



CFMOTO

20i/25i SERIES

PORTABLE INVERTER GENERATOR

Owner's Manual



INTRODUCTION

Thank you for purchasing our products.

This manual provides you with a basic understanding of the operation and maintenance of the product.

If you have any question regarding to the operation or maintenance of your product, please consult a designated dealer.



Read this manual carefully before operating this product.

This manual must remain with the product once sold.

IMPORTANT MANUAL INFORMATION

Particularly important alert information is distinguished in notations as follows:



This is the safety alarm symbol, which alerts you to potential personal injury danger. Please follow all safety information next to the symbol to avoid any possible injury or death.



WARNING: WARNING indicates a hazardous situation, which can lead to severe injury or death if not avoided.

NOTICE: NOTICE indicates special precautions to avoid damage to this product or other property.

NOTE: NOTE provides important information to simplify the operation.



WARNING:

PLEASE READ AND UNDERSTAND THIS MANUAL COMPLETELY BEFORE USING THE PRODUCT, AND OPERATE IT AS PER THE INSTRUCTIONS.

NOTE:

Our company continually seeks innovation and updates to product design and quality. Therefore, although this manual contains latest product information once printed, there may be minor discrepancies in the actual product. If you have any questions about this manual, please consult a designated dealer.

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WARRANTY

If doubt exists as to the cause and cure of a problem, consult your local authorized dealer. It is extremely important to the usage and maintenance of the generator during the warranty period, as unauthorized, unplanned or incorrect repairs can void the warranty.

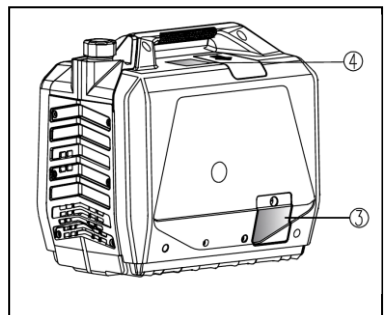
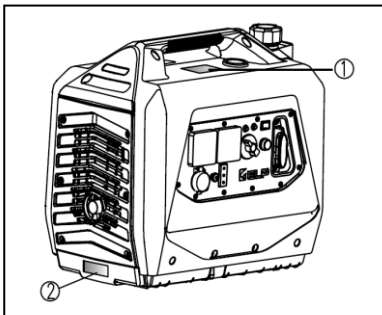
Keep in mind that a designated dealer has the special tools, techniques, and spare parts necessary for proper repair of the generator. Always consult a designated dealer if you have any questions about specifications and/or maintenance procedures. Occasionally, printing errors or production changes can possibly make certain portions of this manual incorrect. Until you are thoroughly familiar with this model, consult a designated dealer before attempting any maintenance.

LOCATION OF IMPORTANT LABELS

Please read the following labels carefully before operating the generator.

NOTE: Maintain or replace safety and instruction labels when necessary.

SAFETY AND INSTRUCTION LABELS



①

WARNING

- For safety, read owner's manual carefully before operating this machine, according to the rules of operation and maintenance.
- Il convient de lire attentivement ce manuel avant la première utilisation de la machine.
- Lea este manual atentamente antes de utilizar este equipo.
- Bitte lesen Sie diese Bedienungsanleitung sorgfältig durch, bevor Sie die Maschine in Betrieb setzen.
- Les devez lire/boeken nøye før du tar maskinen i bruk.
- Gledžiate pozornost na čítanie tohto návodu na obsluhu stroja.
- Lees deze handleiding aandachtig door voordat u deze machine gaat gebruiken.
- Leggere attentamente questo manuale prima di utilizzare questa macchina.
- 为确保安全，使用前请务必仔细阅读使用说明书并妥善保管。

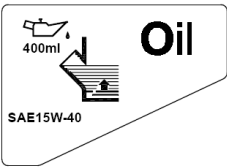
②

WARNING

HOT SURFACES



③







Oil

400ml


SAE15W-40


④







For safety, read carefully the owner's manual before operating this equipment:

- Do not operate this equipment in poorly ventilated areas.
- Do not direct exhaust fumes toward people, buildings or equipment.
- When refueling, always stop the engine.
- Always immediately wipe up the fuel that is spilled.
- Keep any flammable items away from this equipment.
- Use the grade of SAE octane or above and refill oil as required to ensure equipment performance.
- Do not expose the equipment directly to rain or snow.
- Do not touch or contact the wiring sockets with wet hands.
- Do not connect the AD cable to any indoor wiring.
- When operating the equipment, do not put any barrier or obstacle around the equipment, or anything on top of the equipment. Do not cover the equipment with a box or the like.

AD	Frequency Voltage Rated Power Max. Output Phase	50Hz 230V 2.1kVA 2.4kVA Single	 <p>⚠ Stop the engine before refueling and clean the overflowing fuel.</p>
DD	Voltage Current Fuel	12V 8A SGP Octane or above	





⚠ See the optional neck plug only. **NOT TO USE!**

SYMBOL MEANING

Please understand the meaning of following symbols before operation.

