

Digital Inverter Generator

REMOTE START
DIGITAL SCREEN



OPERATING INSTRUCTIONS

PLEASE READ THIS MANUAL CAREFULLY
BEFORE USING MACHINE

PARTS LIST

No.	Name	Quantity	No.	Name	Quantity
1	Engine assembly	1	52	M6 x 20 flange bolt	2
2	Spark Plug	1	53	Step motor	1
3	Cable holder	1	54	Throttle frame 1	1
4	M3 x 5 screw GB/T818-2000	2	55	Throttle frame 2	1
5	Stator assembly	1	56	Throttle base	1
6	M5 x 30 flange bolt GB/T16674-1986	2	57	Throttle arm	1
7	Flywheel assembly	1	58	Step motor spring	1
8	M12 flange nut	1	59	Low oil sensor	1
9	Primer bulb	1	60	Carburetor	1
10	Motor wind cover	1	61	Air cleaner oil keeper plate	1
11	M5 x 16 flange bolt GB/T16674-1986	3	62	Air cleaner case	1
12	Flywheel fan	1	63	Air cleaner insert plate	1
13	Starter cup	1	64	M6 x 80 flange bolt	2
14	M5 x 10 flange bolt, GB/T16674-1986	2	65	Air cleaner cartridge	1
15	Recoil Starter assembly	1	66	Air cleaner element	1
16	M6 x 10 Flange bolt, GB/T16674-1986	3	67	Air cleaner cover	1
17	Inverter leg	2	68	ST3 x 10 self-taping screw	8
19	Inverter Assembly	1	69	Fuel valve arm	2
20	M5 x 10 flange bolt, GB/T16674-1986	4	70	Fuel valve link bar	1
21	Inverter holder	1	71	Fuel valve cover plate	1
22	Fuel tank	1	72	Fuel valve bushing	1
23	Fuel tank sleeve	1	73	Fuel valve shaft	1
24	Fuel Cap	1	74	ST4.8 x 12 self-taping screw	2
25	Fan Cover	1	75	Vacuum pump	1
26	Ignition coil bracket	1	76	Fuel valve	1
27	Ignition coil	1	77	Vacuum pump holder	1
28	Ignition coil holder	2	78	Right shroud	1
29	M5 x 35 socket head screw	2	79	M5 x 30 screw	1
30	Flywheel cover	1	80	Fuel valve knob	1
31	M5 x 16 flange bolt, GB/T16674-1986	4	81	M4 x 16 screw	6
32	Ignition flywheel	1	82	Access panel	1
33	Flywheel cover	1	83	M6 x 10 large head screw	2
34	ST4.2 x 16 self-tapping screw	6	84	M5 x 10 screw	2
35	Right engine wind cover	1	85	Nut	6
36	M6 x 30 socket head screw	4	86	Left shroud	1
37	Muffler bent tube & gasket	1	87	M5 nut	6
38	Muffler	4	89	Control panel	1
39	Left engine wind cover	1	90	Control panel case assembly	1
40	M5 x 8 flange bolt, GB/T16674-1986	4	91	Throttle cable	1
41	M5 x 12 flange bolt, GB/T16674-1986	1	92	Light cover	1
42	Muffler cover	1	93	rocker switch	2
43	Case connection plate	2	94	120V Receptacle	2
44	Rear cover junction plate	1	95	Ground terminal	1
45	M5 x 10 screw	6	96	Reset button	1
46	Oil cap / dipstick	1	97	M4 x 10 self-taping screw	7
47	Carburetor gasket, paper	2	98	Rubber engine mount	4
48	Carburetor gasket, plastic	1	99	M6 x 30 flange bolt	4
49	Carburetor connecting frame	1	100	Engine mounting frame	1
50	M6 x 25 flange bolt, GB/T16674-1986	2	101	Foot, outer shroud	4
51	Carburetor bent joint	1	102	M8 x 35 flange bolt	4

PREFACE

Thank you for purchasing our generator.

This manual covers operation and maintenance of XG-SF2000 and XG-SF3000. All information in this publication is based on the latest product information available at the time of approval for printing. We reserve the right to make changes at any time without notice and without incurring any obligation. The copyright of this manual belongs to our company, no part of this publication may be reproduced without written permission.

This manual should be considered a permanent part of the generator and should remain with it if it is resold.

Pay special attention to statements preceded by the following words:

▲ WARNING

It indicates a strong possibility of severe personal injury or death if instructions are not followed.

▲ CAUTION

It indicates a strong possibility of severe personal injury or death if instructions are not followed.

If a problem should arise, or if you have any questions about the generator, consult an authorized dealer.

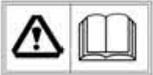
▲ BE CAREFUL

The generators are designed to give safe and dependable service if operated according to instructions. Read and understand the Owner's Manual before operating the generator. Failure to do so could result in personal injury or equipment damage.

1. The amount of oil to be added at 600ml
2. Machine is not to tip on its side whilst traveling
3. Don't leave key on whilst not in operational mode as it will flatten the battery
4. Don't loose keys or machine will have to be reformatted.

I . Safety Instructions

⚠ Warning



- ◆ The generator is designed to give safe and dependable service if operated according to instructions. Read and understand this manual carefully before operating the generator, or it may cause serious injury and equipment damage.

⚠ Warning



- ◆ Exhaust contains poisonous carbon monoxide. Do not operate generator in confined area. Be sure to operate the generator in a well-ventilated environment or with an aerator. Using a generator indoors will kill you in minutes. Never use in the home or in a partly enclosed area such as garages. Only use outdoors and far from open windows doors and vents.

⚠ Warning



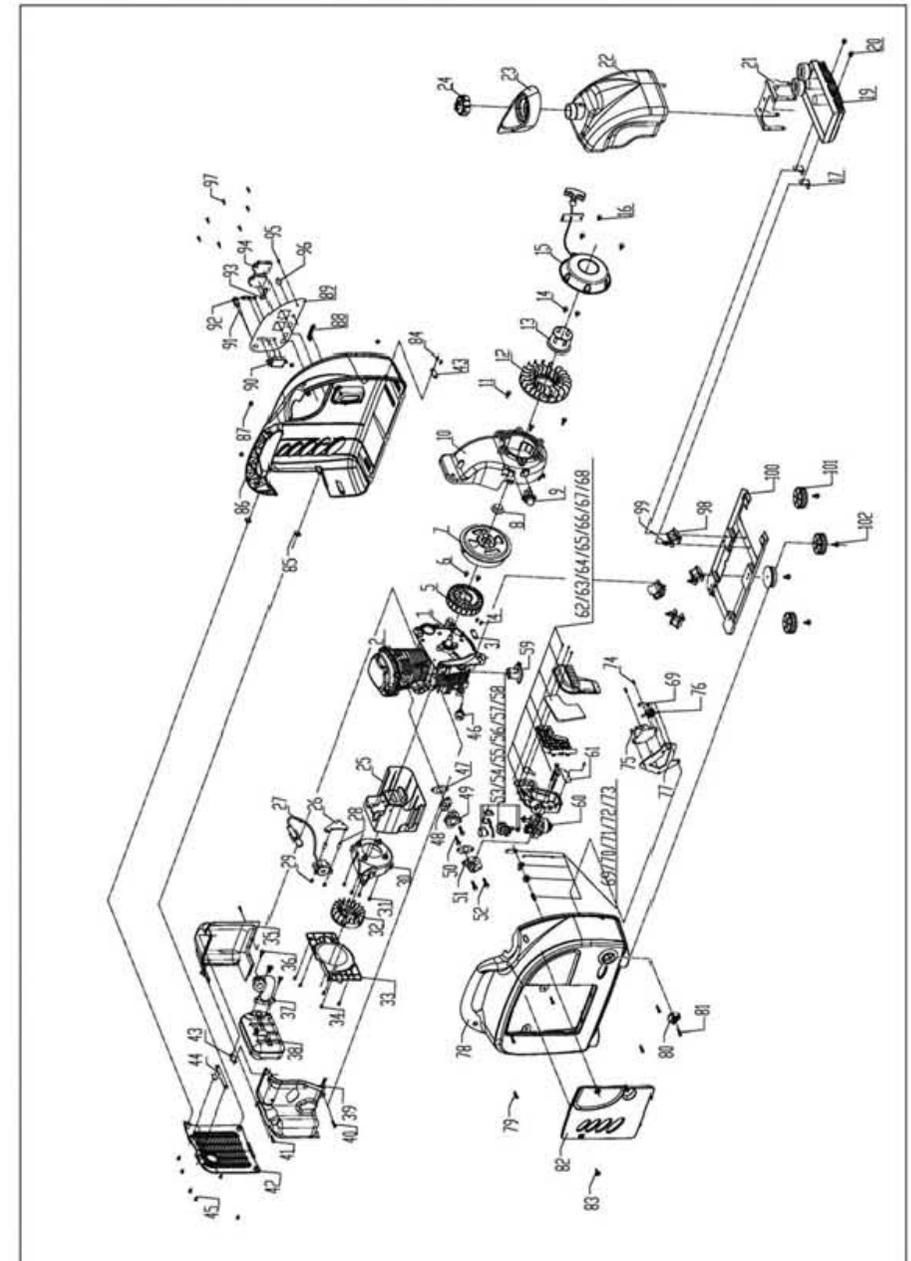
- ◆ The muffler becomes very hot during operating and remains hot for a while after stopping the engine. Be careful not to touch the muffler while it is hot. Let the engine cool before storing the generator indoor.
- ◆ The engine exhaust system will be heated during operation and remain hot immediately after stopping the engine. To prevent scalding, pay more attention to the warning marks attached to the generator.

