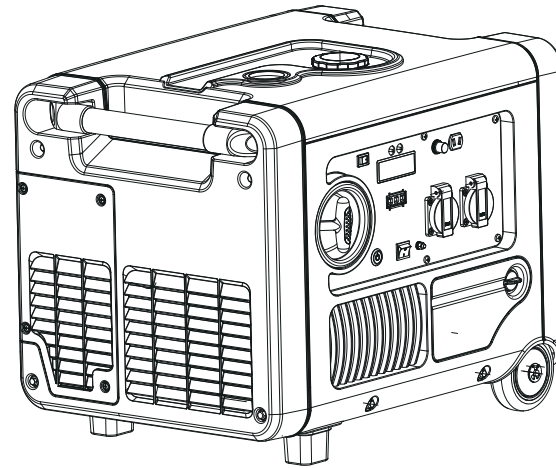


CONVERTER GENERATOR

HY4000SEi

User's Manual

FOR YOUR SAFETY
Read and understand this manual
before use. Save this manual for
future reference.



HYUNDAI

Licensed by HYUNDAI CORPORATION, KOREA

CONTENT

01. Safety information	03	07. Stop the engine.....	23
02. Safety label locations	06	08. Maintenance	25
03. Components identification	07	1)Change oil	25
1)Control Panel	08	2)Air cleaner service	27
2)ECON.SW.....	09	3)Spark plug service.....	28
3)RESET	10	4)Spark arrester maintenance	29
4)Hour-meter	10	5)Replace battery and fuse.....	30
04. Pre-operation check.....	11	09. Transporting/Storing	32
1)Check oil level	11	10. Troubleshooting	34
2)Check fuel level	12	11. Technical specifications	35
3)Check air cleaner	13	12. Wiring diagrams	36
05. Starting the engine.....	14	13. Appendix	38
06. Generator use	18	1)Environment correction	38
1)DC application	19	2)Noise and access	39
2)AC application	21	14. Consumer information	40
3)Output and overload indicator.....	22		
4)Oil alert system	22		

1.SAFETY INSTRUCTIONS

To ensure personal and property safety, please carefully read the following.

WARNING

- Read this manual carefully- familiarize yourself with the appliance. Follow all operational notes and restrictions, and take note of possible hazards of this device.
- Place the appliance on stable surfaces only.
- The load must not exceed the power marked on the rating label of the generator. Overloading may result in damage to, or a shorter life of the appliance.
- The motor must not be operated with excessive rotary speed. The operation of the motor with excessive rotary speed raises the risk of injury. Parts which affect the rotary speed must not be altered or

replaced.

- Do not operate or store the appliance in wet or humid surroundings or on highly conductive surfaces such as metal coatings or steel constructions.
- Do not operate or store the appliance in wet or humid surroundings.

DANGER

POISONOUS GAS

- Engine exhaust gas is poisonous; don't operate in an unventilated room. When installed in ventilated room, additional requirement for fire and explosion protection shall be observed.

WARNING

Gasoline is highly flammable and easily ignited!

- Don't refuel during operation;
- Don't refuel while smoking or near naked flames;
- Don't spill fuel;
- Store fuel in containers specifically designed for this purpose;
- Refuel outdoors only and don't smoke while refueling;
- Add fuel before starting the engine. Never remove the cap of the fuel tank or add gasoline while the engine is running or when the engine is hot;
- If gasoline is spilled, don't attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until petrol vapours have dissipated;
- Replace all fuel tank and container caps securely;
- Always turn generator off before refueling.

- Allow generator to cool for at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank.
- Do not overfill gas tank. Gas may expand during operation. Do not fill to the top of the tank.
- Always check for spilled gas before operating.
- Empty gasoline tank before storing or transporting the generator.
- Before transporting, turn fuel valve to off and disconnect spark plug.

 **WARNING**

This generator produces powerful voltage, which can result in electrocution!

- **ALWAYS** ground the generator before using it (see the "Ground the Generator" portion of the "PREPARING THE GENERATOR FOR USE" section).
- Generator should only be plugged into electrical devices, either directly or with an

extension cord. When using extension lines or mobile distribution networks the total length of lines for a cross section of 1.5 mm² should not exceed 60 m; for a cross section of 2.5 mm² this should not exceed 100 m.

NEVER connect to other power sources.

- Do not use in rainy or wet conditions.
- Do not touch bare wires or receptacles (outlets).
- Protect children by keeping them at a safe distance from the generating set. Do not allow children or non-qualified persons to operate.
- Electrical equipment (including lines and plug connections) should not be defective.
- The generating set must not be connected to other power sources, such as the power company supply mains.
- Protection against electrical shock depends on circuit breakers specially matched to the generating set. If the circuit breakers require replacement they must be replaced with a circuit breaker having identical ratings and performance characteristics.
- Due to high mechanical stresses only tough

rubber-sheathed flexible cable or the equivalent should be used.

- The user that he shall conform to regulations of electrical safety applicable to the place where the generating sets are used.
- The generator ground terminal is connected to the frame of the generator, the metal non-current carrying parts of the generator, and ground terminal of each receptacle. Before using the ground terminal, consult a qualified electrician or electrical inspector for local applicable regulations.
- Connections for standby power to a building electrical system must be made by a qualified electrician. The connection must isolate the generator power from utility power, and must comply with all applicable laws and electrical codes. A transfer switch, which isolates the generator power from utility power is available through qualified equipment following local laws and regulations.



This generator produces heat when running!

- Some parts of the internal combustion engine are hot and may cause burns. Do not touch hot surfaces. Pay attention to the warnings on the generating set.
- Allow generator to cool several minutes after use before touching engine or areas which heat during use.



Misuse of this generator can damage it or shorten its life!

- Use generator only for its intended purposes. Operate only on dry, level surfaces; do not operate the generator underground.









Allow generator to run for several minutes before connecting electrical devices.
Shut off and disconnect any malfunctioning devices from generator.
- Do not exceed the load capacity of the generator by plugging in more electrical devices than the unit can handle.

