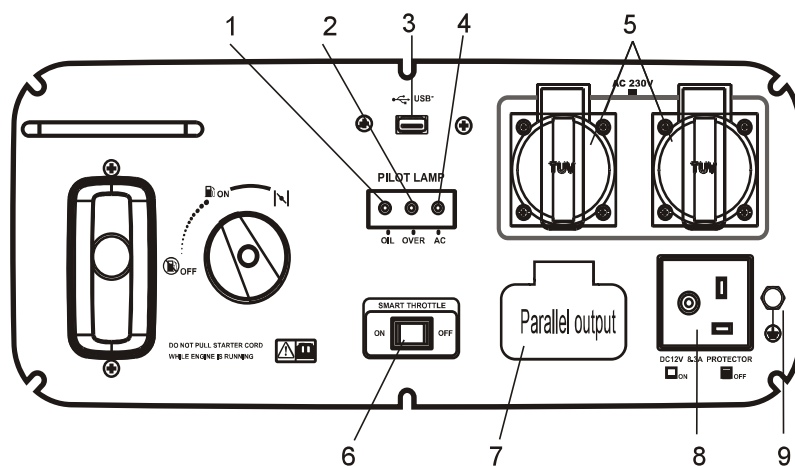


- 1.Carrying handles
- 2.Fuel level gauge
- 3.Fuel tank cap
- 4.Muffler
- 5.Wheels
- 6.Oil filler cap
- 7.Engine switch
- 8.Recoil starter
- 9.Control panel



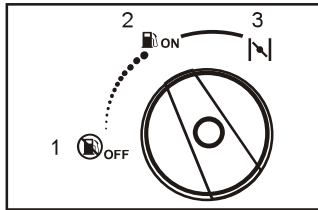
- 10.Display
- 11.Folding handle
- 12.Fuel drain pipe

## CONTROL PANEL (FOR 3015E-P/YHBA )



- 1.Low oil alarm indicator light
- 2.Overload indicator light
- 3.USB
- 4.Output indicator light
- 5.AC receptacle
- 6.Smart Throttle
- 7.Parallel output
- 8.DC receptacle
- 9.Ground terminal

## ENGINE SWITCH



The engine switch controls the ignition system, fuel valve and choke valve.

1 "OFF"

Ignition circuit is switched off. The engine will not run.

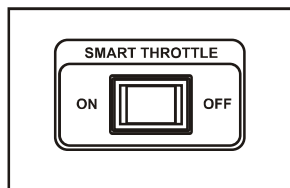
2 "ON"

Ignition circuit is switched on. The engine can be started.

3 "CHOKE"

Closes choke valve. The choke is used to provide proper starting mixture when the engine is cold.

## SMART Throttle Switch



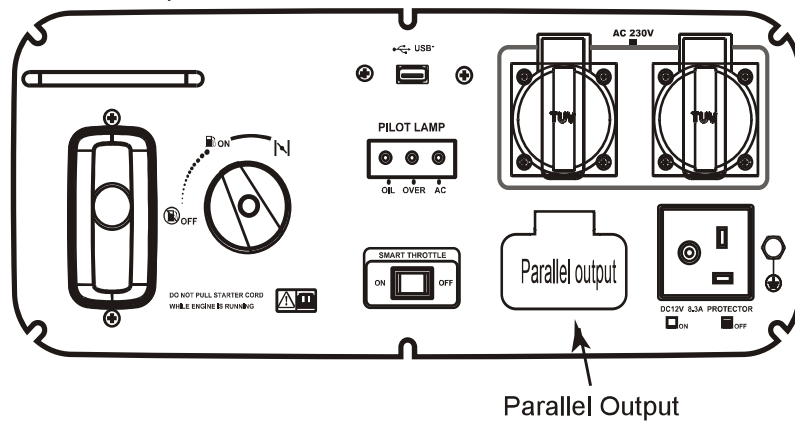
The Eco-Throttle system automatically reduces engine speed when loads are turned off or disconnected. When appliances are turned on or reconnected, the engine returns to the proper speed to power the electrical load.

If high electrical loads are connected simultaneously, turn the Eco-Throttle switch to the OFF position to reduce voltage changes. When using the DC output, turn the Eco-Throttle switch to the OFF position.

ON: Recommended to minimize fuel consumption and further reduce noise levels when less than a full load is applied to the generator.

OFF: The Eco-Throttle system does not operate.

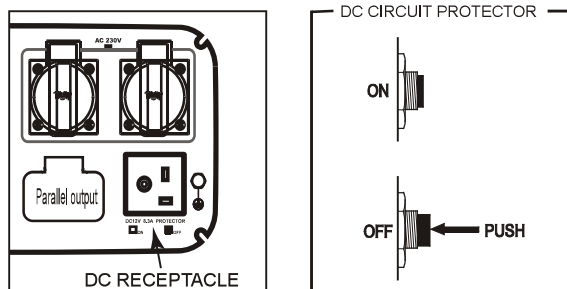
## Parallel Output



## Parallel Output

These output are used for connecting two 3015 E-P/YHBA or other GEKO inverter generators for parallel operation. GEKO approved parallel operation cable kit (optional equipment) is required for parallel operation. This kit can be purchased from an authorized GEKO generator dealer.

## DC Circuit Protector



### DC Receptacle

The DC receptacle should ONLY be used for charging 12-volt automotive type batteries. The DC charging output is not regulated.

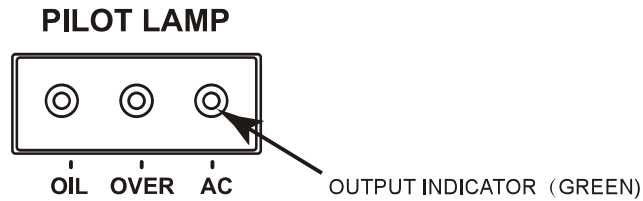
### DC Circuit Protector

The DC circuit protector automatically shuts off the DC battery charging circuit when the DC charging circuit is overloaded, when there is a problem with the battery, or when the connections between the battery and the generator are improper. However, the circuit protector does not prevent overcharging.

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.

### Output Indicator

The output indicator (green) is illuminated when the generator is operating normally. It indicates that the generator is producing electrical power at the receptacles.



### OVERLOAD INDICATOR

The overload indicator light (Yellow) comes on when an overload of a connected electrical device is detected, the inverter control unit overheats, or the AC output voltage rises. The electronic breaker will then activate, 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 (Yellow) 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 application range.
3. Check for blockages in the cooling air inlet and around the control unit. If any blockages are found, remove them.
4. After checking, restart the engine.