⚠ Be careful

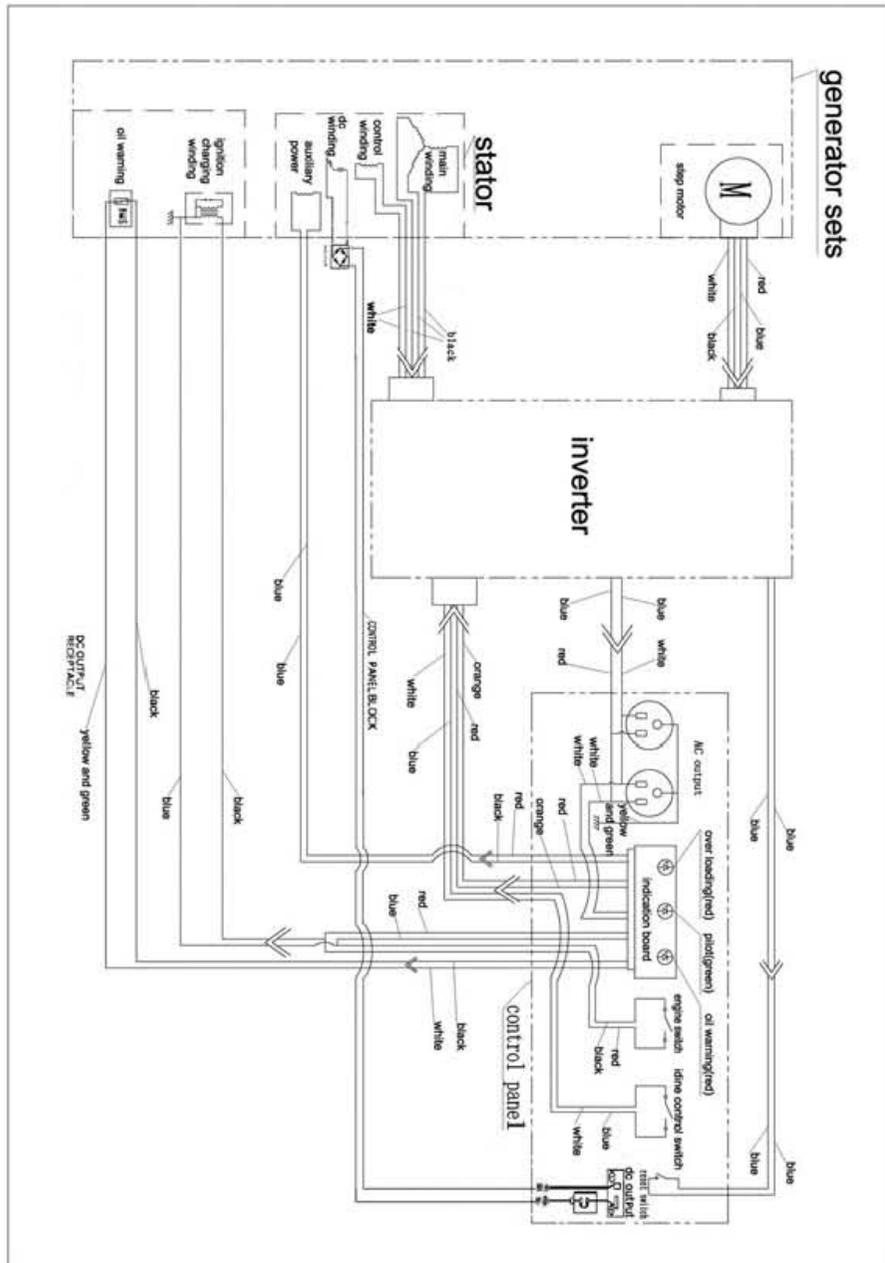


- ◆ Do not parallel connect other cables to receptacles, use special jack, or it may cause an electrical shock.

EXPLODED PARTS VIEW



WIRING DIAGRAM



⚠ Warning

- ◆ Gasoline is extremely flammable and is explosive under certain conditions. Refuel in a ventilated area with engine stopped.
- ◆ Keep away from cigarette, smoke and sparks when refueling the generator. Always refuel in a well-ventilated location.

⚠ Warning

- ◆ Connection for standby power to a building electrical system must be made by a qualified electrician. The connection must isolate the generator from utility power, and must comply with all applicable laws and electrical codes. Improper connections to a building electrical system can allow electrical current from the generator to backfeed into the utility lines. Such backfeed may electrocute utility company workers or others who contact the lines during a power outage, and the generator may explode, or cause fires when utility power is restored.

⚠ Warning

- ◆ To avoid accidents and equipment damage, check generation system every time before starting engine.
- ◆ Keep the generator a distance at least 1 meter from other equipment or other equipment during operation.
- ◆ Keep the generator horizontal when running. If generator tilted, it may cause fuel spillage.
- ◆ Generator operators must be trained, must know how to stop the generator quickly and understand the operation of all controllable parts. Untrained operators should not be allowed to use this equipment.
- ◆ Keep children and pet away from operation area.
- ◆ Keep away from rotating parts during operation.
- ◆ The generator is a potential source of electrical shock when misused. Do not operate it with web hands or in any wet location.
- ◆ Do not operate the generator in rain or snow and let it get wet.

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9. Specification

9.1 Size and weight

Item	XG-SF2000	XG-SF3700
L x W x H (mm)		
Net weight (kg)	26	28

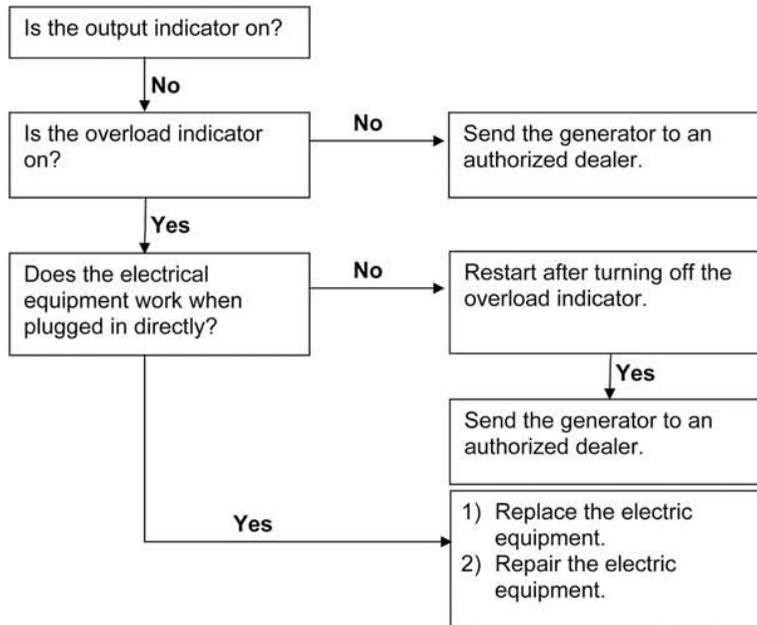
9.2 Engine

Item	XG-SF2000	XG-SF3700
Model	152F	157F
Type	4-stroke, OHV, 1-cylinder	
Displacement	125CC	150CC
Compression ratio	9.2	
Engine speed	5000rpm (ECO switch is off)	
Cooling system	Forced air cooling	
Ignition system	T.D.I	
Oil capacity	0.7L	0.9L
Fuel tank capacity	7L	
Spark plug	NGK	
Noise level (4m)	59db	