- Do not turn on electrical devices until after they are connected to the generator.
- Turn off all connected electrical devices before stopping the generator.
- Do not operate the generator in potential explosive condition

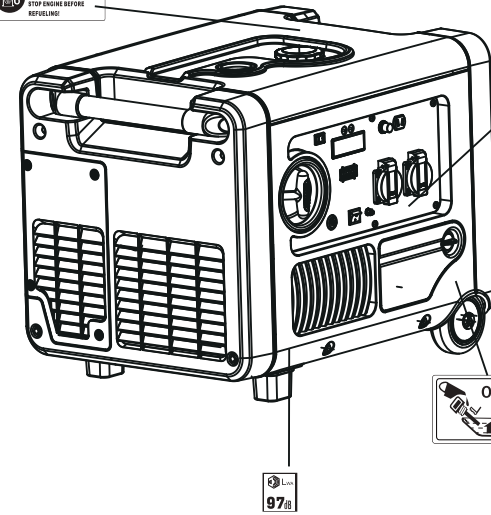
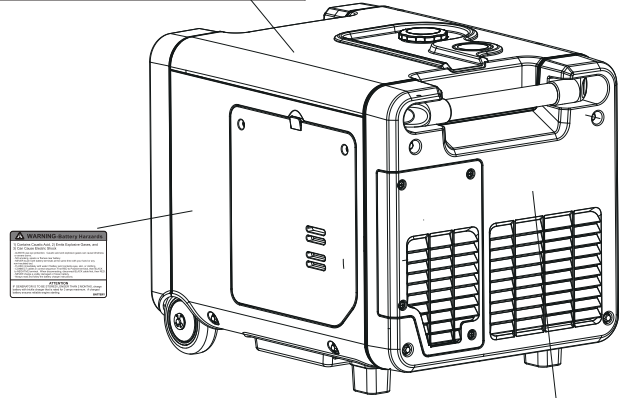
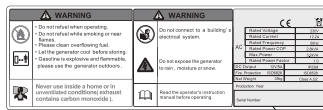
- the user that he shall conform to regulations of electrical safety applicable to the place where the generating sets are used

- the user in the case of re-supply by generating sets of an installation, depending on existing protective measures in this installation and applicable regulations.

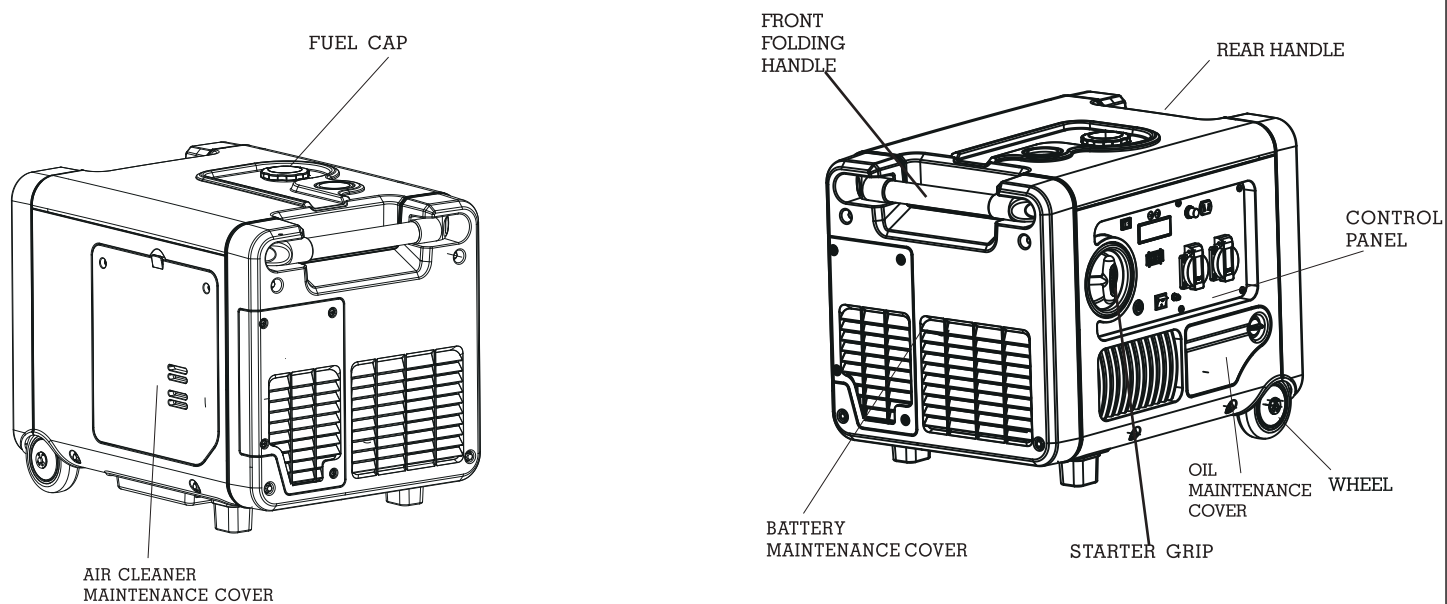
SAFETY LABEL:

 WARNING		 WARNING	
 	<ul style="list-style-type: none"> • Not to refuel when operating. • Do not refuel when operating. • Do not refuel while smoking or flames. • Please clean the overflowing fuel. • Let the generator cool before storing. • Gasoline is explosive and flammable, please use the generator outdoor. 	 	<p>Do not connect to a building's electrical system.</p> <p>Do not expose the generator to rain , moisture or snow.</p>
	<p>Exhaust gas is poisonous; do not operate in an unventilated area [Carbon monoxide (CO) danger]</p>		<p>read the operator's instruction manual</p>

