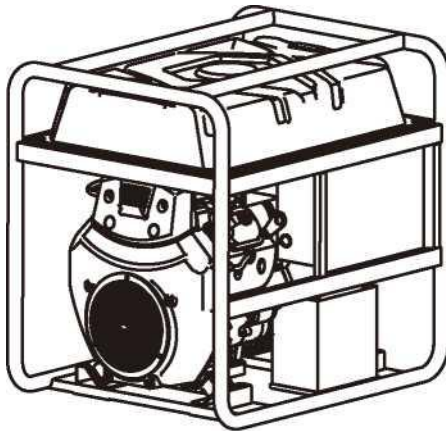




Petrol Generator

Owner's Manual



Please read the instruction manual before using the product

PREFACE

Thank you for choosing the petrol generator by our company.

Based on the latest technology at home and abroad, our company has successfully developed the petrol generator sets . The unit is characterized by advanced design, compact structure, reliable performance, convenient service, low fuel consumption and noise as well as fashionable shape. With general petrol engine as power, it is widely used in many fields such as living, open working, shop, bank, fishing and so on.

The manual gives information on operation and maintenance of the petrol generator set. Please be sure to read it carefully before operating. If any trouble occurs, call your dealer who will provide you with the best after service.

All the materials and diagrams in this manual are in accordance with the newest products at the publishing time. Due to revision and other change, the information described in this manual may be a little different from the actual status. The copyright of this manual belongs to our company. Any group or individual is forbidden to reprint or copy any it. The manual is subject to change without notice.

SAFETY WARNING

The personal and property safety of you and others is very important. Please read carefully the extremely important safety warnings we have written in the manual and the label of the generator set.

Safety warnings can alert you to potential dangers that may harm you and others.

There are one of these three symbols :“Danger”,“Warning”,“Notice”in front of safety warning. Details as below:



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



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



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

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

CONTENT

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Warranty:

This generator has a one year domestic or 500 hour warranty, whichever comes first.

The warranty will be void if the service interval requirements are not met according to this manual (Please refer to 30 page for service intervals).

Precaution for safe operation

Our generators are designed to be safe and reliable. You must read and understand the operation manual carefully and observe the safety operation procedures until you master the operation principle before you can eliminate various hidden troubles.

Operator Instructions

- How to quickly turn off the generator in an emergency;
- Familiar with all generator control principles, power connection;
- Ensure that untrained persons are not allowed to operate, and that children are strictly prohibited from touching the machine when there is no adult present.

Carbon oxides

- Exhaust gas contains a lot of toxins and carbon monoxide, colorless, odorless, and inhaled in large quantities will cause coma or death;
- If you are using the generator in a relatively closed or limited space, the air will contain a lot of exhaust gas, and then you should install the ventilation equipment.

Short circuit hazard

- Wrong operation will cause serious electric shock to the generator;
- It is dangerous to use the generator in wet places, such as small pools, sprinklers, water storage rooms, etc. or with wet hands. It is important to keep the generator dry.
- If the generator is placed outdoors for a long time, please check it for moisture or freezing before use, which will cause the machine to malfunction,

short circuit, and electric shock.

- Do not connect to building power without the presence of a professional electrician.

Fire and overheating hazard

- After the exhaust gas is overheated, other substances will be ignited, and the generator should be at least one meter away from the building during operation (same for other machinery and equipment);

- Keep away from flammable objects and buildings, because the petrol engine will generate a certain amount of heat during operation, please be sure to use it in a well-ventilated environment to avoid fire, explosion and unnecessary losses;

- The muffler will be hot for a period of time when the machine is stopped, and can be moved indoors after it has cooled down completely;

Precautions for safe operation

- Petrol is very flammable and flammable under certain conditions.

Please do not smoke or splash sparks into the petrol tank during operation.

When refueling, stop the machine and check the ventilation equipment, and wipe the spilled petrol dry.

- petrol and diesel are very volatile and flammable. Before starting the engine, carefully check whether the oil droplets remaining on the body have been wiped clean.

USE OF GENERATOR

Connection to the building electrical system

When connecting with the building's power system, it should be the responsibility of a professional electrician, the generator should be connected to the building with a special socket, and the load voltage should be consistent with the generator.

Improper connection will cause heavy personal injury and property damage. Please consult professional electrical engineers or corresponding companies.

In many regions generators are registered as required by their suppliers. Please check your local registration laws and regulations for use.

Generator grounding device

The generator has a grounding system, which connects the generator to the ground terminal and outputs from the AC output interface, and the grounding system is not connected to the AC neutral wire.

Local regulations may require that the grounding system be an AC neutral wire, and if the generator is plug tested, the use of a household connector as a ground circuit will not be allowed.

The grounding device is used to connect the ground and the machine body. If it is contrary to local laws and regulations, the use of the grounding device should consult the guidance of a professional electrician and abide by the local regulations.

AC plug-in

- Inspect all parts of the generator before connecting plug-in and power lines.

Connecting to the wrong power source creates a potential shock hazard.

