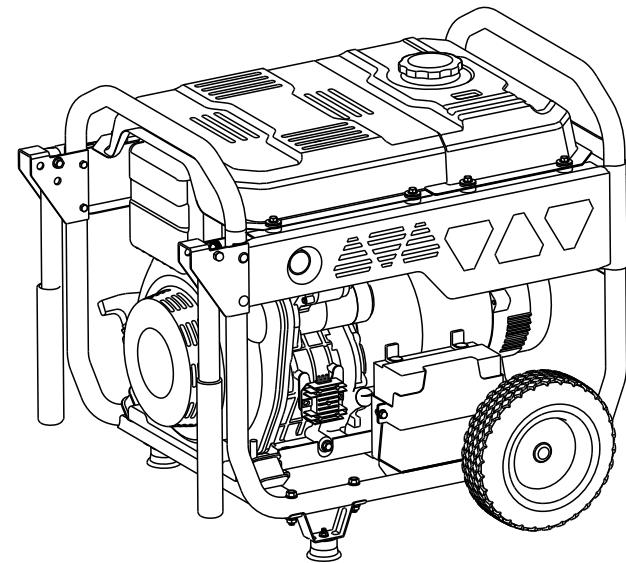




POWER EQUIPMENT

DIESEL GENERATOR Owner's Manual G7500D



POWER EASE
ENGINES

WORKSHOP

SERIES

Tips—read the instructions carefully before use, understand local safety regulations, and use the product under the premise of guaranteeing safety and environmental protection.

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.

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Foreword

Thank you for purchasing this BE generator. This air cooling device, powered by diesel engine is a household generator of compact structure and high performance. It is applicable to the situation of no electricity supply or sudden electricity cut.

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:

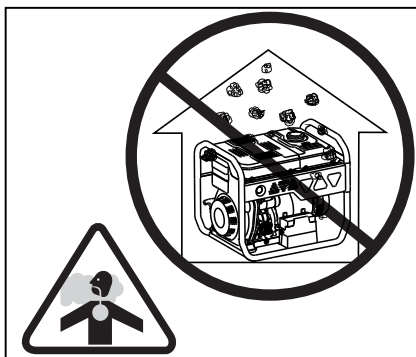
- Know well and strictly observe local laws and regulations.
- Read and observe all safety warnings in this manual and on the device.
- Let your family get familiar with all safety warnings in this manual.

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:

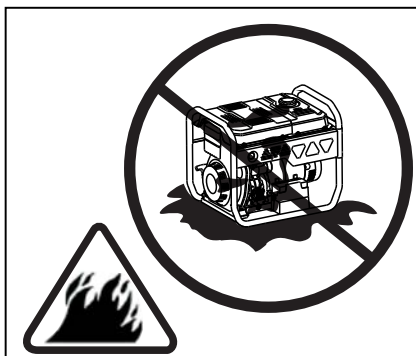
⚠ DANGER	You WILL be KILLED or SERIOUSLY HURT if you don't follow instructions.
⚠ WARNING	You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.
⚠ CAUTION	You CAN be HURT if you don't follow instructions.
NOTICE	Your generator or other property could be damaged if you don't follow instructions.

Safety Regulations



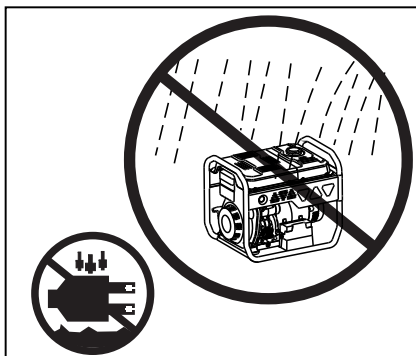
⚠ DANGER

Do not use it indoors.



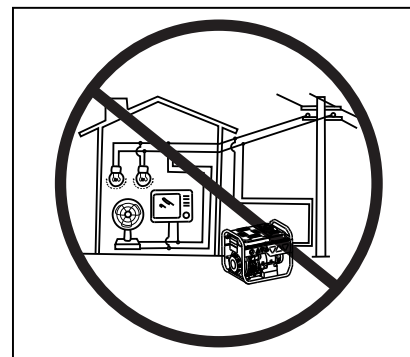
⚠ DANGER

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



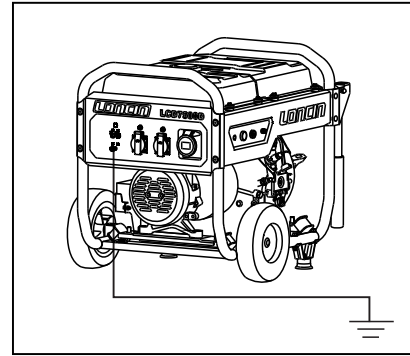
⚠ WARNING

Do not use it in a wet condition.



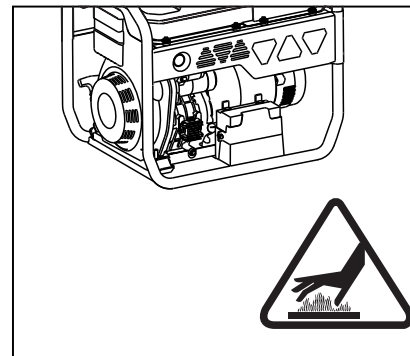
⚠ WARNING

Do not connect to a home power system.



⚠ WARNING

It must realize safe grounding.



⚠ WARNING

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

⚠ DANGER

General safety information

- Operator should put on personal protective equipment during operation and maintenance.
- The installation and major repair work shall be carried out only by specifically trained personnel.
- Do not use the generator underground.
- Do not use the generator under an explosive condition.

⚠ DANGER

The generator produces enough electric power to cause a serious shock or electrocution if misused.

- It is prohibited to use bare wire to connect power supply to the electric equipment directly, use the plug that fits local regulations.
- In equipment operation, do not touch wire or live parts of the equipment. Never touch the machine with wet hands or electrical shock will occur.
- In equipment operation, keep children certain safe distance from the generator.
- In equipment operation, strictly prohibit assembling and disassembling any parts.
- It is suggested to realize tandem connection of a ground fault circuit interrupter (GFCI) when the power supply is out to guarantee safety.
- External electric accessory (including cable and plug interconnecting piece) shall have no fault. Electric shock defend depends on the breaker, especially the matching between breaker and generator. During replacement of the breaker, only that with the same rating and performance features can be adopted. Contact local dealers or the after-sales service center for support.
- In case of using lengthening wire or mobile power distribution cabinet, overall length of the wire with cross section of 1.5mm² shall be no longer than 60m, and that of 2.5mm² shall be no longer than 100m.
- Avoid connecting the generator in parallel with any other generator.

⚠ DANGER

Fuel of the machine is flammable, which will generate high temperature and easily cause fire during operation.

- It is strictly prohibited to add fuel during equipment operation.
- In case of adding fuel, keep far away from fire brand, no smoking.
- In case of adding fuel, do not spill fuel on the equipment.
- As to accidental spilling, use cotton cloth to clean it.
- In operation, make sure that there is no flammable substance within 2 meter range, and no flammable substance will approach the equipment. Avoid placing any flammable materials near the exhaust outlet during operation.
- In case of long-term nonuse, take out the fuel from fuel tank and store it safely.
- If you swallow any fuel, inhale fuel vapor, or allow any to get in your eyes, 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 machine, be sure it is kept upright. If it tilts, fuel may leak from the fuel tank.
- Do not throw the residue fuel and used motor oil into the trash or pour it onto the ground. We suggest you take used oil in a sealed container to your local recycling center or service station for reclamation.

⚠ CAUTION

This equipment contains high speed revolving parts, which will harm human body.