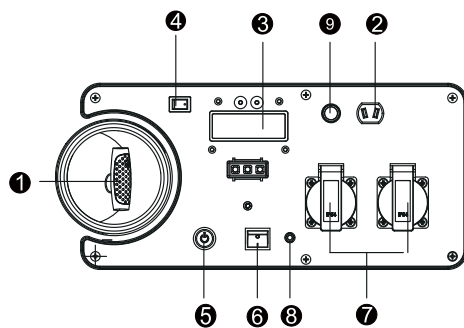
2. SAFETY LABEL LOCATIONS



3. COMPONENTS IDENTIFICATION



3.1) Control Panel

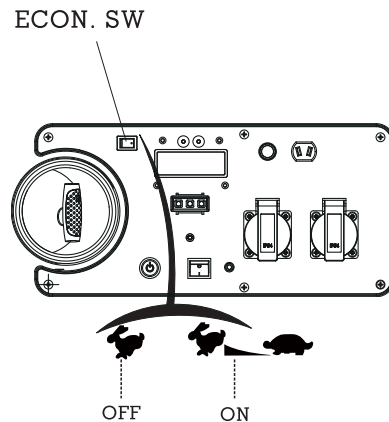


- ❶ Indicator Lights
- ❷ DC Terminal
- ❸ Multifunctional Screen
- ❹ ECON. SW
- ❺ Electrical Starting Button
- ❻ Engine Switch
- ❼ AC Receptacles
- ❽ Ground Terminal
- ❾ DC Protector

3.2) ECON. SW (Economy control switch)

"ON" (☛)

- When the economy control switch is turned to "ON" (☛), the engine keeps running at idle state automatically when the electrical appliance is disconnected, and it will return to the proper speed with the requirement of electrical load.
- The "ON" (☛) is recommended to minimize the fuel consumption.



NOTE

- When a high load electrical appliance is connected instantaneously, in order to reduce voltage change, turn the economy control switch to the "OFF" (☜) position.

"OFF" (☜)

When the economy control switch turns to the "OFF" (☜) position engine runs at high speed.

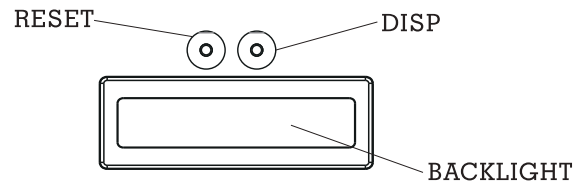
3.3) Reset

- Under the condition of protection, the overload indicator light (red) is on, the "RESET" button can recover the output of the generator, and unnecessary to restart engine overall.
- Press and hold the "RESET" button for one second, until the overload indicator light (red) will be off, and output indicator light (green) will be on.
- Under the non-overloading condition, the "RESET" is supposed to be ineffective.

NOTE

- For protection condition, the output indicator light (green) is off, and the overload indicator light (red) is on.
- Every starting the engine the "RESET" button is available within 5 times. Otherwise, you need restart the engine.

3.4) Multifunctional Screen



- Press the multifunctional button, The generator's multifunctional screen displays the engine's cumulative working time, engine revolution, output voltage & power, EFI components diagnosis information.

Display	Description
MAP_Low	Manifold air pressure sensor fault, signal wire short to ground
MAP_High	Manifold air pressure sensor fault, signal wire short to 5V or open
IAT_Low	Intake air temperature sensor fault, signal wire short to ground
IAT_High	Intake air temperature sensor fault, signal wire short to 5V or open
ECT_Low	Engine temperature sensor fault, signal wire short to ground
ECT_High	Engine temperature sensor fault, signal wire short to 5V or open
VBatt_Low	Battery voltage is too low
VBatt_High	Battery voltage is too high
Ign1_Fault	Ignition coil fault
Fuel1_Fault	Injector fault
FPR_Open	Fuel pump open circuit
FPR_Short	Fuel pump short circuit
No_Err	No fault

4. PRE- OPERATION CHECK

WARNING

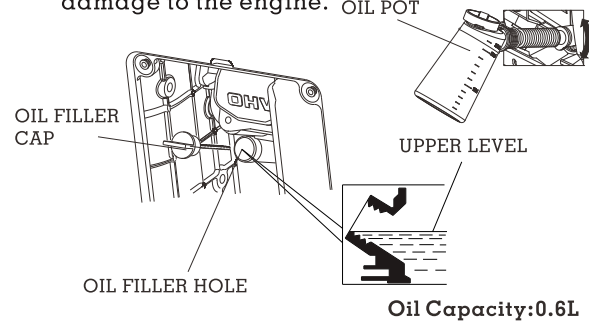
Be sure the generator is on the leveled surface and the generator is stopped.

4.1) Check Oil Level

Remove the oil filler cap, fill the specified amount of the recommended oil, and then tighten the oil filler cap .

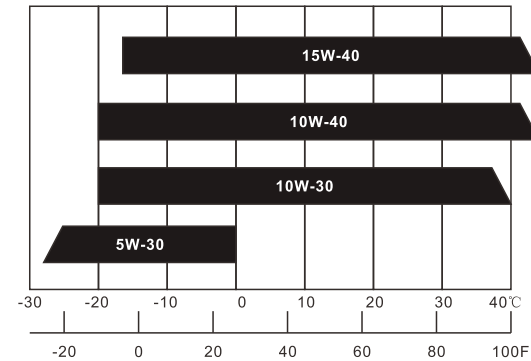
NOTE

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



NOTE

- Using non-detergent or 2-stroke oil could shorten the engine's working life.
- Using the high quality engine oil with strong detergents.
- Using 4-stroke engine oil, certified to meet or exceed API standards: SG, SF, SE stickiness rating:



NOTE

Carefully use and store the engine oil, avoid getting dirt or dust into the engine oil.

Mixing different kinds of engine oil is prohibited.

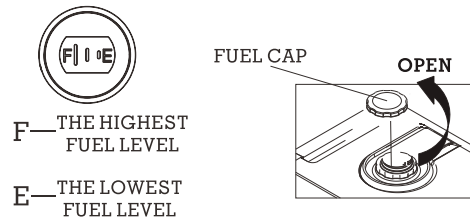
NOTE

- Before the engine oil reduces below the safety margin, low oil alert system will close the engine automatically. The oil alert indicator light (red) will be on.
- To avoid the inconvenience caused by unexpected stopping, it is still advisable to check the engine oil level regularly.

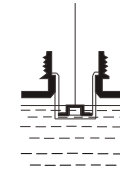
4.2) Check Fuel Level

Fuel recommend: use unleaded gasoline (Research Octane Number of 91 or higher, Pump Octane Number of 86 or higher)

Never use stale or contaminated gasoline or an oil/gasoline mixture, Avoid getting dirt or water into the fuel tank. Do not use a mixture gasoline containing ethanol or methanol; otherwise, it will seriously damage the engine.