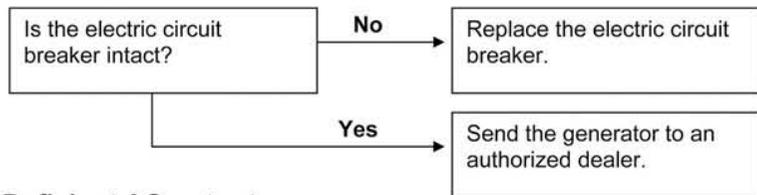
9.3 Generator

Type	Item	Generator Model No.	
		XG-SF2000	XG-SF3700
AC output	Rated voltage (V)	110/120/230	110/120/230
	Rated frequency (HZ)	50/60	50/60
	Rated current (A)	18/16/8.7	24/22/11.3
	Rated output (KVA)	2.0	4.0
	Maximum output (KVA)	2.1	4.6
DC output (For 12V automotive batteries only)	Rated voltage (V)	12	12
	Rated current (A)	8.3	8.3

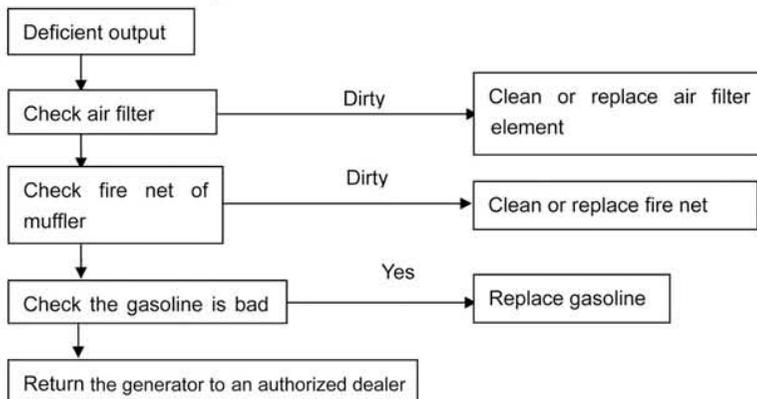
★ The equipment that connects generator doesn't start:



★ There is no power in the DC electric outlet:



★ Deficient AC output



DIGITAL INVERTER GENERATOR

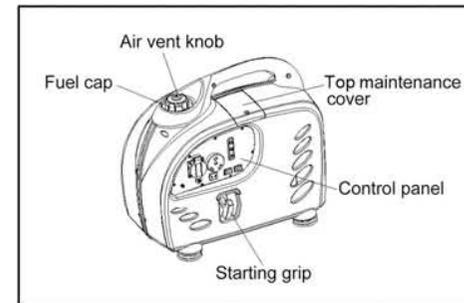
Warning



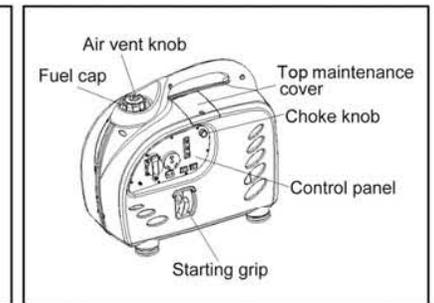
Read this manual carefully before using the machine, for your own safety. Your power tool should only be passed on with these instructions.

1 COMPONENT IDENTIFICATION

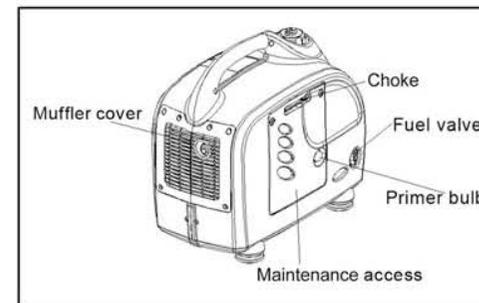
- | | |
|----------------------|-------------------------------|
| 1. Fuel cap | 9. Overload indicator light |
| 2. Air vent knob | 10. Output indicator light |
| 3. Choke knob | 11. Oil alert indicator light |
| 4. Control panel | 12. Eco throttle switch |
| 5. Starting grip | 13. Engine switch |
| 6. Fuel valve grip | 14. DC socket |
| 7. Maintenance cover | 15. DC circuit breaker |
| 8. AC socket | 16. Grounding terminal |



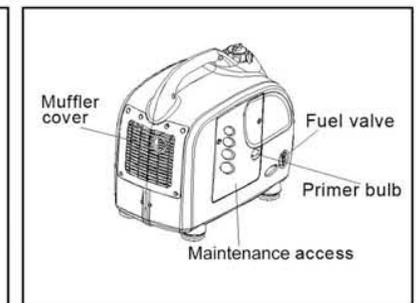
Choke (Type 1)



Choke (Type 2)

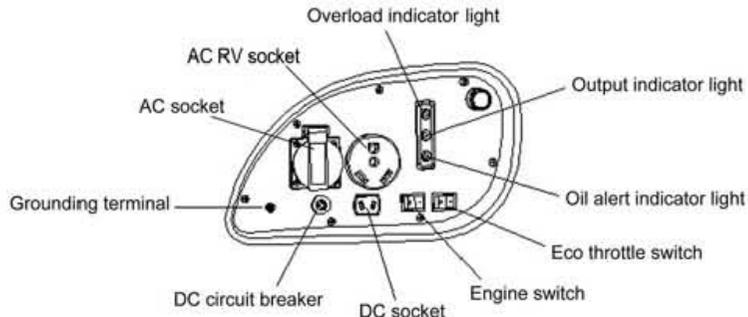


Choke (Type 1)



Choke (Type 2)

Control panel



Smart Throttle

Engine speed is kept at idle automatically when the electrical appliance is disconnected and it returns to the proper speed to power of the electrical load when electrical appliance is connected. This position is recommended to minimize the fuel consumption while in operation.

⚠ Caution

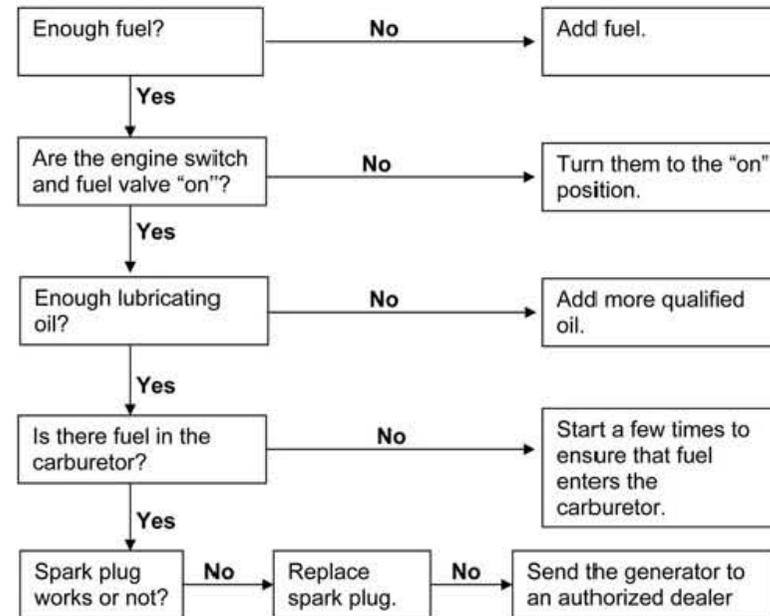
- ◆ Smart throttle system does not operate effectively, if the electrical appliance requires the momentary electric power.
- ◆ When high electrical loads are connected simultaneously, turn the Smart throttle switch to the OFF position to reduce voltage vibration.
- ◆ In DC operation, turn the Smart throttle switch to the OFF position.