#### **TIP**

- The generator AC output automatically resets when the engine is stopped and then restarted.
- The overload indicator light (Yellow) 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.

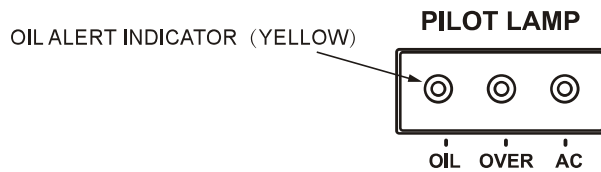




## OIL ALERT INDICATOR

The Oil Alert system is designed to prevent engine damage caused by an insufficient amount of oil in the crankcase. Before the oil level in the crankcase can fall below a safe limit, the Oil Alert indicator (Yellow) comes on and the Oil Alert system automatically will stop the engine (the engine switch will remain in the ON position).

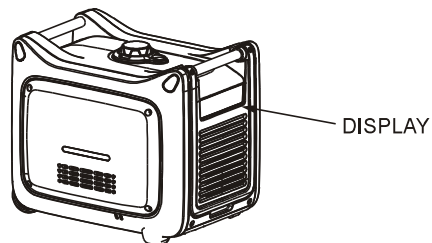
If the engine stops or the Oil Alert indicator (yellow) comes on when you pull the starter grip, check the engine oil level before troubleshooting in other areas.



## DISPLAY

The toggle button on the LCD screen can display the consumed power, voltage, current and frequency of the electrical appliances, and the total running hours of the generator set as well as the engine speed.

When the generator is in normal operation, the right parts of the LCD screen will not display. When the total working hours of the generator reach maintenance time of any items on the maintenance chart (see Page 28), the corresponding item description and icon will display.



## FOLDING HANDLE

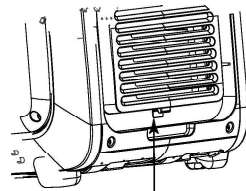
The foldable handle is intended for ease of transportation and should be folded when the generator is stationary. Do not rest objects on the handle when in the transport position.

### To Extend The Handle

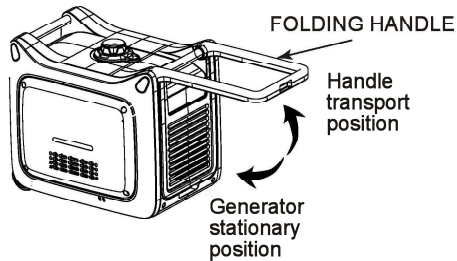
Lift the handle upward with both hands.

### To Fold The Handle

Lower the handle with both hands until it clicks into place.



CATCH

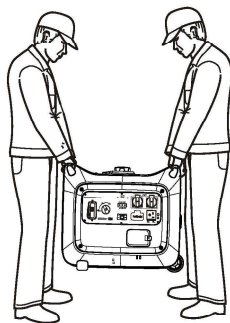


## NOTICE

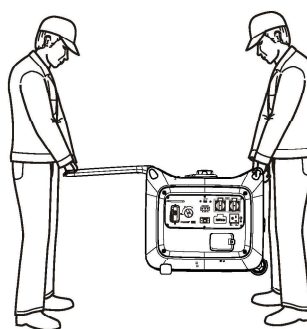
To avoid overturning or damage:

- Do not use the folding handle when moving the generator over rough surfaces.
- When two people carry the generator, close the folding handle.
- Do not place any objects on the generator.

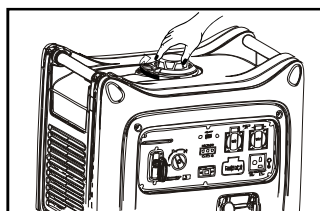
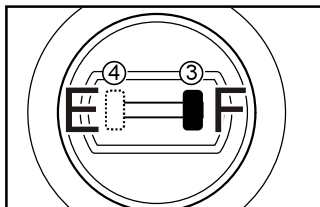
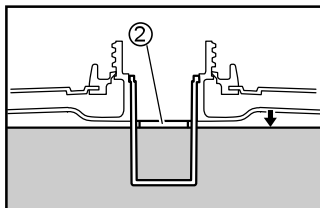
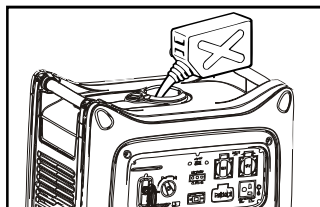
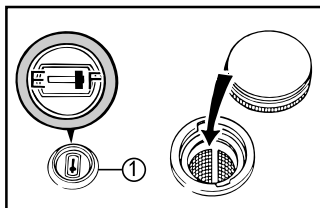
O : CORRECT



X : INCORRECT



## 4. PRE-OPERATION CHECK



Pre-operation checks should be made each time the generator is used.

### ⚠ 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

Make sure there is sufficient fuel in the tank.

Recommended fuel: Unleaded gasoline  
Fuel tank capacity: Total: 6.0 L

Your Yamaha engine has been designed to use regular unleaded gasoline with a pump octane number  $((R + M)/2)$  of 86 or higher, or research octane number of 91 or higher.

1 Fuel level gauge

2 "LEVEL" mark (Red)

③ F	Full
④ E	Empty

### ⚠ WARNING

- Fuel is highly flammable and poisonous. Check "SAFETY INFORMATION" carefully before refueling.
- Do not fill above the "LEVEL" mark 2 in the fuel filter or it may overflow when the fuel warms up and expands.
- After refueling, make sure the tank cap is tightened securely.

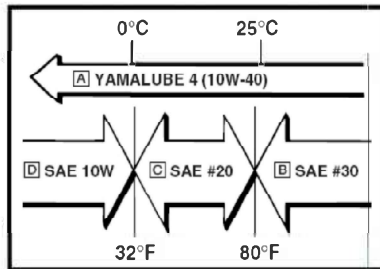
### NOTICE

- Immediately wipe off spilled fuel with a clean, dry, soft cloth, since fuel may deteriorate painted surfaces or plastic parts.
- Use only unleaded gasoline. The use of leaded gasoline will cause severe damage to internal engine parts.

## ENGINE OIL

### **⚠ WARNING**

•Make sure the engine oil is at the upper level of the oil filler hole. Add oil as necessary.