UPPER LIMIT MARK



Fuel Capacity: 7.8L

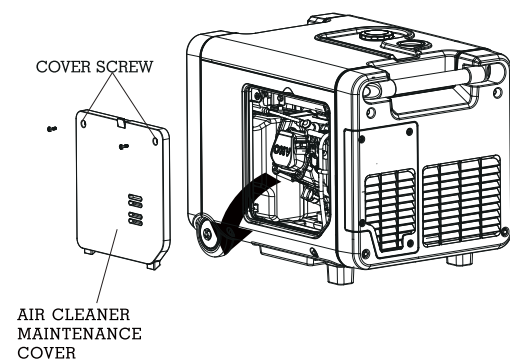
WARNING

- Gasoline is extremely explosive and flammable.
- Around the refueling area and fuel storage area, prohibit smoking and firing.
- Do not overfill the fuel tank (no fuel above the red upper limit mark). After refueling, make sure the fuel cap is closed properly and securely.
- Do not make fuel spill from fuel tank. (No residual fuel around the neck of tank, before starting engine)
- Avoid contacting with skin or breathing the fuel vapor.
- KEEP OUT OF REACH OF CHILDREN.

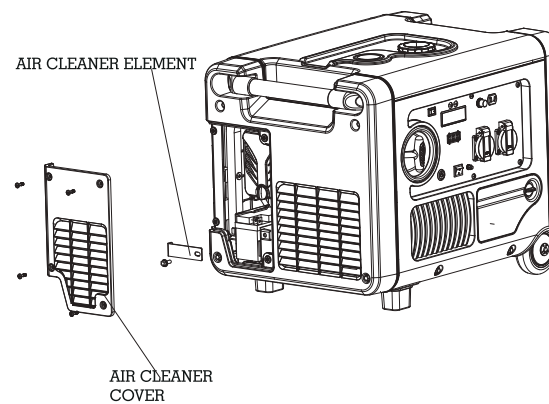
4.3)Check Air Cleaner

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

- a. Loosen the air cleaner maintenance cover screws, and remove the cover.



- b. Loosen the air cleaner cover screws, and remove the cover.
- c. Check the element, clean or replace it, if necessary.



NOTE

- Do not run engine without air Cleaner element, otherwise that makes engine abrasion.

5. STARTING THE ENGINE

- For some models, the generator provides with three types of starting system: recoil start, electric start, remote start. Please operate your generator based on you purchased

NOTE

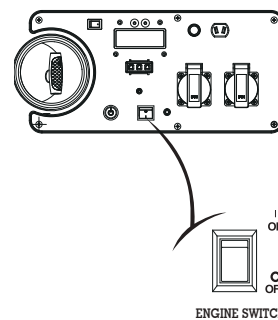
- Before starting engine, disconnect load with AC receptacle.
- Fueling at the first time, refueling, or storing for a long time, the Engine Switch should firstly be opened for ten or twenty seconds, in order to the enough fuel enter into external fuel pump.

WARNING

- Never use inside a home or the unventilated condition.

5.1) Recoil start

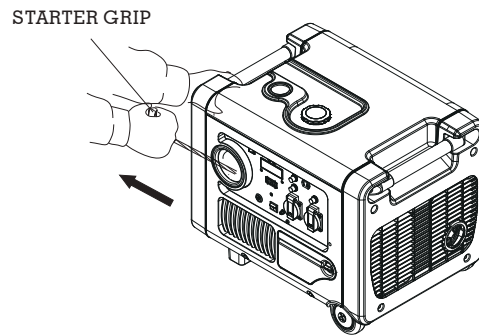
- 5.1.1) Turn the engine switch to "ON" position.



NOTE

- Turn on engine switch to "ON" position and wait for 3 to 5 seconds, in order to let fuel pump running 3~5 seconds and set up 300kPa fuel pressure

5.1.4) Pull the starter grip slowly until it is engaged, then pull it quickly.



NOTE

- Return the starter grip slowly by hand. Do not make the starter grip spring back quickly.

NOTE

- If the generator stops and can not restart, check the oil level firstly.
- If oil indicator light turns on red, and flicker during running, or lights turns on when starting, need to add oil.

5.2) Electric start,

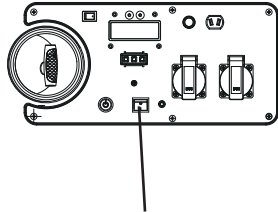
NOTE

- When the engine switch turn to "RUN/ON " position, the engine will enter the stand-by starting mode. Starting the engine within 15min, otherwise, the mode will be ineffective. If the generator re-enters the stand-by starting mode again, the engine switch should be return to "OFF ", and then turn to "RUN/ON ".

CAUTION

For equipping with electrical starting system of the generator, if the generator does not equip with the battery or the battery wares out, the generator can not be start by any starting mode.

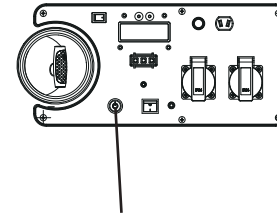
5.2.1) Turn the engine switch to "ON " position.



NOTE

■ Turn on engine switch to "ON" position and wait for 3 to 5 seconds, in order to let fuel pump running 3~5 seconds and set up 300kPa fuel pressure

5.2.2) Press the Electrical Starting Button to start.



NOTE

- If the generator stops and can not restart, check the oil level firstly.
- If the oil alert indicator light (red) is on during the generator running, it need to add oil.

Electronic Fuel Injection Modification for High Altitude Operation

The EFI system judge the current altitude height from intake air pressure sensor, and correct injection fuel mass and ignition angle automatically, the EFI system adapt altitude height from 0 meter to 4000 meters

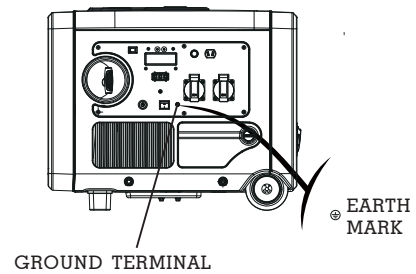
Notes:

The generator output decrease in high altitude, normally, the output power decrease 10% every increase 1000 meters altitude

6. GENERATOR USE

⚠ WARNING

- Be sure to ground the generator when the connected electrical appliance is grounded.
- Do not connect to the building's electrical system, in order to avoid the electric shocks and fires.