2 SAFETY INSTRUCTIONS

- The generator is designed to give safe and dependable service if operated according to instructions.
- Read and understand the Owner's Manual before operating the generator. Failure to do so could result in personal injury or equipment damage.
- Exhaust gas contains poisonous carbon monoxide. Never run the generator in an enclosed area. Be sure to provide adequate ventilation.
- The muffler becomes very hot during operation and remains hot for a while after stopping the engine. Be careful not to touch the muffler while it is hot. Let the engine cool before storing the generator indoors.
- The engine exhaust system will be heated during operation and remain hot immediately after stopping the engine. To prevent scalding, pay attention to the warning marks.
- Gasoline is extremely flammable and explosive under certain conditions. Refuel in a well ventilated area with the engine stopped.
- Keep away from cigarette, smoke and sparks when re-fuelling the generator, Always refuel in a well ventilated location.
- Wipe up spilled gasoline at once.
- Connections for standby power to a building's electrical system must be made by a qualified electrician and must comply with all applicable laws and electrical codes. Improper connections can allow electrical current from the generator to back feed into the utility lines. Such back feed may electrocute utility company workers or others who contact the lines during a power outage, and when utility power is restored, the generator may explode, burn, or cause fires in the building's electrical system.
- Always make a pre-operation inspection before you start the engine. You may prevent an accident or equipment damage.
- Place the generator at least 1m (3ft) away from buildings or other equipment during operation.
- Operate the generator on a level surface. If the generator is tilted, fuel spillage may result.
- Know how to stop the generator quickly and understand operation of all the controls. Never permit anyone to operate the generator without proper instructions.
- Keep children and pets away from the generator when it is in operation.
- Keep away from rotating parts while the generator is running.
- The generator is a potential source of electrical shocks when misused; do not operate with wet hands.
- Do not operate the generator in rain or snow and do not let it get wet.

8 TROUBLESHOOTING

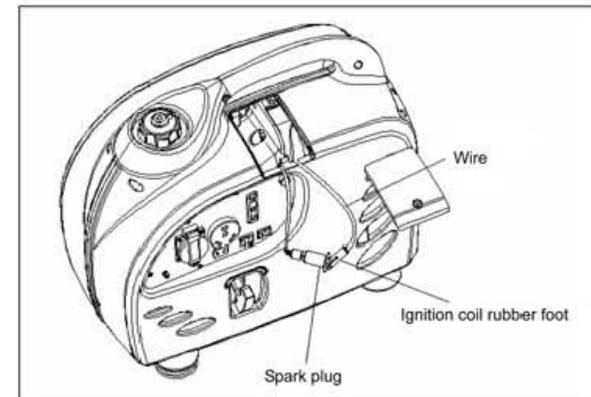
Engine will not start:



- Shake the generator several times to make the float rise if the generator cannot start after adding oil for the first time and the oil alarm indicator stays on when pulling the starting grip.
- Make sure there is no spilled fuel around the spark plug. Spilled fuel may ignite.
- If the engine still doesn't start, have the generator repaired by a licensed repair person.

Inspection:

1. Remove the spark plug rubber boot and clean any dirt from around the spark plug.
2. Remove the spark plug and place it in the spark plug rubber boot.
3. Connect the side electrode of the spark plug to the metal parts of the engine.
4. Pull the starting cord. A spark could jump across the gap.



Fire net of muffler service

Uncleaned muffler will make big noise and affect the engine's running.

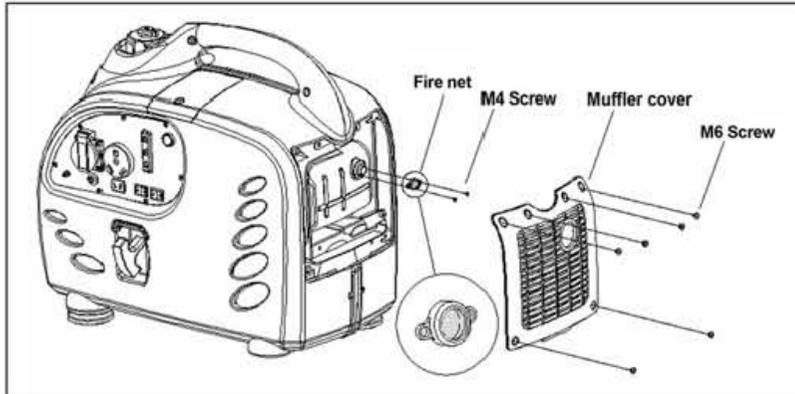
Clean and maintenance the fire net timely, make sure the generator works normally.

The fire net of muffler needs cleaning frequently if you use the generator in very dirty conditions, or replace the fire net if necessary.

▲ Careful

- ◆ Before clean the fire net of muffler make sure the generator stop working.
- ◆ Before check and maintenance the fire net of muffler, make sure the machine is cooling, otherwise, it will cause scald by the hot muffler.

1. Remove the M6 screws and open the muffler cover.
2. Remove two M4 screws on the fire net.
3. Take down the fire net as per the following figure.
4. Check the fire net, clean or replace it if necessary.



3 SAFETY LABEL LOCATIONS

These labels warn you for potential hazards that can cause serious injury. Read the labels and safety notes and precautions described in the manual carefully. If a label comes off or becomes hard to read, contact your dealer for a replacement.



4 PRE-OPERATION CHECK



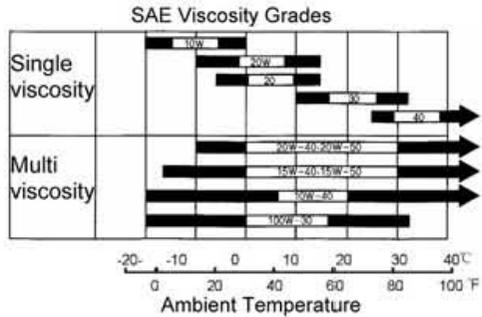
Be sure to check the generator on a level surface with the engine stopped.

4.1 Check the engine oil level.



Using non-detergent oil or 2-stroke engine oil could shorten the engine's service life.

Use high-detergent, premium quality 4-stroke engine oil, certified to meet or exceed U.S. automobile manufacturer's requirements for API Service Classification SG, SF, (15W40). Select the appropriate viscosity for the average temperature in your area.



Loosen the cover screw and remove the left side maintenance cover. Remove the oil filler cap, and wipe the dipstick with a clean rag. Check the oil level by inserting the dipstick in the filler hole without screwing it in. If the oil level is below the end of the dipstick, refill the recommended oil up to the top of the oil filler neck.



The Oil Alert System will automatically stop the engine before the oil level falls below the safe limit. However, to avoid the inconvenience of an unexpected shutdown, it is still advisable to visually inspect the oil level regularly.



7.2 Before storing the unit for an extended period:

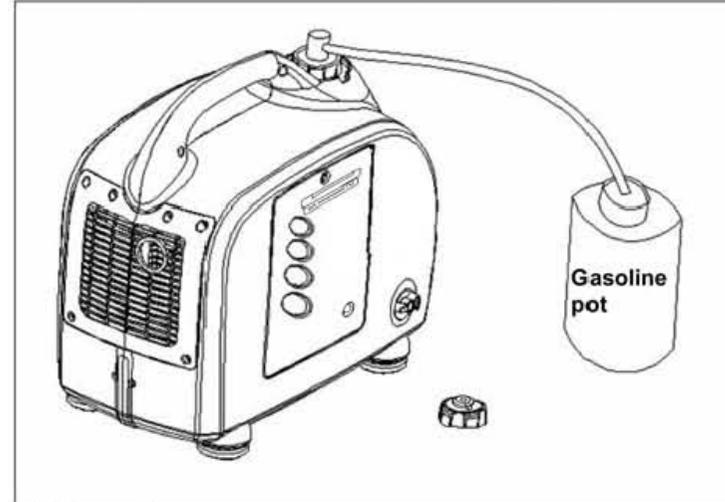
1. Be sure the storage area is free of excessive humidity and dust.
2. Drain the fuel.



Gasoline is extremely flammable and explosive under certain conditions.

Do not smoke or allow flames or sparks in the area.