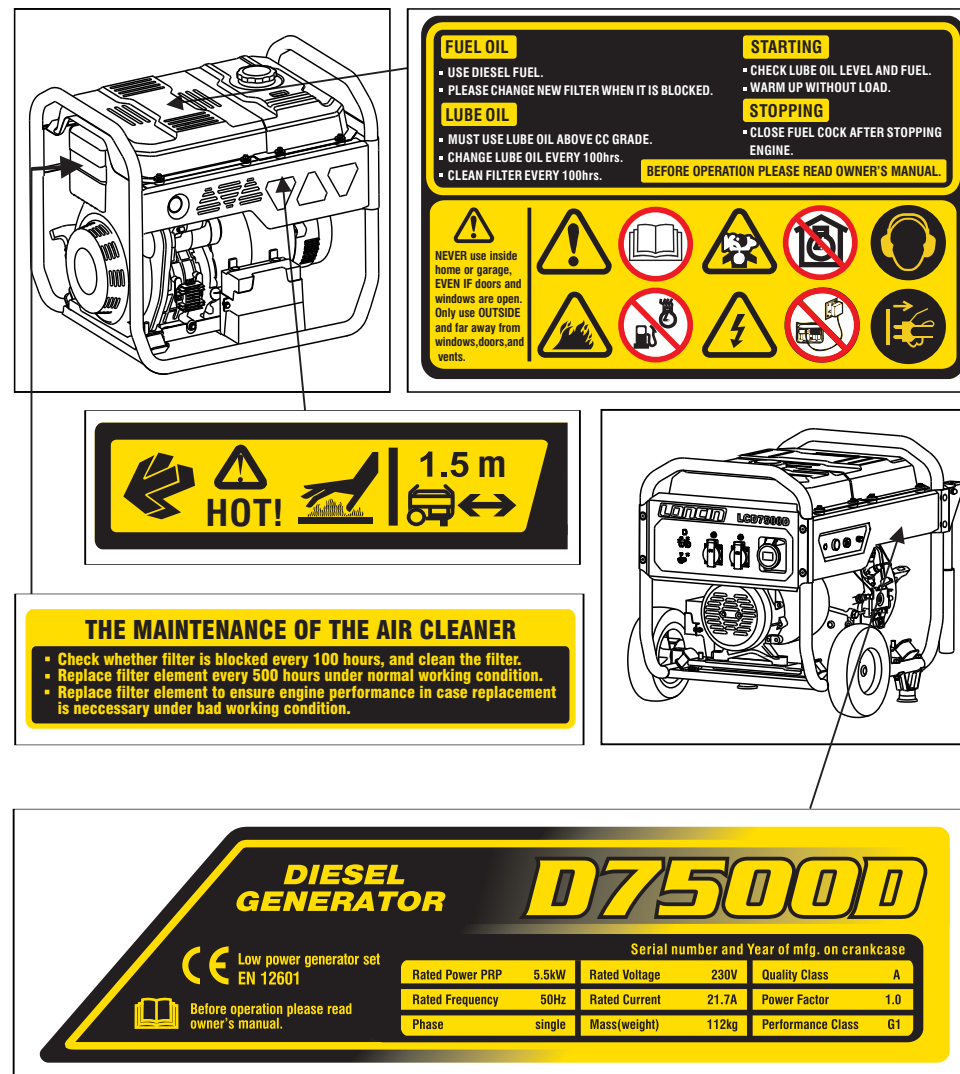
- In equipment operation, do not approach it and strictly prohibit touching revolving parts.
- In equipment operation, do not lift or move it. Move it only after equipment completely stopped.
- In equipment operation, observe surroundings. Make sure no articles are involved into the equipment.

NOTICE


Operating requirements


- Do not place heavy weight on the equipment.
- The wheel is for easy moving of the equipment. Do not use it for long distance moving, otherwise it will be damaged.
- Do not exceed rated power of the equipment in operation; otherwise, its service life will be shortened. Power of common household appliances is shown on Page 23,24 in details.
- Pls maintain the equipment according to the requirements so as to prolong its service life. Refer to Page 25 for details.
- Prevent duct from entering into the equipment during operation or storage.

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



Symbol & Meaning

Symbol	Meaning
V	Voltage
A	Current
Hz	Frequency (1Hz=60 r/min)
W	Power
RPM	Engine Speed
PF	Load transfer efficiency
G1	Generator output power performance rate meat ISO8528G1
	Can be hurt if not follow instructions

Symbol	Meaning
	This is electric device. You may suffer electric shock if you don't follow the instructions.
	The device is electriferous. No touching during operation.
	Fuel tank may explode when encountering high temperature and open fire. Operate it cautiously.
	Some parts of equipment will generate high temperature during operation, which will scald skin.
	Make the machine realize safe grounding before use
	Do not use the plug or electric device in the rain or make them get wet.
	Symbol of adding the engine oil and the specification is specified on Page 16
	Symbol of adding the fuel, which must be gasoline.

Symbol & Meaning

Gasoline Generator Operating Instructions



Read the safety instructions before using the generator.



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.



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.

Symbol & Meaning

Gasoline Generator Operating Instructions



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.



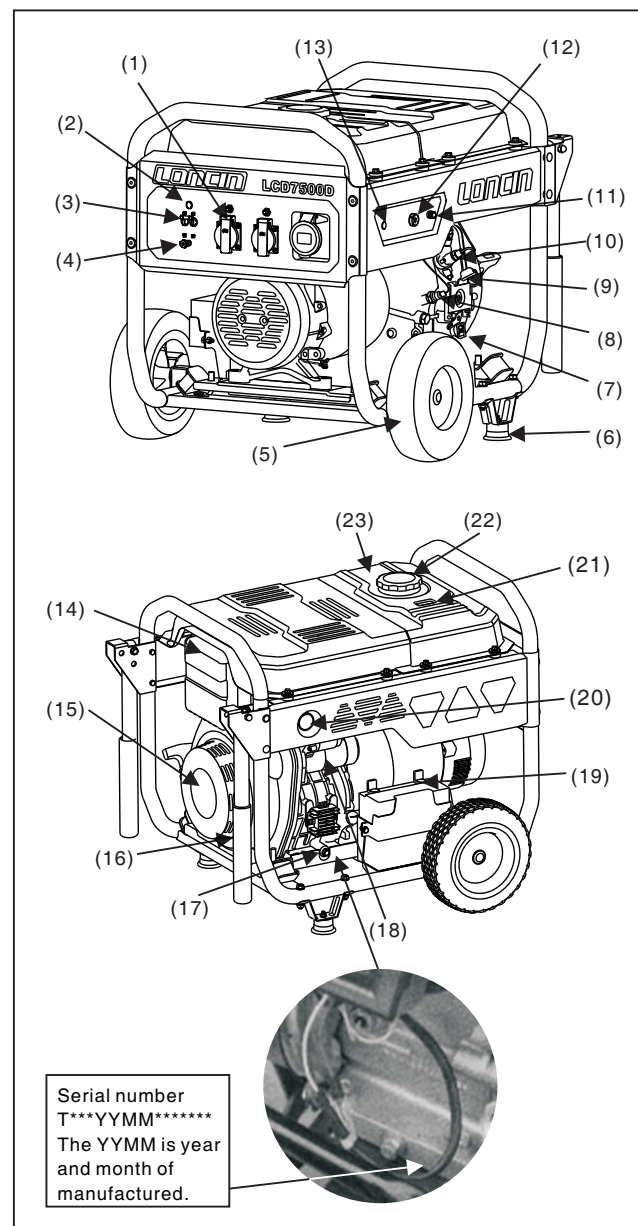
The generator may not be connected to the public power supply. When the device is falsely connected, there is a risk of fire, material damage and even a fatal electric shock being suffered by the operator as is also the case when performing works on the public power supply.