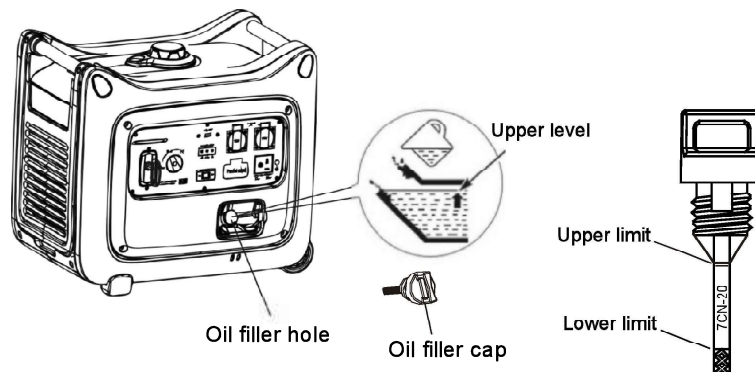
Recommended engine oil:  
 ① YAMALUBE 4 (10W-40),  
 SAE 10W-30 or 10W-40

- ② SAE #30
- ③ SAE #20
- ④ SAE 10W

Recommended engine oil grade:  
 API Service SE type or higher  
 Engine oil quantity: 0.6 L

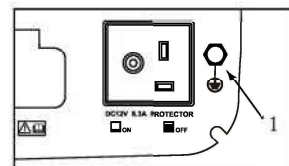
### **NOTICE**

•The generator has been shipped without engine oil. Do not start the engine until you have filled it with the sufficient engine oil.

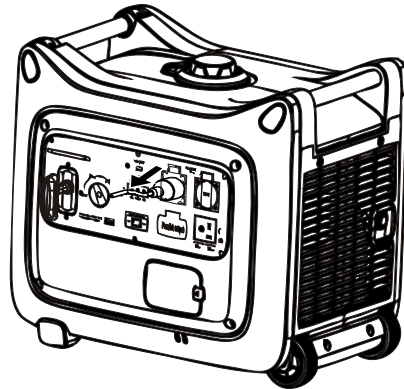


### **GROUND (earth)**

To dissipate static charge a ground line (equipotential bonding) can be connected to the grounding terminal of the generator. This grounding is not necessary for the standard operating mode of the generator in the IT network.



## 5. OPERATION



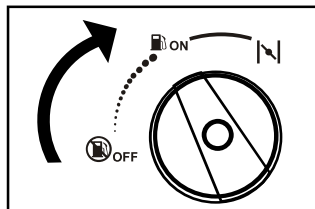
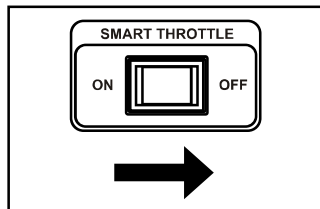
### WARNING

- 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.
- Before starting the engine, do not connect any electric devices.
- Clean dusts, dirt or water off the receptacle before use.

### NOTICE


- The generator has been shipped without engine oil. Do not start the engine until you have filled it with the sufficient engine oil.

## STARTING THE ENGINE



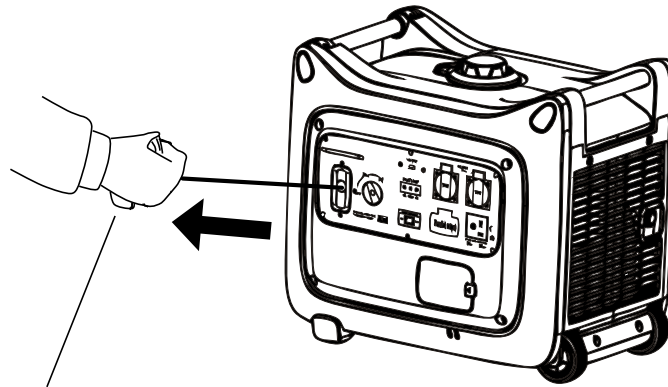
1. Make sure the Throttle switch is in the "OFF" position.
2. Turn the engine switch to the "ON" position.

### TIP

To start a cold engine, turn the engine switch to the "  " position.

To restart a warm engine, leave the engine switch in the "ON" position.

3. Pull the starting grip lightly until you feel resistance, then pull briskly in the direction of the arrow as shown.

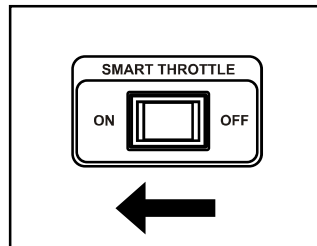
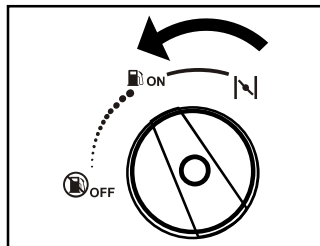



Starter grip

Warning: dangers of injury caused by the sudden change of rotation direction of the engine

**NOTICE**

•Do not allow the starting grip to snap back against the generator. Return it gently to prevent damage to the starter.



4.If the engine switch was turned to the “” position to start the engine,turn it to the “ON” position as the engine warms up.

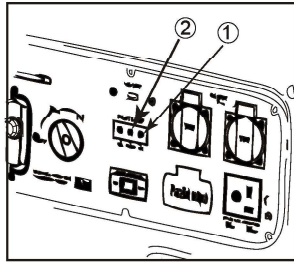
5.If you wish to use the Throttle system,turn the Throttle switch to the “ON” position after the engine has warmed up for 2 or 3 minutes.

Ambient temperature 5-40℃ Humidity under 50% by 40℃

Altitude under 1000m

## CONNECTION

### Alternating Current (AC)



1. Start the engine.
2. Plug in to the AC receptacle.
3. Make sure the AC pilot light (Green) is on.
  - ① AC pilot light
  - ② Overload pilot light
4. Turn on any electric devices.

#### **⚠ 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.
- Do not overload. The total load of all electrical appliances must not exceed the supply range of the generator. Overloading will damage the generator.
- Be sure the receptacle load current is within receptacle rated current.
- 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.
- The simultaneous usage of AC and DC power is possible but total wattage should not exceed the rated output.

Generator rated output		2600W
Frequency	Power factor	
AC	1.0	– 2500W
	0.8	– 1980W
DC	—	96W

The overload indicator light ② comes on when total wattage exceeds the application range.