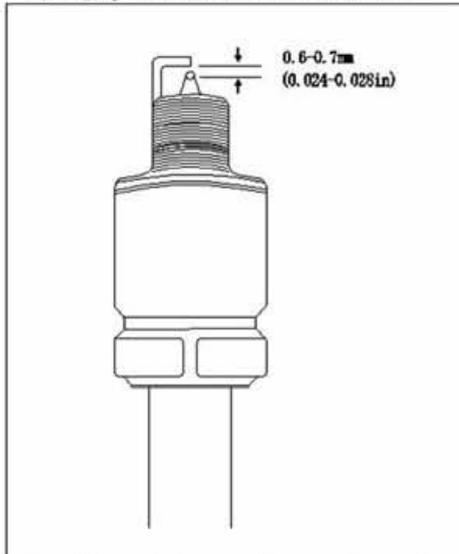
3. Completely drain the fuel from the tank. Open the fuel valve, start the engine and operate it in the idle position until all remaining fuel is gone and the engine stops automatically.



4. Discharge oil.
5. Remove spark plug and fill cylinder with 2cc's fresh oil. Pull start motor 3-4 times to discharge the remaining oil. Then reinstall the spark plug.
6. Pull the starting cord slowly until resistance is strong. At this time, the piston is moving to the top of the compression stroke and the valves will be closed.



4. Visually inspect the spark plug. Discard it if the insulator is cracked or chipped. Clean spark plug with a wire brush if it is to be reused.



5. Install the spark plug carefully by hand, to avoid cross-threading.
 6. After a new spark plug has been seated by hand, it should be tightened 1/2 turn with a wrench to compress its washer. If a used plug is being reinstalled, it should only require 1/4 to 1/2 turns after being seated.
 7. Reinstall the ignition coil rubber boot on the spark plug securely.
 8. Reinstall the controlling panel.

- The spark plug must be securely tightened. An improperly tightened plug can become very hot and possibly damage the generator.
- Never use a spark plug with an improper heat range.
- Never use a spark plug without damping resistance, or it will cause no AC output.
- output.



7 TRANSPORTING AND STORAGE

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 cap vent lever is turned counter clockwise to the OFF position. Allow the engine to cool well before turning the fuel cap vent lever to the OFF position.

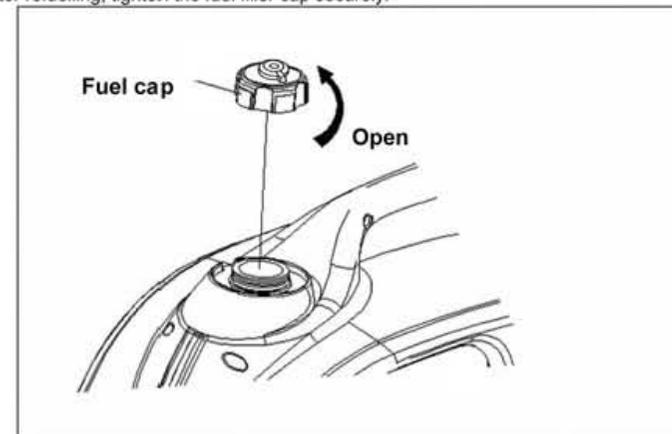
7.1 When transporting generator:

- Do not overfill the tank. (there should be no fuel in the filler neck)
- 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.
- Avoid a place exposed to direct sunlight when putting the generator on a vehicle. If the generator is left in an enclosed vehicle for many hours, high temperature inside the vehicle could cause fuel to vaporize resulting in a possible explosion.
- Do not drive on a rough road for an extended period with the generator on board. If you must transport the generator on board. If you must transport the generator on a rough road, drain the fuel from the generator beforehand.



4.2 Check the fuel level.

- Turn the fuel cap lever to "OFF" position before transporting.
- Use automotive fuel (Unleaded or low leaded is preferred to minimize combustion chamber deposits).
- !! Don't use fuel containing alcohol: Fuel system damage or engine performance problems resulting from the use of fuels that contain alcohol are not covered under the warranty.
- Never use an oil/gasoline mixture or dirty gasoline.
- Avoid getting dirt, dust or water in the fuel tank.
- After refuelling, tighten the fuel filler cap securely.

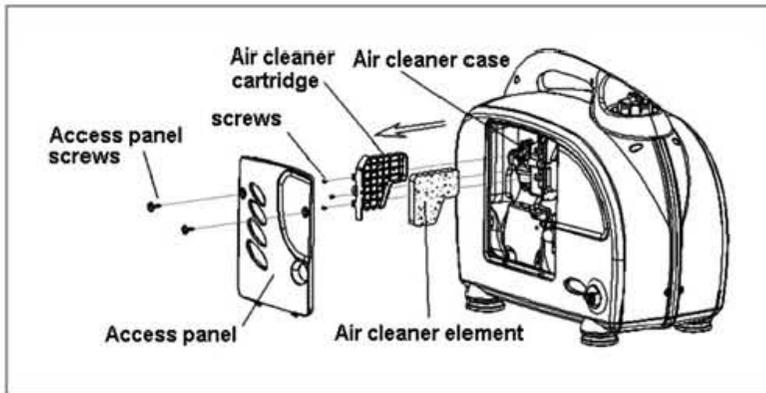


- Gasoline is extremely flammable and is explosive under certain conditions.
- Refuel in a well-ventilated area with the engine stopped.
- Do not smoke or allow flames or sparks in the area where the engine is refuelled or where gasoline is stored.
- Do not overfill the fuel tank. After refuelling, make sure the tank cap is closed properly and securely.
- Be careful not to spill fuel when refuelling. Spilled fuel or fuel vapour may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.
- Avoid repeated or prolonged contact with skin or breathing of vapour. KEEP OUT OF REACH OF CHILDREN

4.3 Check the air cleaner.

Check the air cleaner element to be sure it is clean and in good condition.

1. Loosen the cover screw and remove the left side maintenance cover.
2. Press the latch tab on the top of the air cleaner body, remove the air cleaner cartridge, and check the element.
3. Clean or replace the element if necessary.



Never run the engine without the air cleaner. Rapid engine wear will result from contaminants, such as dust and dirt, being drawn through the carburettor, into the engine.

It is normal for a little oil to appear under the air filter box if the generator is running for a long period of time, or a lot of oil is in the engine. Wipe up excess oil after each use and after stopping the generator.

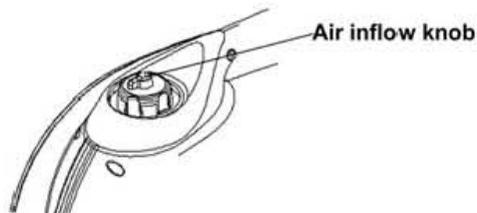
5 GENERATOR USE

5.1 Starting the engine

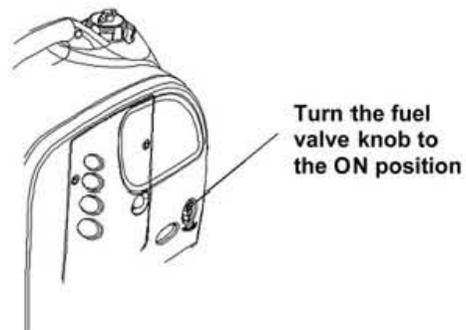


Before starting the engine, disconnect any load from the DC receptacle.

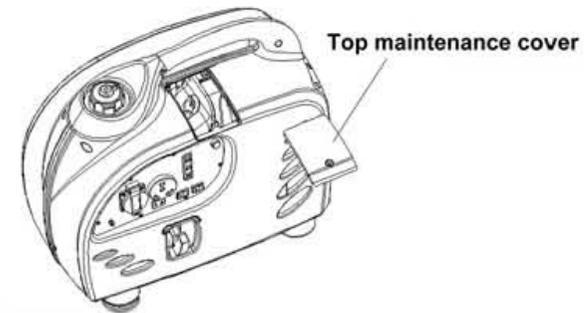
1. Turn the fuel cap lever fully clockwise to the ON position.



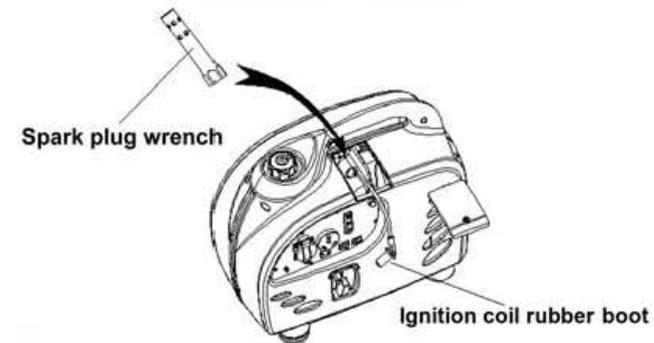
2. Set the fuel valve in the "ON"-position.