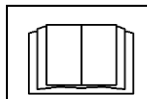
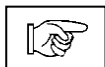
(Refer to SAFETY INFORMATION for more details.)

The Safety Alert Symbol means:

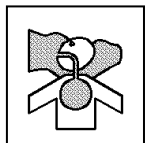
Attention! Become alert! Your safety is involved!



Read this manual before operation.



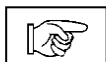
Be careful of poisonous exhaust.



Never operate the machine
in a closed area.

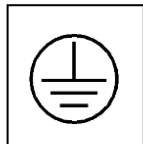
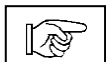


Avoid touching hot surfaces,
such as engine and muffler.



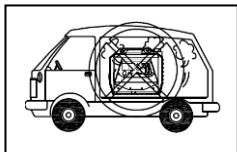
Ground (earth) terminal

Be sure to ground (earth) the generator.

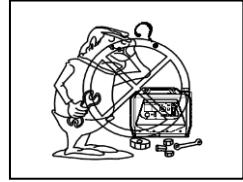


SAFETY INFORMATION

- Never operate the generator in a closed area. For example, never use it in a closed vehicle or marine application.



- Never modify or use the generator when components are removed.

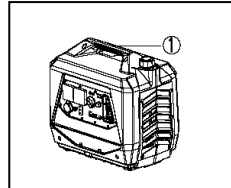


- Never allow children to use the generator.

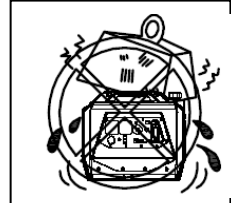


- Make sure to move the generator only by carrying its handle.

① Handle



- Do not place any obstacle on the generator.



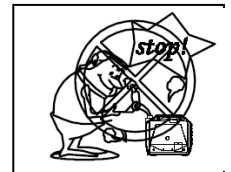
POISONOUS EXHAUST

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



HIGHLY FLAMMABLE AND POISONOUS FUEL

- Always turn off the engine down before refueling.



- Never refuel when smoking or near an open flame.
- Take care not to spill any fuel on the generator or muffler when refueling.



- If you accidentally swallow any fuel, inhale fuel vapor, or spill any fuel into your eye, please go to hospital immediately. If you spill any fuel on skin or clothing, please wash with soap and water immediately and change clothes.

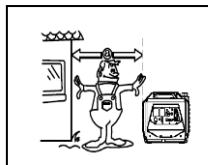
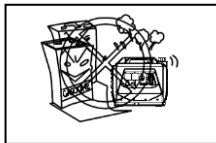
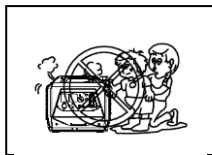
DO NOT TILT DURING OPERATION OR MOVING

- When using or moving the generator, please keep it vertically upright. If it tilts, fuel may leak from the carburetor or fuel tank. Oil overflow could block the air filter element, and cause non-starting of generator. During transport, make sure to keep fuel tank cap tightened and the vent knob turned to OFF.

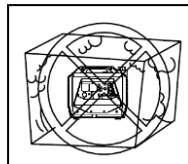


HOT ENGINE AND MUFFLER

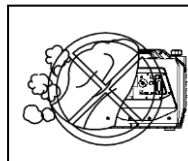
- Place the generator in a place where pedestrians or children cannot reach.
- During operation, avoid placing any flammable material near the exhaust outlet.
- Keep the generator at least 1 meter (3 feet) distance from building or other equipment, or the generator may become overheated.



- Never operate the generator when under a dust cover or other coverings.



- Make sure the engine and muffler are completely cooled down before covering the generator.

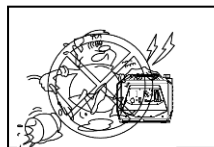


ELECTRIC SHOCK PREVENTION

- Never operate the generator in rain or snow, or allow water on the housing to avoid electric shock.

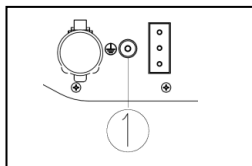


- Never touch the generator with wet hands, or electric shock can occur.



- Connect a ground line to the ground terminal, and the other end to a ground electrode buried in the ground.

① Ground (earth) terminal



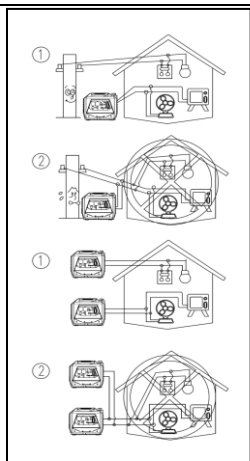
EXTENSION CORD NOTES

- When using a 1.5 mm² (16 AWG) extension cord, the cord length should not exceed 22.8m (75 Ft.) @ 10 Amps. When using a 2.5 mm² (14 AWG) extension cord, the cord length should not exceed 22.8m (75 Ft.) @ 15 Amps. Use the shortest extension cord possible.
- The longer the extension cord is, the more voltage is reduced between the generator output socket and the connected load. Therefore, choose an appropriate length extension cord.
- Extension cord should be protected by a tough, flexible rubber sheath (IEC245) or equivalent.