## AC PARALLEL OPERATION

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

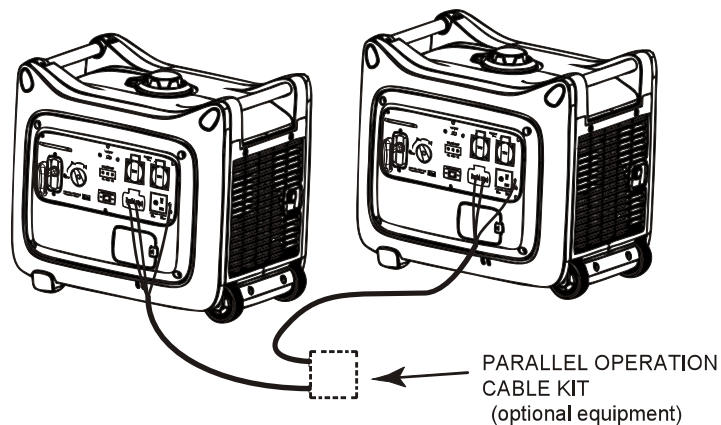
Most motorized appliances require more than their electrical rating for startup.

When an electric motor is started, the overload indicator (yellow) may come on.

This is normal if the overload indicator (yellow) goes off within 9 seconds. If the overload indicator (yellow) stays on, consult your generator dealer.

During parallel operation, the Eco-Throttle switch should be in the same position on both generators.

1. Connect the parallel operation cable kit between the two 3015E-P/YHBA generators following the instructions supplied with the kit.

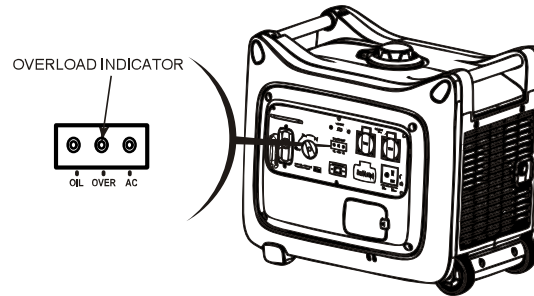


2. Start the engines and make sure the output indicator (green) on each generator comes on.
3. Plug in the appliance following the instruction provided with the parallel operation cable kit.
4. Turn on the appliance.

If the generators are overloaded, or if there is a short circuit in a connected appliance, the overload indicator (yellow) will come on. When the current displayed on the LCD screen over 1.3 times of the rated current, the generator will cut off output in 3 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.



### AC Parallel Operation Applications

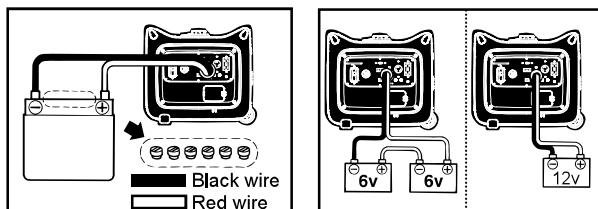
Follow the instructions included with the parallel operation cable kit.  
Before connecting an appliance or power cord to the generator:

- 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 or the rated load capacity of the generator has been exceeded.
- Make sure that the combined electrical rating of the tools or appliances do not exceed that of the generator. Never exceed the maximum power rating of the generator. Power levels between rated and maximum may be used for no more than 30 minutes.
- Do not try parallel with generators of any other brand.
- Use only a GEKO approved parallel operation kit (optional equipment) when connecting two 3015E-P/YHBA generators for parallel operation.
- Never connect or remove the parallel operation cable when the generator is running.
- For single generator operation, the parallel operation cable must be removed.

#### TIP

Substantial overloading that continuously lights the overload indicator (yellow) may damage the generator. Marginal overloading that temporarily lights the overload indicator (yellow) may shorten the service life of the generator.

## BATTERY CHARGING

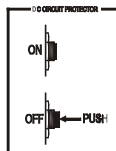


### NOTICE

•Do not connect a VRLA (Valve Regulated Lead Acid) battery. To charge a VRLA battery, a special (constant-voltage) battery charger is required.

### 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 to the positive (+) battery terminal.
- 3.Connect the black battery charger to the negative (-) battery terminal.

### NOTICE

- 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 charging.
- To restart charging the battery, turn the DC protector on by pressing its button to "ON". If the DC protector turns off again, stop charging the battery immediately and consult an GEKO dealer.

### TIP

- Follow instructions in the owner's 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 over-charging the battery.

Operating range of DC power supply  
(exclusively for charging 12-V battery)

This power source is designed to charge batteries up to 40Ah that are half-discharged. Do not charge batteries of a higher capacity than 40Ah.

12V battery

The time required for recharging a battery varies depending on the discharge level of the battery. When the specific gravity of the battery reaches 1.26 to 1.28, charging is complete. When charging, check the battery's specific gravity once an hour.

The average time for charging a half-discharged 40Ah battery is approximately 5 hours. Be sure to check the battery fluid level before charging.

**NOTICE:**

- Do not connect any load to the battery or use the engine starter motor while charging. This causes high current to flow through the generator which will burn out the coil.
- Do not connect a VRLA (Valve Regulated Lead Acid) battery. To charge a VRLA battery, a special (constant-voltage) battery charger is required.

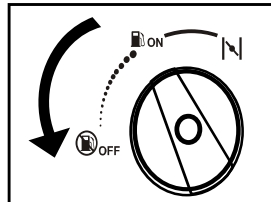
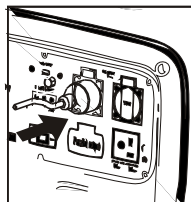
**WARNING**

- Electrolyte is poisonous and dangerous since it contains sulfuric acid, which causes severe burns. Avoid any contact with skin, eyes or clothing and always shield your eyes when working near batteries. In case of contact, administer the following FIRST AID.
  - EXTERNAL: Flush with plenty of water.
  - INTERNAL: Drink large quantities of water or milk and immediately call a physician.
  - EYES: Flush with water for 15 minutes and seek prompt medical attention.
- Batteries produce explosive hydrogen gas. Therefore, keep sparks, flames, cigarettes, etc., away from the battery and provide sufficient ventilation when charging it in an enclosed space.
- KEEP THIS AND ALL BATTERIES OUT OF THE REACH OF CHILDREN.

## STOPPING THE ENGINE

To stop the engine in an emergency, simply turn the engine switch to the "OFF" position. Under normal conditions, use the following procedure.

1. Turn off or disconnect all appliances connected to the generator.
2. Turn the engine switch to the "OFF" position.



## 6. PERIODIC 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, adjustment, and lubrication are explained on the following pages.

### MAINTENANCE CHART



Stop the engine before starting maintenance work.

Use only GEKO specified genuine parts for replacement. Ask an authorized GEKO dealer for further information.