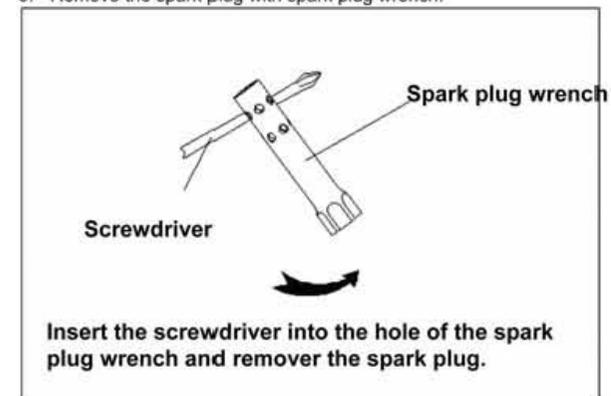
1. Remove the bolts on the top maintenance cover and the cover.



2. Take out the ignition coil rubber boot.



3. Remove the spark plug with spark plug wrench.





Wash your hands with soap and water after handling used oil.



Please dispose of used motor oil in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local service station for reclamation. Do not throw it in the trash or pour it on the ground.

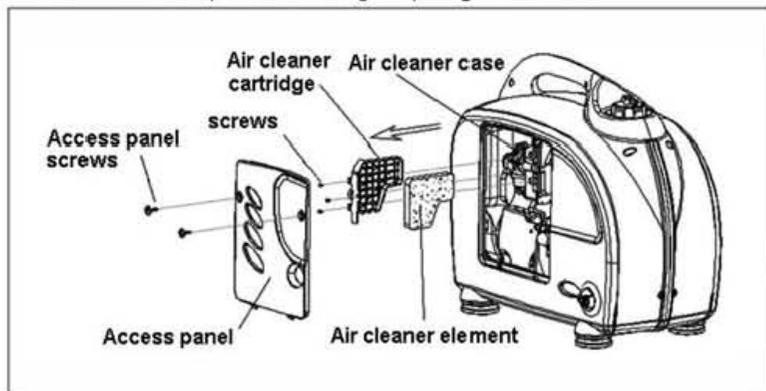
6.2 Air cleaner service

A dirty air cleaner will restrict air flow to the carburettor. To prevent carburettor malfunction, service the air cleaner regularly. Service more frequently when operating the generator in extremely dirty areas.



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

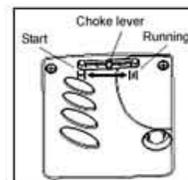
1. Loosen the cover screw and remove the access panel.
2. Remove the screw under the air filter case.
3. Pull the air filter cartridge down 30mm and remove the air filter cartridge.
4. Remove the air filter iron clip and check the air filter element. Clean or replace the element if necessary.
5. Reinstall the air filter parts after cleaning or replacing air filter element.



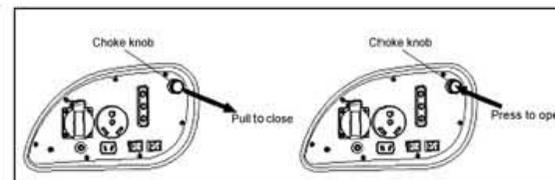
6.3 Spark plug servicing

Please use high quality authentic spark plug. To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.

3. Choke(Type 1) To start a cold motor shove the choke lever all the way to the left. To restart a hot motor set the choke lever half-way.
Choke(Type 2) To start a cold motor pull out the choke completely to close. To restart a hot motor, press the choke completely to open.

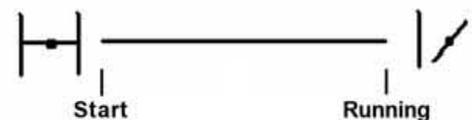


Choke(Type 1)



Choke(Type 2)

Choosing the right choke position is the key to starting the motor. You may have to practise a few times to use the choke correctly.

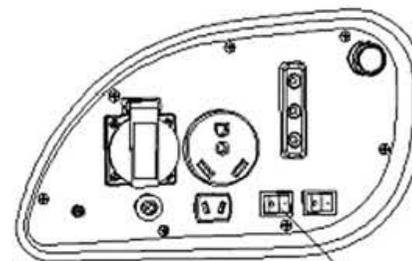


Shove the choke completely to the right to restart a hot motor. Shove the choke to about halfway to restart a warm motor.



A hot motor will not start if there is too much fuel in the cylinder. If this happens, wait five to ten minutes before trying again. Shove the choke completely to the right and the motor should start.

4. Set the motor switch in the "ON"-position.



Engine switch

5. Pull slightly on the start cord until you feel resistance and then yank hard and swiftly.



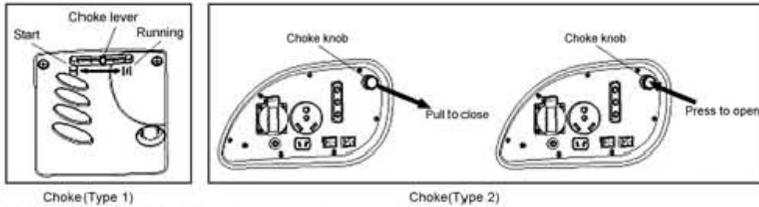
Do not let the start cord retract by itself: guide it back by hand.

Hold the carrying handle firmly to prevent the generator from falling over when you pull the start cord.



6. After the engine starts, allow the engine to run continuously and warm up.
7. Press the choke in completely after the engine is started.

! If the engine stops and will not restart, check the engine oil level before troubleshooting in other areas.



Move to the right to deactivate

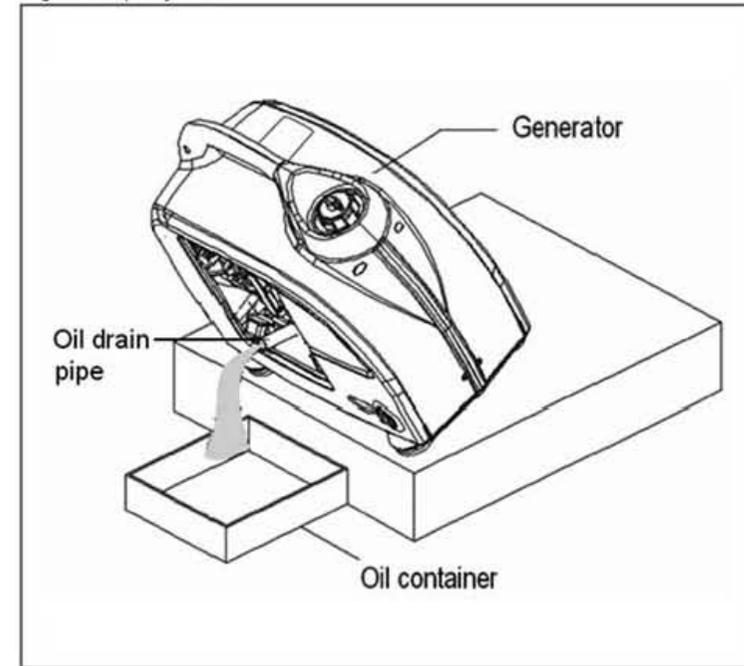
! Before using the device once it is connected, switch off the ECO switch.

5.2 High altitude operation

At high altitude, the standard carburettor air-fuel mixture will be excessively rich. Performance will decrease, and fuel consumption will increase. High altitude performance can be improved by installing a smaller diameter main fuel jet in the carburettor and readjusting the slow tempo screws. If you always operate the generator at altitudes higher than 1,500 m (5,000 feet) above sea level, have your dealer perform these carburettor modifications. Even with suitable carburettor jetting, engine horsepower will decrease approximately 3.5% for each 300m (1,000 feet) increase in altitude. The effect of altitude on the horsepower will be greater than this if no carburettor modification is made.

! Operation of the generator at an altitude lower than the carburator is jetted for may result in reduced performance, overheating, and serious engine damage caused by an excessively lean air/fuel mixture.