Parameters

Model	G7500D	
AC output		
Frequency ※	50Hz	60Hz
Voltage ※	230V	120V / 220V / 240V
Rated power(kW)	5.5	6.0
Engine		
Specification	Single cylinder, forced air cooling, 4 strokes	
Rpm	3000r/min	3600r/min
Fuel	Diesel fuel	
Engine oil capacity	1.6 L	
Displacement	462cc	
Weight (only for reference)		
Net weight	112kg	
Overall dimensions (excluding packing box)		
L x W x H (mm)	685x520x595	
Capacity of fuel tank	14.5L	
Noise		
Measured Sound Pressure Level	89 dB(A)	
Measured Sound Power Level	109 dB(A)	
Uncertainty	2 dB(A)	
Guaranteed Sound Power Level	111 dB(A)	

※ Only 230V 50Hz product is CE certificated.

Description of Spare Parts



- (1) AC output
- (2) Output indicator
- (3) AC circuit breaker
- (4) Ground terminal
- (5) Wheel
- (6) Foot
- (7) Dipstick
- (8) Oil sensor
- (9) Speed control
- (10) Fuel injection pump
- (11) Fuse-link
- (12) Engine switch
- (13) Oil pressure indicator
- (14) Air cleaner
- (15) Recoil starter
- (16) Handrail pipe
- (17) Oil drain bolt
- (18) Start motor
- (19) Battery
- (20) Muffler
- (21) Fuel gauge
- (22) Fuel tank cap
- (23) Fuel tank



Description of Spare Parts

Diesel Generator Operating Instructions

Fuel tank	It is used to hold fuel, diesel fuel is allowed only.
Fuel tank cap	Screw the fuel injection port in use and do not open it in equipment operation.
Fuel gauge	It is to indicate fuel level in the fuel tank.
AC output	AC output socket provides the power supply., Pls refer to model's parameter table for its rated power. load of each socket cannot exceed its rated current, and total power of electric device cannot surpass rated power of the generator. Do not start up several electric devices simultaneously, but switch on another one after stable operation of one electric device.
AC circuit breaker	It will break to protect the electric device when current is too heavy.
Output indicator	It is to indicate power supply status. The indicate will brighten up when the equipment operation.
Engine switch	It is to start up and switch off the engine. Turn to the off state in nonuse. It is used when the engine is difficult to start in cold weather. For the method, refer to the Page 18.
Wheel (optional)	It is for moving the generator in a short time.
Battery	It is for starting up the generator, In case of nonuse for three months, charge it.

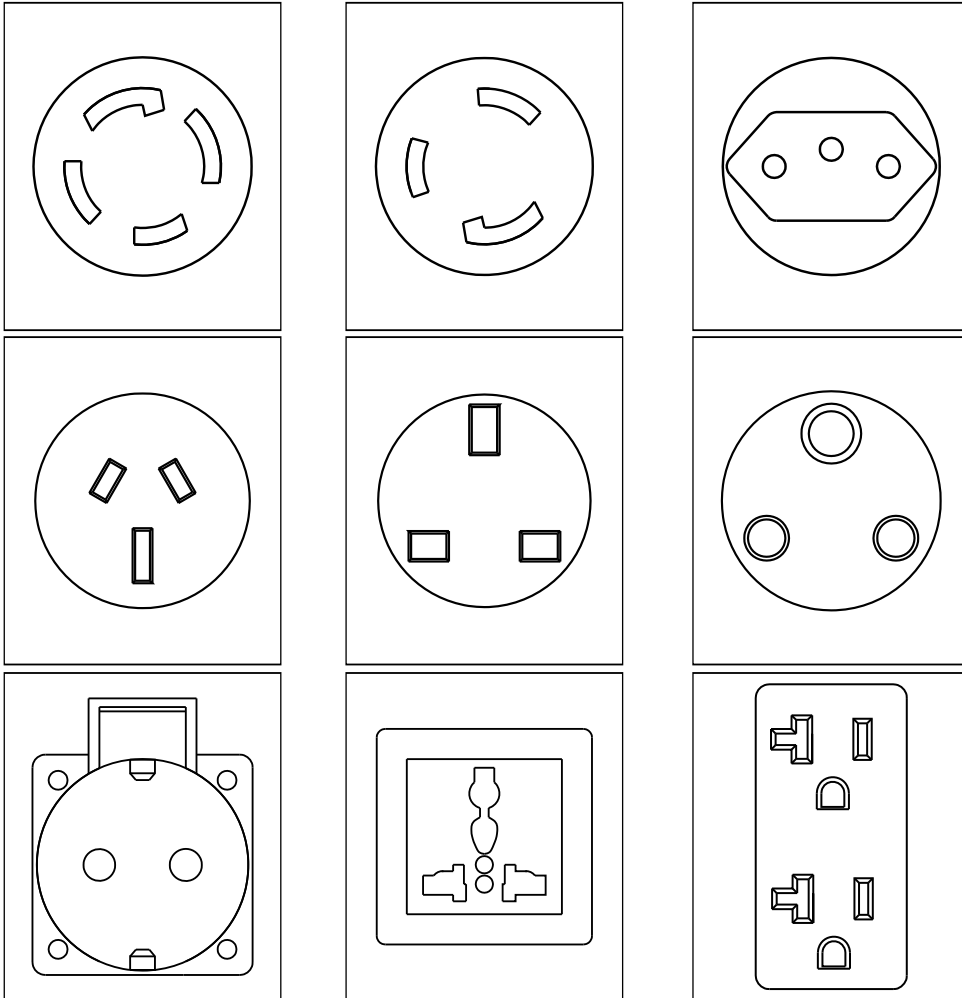


Description of Spare Parts

Diesel Generator Operating Instructions

Dipstick	It is for measurement of engine's oil level. Make sure engine's oil level is between MIN and MAX in the dipstick of oil filler cap before use. Oil can be added after removing the oil filler cap.
Oil drain bolt	Unscrew this bolt when replacing the engine oil. Drain out the old engine oil and dispose of it properly according to local laws, avoiding damage to the environment.
Foot	It is to support the generator.
Grounding terminal	It is to make the generator realize safe grounding. As to the grounding method, refer to the Page15. Make sure unobstructed grounding before use.
Handrail pipe	After lifted up, the pipe, with self-locking structure, can be used to move the generator.
Start motor	It is to start up the engine.
Air cleaner	It is to filter air and remove impurities in the air entering cylinder . As to the maintenance method, refer to Page 26.
Speed controler	It is to control the engine speed.
Muffler	It is to eliminate noise during equipment operation, and discharge high temperature exhaust of engine's combustion. Do not touch it to avoid scalding.

Sockets can be following patterns according to relevant regulations in various areas:



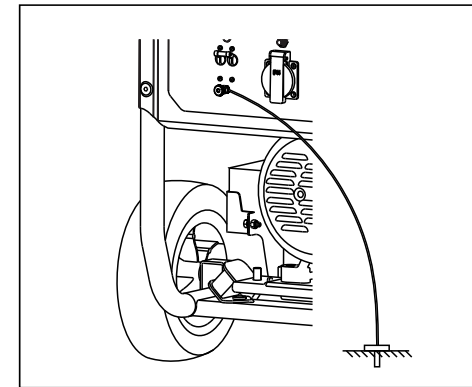
⚠ WARNING

When the rated current from one socket output more than the socket 's nominal rated current , you should to use simultaneously two or more sockets for power output.

Operation Method

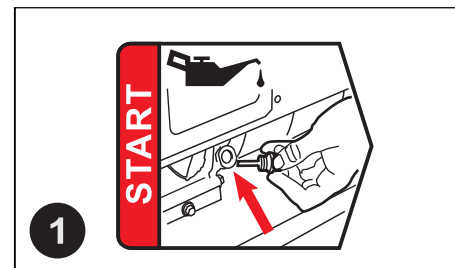
● Unit grounding

Shift the machine outdoors, use wire of no less than 2.5mm^2 to make the machine and grounding terminal connected to the ground. One end of the wire is pressed below the butterfly nut of the unit, screwed up tightly, and the other end is connected with the metal rod shape article (such as the iron nail and the opener), and inserted into soil.