⚠ WARNING

For continuous operation, do not exceed the rated out-put power of generator.

Do not make parallel connection with other generators.

Do not connect an extension to the exhaust pipe.

When an extension cable is required, be sure to use a tough rubber sheathed flexible cable (according to IEC245 or equivalent standards). The maxmin length of the extension cable: 60m for cable of 1.5mm²; 100m for cable of 2.5mm².

Keep away from other electric cables or wires.

NOTE

The DC receptacle can be used while the AC power is in use. If use both at same time, be sure not to exceed the total power for AC and DC.

Most of motor appliances require more than their rated wattage, when starting.

6.1) DC Application

The DC receptacle, 15-30V under no - load condition, may be used for charging 12V battery only.

NOTE

In DC operation, turn the ECON. SW to the "OFF" (🔌) position.

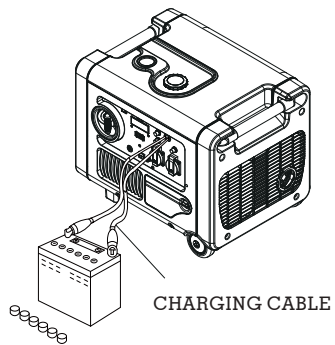
6.1.1) Disconnect the vehicle battery ground cable from the negative(-) battery terminals.

6.1.2) Connect the DC terminals to battery terminals with the charging cable.

CAUTION

Connect red lead to positive (+) battery terminal and black lead to negative (-) battery terminal.

6.1.3) Turn ECON. SW to "OFF" (🔌) position, and then start engine.



NOTE

Do not start the automobile engine when the generator is still connected to the battery, otherwise the generator will be damaged.

Disconnecting the charging cable:

- 1) Stop the engine.
- 2) Disconnect the black lead from the negative (-) battery terminal.
- 3) Disconnect the red lead from the positive (+) battery terminal.

⚠ WARNING

The battery can release the explosive gases. Keep the battery away from spark/fire. Charge the battery in ventilated condition.

Battery electrolyte contains sulfuric acid that will cause severe burn of skin and eyes. Therefore it is necessary to wear the protective clothing and mask.

If battery electrolyte gets into eyes, flush thoroughly with warm water for 15min at least, and call a doctor immediately.

If you swallow a little of battery electrolyte accidentally, flush thoroughly with water your mouth, and then drink large quantities of water or milk (with magnesia or vegetable oil), and call a doctor immediately.

KEEP OUT REACH OF CHILDREN.

NOTE

While using the AC power, you can use that DC power at the same time.

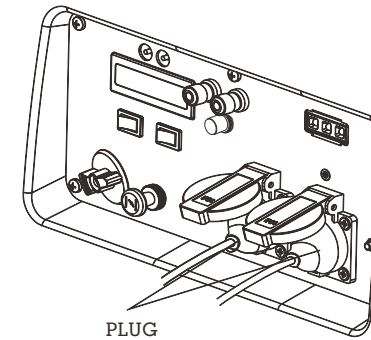
6.2) AC applications

- 6.2.1) Start engine and make sure the output indicator light (green) is on.
- 6.2.2) Confirm all electrical appliances are switched off, and connect the appliance plugs to the generator receptacles.

NOTE

To obtain the best working and longest working life of the generator, a new generator is supposed to run for 20 hours at 50% rated load.

OUTPUT LIGHT
(GREEN)



NOTE

Confirm all electrical appliances are in good working condition before connecting them to the generator. If an electrical appliance becomes abnormal, sluggish, or stops suddenly, shut off the generator engine immediately, and disconnect the appliance.

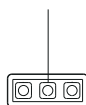
6.3) Output and Overload Indicator

In normal operating, output indicator light (green) will remain on.

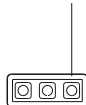
If the generator is overload (over 3.5kVA), or the connected appliance is short-circuit, the output indicator light (green) is off, and overload indicator light (red) is on. The AC output will be switched off, but engine is still running.

If the overload indicator light (red) is on, disconnect the electrical appliances firstly, then stop the engine, and start it again. If the overload indicator light (red) is OFF and the output indicator light (green) is ON, reconnect the electrical appliances. Otherwise stop the engine and check the generator.

OVERLOAD INDICATOR
LIGHT(RED)



OUTPUT INDICATOR
LIGHT (GREEN)



6.4) Oil alert system

The oil alert system is designed to prevent engine damage caused by an insufficient amount of oil in the crankcase. Before the oil level in the crankcase falls below a safe limit, ECU system will automatically shut down the engine (the engine switch remains in the "On" or "RUN/REMOTE" position).

If the oil alert system shuts down the engine, the oil alert indicator light (red) will be on. Check the engine oil level.

OIL ALERT INDICATOR
LIGHT (RED)

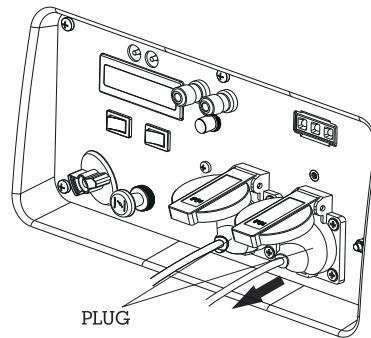


7. STOPPING THE ENGINE

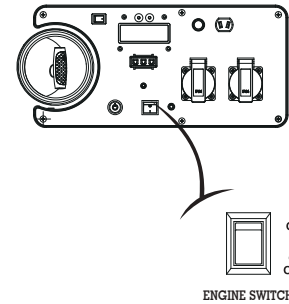
Recoil start

To stop the engine in an emergency, turn the engine switch to the "OFF" position.

7.1) Switch off the connected electrical appliances, and pull out their plugs.



7.2) Turn the engine switch to the "OFF" position.



8. MAINTENANCE

The purpose of the maintenance and adjustment schedule is to keep the generator in the beset operating condition.



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

Use genuine or equivalent quality components to replace the wear components.