Engine oil capacity: 0.9L



Maintenance Schedule

REGULAR SERVICE PERIOD(1)		EACH USE	FIRST MONTH OR 20HRS	EVERY 3 MONTHS OR 50HRS	EVERY 6 MONTHS OR 100 HRS	EVERY YEAR OR 200 HRS
ITEM						
Perform at every indicated month or operating hour interval, whichever comes first.						
Engine oil	Check level	●				
	Change		●		●	
Air cleaner	Check			●		
	Clean			●(2)		
Spark plug	Check-adjust				●	
Spark arrester	Clean				●	
Valve clearance	Check-adjust					●(3)
Fuel tank and filter	Clean					●(3)
Fuel line	Check	Every 2 years (Replace if necessary) (3)				

NOTE:

- Log hours of operation to determine proper maintenance.
- Service more frequently when used in dusty areas.
- These items should be serviced by an authorized dealer, unless the owner has the proper tools and is mechanically proficient. See the Shop Manual.

Temperature (C°)	Time for changing oil (hour)	Recommended power factor
25	Normal	100%
30	18	95%
35	15	85%
40	12	70%

6.1 Changing oil

Drain the oil while the engine is still warm to assure rapid and complete draining.



Make sure to turn the engine switch and the fuel cap vent lever OFF before draining.

- Lean the generator.
- Fasten the oil lead pipe on the oil exhaust as the picture. Then spill out the oil.
- Refill the new oil and check the oil position in the crankcase.
- After refill the new oil into the crankcase, PLS shake the generator left to right some times and make sure the bobber of the oil alarm system is floating.
- Reinstall the side maintenance cover and tighten the cover screw securely.

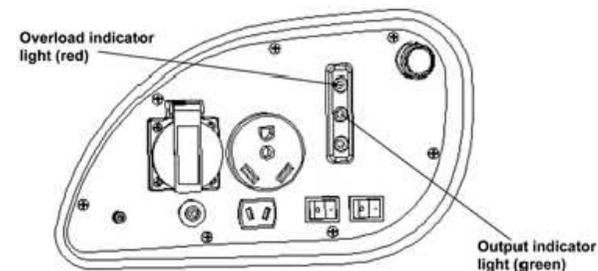
5.3 Generator use

5.3.1 Warning!

- To prevent electrical shock from faulty appliances, the generator should be grounded. Connect an electric conductor (cable) of at least 1.5mm² between the generator's ground terminal and an external ground source.
- Connections for standby power to a building's electrical system must be made by a qualified electrician and must comply with all applicable laws and electrical codes. Improper connections can allow electrical current from the generator to back feed into the utility lines. Such back feed may electrocute utility company workers or others who contact the lines during a power outage, and when utility power is restored, the generator may explode, burn, or cause fires in the building's electrical system.
- Limit operation requiring maximum power to 30 minutes. For continuous operation, do not exceed the rated power. In either case, the total wattage of all appliances connected must be considered.
- Do not exceed the current limit specified for any one receptacle.
- Do not connect the generator to a household circuit. This could cause the damage to the generator or to electrical appliances in the house.
- Do not modify or use the generator for other purpose than it is intended for. Also observe the following when using the generator.
 - Do not connect generators in parallel.
 - Do not connect an extension to exhaust pipe.
- When an extension cable is required, be sure to use a rubber sheathed flexible cable.
- Limit length of extension cables: 60m for cables of 1.5mm² and 100m for cables of 2.5mm².
- Keep the generator away from other electric cables or wires such as distribution network.
- The DC receptacle can be used while the AC power is in use. If you use both at the same time, be sure not to exceed the total power for AC and DC.
- Most appliance motors require more than their rated wattage for start-up.

5.4 AC applications

- Start the engine and make sure the output indicator light (green) illuminates.
- Confirm that the appliance to be used is switched off, and plug in the appliance.



- Substantial overloading that continuously lights the overload indicator light (red) may damage the generator. Marginal overloading that temporarily lights the overload indicator light (red) may shorten the service life of the generator.
- Be sure that all appliances are in good working order before connecting them to the generator. If an appliance begins to operate abnormally, becomes sluggish, or stops suddenly, turn off the generator engine switch immediately. Then disconnect the appliance, and examine it for signs of malfunction.

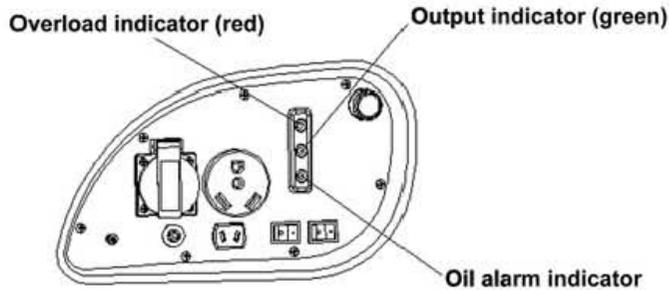
5.5 Output and Overload Indicators.

- The output indicator light (green) will remain lighted during normal operating conditions.
- If the generator is overloaded or if there is a short in the connected appliance, the output indicator light (green) will go OFF, the overload indicator light (red) will go ON and current to the connected appliance will be shut off.
- Stop the engine if the overload indicator light (red) switches ON and investigate the overload source.

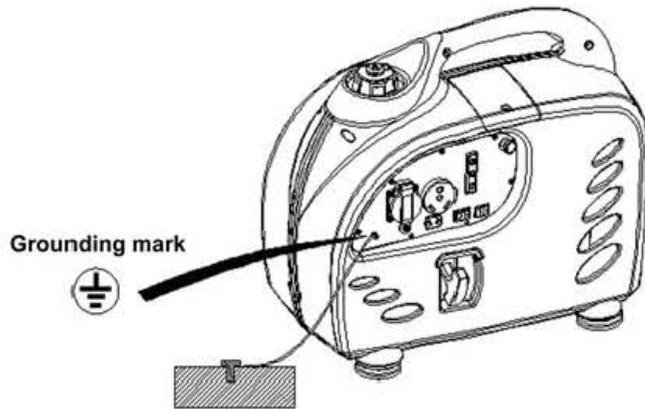


Before connecting an appliance to the generator, check that it is in good order, and that its electrical rating does not exceed that of the generator. Then connect the power cord of the appliance, and start the engine.

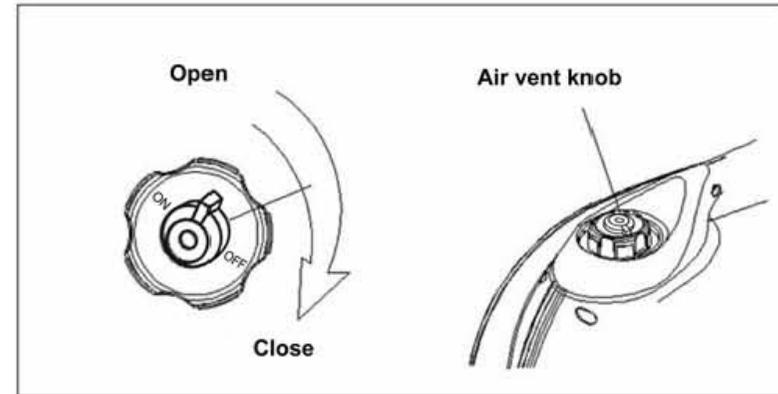
Be sure all equipment is turned off before plugging in the power cord.



- When an electric motor is started, both the overload indicator light (red) and the output indicator light (green) may go on simultaneously. This is normal if the overload indicator light (red) goes off after about four seconds.
 - If the overload indicator light (red) stays on, **consult your dealer**.
1. Connect the ground terminal



2. Start engine according to "STARTING THE ENGINE".



6 MAINTENANCE

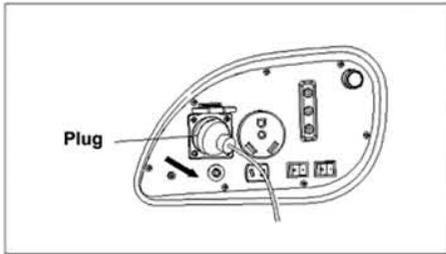
- The purpose of the maintenance and adjustment schedule is to keep the generator in the best operating condition.
- Inspect or service as scheduled in the table below.



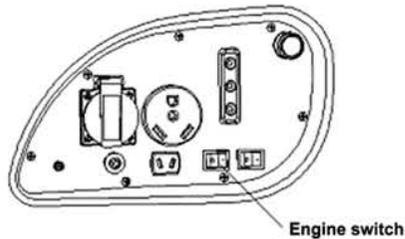
Shut off the engine before performing any maintenance. If the engine must be run, make sure the area is well ventilated. The exhaust contains poisonous carbon monoxide gas.