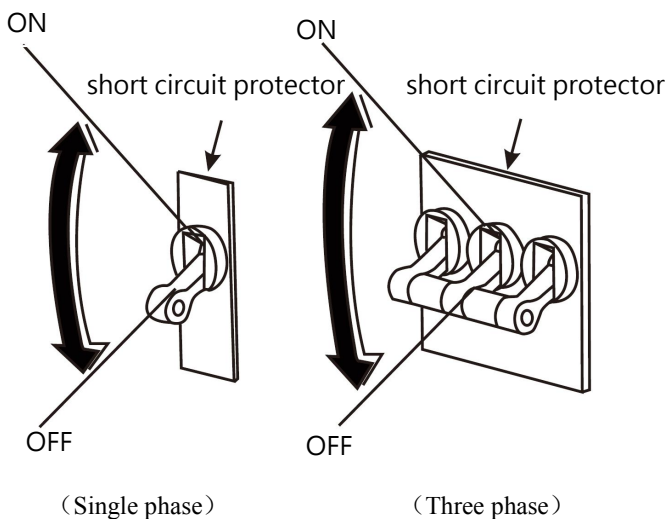
- If the connector reacts abnormally, runs slowly or stops suddenly, at this time, immediately turn off the generator and check whether the connector is wrong or the generator is overloaded.
- The load of the generator should be within the normal load range, and it must not work for a long time when the generator is fully loaded. If the generator is running

at full load, the running time should not exceed half an hour.

- During overload operation in actual operation, the generator will automatically cut off, and overtime high-power operation will shorten the life of the generator.
- The maximum working time for full-load operation should not exceed half an hour, and the maximum rated current for continuous operation should be within an appropriate range.
- All interconnected power equipment in actual operation have the rated current, voltage, part model and serial number issued by the manufacturer when they leave the factory.

Use of generator

1. Start the engine.
2. Set the circuit breaker to "ON".



3. Connect the AC connector to an appropriate socket.

Various sockets should be of normal standard specifications. If the load is exceeded, the switch of the circuit breaker automatically turns to "OFF" and the load should be reduced immediately, and then open after a few minutes.

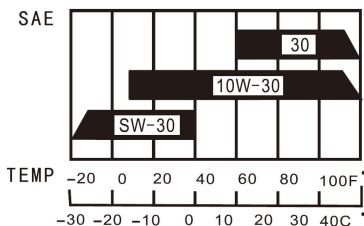
Inspection before operation

Engine oil

• The engine oil is the main factor affecting the working performance and life of the engine. Unclean oil and two-stroke engine oil are the causes of accidents.

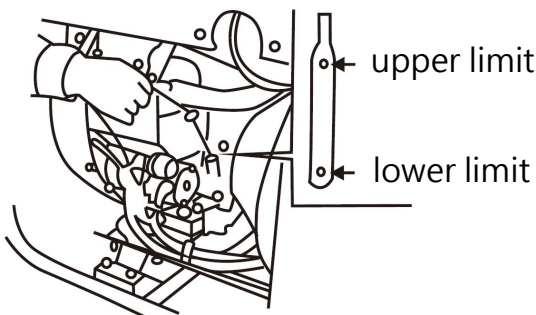
• Check the oil level and engine pistons on the engine surface before using the alternator.

When using 4-stroke engine oil, an API (American Petroleum Institute) grade label is required, confirming the oil specification SF or SG.



SAE 10W-30 can be recommended as a general-use oil suitable for a variety of temperatures, other viscosities should be adapted to the average temperature in your area.

1. Put the generator on a flat surface and stop the engine
2. Pull out the oil dipstick and wipe it clean
3. Insert all the dipsticks, and then move to measure the amount of oil
4. If the amount of oil is lower than or approximately lower than the lower limit, add the recommended oil
5. Insert the oil dipstick and cover the oil cap



Inspection before operation

Engine oil (petrol)

Add oil

Standard fuel tank capacity: 36L

Check (fuel tank display table), fill in petrol to the normal position

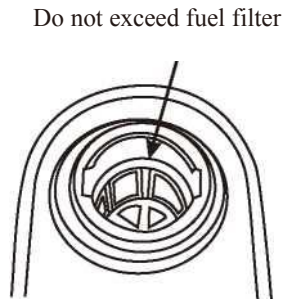
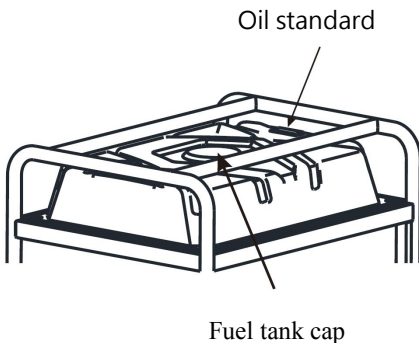


Petrol is highly volatile and explosive. Pay attention to the following items when using it:

- Keep away from heat, sparks, flammables when shutting down the engine.
- Operation of petrol etc. should be done outdoors.
- Wipe off flammable materials from the engine.

The fuel supply and starter engine should be in a ventilated and dry place, and the engine should be kept ventilated when the engine is running. The fuel supply should be prevented from splashing, and the fuel volume should not exceed the filter protector. After adding fuel, tighten the fuel tank cap.

Do not refuel indoors, spilled oil can cause environmental pollution, be sure to dry it off before starting the engine.



Inspection before operation

Recommended fuel

The octane rating of unleaded petrol is 86.

This engine can use this fuel.

Unleaded oil reduces oil spills and preserves waste heat.

Do not use unclean or dirty oil, and prevent water from entering the tank.