Maintenance Schedule

Regular Service Period (3)		Each use	First month or 10 hrs.	Every 3 months or 50 hrs.	Every 6 months or 100 hrs.	Every 2 years or 300 hrs.
Item						
Engine oil	Check level	⊙				
	Change		⊙		⊙	
Air cleaner	Check	⊙				
	Clean			⊙+ (1)		
Spark plug	Check-adjust				⊙	

Spark plug	Replace					⊙
Spark arrester						⊙
Valve Clearance	Check-adjust					⊙+ (2)
Combustion Chamber	Clean	After every 300 hrs(2)				
Fuel tank& filter	Clean	Every year(2)				
Fuel line	Check	Every 2 years (Replace if necessary)(2)				

NOTE

- (1) Service more frequently when used in dusty areas.
- (2) These items should be serviced by your servicing dealer, unless you have the proper tools and are mechanically proficient. Refer to use manual for service procedures.
- (3) For commercial use, long hours of operation to determine proper maintenance intervals.

8.1) Change Oil

Drain the oil rapidly and completely while the engine is still warm.

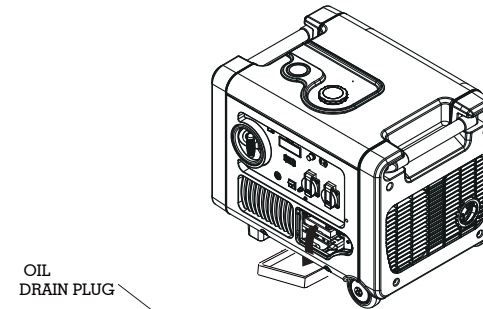
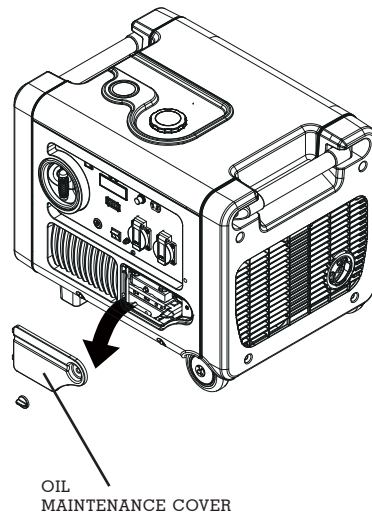
8.1.1) Loosen screws of the oil maintenance cover, and remove the cover.

8.1.2) Remove the oil dipstick and the bottom rubber.

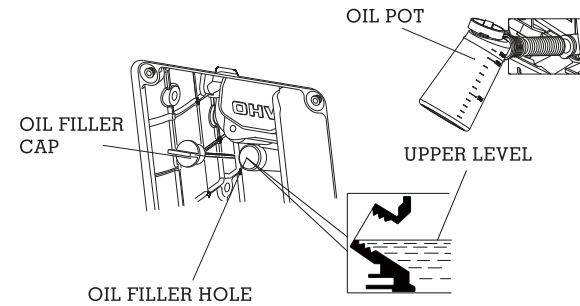
8.1.3) Place oil collection pan under oil drain plug.

8.1.4) Remove the oil drain plug, and drain oil into the oil collection pan completely.

8.1.5) Reinstall the oil drain plug.



Tighten oil drain plug with 25-30 N.m



8.1.6) Refill the recommended oil, and check the oil level.

8.1.7) Reinstall the oil dipstick and tight it.

After oil change, wash your hands with soap.

NOTE

For conforming to the environment requirement, the used oil will be put into a sealed container and then be transported to the service station for recycler. Do not throw it into the trash or pour it on the ground.

8.2) Air Cleaner Service

A dirty air cleaner will restrict air flow into the carburetor. Clean and maintain the air cleaner regularly, especially in the extremely dusty areas.

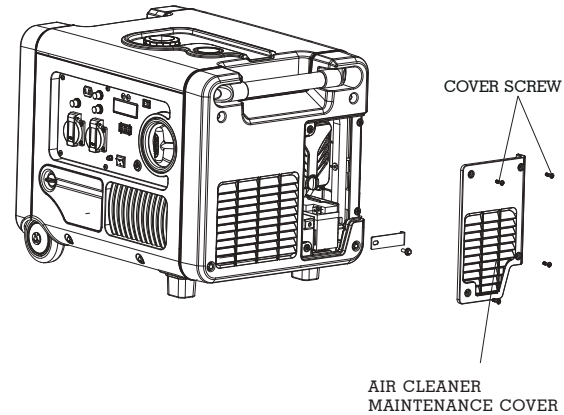


Do not use gasoline or low ignition point solvents for cleaning. They are flammable and explosive under certain conditions.

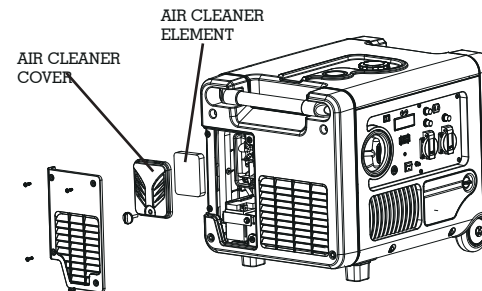
NOTE

Never run the generator without air cleaner, otherwise that result in engine abrasion rapidly.

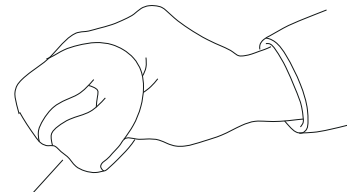
8.2.1) Loosen three screws of the air cleaner maintenance cover, and remove the cover.



8.2.2) Loosen the air cleaner cover screws and remove the cover.



- 8.2.3) Take out the air cleaner element, and clean it with non- flammable or high flash point solvent, then dry it.
- 8.2.4) Soak the air cleaner element in the clean engine oil, and squeeze out the redundant oil.



ELEMENT

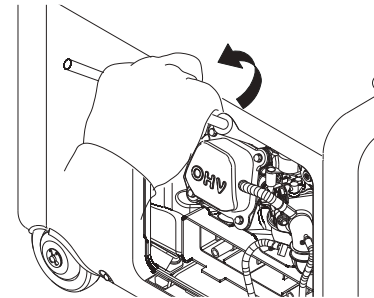
- 8.2.5) Reinstall the air cleaner element and cover.
- 8.2.6) Reinstall the maintenance cover, and tighten the screws.