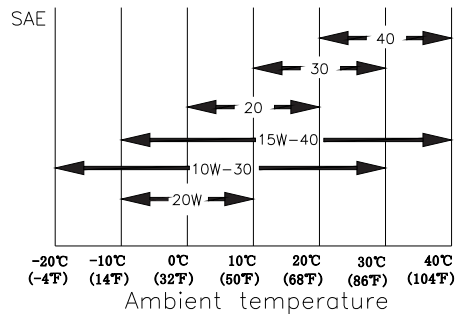
● Starting the generator set

Filling oil



Remove the oil filler cap, fill oil of proper model. As to dosage, refer to Page 10. Use the funnel for filling, in case of careless spilling, clean the ground to avoid slipping.

Oil specification



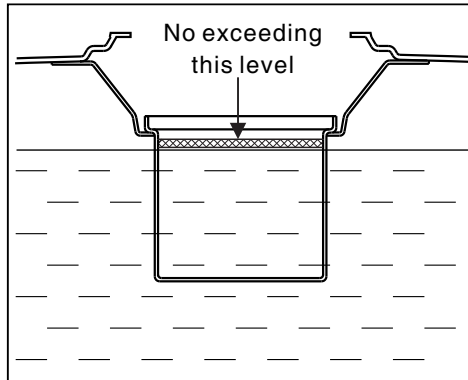
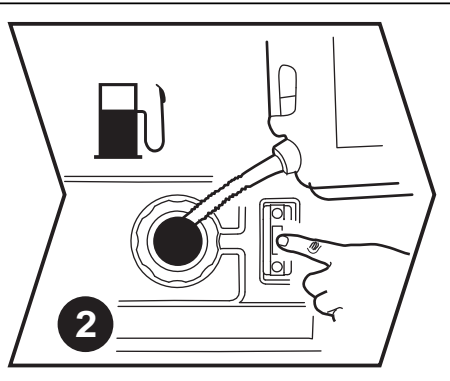
Oil Viscosity

Select the appropriate engine oil viscosity based on the ambient temperature and use the SAE Service Grade Viscosity in the chart.

Service Categories

API Service Categories CD or higher
ACEA Service Categories E3, E4 and E5
JASO Service Categories DH-1

Filling fuel

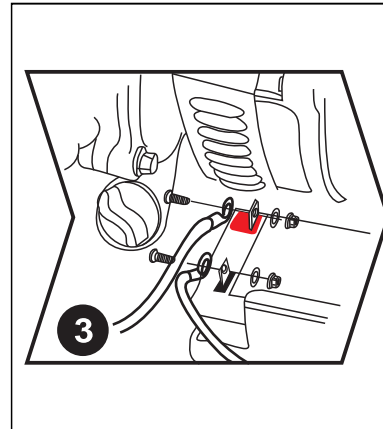


Open the fuel tank cap and fill diesel fuel, the fuel leveler's position will display diesel fuel mass in the fuel tank and take care the maximum fuel position shall not exceed the inner strainer of the tank when filling.



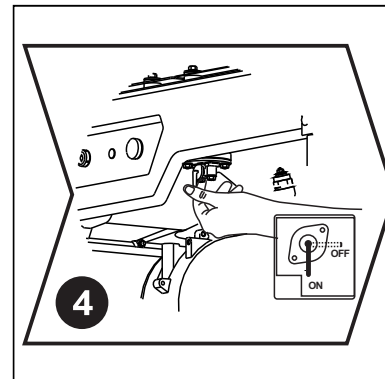
WARNING Keep away from the fire source and heat source when filling; do not fill when be operating.

Connect electric battery



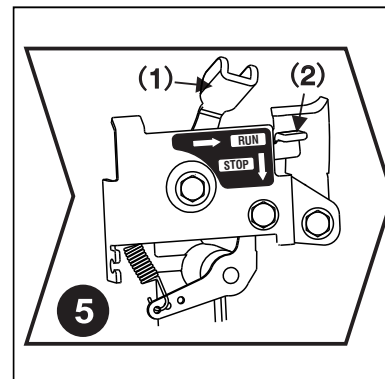
Connect the storage battery wire to the storage battery, red for positive electrode and green for the negative electrode, and make sure screwing the nut tightly. Not contact between positive electrode to negative electrode to avoid short circuit. After connection, metal parts of two pieces of wire shall keep at least 15mm safety distance, and be protected by rubber cover.

Turn on the fuel valve lever

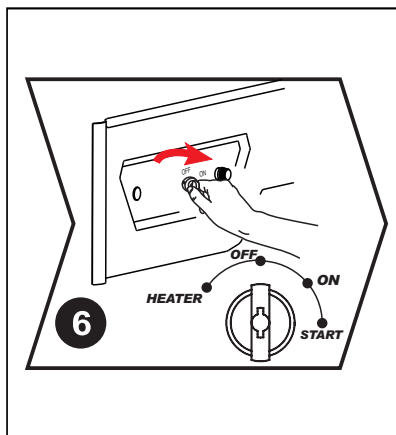


Turn the fuel valve lever to ON and let the fuel flow into the fuel pump.

Set engine speed control to start



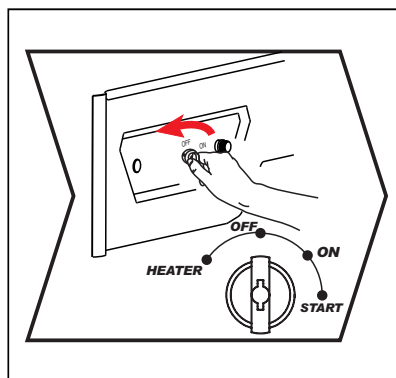
Move the lever (1) to the right, it click into the RUN position



Start the generator

Insert the key into the key switch, Turn the start switch to the START position. release the key as soon as the engine starts, it will return to the ON position.

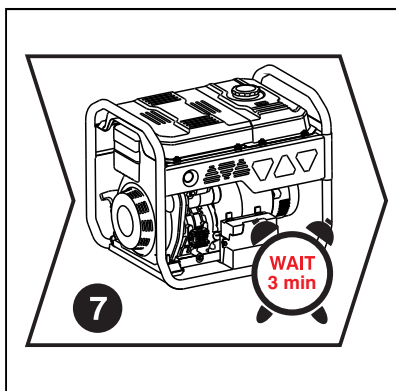
If the engine doesn't start, Wait at least 30 seconds before you attempt to start the engine again.



Start the generator in cold weather

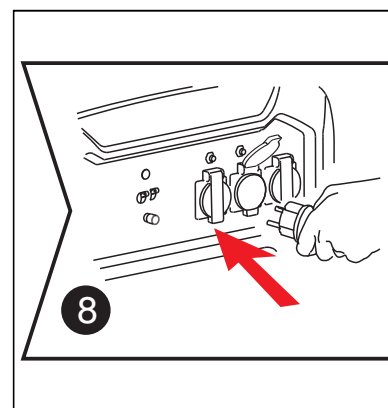
(Heating function is optional)

When the engine is difficult to start in cold weather, Turn the start switch to the HEATER position for about 10--20 seconds and then release, you can easily start the engine with the start switch.



Warm up the engine

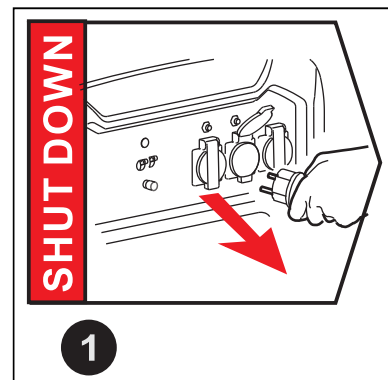
After starting, Warm up the engine without load for about 3 minutes.