You can often hear some metallic crackling during operation, which is normal.

If you hear a crackling sound under the condition of unloaded operation, please change to fuel, if it still does not work, please consult the agent.



Continuous crackling during operation can destroy the generator.

Damage to the alternator due to mishandling resulting in a crackling sound is not covered by the warranty.

Some traditional oils are often mixed with alcohol or some additives. The use of such fuels should be based on safe operation and reduced pollution.

If oxygenated petrol is used, unleaded and minimum octane should be standard.

When using oxidized petrol, it is necessary to find out the petrol content. Some countries and regions require the petrol content to be marked on the surface of the fuel tank.

Ethanol-ethyl or alcohol accounts for 10% of the volume

 Petrol with 10% ethanol can be used, which may be called petrol alcohol in the market.

MTBE-----Methyl Butyl Ether 15% by volume

Methanol - Using petrol containing 5% methanol will corrode metal fittings/rubber rolls/plastic fittings etc.

If any accident is found, please switch to other fuel immediately.

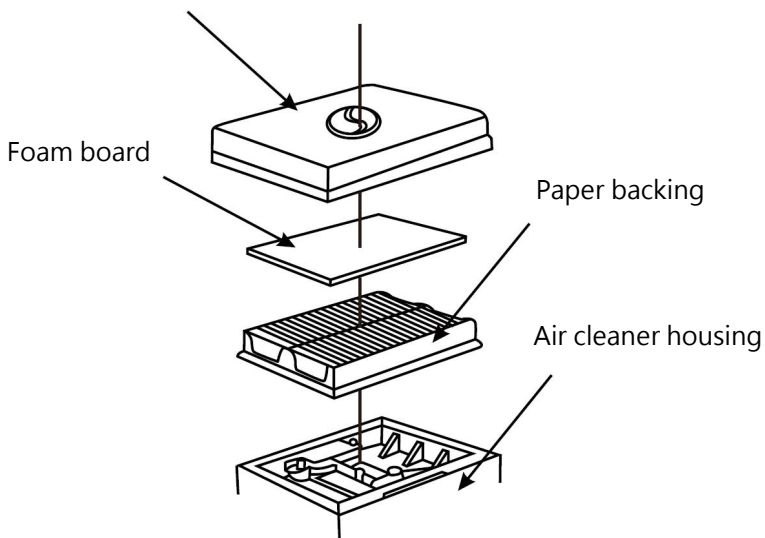
Accidents caused by oxidation or content while using petrol will not be covered under warranty.

Inspection before operation

Air cleaner

1. Open the air filter cover;
2. Remove the foam pad;
3. Check the paper backing board and replace or clean the paper backing board when necessary;
4. Replay the paper backing plate, cover the air filter cover, and tighten the lock.

Air cleaner cover



Do not let dust and dirt fall into the air filter room when dusting.

Start/stop engine

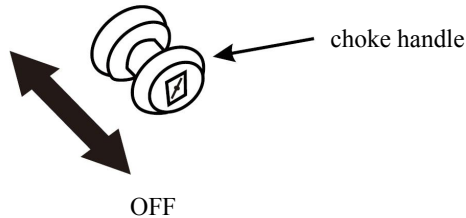
Start the engine

1. Open the fuel valve;
2. Turn off the circuit protection switch;
3. Unscrew the engine switch until it starts.

Caution

Do not start the switch more than 5 times in a row. If the start fails, you must release the switch and start it again after 5 minutes.

Put the choke handle in the "close" position and start the cooled engine, if the temperature is moderate, the choke handle should not be used.



If the generator stops shortly after starting, the battery must be replaced according to the instructions.

Shut down the engine

一、 Under emergency

Set the engine switch to "OFF".

二、 Usually:

1. Set the AC over-current protection switch to "OFF";
2. Set the engine switch to "OFF";
3. Set the fuel valve to "OFF" .

Maintenance

Correct maintenance

High-quality maintenance is the guarantee of safety, and economical and efficient operation is also a requirement of environmental protection. Proper maintenance of the generator, specific maintenance procedures, procedures and tools are described in the following chapters. This maintenance procedure is suitable for general operation, please consult your local agent for special requirements on operation.

Abnormal maintenance or use will lead to accidents or machine failure, please refer to our recommended user manual at any time.

Safety maintenance

Maintenance is a very important preventive measure to prevent accidents, which depends on your understanding of the manual operation and the degree of careful implementation.



Improper maintenance can also have serious consequences, please follow the maintenance procedures in the operation manual

Safety precaution

- Repair and maintenance procedures after confirming that the engine has been shut down.
 - Residual carbon monoxide toxin in the engine: pay attention to maintaining good ventilation conditions.
 - To prevent burns: Allow the engine and its systems to cool completely.
 - When moving parts: generally do not move the engine
 - Before the operation, it must be confirmed whether the procedures are in compliance with the relevant skills and tools;
 - Avoid sparks, flammables and smoking when operating petrol systems to reduce accidents and disasters.

Generator dealers are ideal for repairing and maintaining generators.