8.3) Spark Plug Service

Recommendation spark plug: LGF7R7C

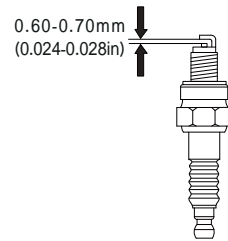
Check the spark plug gap and clean the carbon deposition at the bottom of the spark plug.

- 8.3.1) Remove the spark plug cap.



8.3.2) Take off the spark plug with the spark plug spanner.

8.3.3) Visual inspection the spark plug. Change a new one if its insulator cracked or chipped. Clean it with a wire brush if the spark plug is reused.



8.3.4) Measure the spark plug gap with a feeler gauge. The normal value:0.6-0.7mm(0.024-0.028in). Adjust the gap by bend one of the electrode carefully.

8.3.5) Reinstall the spark plug carefully, by hand, to avoid cross-threading. A new spark plug should be tightened 1/2 turn with a spanner. A used Spark plug should be tightened 1/8 to 1/4 turn with spanner.

8.3.6) Reinstall the spark plug cap

8.3.7) Reinstall the spark plug maintenance cover.

NOTE

The spark plug must be securely tightened. Tightening in wrong way will cause spark plug hot, even damage the engine.

Never use a spark plug with an improper heat range.

8.4) Spark Arrester Maintenance

WARNING

The spark arrester must be maintained every 100h service.

8.4.1) Remove the screws, and remove the muffler guard.

NOTE

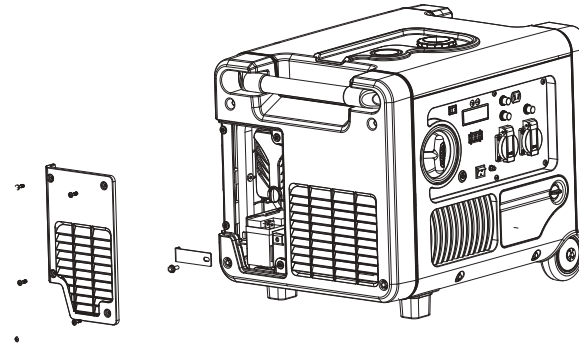
only be maintained professional servicing dealer, can not be maintained by user

NOTE

- When the engine is running, the battery will be charge by the charging system of generator.
- The battery shall be charge for storage a long period. For using other charging system, the charging current less than 0.15c amperes (c: battery rated capacity) .

Replace the battery procedure

- 8.5.1) Loosen the screws of the battery maintenance cover, remove the cover.
- 8.5.2) Unhook the battery belt.
- 8.5.3) Remove the black cable from battery negative(-) terminal, and then remove the red cable from battery positive(+) terminal.
- 8.5.4) Remove the battery from battery tray, and replace a new one.
- 8.5.5) Reconnect red cable to battery positive(+) terminal, and reconnect black cable to battery negative(+) terminal.
- 8.5.6) Hook the battery belt, and reinstall the cover.



NOTE

- a) Do not dismantle, open or shred cells.
- b) Do not short-circuit a cell or battery.
- c) Do not expose cells or batteries to heat or fire.
- d) Keep cells and batteries clean and dry.
- e) When disposing of secondary cells or batteries, keep cells or batteries of different electrochemical systems separate from each other.
- f) Battery usage by children should be supervised.
- g) Dispose of properly.
- h) Use the correct charging procedure.

9. TRANSPORTING/STORING

Avoid fuel spilling during transporting or temporary storing, the engine switch should turn to "OFF" position, and the generator should place in normal operating position.

⚠ WARNING

Transporting Generator:

- Do not overfill the fuel tank. (No residual fuel on the neck of tank)
- Do not use the generator on the transport vehicle. The generator should be used under a good ventilated condition.
- Avoid exposing directly in the sunshine when the generator place in the enclosed transport vehicle for a long time. The high temperature inside the vehicle could cause fuel to vaporize resulting in a possible explosion.
- Drain off the fuel, when the generator is transported on rough road.

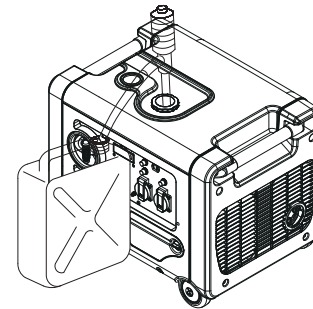
Storing for a long period:

9.1) Make sure the storage area without excessive humidity and dust.

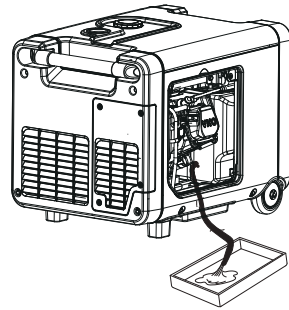
9.2) Drain off the fuel.

⚠ WARNING

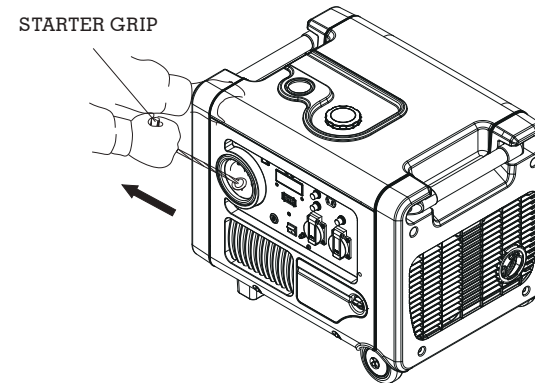
- Keep away from smoking, flames and spark, gasoline is explosive and flammable in the specified condition.
- α. Drain off the gasoline in the fuel tank, storing into the suitable container.



- b. Turn the fuel switch to "ON" position, and loosen the carburetor drain screw to discharge gasoline inside of carburetor.