Item	Routine	Preop-eration check	Every		
			3 months or 50 Hr	6 months or 100 Hr	12 months or 300 Hr
Spark plug	<ul style="list-style-type: none"> <li>• Check condition.</li> <li>• Clean and replace if necessary.</li> </ul>		<input type="checkbox"/>		
Fuel	<ul style="list-style-type: none"> <li>• Check fuel level and leakage.</li> </ul>	<input type="checkbox"/>			
Fuel hose	<ul style="list-style-type: none"> <li>• Check fuel hose for cracks or damage.</li> <li>• Replace if necessary.</li> </ul>	○			
Engine oil	<ul style="list-style-type: none"> <li>• Check oil level in engine.</li> <li>• Replace.</li> </ul>	<input type="checkbox"/>		<input type="checkbox"/> (*1)	
Air filter	<ul style="list-style-type: none"> <li>• Check condition.</li> <li>• Clean.</li> </ul>		<input type="checkbox"/> (*2)		
Spark arrester	<ul style="list-style-type: none"> <li>• Check condition.</li> <li>• Clean and replace if necessary.</li> </ul>			○	
Fuel filter	<ul style="list-style-type: none"> <li>• Clean and replace if necessary.</li> </ul>			○	
Crankcase breather hose	<ul style="list-style-type: none"> <li>• Check breather hose for cracks or damage.</li> <li>• Replace if necessary.</li> </ul>				○
Cylinder head	<ul style="list-style-type: none"> <li>• Decarbonize cylinder head.</li> <li>• More frequently if necessary.</li> </ul>				★
Valve clearance	<ul style="list-style-type: none"> <li>• Check and adjust when engine is cold.</li> </ul>				★
Fittings / fasteners	<ul style="list-style-type: none"> <li>• Check all fittings and fasteners.</li> <li>• Correct if necessary.</li> </ul>				★
The point where abnormality was recognized by use.		○			

\*1-Initial replacement of the engine oil is after one month or 20 hours of operation.

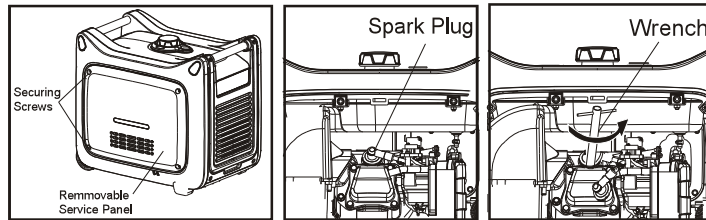
\*2-The air filter element needs to be cleaned more frequently when using in unusually wet or dusty areas.

★ - Since these items require special tools, data and technical skills, have an GEKO dealer perform the service.

Installation and major repair work shall be carried out only by specifically trained personnel.

May be done by the layman.

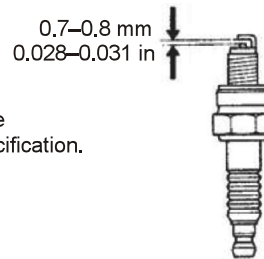
## SPARK PLUG INSPECTION



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

1. Remove the screws and remove service panel.
2. Remove the spark plug cap and the spark plug.
3. Check for discoloration and remove the carbon. 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: BPR4ES (NGK)  
Spark plug gap: 0.7–0.8 mm (0.028–0.031 in)



### TIP

The spark plug gap should be measured with a wire thickness gauge and, if necessary, adjusted to specification.

5. Install the spark plug.  
Spark plug torque: 20 Nm (2.0 m·kgf, 14 ft·lbf)

### 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.
7. Install the side cover and tighten the screws.

## CARBURETOR ADJUSTMENT

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

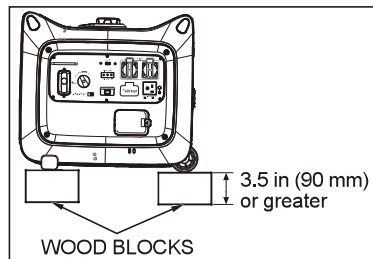
Generating sets should only be loaded up to their rated power under the rated ambient conditions. If generating set use is under conditions which do not conform to the reference conditions as stipulated in ISO 8528-13:2016, 7.1 and if cooling of the engine or alternator is impaired, e.g. as a result of operation in restricted areas, a reduction in power is necessary. For details please contact us.

## ENGINE OIL REPLACEMENT

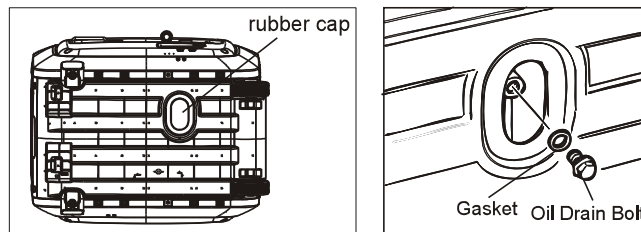
### **! WARNING**

•Avoid draining the engine oil immediately after stopping the engine. The oil is hot and should be handled with care to avoid burns.

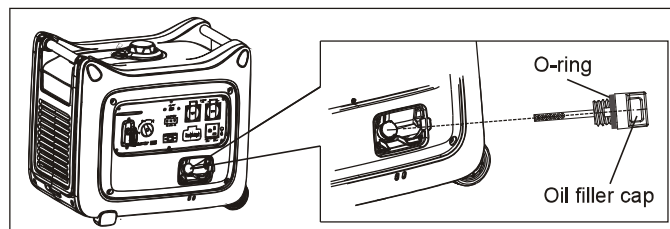
1. Warm up the engine for several minutes. Then stop the engine.  
Place wood blocks 3.5 in (90 mm) or greater under the generator as shown.



2. Remove the rubber cap on the bottom.
3. Place an oil pan under the engine. Remove the oil drain bolt and gasket.



4. Open the oil check access as show and remove the oil filler cap so that the oil can be completely drained.

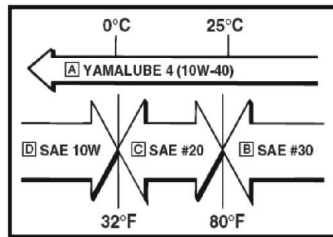
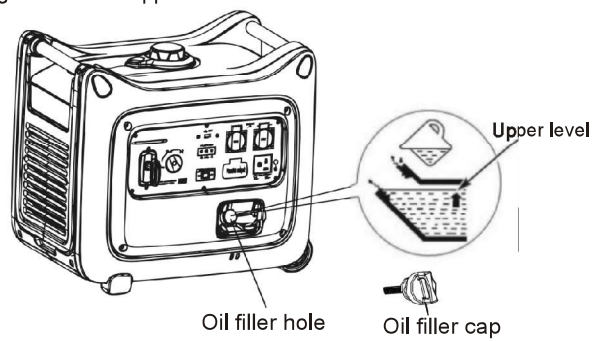


5. Check the oil drain, gasket, oil filler cap and O-ring. Replace them if damaged.
6. Install the oil drain bolt.  
Oil drain bolt torque: 17 Nm (1.7 m·kgf, 12 ft·lbf)
7. Install the rubber cap on the bottom.