Connect to load

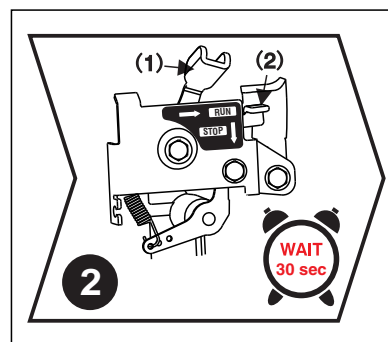
Access electric equipment and turn the circuit breaker to ON. Please note that when several loads are used at the same time, do not access the next one unless the former one is running normally. The total power of the loads should not exceed the rated power of the unit.

● Shut down the engine



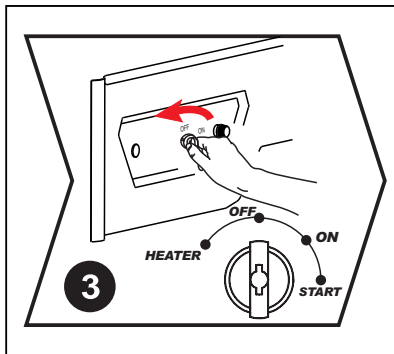
Disconnect load

Disconnect the electric equipment from the control panel of the generator.



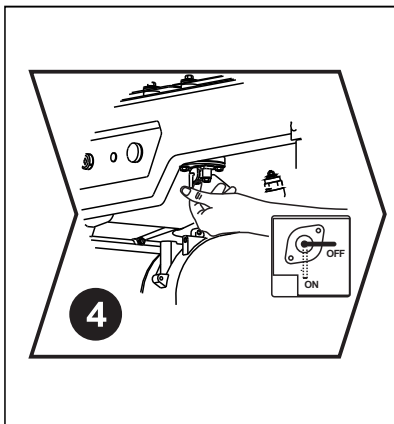
Set engine speed control to stop

After 30 seconds of no-load running, Press down the stop button (2), the speed control lever (1) will automatically return to the STOP position.



Turn off the engine switch

Turn off the engine switch and the generator unit will be shut down immediately.



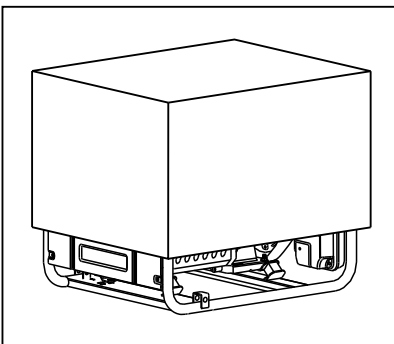
Close the fuel valve lever

Turn off the fuel valve lever after the shutdown of the unit.

⚠ WARNING

The surface temperature of the generator unit is still high after shutdown, and it can not be moved or operated before cooling down in order to avoid scalding.

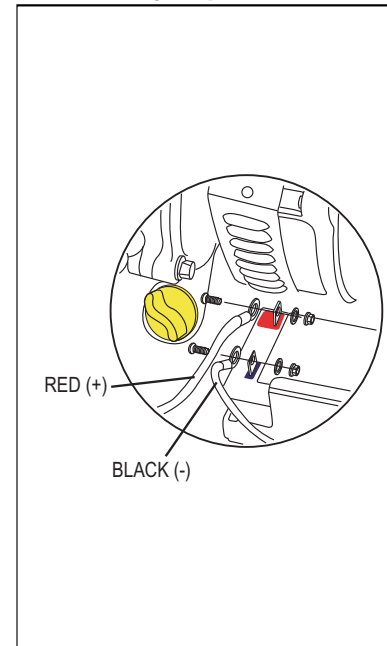
● Storage



Protective treatment

The unit should be stored in a clean and dry place and should be protected from rain and high temperature. Shield the unit with paper box or plastic bag to prevent dust from entering the unit.

● Battery replacement



NOTE: The battery shipped with the generator has been fully charged. A battery may lose some of its charge when not in use for prolonged periods of time and may require recharging by a 12V battery charger (Not Included). This battery is maintenance-free battery 12V20Ah and dimensions are 174mm (length)x 85mm(width)x158mm(height).

- ⚠ CAUTION** The NEGATIVE battery terminal should:
1. Always be DISCONNECTED FIRST.
 2. Always be CONNECTED LAST.

Transporting

To prevent fuel spillage when transporting or during temporary storage, the generator should be secured upright in its normal operating position, with the engine switch OFF. The fuel valve lever should be turned OFF.

⚠ WARNING

When transporting the generator:

- Do not overfill the tank.
- Do not operate the generator while it is on a vehicle. Take the generator off the vehicle and use it in a well ventilated place.
- Do not drive on a rough road for an extended period with the generator on board. If you must transport the generator on a rough road, drain the fuel from the generator beforehand.

NOTE:

To transport the generator, hold the holding part (shaded areas in the figure 1).

Take care not to drop or strike the generator when transporting.

Do not place heavy objects on the generator.

When transporting the generator by loading it on to a vehicle, secure to the generator frame as shown (See figure 2).

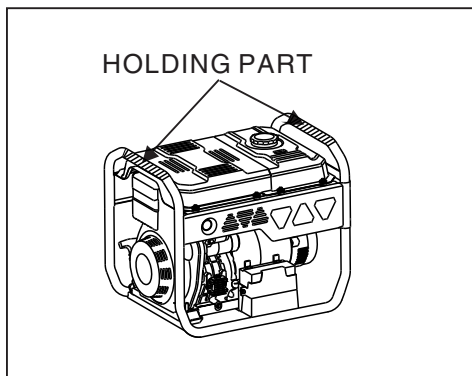


Figure 1

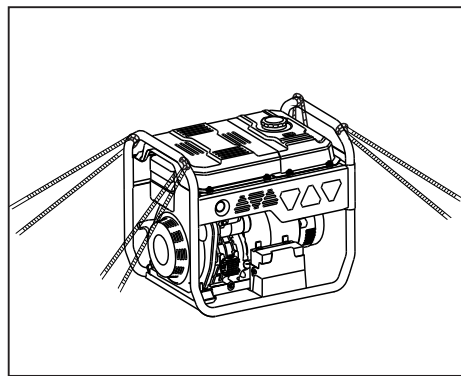
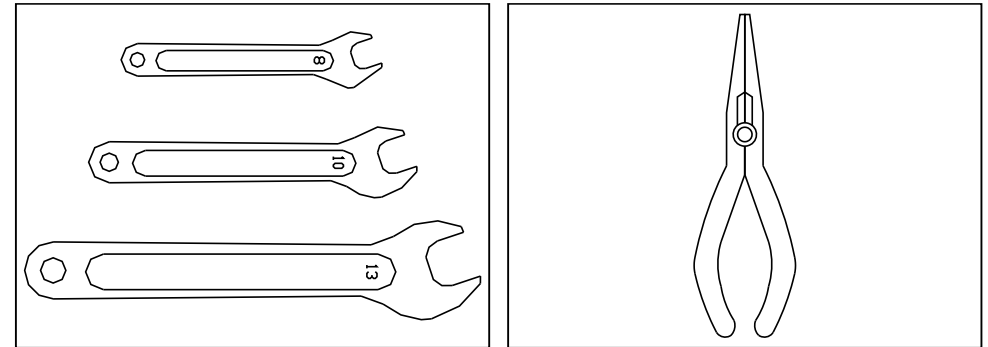