Maintenance

Maintenance program

Item		Each using time	1 st month or 20 hours	Each quarter or 50 hours	Every 6 months or 100 hours	Every year or 300 hours
Oil	Oil Level	O				
	Oil Change		O		O	
Replace the fuel level filter						O (2) 200hours
Check the air filter		O				
Clean the air filter				O (1)		
Replace the air filter						O (3)
Replace and clean spark plugs					O	
Cleaning the adjustment valve						O (2)
Check oil filter					O	
						O (2)
Replace oil filter						



- (1) If it is used in a dirty place, it should be maintained frequently;**
- (2) Unless repaired by a professional electrician who is proficient in technology, the agent should be invited to maintain it;**
- (3) Replace the pad;**
- (4) Professional and economical use should record each operation process and carry out targeted maintenance.**

Maintenance

Change engine oil

Drain the residual oil thoroughly

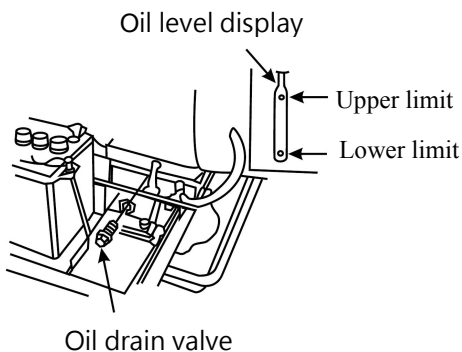
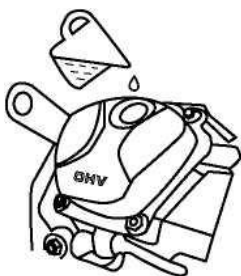
1. Remove the oil filter and drain valve, and pour the oil into a suitable container;
2. Seriously tighten the oil drain valve;
3. After refueling, measure the amount of oil with a oil standard combination, and then tighten the filter cover.

Engine refueling space

Drain the residual oil thoroughly

1.5 liters without filter change

1.8 liters after replacement



Please dispose of the residual oil reasonably to avoid environmental pollution.

Maintenance

Change the oil filter

1. After draining the residual oil, tighten the oil drain valve.
2. Remove the oil filter and pour the oil into a suitable container.
3. Clean the oil filter, cover it with a 0-shaped pad, and tighten the fuel tank cap.

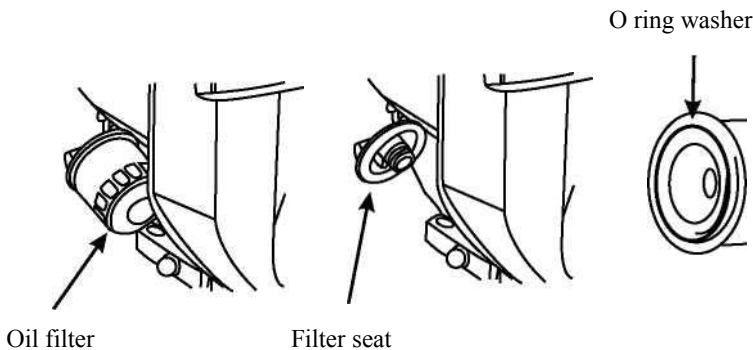


Use only those that match the specifications of the oil filter, otherwise it will cause an accident.

4. Tighten the new oil filter so that the 0-shaped washer is clamped into the bad hole, and screw it 7/8 turns with a concave ruler.

Torque: 22Nm (2.2kgf · m)

5. Add oil to the crankshaft for sufficient lubrication.
6. Open the engine and check the oil filter.
7. Stop the engine and check the fuel level.



Maintenance

Engine oil

Dirty dust removal devices will block the airflow, block the carburetor, and reduce the efficiency of the engine, so the generator must be cleaned frequently when using the generator in a messy place.



Please do not clean the air filter assembly with petrol

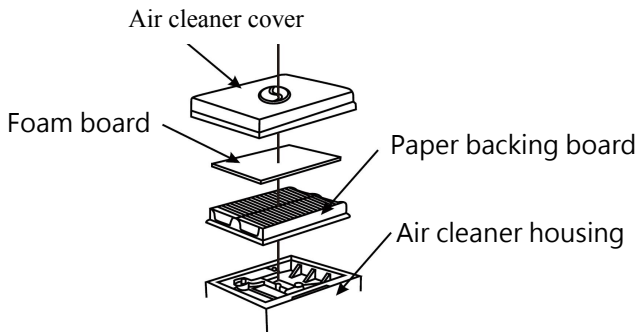


- **Do not drop dirt and dust into the dust chamber;**
- **The service life will be shortened after the dust falls into the engine;**
- **Failures caused by the above reasons are not covered by the warranty.**

1. Open the air filter cover;
2. Remove the foam board;
3. Cleaning the dust removal facilities.

The foam is washed with warm soapy water or diesel oil. The paper filter element can be beaten by hand or blown in with compressed air, which will cause dust to condense between the gaps of the fibers. If the foam is too dirty, it must be replaced.

4. Wipe off the dust on the dust chamber and the cover with a damp cloth. Be careful not to let the dust fall into the air carburetor chamber.
5. Finally, install the clean dust cover.