**TIP**

Be sure to install securely to prevent from falling off during operation.

8. Add engine oil to the upper level.



Recommended engine oil:  
 Ⓐ YAMALUBE 4 (10W-40),  
 SAE 10W-30 or 10W-40  
 Ⓒ SAE #30  
 Ⓓ SAE #20  
 Ⓔ SAE 10W  
 Recommended engine oil grade:  
 API Service SE type or higher  
 Engine oil quantity: 0.6 L

**NOTICE**

Be sure no foreign material enters the crankcase.

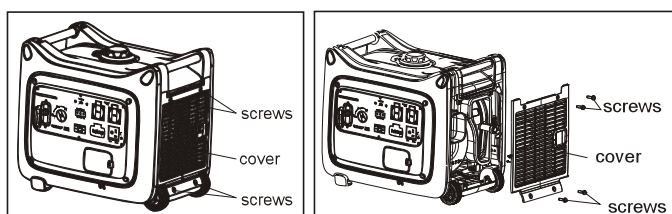
9. Install the oil filler cap.
10. Close the oil filler hole.

## MUFFLER SCREEN AND SPARK ARRESTER

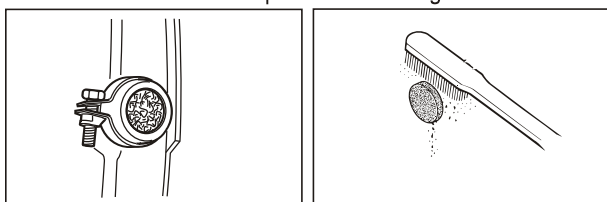
### **WARNING**

•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.Remove the screws and the cover.



2.Loosen the bolt then remove the muffler screen. Remove the carbon deposits on the and muffler screen spark arrester using a wire brush.

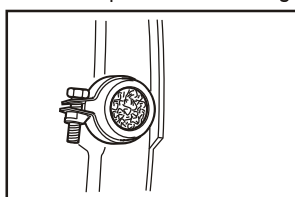


### **NOTICE**

When cleaning, use the wire brush lightly to avoid damaging or scratching of the spark arrester.

3.Check the muffler screen and spark arrester. Replace them if damaged.

4.Install the spark arrester and tighten the bolt.

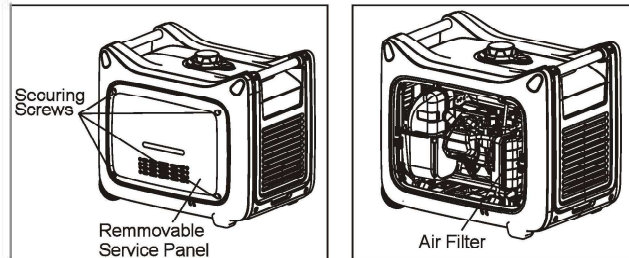


5. Install the cover and tighten the screws .

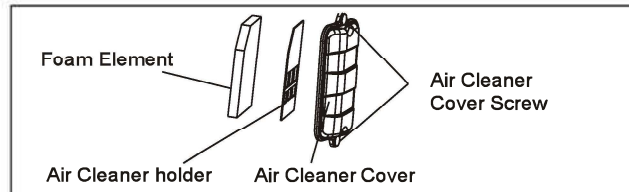


## AIR FILTER

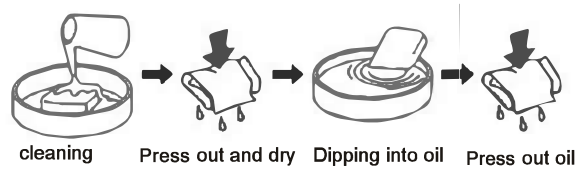
1. Remove the screws. Then remove the Remmovable service panel.



2. Remove the air cleaner cover screw. Then remove the air cleaner cover.



3. Remove the foam element.
4. Wash the foam element in solvent and dry it.
5. Oil the foam element and squeeze out excess oil. The foam element should be wet but not dripping.
6. Insert the foam element into the air filter case.
7. Install the air filter cover and tighten the screws.
8. Install the cover and tighten the screws.



### **WARNING**

- Never use solvent while smoking or in the vicinity of an open flame.

### NOTICE

•Do not wring out the foam element. This could cause it to tear.

### TIP

•Be sure the foam element sealing surface matches the air filter so there is no air leak.

### NOTICE

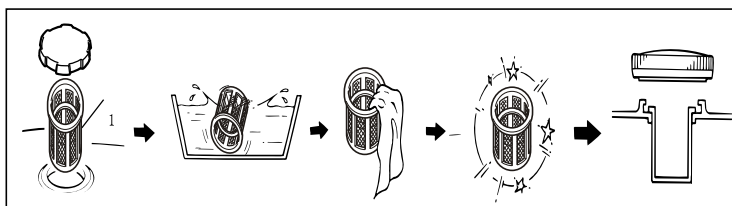
•The engine should never run without the foam element; excessive piston and cylinder wear may result.

### FUEL TANK FILTER

#### **WARNING**

Never use the gasoline while smoking or in the vicinity of an open flame.