Figure 2

Accessories Installation

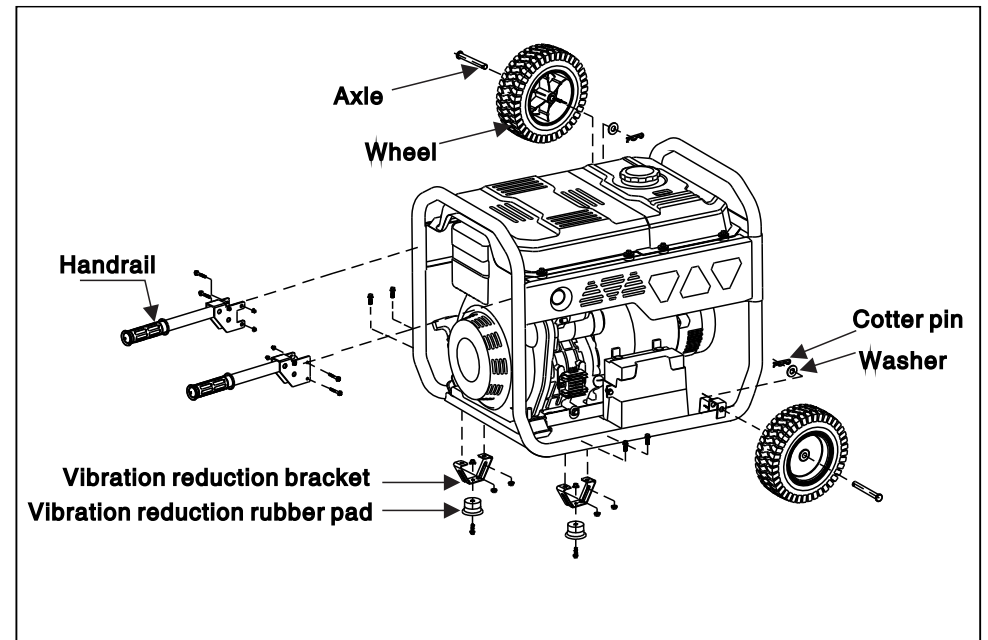
You can install the wheel assemblies for the convenience of moving the unit.

You may need to prepare the following equipment before the installation.



Please install the handrail, vibration reduction bracket and wheel on the base plate and tighten the bolt as shown in the following picture.

Two-wheel short axle



Powers of Common Appliances

Electric equipment			Rated power(W)	Starting power(W)
Household Appliances	Flat panel television 27"		120	120
	Energy saving lamp		5~50	5~50
	Electric cooker		1000	1000
	Computer		400	400
	DVD		100	100
	Refrigerator		50	300

Electric equipment			Rated power(W)	Starting power(W)
Household Appliances	Washing machine		250	500
	Electric fan		50	100
	Air-conditioner 2HP		1600	3200
Tools	Electric welder		2500	5000
	Electric hammer		1000	1500
	Water pump		800	1200

The starting powers of the appliances are far more higher than the operation powers. Please read the labels of the electric equipment for reference. The total power of the loads should not exceed the rated power of the generator.

Maintenance

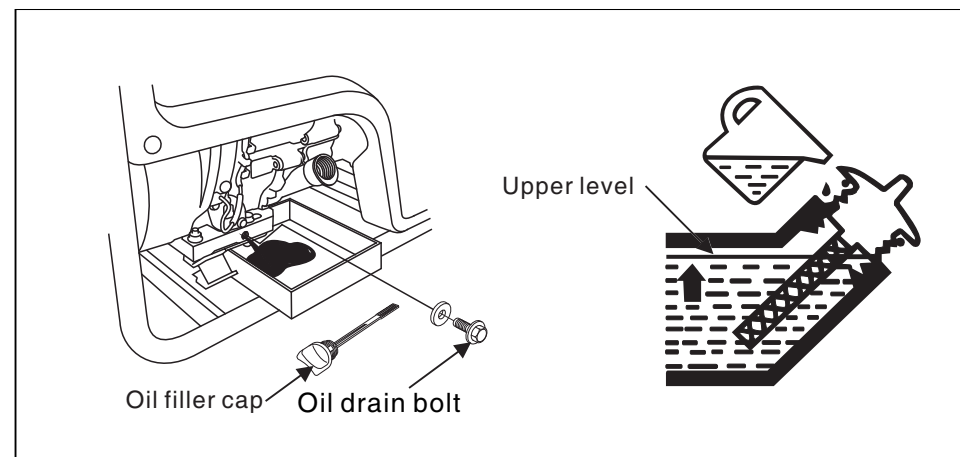
Good maintenance is the best guarantee of safe, economical and fault-free operation. And it also contributes to environmental protection.

Maintenance schedule is as follows:

Item \ Operation hours	Daily	20 hours	100 hours	200 hours	500 hours	1000hours
Check and tighten bolt and nuts	○ Before operation					
Check and resupply engine oil	○ Before operation					
Replace engine oil		○ 1st time	○ 2nd & after			
Clean oil filter replace if damaged		○ 1st time	○ 2nd & after			
Check oil leakage	○ Before & after operation					
Clean or replace air cleaner element	Service more frequently when used in dusty areas			○		
Drain and clean the fuel tank				○		
Check and replace fuel filter						○
Check fuel injection nozzle						▲
Check fuel injection pump						▲
Check fuel piping replace if damaged					○	
Adjust intake/exhaust valves head clearance		▲ 1st time			▲	
Check and lap intake/exhaust valves seat						▲
Replace piston rings						▲
Check battery	○ Before operation					

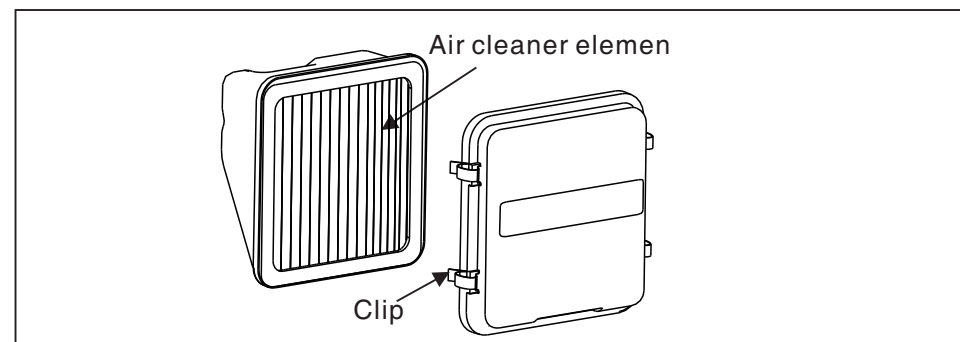
The mark (▲) indicates that special tools and skills are required.

● Replace the engine oil



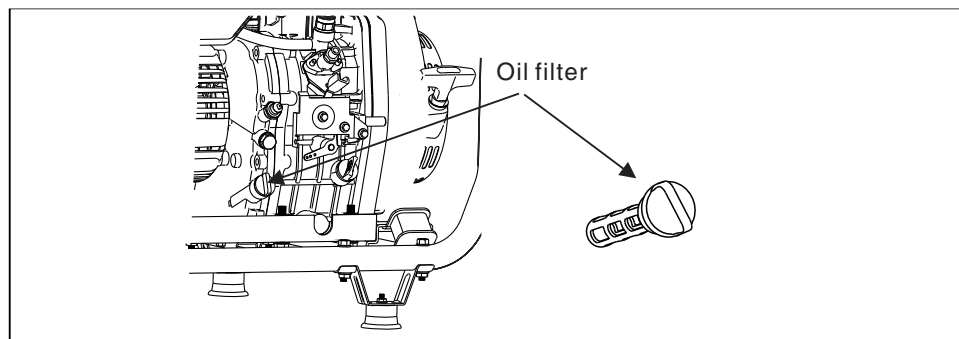
Remove the oil draining bolt and drain the long time stored oil. Tighten the oil draining bolt and twist off the oil dipstick. Fill in appropriate amount of oil via the oil dipstick and keep the oil level between MIN and MAX.