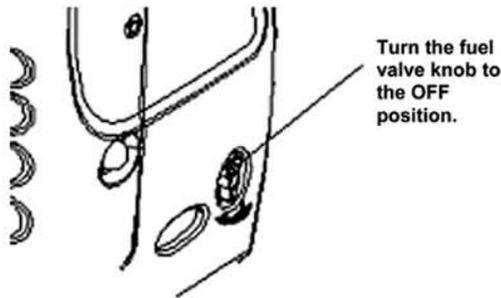
Use authorized parts or their equivalent. The use of replacement parts which are not of equivalent quality may damage the generator.



2. Turn the engine switch to the OFF position



3. Turn the cap lever fully counter clockwise to the "OFF" position.



Be sure both the fuel cap lever and the engine switch are in "OFF" position when stopping, transporting and/or storing the generator.



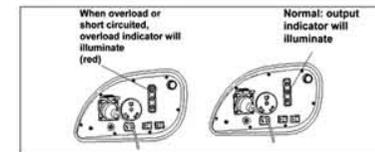
When the output indicator light (green) does not light and the overload indicator light (red) lights instead, set the engine switch to STOP, stop the engine at once and then start the engine again.

3. Confirm that the equipment to be used is switched off, and insert the plug of the equipment to be used into the AC receptacle unit A.



Check that the equipment to be connected is switch off. When the equipment to be used is switched on, it will operate suddenly, and injuries or accidents may be caused.

4. Switch on the equipment output indicator light will glitter (light). In case of overload operation or when trouble occurs for the equipment being used, the output indicator light (green) will go out, the overload indicator light (red) will light continuously, and no power will be put out. At this time, the engine will not stop, so that the engine must be stopped by setting the respective engine switch to STOP.



When equipment requires a large starting power, the overload indicator lights (red) and the output indicator light (green) may light together for a short time, but this is no abnormality. After start of the equipment, the overload indicator light (red) will go out and the output indicator light (green) will stay lit.

AC	Electric lamps	Power tools	Electromotor	DC battery
	1	0.8-0.9	0.4-0.7 (efficiency 0.85)	
XG-SF3700	0-3700W	0-4600W	0-2000W	Rated voltage 12V
				Rated current 6A (for Canada), 8A (except for Canada)

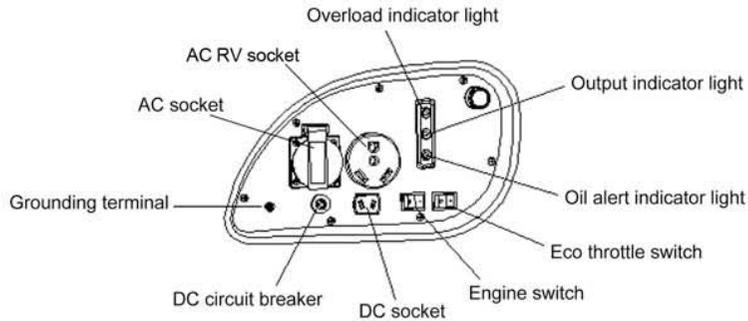
5.6 DC applications

For charging 12V automotive batteries:

The generator cannot sense a sensibility load with the same power, which the manual indicates. It only can sense 40%-70% power, which the manual indicates.

	Loading voltage (V)	Loading voltage (V)	Loading current (A)
Opening the smart throttle	22	12	6
Closing the smart throttle	27	13	8.5
DC Max. Output power	37	13.5	8.5

The generator cannot sense a sensibility load with the same power which the manual indicates. It only can sense 40%-70% power which the manual indicates



Smart Throttle

Engine speed is kept at idle automatically when the electrical appliance is disconnected and it returns to the proper speed to power of the electrical load when electrical appliance is connected. This position is recommended to minimize the fuel consumption while in operation.

⚠ Caution

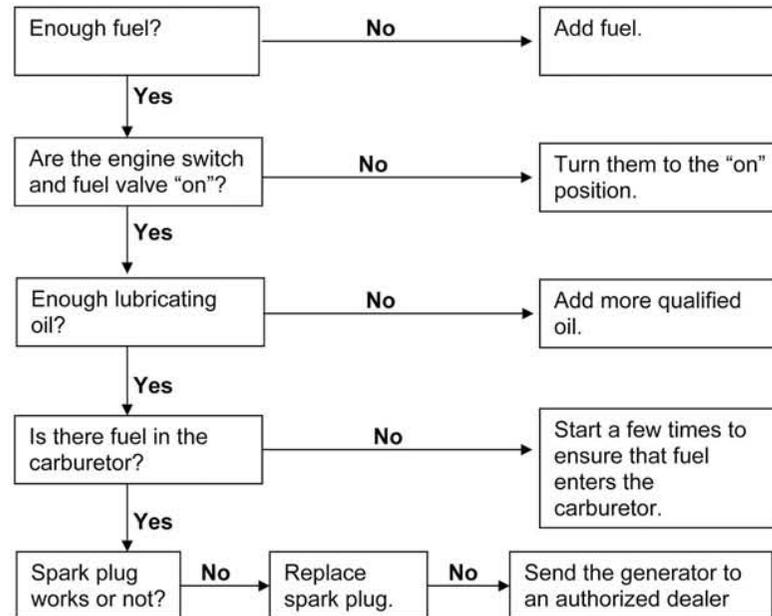
- ◆ Smart throttle system does not operate effectively, if the electrical appliance requires the momentary electric power.
- ◆ When high electrical loads are connected simultaneously, turn the Smart throttle switch to the OFF position to reduce voltage vibration.
- ◆ In DC operation, turn the Smart throttle switch to the OFF position.

2 SAFETY INSTRUCTIONS

- The generator is designed to give safe and dependable service if operated according to instructions.
- Read and understand the Owner's Manual before operating the generator. Failure to do so could result in personal injury or equipment damage.
- Exhaust gas contains poisonous carbon monoxide. Never run the generator in an enclosed area. Be sure to provide adequate ventilation.
- The muffler becomes very hot during operation and remains hot for a while after stopping the engine. Be careful not to touch the muffler while it is hot. Let the engine cool before storing the generator indoors.
- The engine exhaust system will be heated during operation and remain hot immediately after stopping the engine. To prevent scalding, pay attention to the warning marks.
- Gasoline is extremely flammable and explosive under certain conditions. Refuel in a well ventilated area with the engine stopped.
- Keep away from cigarette, smoke and sparks when re-fuelling the generator, Always refuel in a well ventilated location.
- Wipe up spilled gasoline at once.
- Connections for standby power to a building's electrical system must be made by a qualified electrician and must comply with all applicable laws and electrical codes. Improper connections can allow electrical current from the generator to back feed into the utility lines. Such back feed may electrocute utility company workers or others who contact the lines during a power outage, and when utility power is restored, the generator may explode, burn, or cause fires in the building's electrical system.
- Always make a pre-operation inspection before you start the engine. You may prevent an accident or equipment damage.
- Place the generator at least 1m (3ft) away from buildings or other equipment during operation.
- Operate the generator on a level surface. If the generator is tilted, fuel spillage may result.
- Know how to stop the generator quickly and understand operation of all the controls. Never permit anyone to operate the generator without proper instructions.
- Keep children and pets away from the generator when it is in operation.
- Keep away from rotating parts while the generator is running.
- The generator is a potential source of electrical shocks when misused; do not operate with wet hands.
- Do not operate the generator in rain or snow and do not let it get wet.

8 TROUBLESHOOTING

Engine will not start:



- Shake the generator several times to make the float rise if the generator cannot start after adding oil for the first time and the oil alarm indicator stays on when pulling the starting grip.
- Make sure there is no spilled fuel around the spark plug. Spilled fuel may ignite.
- If the engine still doesn't start, have the generator repaired by a licensed repair person.

Inspection:

1. Remove the spark plug rubber boot and clean any dirt from around the spark plug.
2. Remove the spark plug and place it in the spark plug rubber boot.
3. Connect the side electrode of the spark plug to the metal parts of the engine.
4. Pull the starting cord. A spark could jump across the gap.