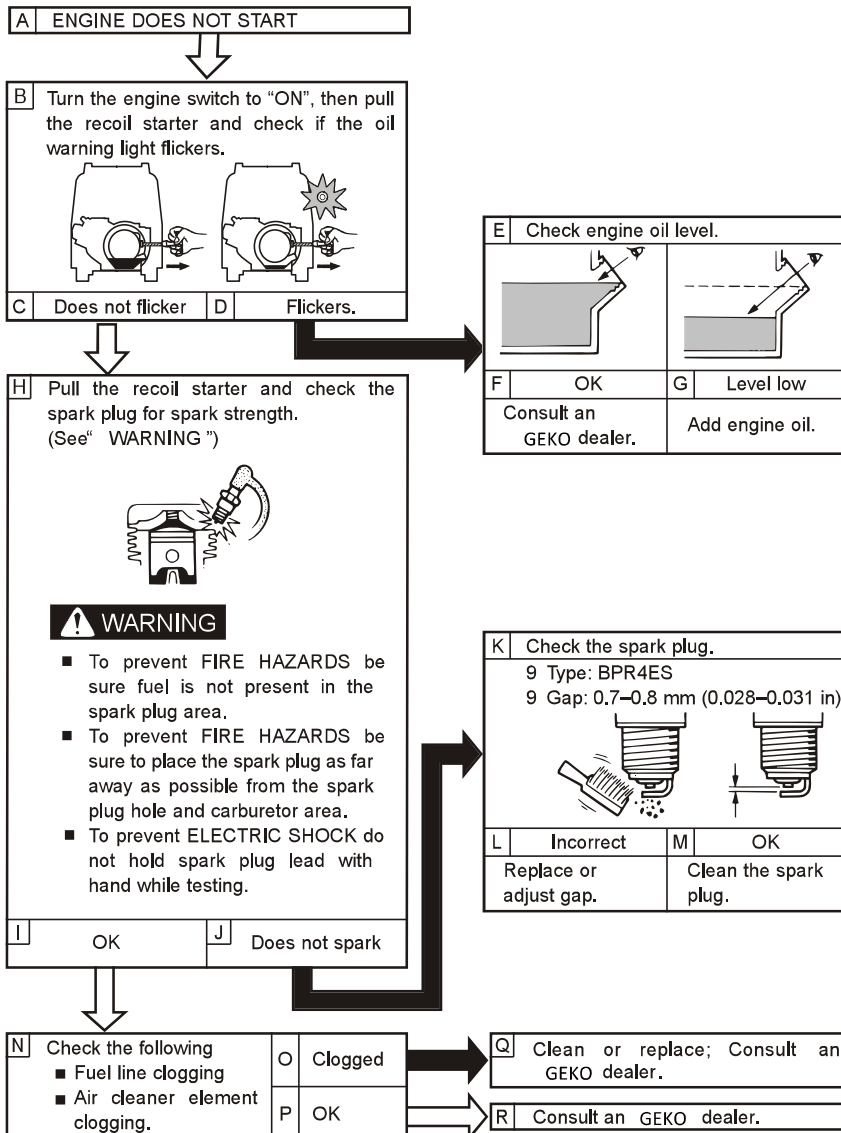
1. Remove the fuel tank cap and filter
2. Clean the filter with gasoline. Replace it if damaged.
3. Wipe the filter and install it.
4. Install the fuel tank cap.



#### **WARNING**

Be sure the fuel tank cap is tightened securely.

## TROUBLESHOOTING



## STORAGE

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

### DRAIN THE FUEL

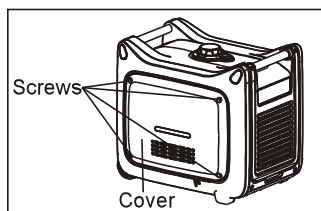
#### **WARNING**

Fuel is highly flammable and poisonous. Check “SAFETY INFORMATION” carefully.

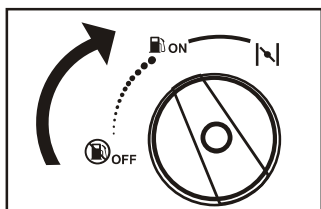
#### **NOTICE**

Immediately wipe off spilled fuel with a clean, dry, soft cloth, since fuel may deteriorate painted surfaces or plastic parts.

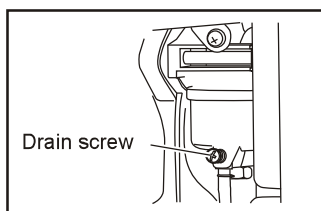
1. Remove the screws, and then remove the cover.



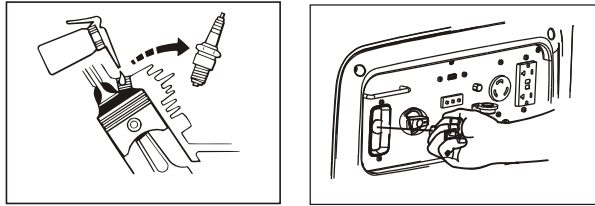
2. Turn the engine switch to the “ON” position.



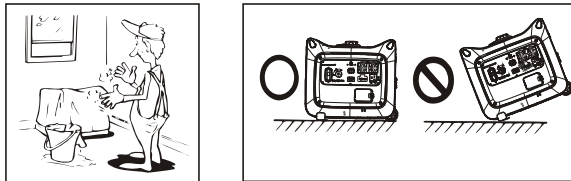
3. Drain the fuel remaining in the carburetor and the fuel tank into an approved container by loosening the drain screw on the carburetor float chamber.



4. Tighten the drain screw after clean the fuel.
5. Remove the spark plug, pour about one tablespoon of SAE 10W-30 or 20W-40 motor oil into the spark plug hole and install the spark plug. Recoil start the engine by turning over several times (with ignition off) to coat the cylinder walls with oil.
6. Pull the recoil starter until you feel compression. Then stop pulling. (This prevents the cylinder and valves from rusting).



7. Install the cover and tighten the screws.
8. Clean exterior of the generator and apply a rust inhibitor.
9. Store the generator in a dry, well-ventilated place, with the cover placed over it.
10. The generator must remain in a vertical position when stored, carried or operated.



**TIP**

If the cylinder was coated with oil during storage preparation, the engine may smoke briefly at startup. This is normal.

## TRANSPORTING

### NOTICE

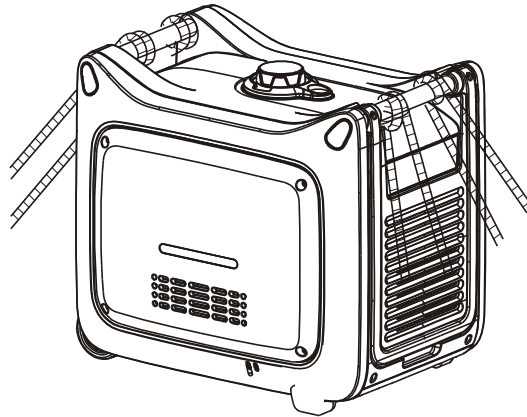
*Do not lay the generator on its side when moving, storing, or operating it. Oil may leak and damage the engine or your property.*

If the generator has been used, allow it cool for at least 15 minutes before loading the generator on the transport vehicle. A hot engine and exhaust system can burn you and can ignite some material.

To prevent fuel spillage when transporting, the generator should be secured upright in its normal operating position, with the engine switch OFF and the fuel tank cap vent lever turned fully counterclockwise to the OFF position

Take care not to drop or strike the generator when transporting. Do not place heavy objects on the generator.