● Air filter inspection



- 1 Unsnap the air cleaner cover clips, remove the air cleaner cover.
- 2 Tap the filter element several times on a hard surface to remove dirt, or blow compressed air [not exceeding 30 psi (207 kPa)] through the filter element from the inside.
- 3 replace dirty filter element if damaged.

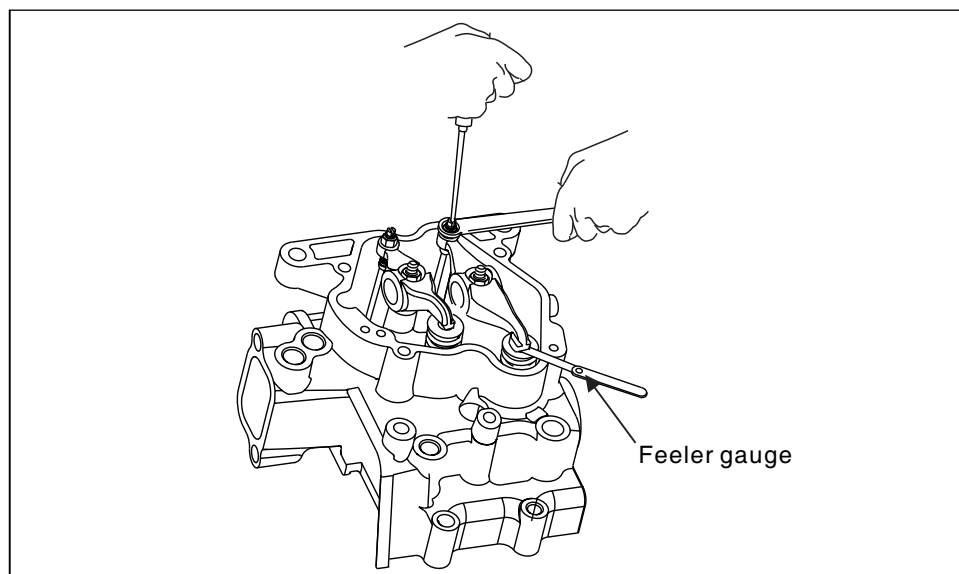
● Clean engine oil filter



Remove the oil filter, clean oil filter or replace if damaged, and then install the oil filter.

● Valve clearance

(should be conducted by a professional person)



Remove the cylinder head cover and measure the valve clearance with the feeler gauge. The clearances are 0.1mm for the inlet valve and 0.15mm for the outlet valve.

Common Fault Analysis

Fault phenomenon	Fault cause	Operation method
The generator can not start	No diesel fuel	Fill the fuel tank with fuel
	The fuel switch is not turned on	Turn the fuel switch to ON
	The fuel switch is blocked	Clean the fuel switch
	No engine oil or the engine oil level is low	Add oil
	The speed control is turned off	Turn the speed control to the "RUN" position
	Starter motor does not operate or rotates too slowly	Clean terminals ,retighten Check battery , recharge
No power output	The circuit breaker is not connected	Turn the circuit breaker to the "on" position
	The plug is poorly contacted	Replace a socket
Vibration while operation	No diesel fuel	Fill the fuel tank with fuel
The generator emits white smoke	The temperature of the engine is too low	Let the engine run at empty load for more than 10 minutes
	The fuel oil is contaminated	Replace clean oil
The generator emits black smoke	The air filter is dirty	Clean the filter element of the air filter
	The load is too high	Reduce load to the rated limit
The generator emits blue smoke	The engine oil is too much	Drain some oil
	The engine oil type is incorrect	Choose appropriate engine oil type(refer to page 16)
The power decreases	Fuel system clogged	Purge of or replace fuel vitta ,filter or cock)
	Clogged air cleaner element	Clean or replace filter element

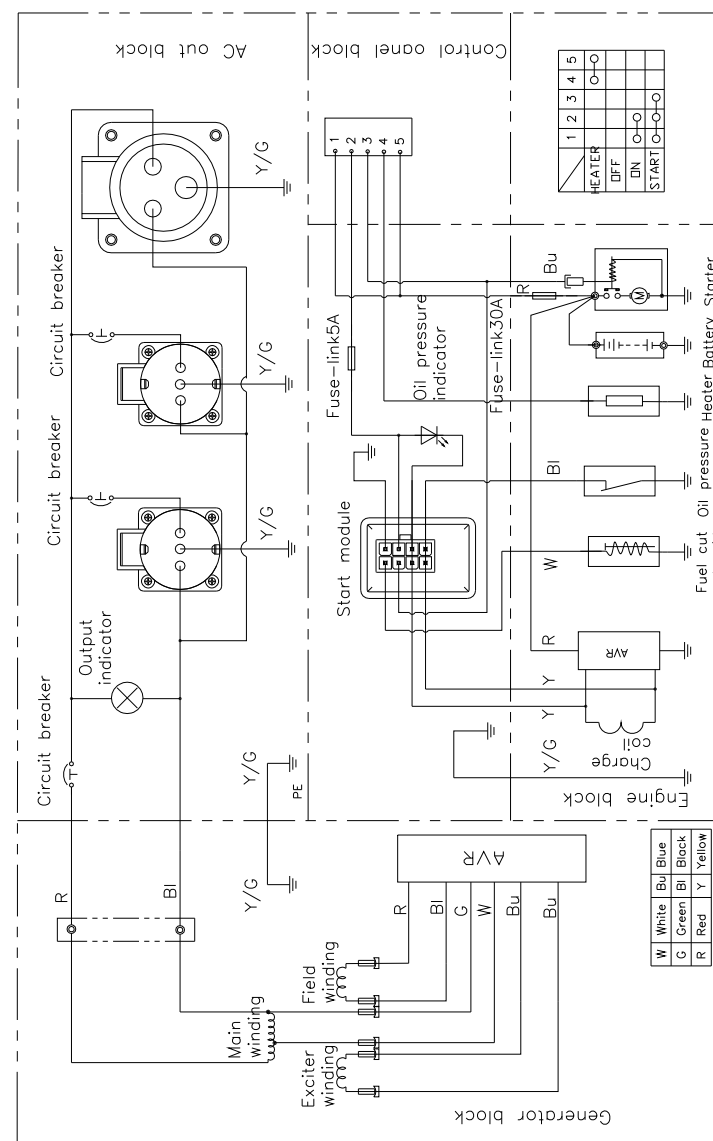
The environmental requirements of the generator:

- Suitable temperature: -10°C – 40°C .
- Suitable humidity: lower than 95%.