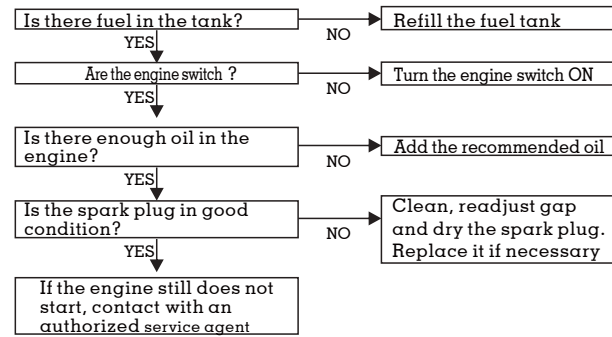
- c. Take off the spark plug cap, pull the starter grip three or four times, discharge the gasoline from the fuel lines.
- d. Turn the fuel switch to "OFF" position, and tighten the drain screw of carburetor.
- e. Reinstall the spark plug cap.



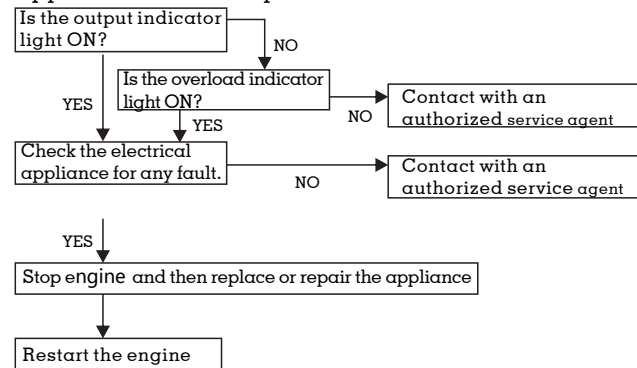
- 9.3) Change new oil while engine is still warm from operation.
- 9.4) Remove the spark plug, and pour a tablespoon of clean engine oil(10~20ml)into the cylinder. Revolve the engine several times to distribute the oil,and reinstall the spark plug.
- 9.5) Pull the starter grip slowly until feel resistance. At this point, the piston is coming up on its compression stroke and both the intake and exhaust valves are closed. In this position, it helps to protect the engine from internal corrosion.

10.TROUBLESHOOTING

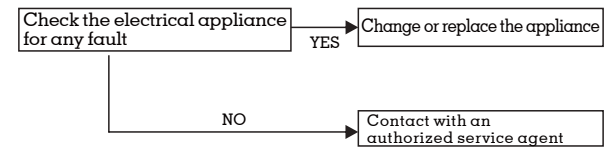
When the engine can not be started:



Appliance does not operate :



DC receptacle without any electricity :



11. TECHNICAL SPECIFICATIONS

	Specifications	Parameters	
ENGINE	Model	HY170FA-EFI	
	Type	4-stroke, overhead valve, single cylinder, forced-air cooling	
	Engine Displacement	223mL	
	Bore * Stroke	70mm * 58mm	
	Compression Ratio	8.5:1	
	Rated power	5.0kW/3600rpm	
	Ignition System	Full transistor	
	Start System	Recoil starter/electric starter/	
	Fuel Type	Gasoline without lead	
	Oil Capacity	0.6L	
	Oil Model	SE 15W-30	
	GENERATOR	Model	HY4000SEi
		Rated Frequency	50Hz
Rated Voltage		230V	
Rated Current		15.2A	
Rated Speed		3600min ⁻¹	
Rated Output Power COP		3.5kW	
Max. Output Power MAX		3.8kW	

OTHER SPECIFICATIONS	DC Output	12V/5A
	Fuel Tank Volume	7.8L
	Continuous Running Time	7.0h
	Fuel Consumption	≤500g/kW.h
	Working Ambient Temperature	-20℃~40℃
	Max. Altitude	4000m
	* Noise L _{WA}	97dB(A)/4m
	* * Noise L _{PA}	60dB(A)/7m
	Dimensions (L*W*H)	592mm*575mm*500mm
	Net Weight	50Kg

Noise level is measured when the ECON. SW is turned to " ON " (🔌🔌)

* : L_{WA} shows the guaranteed sound power tested by 2000/14/EC.

* * : The noise level in "dB/7m" is the arithmetic mean value of sound press level (L_{PA}) in eight directions measured 7 meters away from the generator.

The noise level may vary in different environments.

13. APPENDIX

13.1) Environment Correction

The standard condition of rated power output:

Altitude:0m

Ambient temperature:25°C

Relative humidity:30%

Factor of environment correction:

Altitude(m)	Ambient temperature°C				
	25	30	35	40	45
0	1	0.98	0.96	0.93	0.90
500	0.93	0.91	0.89	0.87	0.84
1000	0.87	0.85	0.82	0.80	0.78
2000	0.75	0.73	0.71	0.69	0.66
3000	0.64	0.62	0.60	0.58	0.56
4000	0.54	0.52	0.50	0.48	0.46

NOTE: Relative humidity 60% correction factorC-0.01 ;
 Relative humidity 80% correction factorC -0.02 ;
 Relative humidity 90% correction factorC-0.03 ;
 Relative humidity 100% correctionfactorC-0.04 ;

Example :

Rated power (P_N) 3.5kVA generator(Altitude: 1000m) Ambient temperature: 35°C , Relative humidity: 80%

$$P = P_n * (C - 0.02) = 3.5 * (0.82 - 0.02) = 2.8 \text{ kVA}$$

13.2) Noise and Access

Noise emission measure according to ISO 8528-10, EN ISO 3744, European Directive 2000/14/EC with amendment 2005/88/EC

Model of generator set: HY4000SEi

Sound Pressure Level: 75dB(A)

Guaranteed Sound Power Level: 97dB(A)

Measurement Uncertainty K: 1.7dB(A)

The quoted figures are emission levels and are not necessarily safe working levels. Whilst there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factors that influence the actual level of exposure of work-force include the characteristics of the work room, the other sources of noise, etc, i.e. the number of machines and other adjacent processes, and the length of time for which an operator is exposed to the noise. Also the

permissible exposure level can vary from county. This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.

14. CONSUMER INFORMATION

Consumer Service Information

Service dealers are trained professionally. They should be able to answer any questions you have. If the dealer does not solve your problems, please discuss them with the manager of the dealer. Most of your problems are solved in this way.

If you are dissatisfied with the decision of the manager of the dealer, contact with the Customer Relations Department.