Maintenance

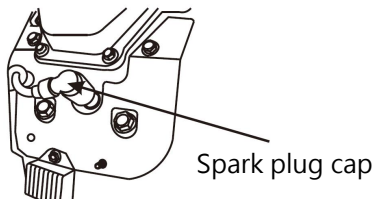
Spark plug

Recommended model:

F6RTC / F7RTC

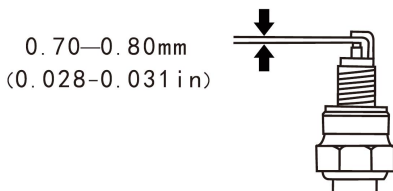
When the engine is running normally, the spark plug should have a gap. Be careful not to touch the exhaust pipe and gasket during operation, because the exhaust pipe and gasket will become hot when the machine is running.

1. Open the spark plug cap;
2. Keep the spark plug seat clean;
3. Twist the spark plug handle;
4. Visually check the insulation of the spark



plug, if it is not insulated, please replace it immediately;

5. Use a standard ruler to measure the electrode port of the spark plug, the diameter of which is 0.7-0.8 mm. Pay attention to check the electrode port and bend the electrode iron carefully.



6. Check the spark plug gasket and tighten the spark plug on its scale by hand.
7. Tighten the spark plug knob and press the spark plug cap.
 - When replacing the spark plug cap with a new one, tighten it to 1/2 turn.
 - If using old spark plug caps, tighten to 1/8-1/4 turn.



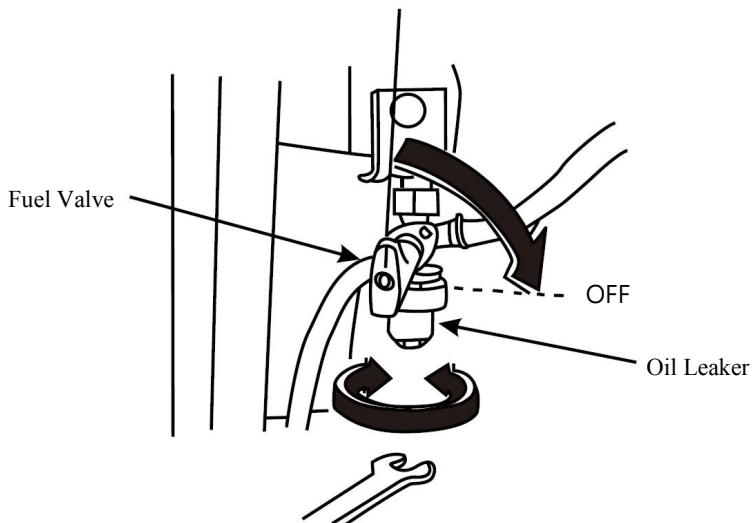
- The spark plug must be tightened. Failure to do so will cause the generator to overheat or even burn.
- Use proper spark plugs, improper spark plugs will destroy the alternator.

Maintenance

Fuel valve cleaning

The function of the fuel valve is to prevent dirt, water, etc. from entering the carburetor.

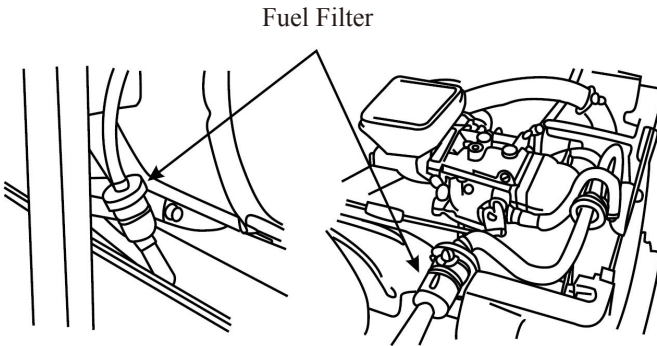
1. Turn off the fuel valve and remove the fuel valve cup;
2. Clean the fuel cup;
3. After cleaning, don't forget to install the O-ring.



Maintenance

Fuel Filter

1. Remove the dust cover and partition;
2. Remove the four M6 nuts on the dust cover, and then remove and clean;
3. Remove the fuel filter from the dust cover;
4. Check whether there is residual oil and water on the fuel filter. If there is residual oil and water in the filter, please notify the agent to deal with it; if there is no residual oil and water in the filter, please notify the agent to deal with it; if there is no residual oil, just install the filter and cleaning cover. Can.



Maintenance

Replace the fuse

1. Turn off the engine switch.
2. Remove the gate cover and replace the fuse, only 10A fuse can be used.



- If the fuse is blown, the engine will not start.
- If the fuse blows frequently, check the fuse installation before each operation.
- Use only 10A fuses.