When using ropes or tie-down straps to secure the generator for transportation, be sure to only use the front and rear handles as attachment points. Do not fasten ropes or straps to any portions of the generator body or the folding handle.



## **7.SPECIFICATIONS**

Model	3015E-P/YHBA	
Rated frequency (Hz)	50	50
Rated voltage (V)	230	240
Rated current (A)	11.3	10.8
Rated rotation speed [r/min]	3600	
Rated output (KVA)	2.6	
Max. output (KVA) (S2:10min)	2.95	

DC output

DC voltage	12V-8A
Electric circuit breaker	Available
Phase number	Single phase
USB output	5V, 1A/2A

Engine

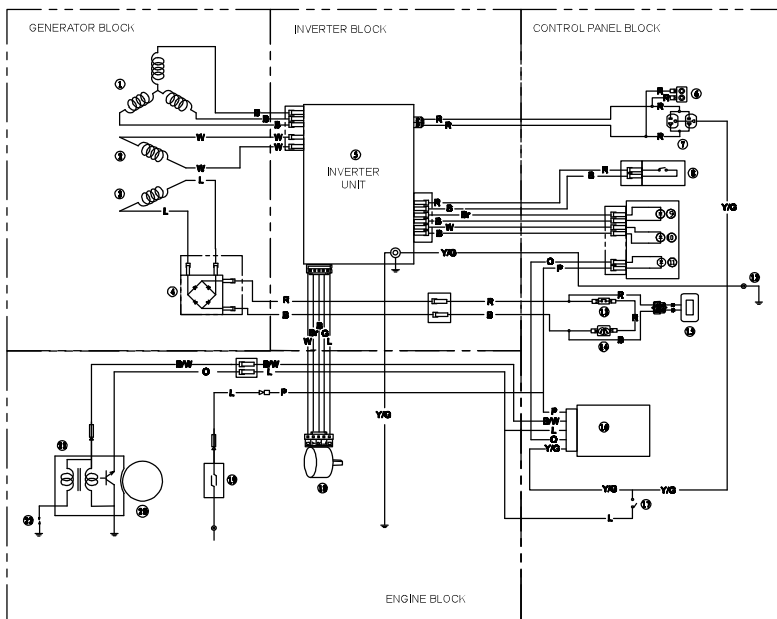
Model Typ	YAMAHA MZ175
Type	Single cylinder,air-cooled,4 stroke,gasoline engine
Displacement (BorexStroke)	171cc
Compression ratio	8,5:1
Max. power[kW/(r/min)]	3,5/3600
Rated rotation speed [r/min]	3600
Ignition system	T.C.I
Spark plug	NGK
Starting system	Recoil starter
Fuel	Automotive unleaded gasoline
Fuel consumption(g/KW.h)	460
Lube oil	SAE 10W-30(CC level above)

Fuel tank capacity (L)	6
Continuous running time (hr) (at rated output)	3,6
Guaranteed sound power level(LWA)	96
Overall dimension(L×W×H) [mm(in)]	593×445×521(23,3×17,5×20,5)
Dry weight (kg)	41

\*The declared values shall consider uncertainties due to production variation and measurement procedures.



## 8.ELECTRIC WIRING DIAGRAM



- ① MAIN WINDING
- ② SUB WINDING
- ③ DC WINDING
- ④ RECTIFIER
- ⑤ INVERTER UNIT
- ⑥ TWIN TECH (PARALLEL RUNNING TERMINAL)
- ⑦ AC OUTPUT RECEPTACLE
- ⑧ ECO THROTTLE SWITCH
- ⑨ OUTPUT INDICATOR
- ⑩ OVERLOAD INDICATOR
- ⑪ OIL ALERT INDICATOR
- ⑫ GROUND (Earth) terminal
- ⑬ DC PROTECTOR(BREAKER)
- ⑭ DC OUTPUT RECEPTACLE
- ⑮ USB OUTPUT RECEPTACLE
- ⑯ SPEED LIMITER
- ⑰ ENGINE STOP SWITCH
- ⑱ THROTTLE CONTROL MOTOR
- ⑲ OIL LEVEL SWITCH
- ⑳ T.C.I. MAGNETO TCI
- ㉑ T.C.I. UNIT TCI
- ㉒ SPARK PLUG

Color code  
 B Black  
 Br Brown  
 G Green  
 L Blue  
 O Orange  
 P Purple  
 R Red  
 W White  
 Y/G Yellow/Green  
 B/W Black/White

**DECLARATION OF CONFORMITY  
EG-KONFORMITÄTSERKLÄRUNG**

**Business name of the manufacturer:** Wenling Jennfeng Industry Inc.  
*Firmenbezeichnung des Herstellers: --*

**Full address of the manufacturer:** No.1, Keji Road, Chengdong Street, Wenling City, Zhejiang  
Province, 317500, P. R. China  
*Vollständige Adresse des Herstellers: --*

**Name and address of the person (established in the Community) compiled the technical file:**  
*Name und Adresse der Person (innerhalb der Gemeinschaft), die das technische Datenblatt erstellt hat*

Dokumentenbevollmächtigter  
Metallwarenfabrik Gemmingen GmbH  
Industriestraße 1  
75050 Gemmingen, Deutschland

**We declare that the machinery**  
*Wir erklären hiermit, dass die Maschine*

**product name:** Gasoline Inverter Generator  
*Produktbezeichnung: --*

**commercial name:--**  
*Handelsbezeichnung:--*

**function:** Generate electricity  
*Funktion: --*

**model:** 3015 E-P/YHBA SS

*Modell: --*

**type:** AC output and DC output  
*Typ: --*

**serial number:** N/A  
*Seriennummer: --*

**fulfills all the relevant provisions of Directives**  
*entspricht allen relevanten Anforderungen folgender Richtlinien*

2006/42/EC 2014/30/EU

**tested in accordance with below standards**  
*wurde gemäß folgender Normen geprüft*

EN ISO 8528-13:2016, EN 60204-1:2006+A1:2009,  
modified according to EN ISO 8528-13:2016 Annex B.

**place and date of the declaration:**  
*Ausstellungsort und Datum der Erklärung*

**signature of the person:**  
*Unterschrift des Ausstellers*



**STROMERZEUGER  
SYSTEME**

**Metallwarenfabrik Gemmingen GmbH**

**IHR PARTNER FÜR STROMERZEUGER, FEUERWEHRBEDARF, STANZ- UND DRUCKGUSSTECHNIK**

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