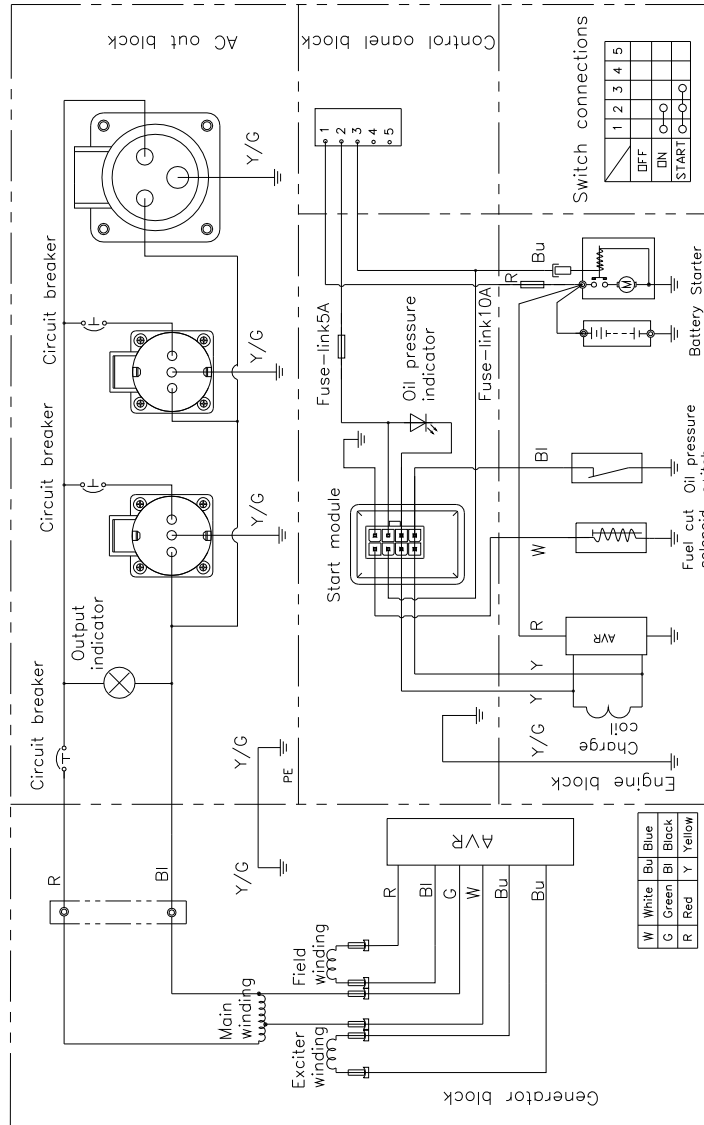
- Suitable altitude: under 1,000 meters (it should be used with lower power in districts higher than 1,000 meters.).
- The generator set can only be loaded to the rated power under the specified environment conditions. If the environment conditions are inconsistent with the above standards, or if the cooling conditions of the engine and generator set are defective; for example, when running in limited areas, it is necessary to reduce the power. It is also necessary to reduce the power when the temperature, altitude and relative humidity exceed the standards.
- If there is no problem with the conditions above, please turn to the nearby dealer or after-sales service center for consultancy.

Electrical schematic diagram

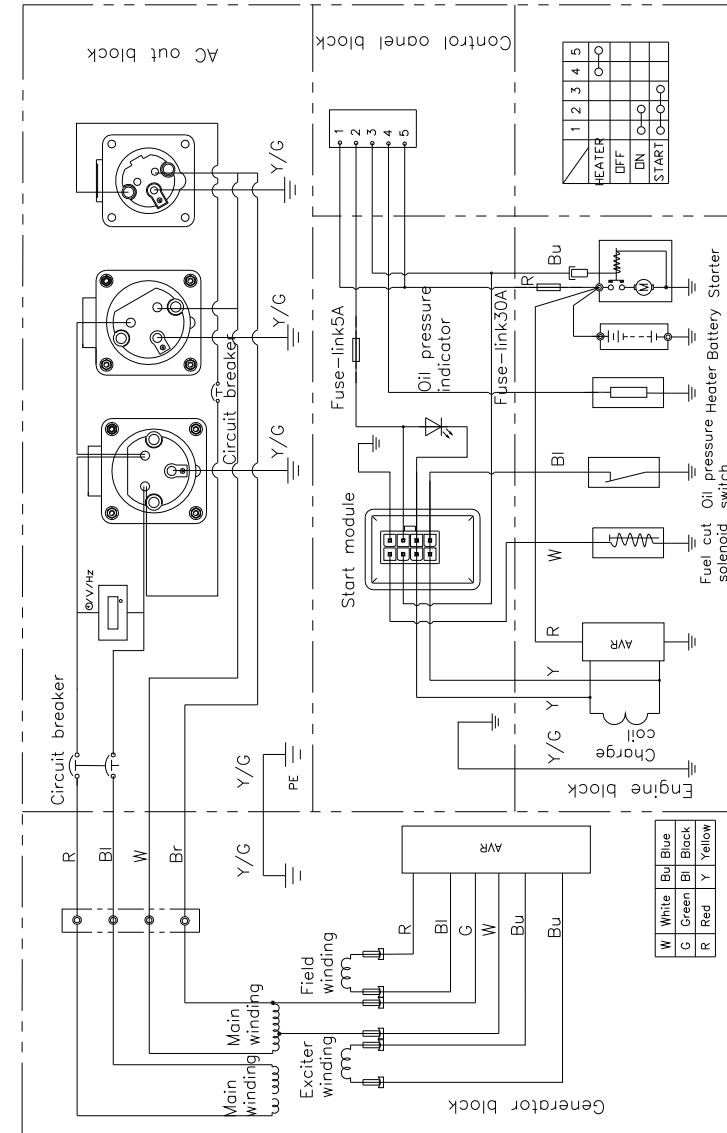
- **Electrical schematic diagram 1**
50Hz 230V (With heater)
CE certificated



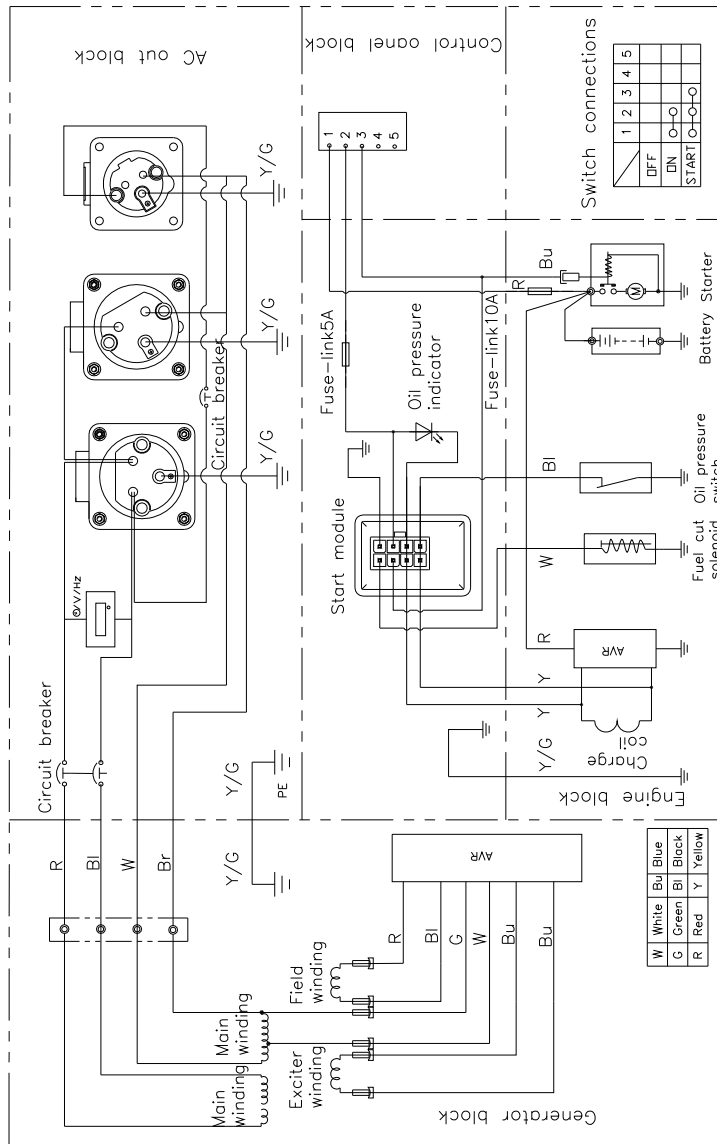
● **Electrical schematic diagram 2**
50Hz 230V (Without heater)
CE certificated



● **Electrical schematic diagram 3**
60Hz 120V/240V (With heater)



● **Electrical schematic diagram 4**
60Hz 120V/240V (Without heater)



● **Electrical schematic diagram 5**
60Hz 220V