SPECIFICATIONS

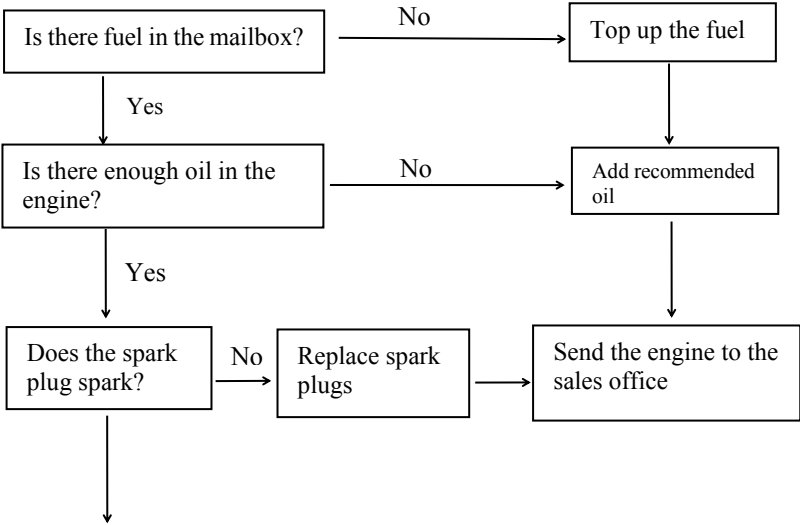
Model	RGH12000D-230V	RGH12000D-400V
Engine Type	4-stroke, OHV, 90°Double-cylinder, Air-cooling	
Engine model	H690D	
Displacement (cc)	690	690
Starting Type	E-Start	E-Start
Rated Power (kW)	9.5	9.5
Max Power (kW)	10.5	10.5
Rated Frequency (Hz)	50	50
Oil Tank Capacity (L)	1.55	
Rated Voltage (V)	220/230	230/400
Dimensions (mm)	765x610x740	765x610x740
Net Weight (kg)	148	149

Model	RGH15000D-230V	RGH15000D-400V
Engine Type	4-stroke, OHV, 90°Double-cylinder,	
Engine model	H720D	
Displacement (cc)	713	713
Starting Type	E-Start	E-Start
Rated Power (kW)	11	11
Max Power (kW)	12	12
Rated Frequency (Hz)	50	50
Oil Tank Capacity (L)	1.55	
Rated Voltage (V)	220/230	230/400
Dimensions (mm)	765x610x740	765x610x740
Net Weight (kg)	155	158

Additional device	Overload protection device (circuit breaker), large fuel display gauge, voltmeter, action output indicator light, oil pressure alarm, four-wheel accessories, battery 12V-18Ah
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Safety confirmation

When the engine does not start:

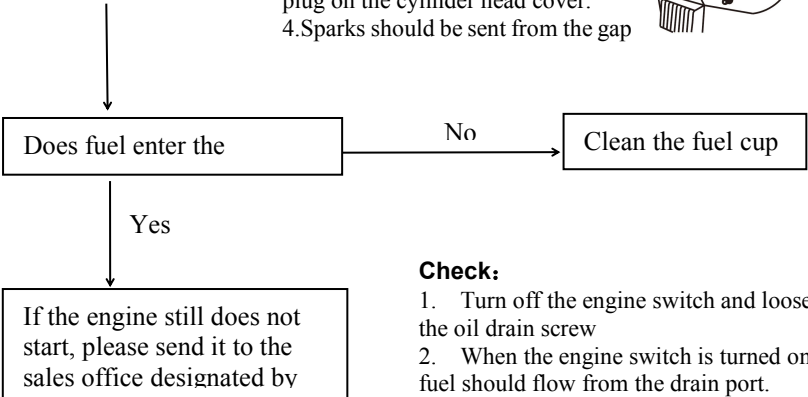
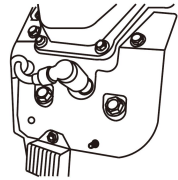


Caution

Make sure there is no fuel splattering around the spark plug, otherwise it could catch fire.

Check:

1. Remove the spark plug and clean the debris around the spark plug.
2. After removing the spark plug, install the spark plug cap.
3. Put the electrode next to the spark plug on the cylinder head cover.
4. Sparks should be sent from the gap



Check:

1. Turn off the engine switch and loosen the oil drain screw
2. When the engine switch is turned on, fuel should flow from the drain port.

Transport and Storage

When transporting the generator, turn off the engine switch and oil valve to maintain the balance of the body and prevent ignition from splashing oil or evaporation.

Stop the adjusting and running generator for 15 minutes and wait for the body to cool before transporting or returning it to the warehouse, otherwise the residual exhaust gas will burn people or ignite other substances.

Do not slam or drop the generator, and do not place heavy objects on it.

To store the generator for a long time, do the following:

1. Do not put it in a dirty or damp warehouse;
2. Please refer to the following table:

Storage time	Maintenance
within 1 month	No special maintenance required
1-2 months	Fill with new oil, add thermostat
2 months - 1 year	Fill with new oil, add thermostat Pour out the residual oil in the carburetor chamber Pour out the residual oil in the fuel valve oil cup
More than 1 year	Fill with new fuel, add thermostat Pour out the residual fuel in the carburetor chamber Pour out the residual fuel in the fuel valve fuel cup Remove the spark plug, add 5-10cc engine fuel, turn on the switch and let it enter Reinstall spark plugs Change to new fuel
If it is used after long-term storage, it must be replaced with new oil before use	

Transport and Storage

1. Do not put it in a dirty or damp warehouse;
 2. Pour out the fuel;
 - a. Remove the engine oil drain pipe, pour in the appropriate volume of petrol, open the oil valve, and wipe it dry
- After grease, connect the oil drain pipe;
- b. Loosen the dart nails at the carburetor port, pour the residual oil in the carburetor chamber into a suitable container, and then tighten the dart nails.



Petrol is a highly explosive and flammable substance. Strictly prevent scalds, burns and burns during operation.

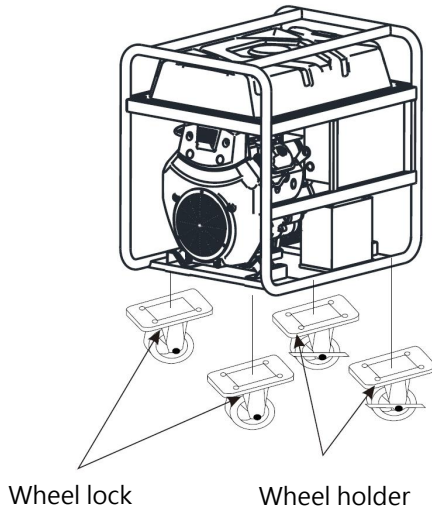
- **Operate petrol outdoors;**
- **Wipe off oil stains immediately;**
- **Allow the body to cool down for 45 minutes after the engine is stopped.**

3. Clean the air filter;
4. Change the engine oil;
5. Remove the battery and store it in a ventilated and dry place, and charge it once a month;
6. Cover the generator with a cover.

Transport and Storage

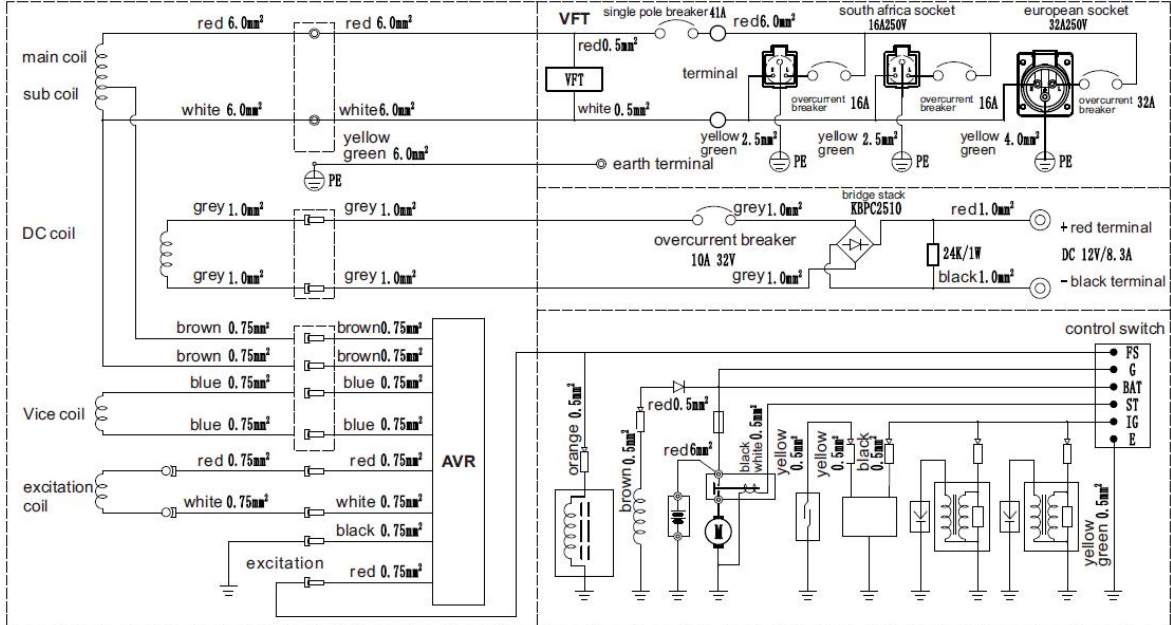
Wheel Fixtures

1. Install the four wheels on the wheel bracket and fix them with four dart wires;
2. Install the wheel with four screws.



1. Install wheels and wheel locks;
2. Make sure the wheels are fixed before operating the generator.

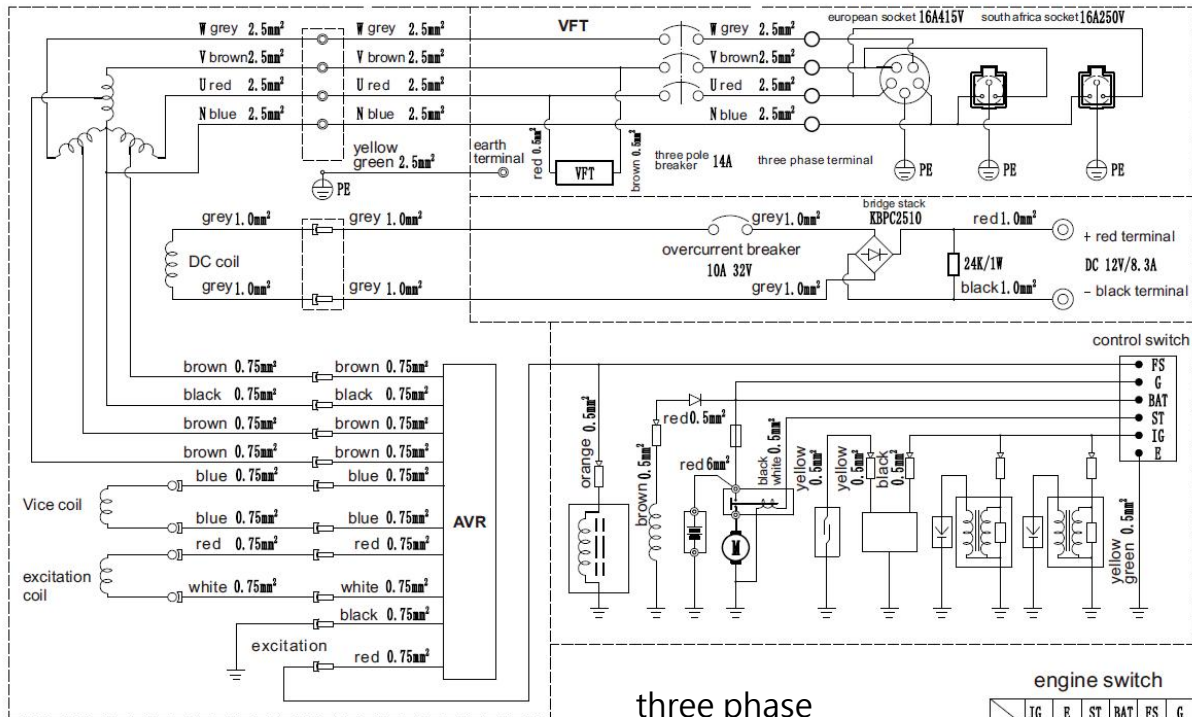
Wiring Diagram



single phase

engine switch

	IG	E	ST	BAT	FS	G
off	●—●				●—●	
on					●—●	●—●
start		●—●		●—●		





RED RHINO[™]
PRODUCTS

Generator Service Book

www.redrhino.co.za

Generator and Owner Details

www.redrhino.co.za



Generator Product Code: _____

Generator Serial Number: _____

Date of Purchase: _____

Store of Purchase: _____

Full Name and Surname: _____

Thank you for purchasing this Red Rhino Generator/Inverter Generator.

Please take note:

- Please read the manual carefully so as to avoid any unnecessary confusion with regards to the servicing and warranty of your generator.
- The service schedule is available in the manual for your perusal.
-

Generator Service Record

www.redrhino.co.za

SERVICE 1: 20 hours	
AS PER SERVICE SCHEDULE IN GENERATOR OWNERS SERVICE MANUAL	
DEALER/AUTHORISED SERVICE AGENT STAMP	
Date:	Invoice No:
Current Working Hours:	Next Service: 50 Hours

SERVICE 2: 50 hours	
AS PER SERVICE SCHEDULE IN GENERATOR OWNERS SERVICE MANUAL	
DEALER/AUTHORISED SERVICE AGENT STAMP	
Date:	Invoice No:
Current Working Hours:	Next Service: 100 Hours

SERVICE 3: 100 hours	
AS PER SERVICE SCHEDULE IN GENERATOR OWNERS SERVICE MANUAL	
DEALER/AUTHORISED SERVICE AGENT STAMP	
Date:	Invoice No:
Current Working Hours:	Next Service: 150 Hours

SERVICE 4: 150 hours	
AS PER SERVICE SCHEDULE IN GENERATOR OWNERS SERVICE MANUAL	
DEALER/AUTHORISED SERVICE AGENT STAMP	
Date:	Invoice No:
Current Working Hours:	Next Service: 200 Hours

Generator Service Record

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SERVICE 5: 200 hours	
AS PER SERVICE SCHEDULE IN GENERATOR OWNERS SERVICE MANUAL	
DEALER/AUTHORISED SERVICE AGENT STAMP	
Date:	Invoice No:
Current Working Hours:	Next Service: 250 Hours

SERVICE 6: 250 hours	
AS PER SERVICE SCHEDULE IN GENERATOR OWNERS SERVICE MANUAL	
DEALER/AUTHORISED SERVICE AGENT STAMP	
Date:	Invoice No:
Current Working Hours:	Next Service: 300 Hours

SERVICE 7: 300 hours	
AS PER SERVICE SCHEDULE IN GENERATOR OWNERS SERVICE MANUAL	
DEALER/AUTHORISED SERVICE AGENT STAMP	
Date:	Invoice No:
Current Working Hours:	Next Service: 350 Hours

SERVICE 8: 350 hours	
AS PER SERVICE SCHEDULE IN GENERATOR OWNERS SERVICE MANUAL	
DEALER/AUTHORISED SERVICE AGENT STAMP	
Date:	Invoice No:
Current Working Hours:	Next Service: 400 Hours

Generator Service Record

www.redrhino.co.za

SERVICE 9: 400 hours	
AS PER SERVICE SCHEDULE IN GENERATOR OWNERS SERVICE MANUAL	
DEALER/AUTHORISED SERVICE AGENT STAMP	
Date:	Invoice No:
Current Working Hours:	Next Service: 450 Hours

SERVICE 10: 450 hours	
AS PER SERVICE SCHEDULE IN GENERATOR OWNERS SERVICE MANUAL	
DEALER/AUTHORISED SERVICE AGENT STAMP	
Date:	Invoice No:
Current Working Hours:	Next Service: 500 Hours

SERVICE 11: 500 hours	
AS PER SERVICE SCHEDULE IN GENERATOR OWNERS SERVICE MANUAL	
DEALER/AUTHORISED SERVICE AGENT STAMP	
Date:	Invoice No:
Current Working Hours:	Next Service: 550 Hours

SERVICE 12: 550 hours	
AS PER SERVICE SCHEDULE IN GENERATOR OWNERS SERVICE MANUAL	
DEALER/AUTHORISED SERVICE AGENT STAMP	
Date:	Invoice No:
Current Working Hours:	Next Service: 600 Hours