CONNECTION NOTES

- Avoid connecting the generator to a commercial power socket.
- Avoid connecting a non-parallel-type generator in parallel with any other generator.
(Connect the generator as per instruction).

① Correct ② Incorrect



WARNING:

Before connecting any generator to a building's electric system, a licensed electrician must install an isolation (transfer) switch in the building's main fuse box. This switch is the connection point for generator power and allows selection of generator power or main line power to the building. This will prevent the generator from charging the main power line (back feeding) when the main power supply has failed or has been turned off for a line repair. Back feeding can electrocute or injure line maintenance personnel. Also generator and building electrical system damage can occur when normal operation power returns if unit is used without an isolation switch.

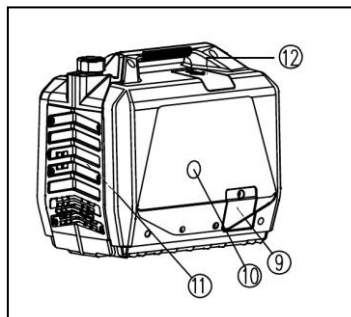
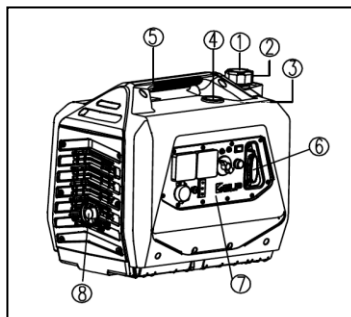


WARNING:

During transportation or moving, if the generator might suffer overturn or a dumping position, the fuel inside fuel tank and engine oil inside the engine crankcase should be drained.

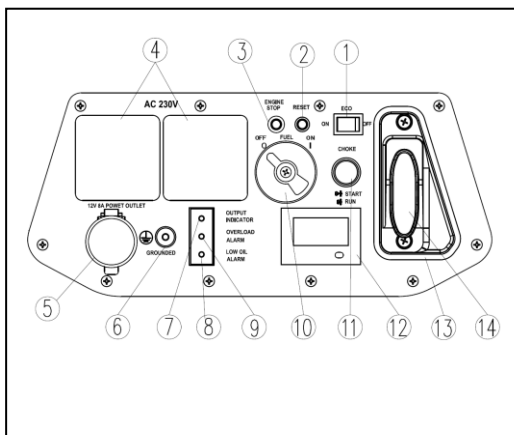
DESCRIPTION

- ① Vent knob, fuel tank cap
- ② Fuel tank cap
- ③ Fuel tank
- ④ Fuel level sensor Assy.
- ⑤ Handle
- ⑥ Recoil starter handlebar
- ⑦ Control panel
- ⑧ Muffler
- ⑨ Engine oil cover
- ⑩ Cover, carburetor drain screw
- ⑪ Air filter cover
- ⑫ Spark plug cover



CONTROL PANEL

- ① ECO switch
- ② Reset button (green)
- ③ Engine stop button (red)
- ④ AC socket
- ⑤ Cig. Socket or USB port
- ⑥ Ground (earth) bolt/nut
- ⑦ Output indicator
- ⑧ Low oil alarm indicator
- ⑨ Overload alarm indicator



- ⑩ Fuel switch
- ⑪ Choke cable
- ⑫ LCD screen (if equipped)
- ⑬ Limit box, recoil starter handlebar
- ⑭ Recoil starter handle

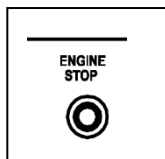
CONTROL FUNCTION

FUEL SWITCH

- ① “OFF”, Fuel supply is off.
- ② “ON”, Fuel supply is on.

ENGINE STOP BUTTON (RED)

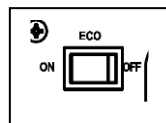
When the generator is running, press this button for 2-3s, the ignition circuit turns off and the generator stops.



ECO SWITCH

- ① “ON”

When the ECO switch is in position ON, the economic control unit will automatically adjust engine speed per the load required to achieve low fuel consumption and low noise.



- ② “OFF”

When ECO switch is in position OFF, the generator starts and runs at the rated RPM (4200r/min).

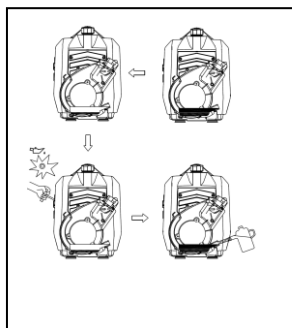
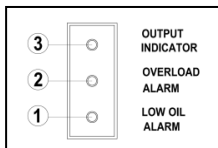
NOTE:

ECO switch must be in position OFF when powering electric devices that require a large starting current, such as compressor or submersible pump.

LOW OIL ALARM (YELLOW)

If the oil level falls below the lower level, the low oil alarm indicator will be on, and the engine will shut down automatically. Unless the oil is refilled above the lower level, the engine cannot be started again.

- ① ENGINE OIL ALARM
- ② OVERLOAD ALARM
- ③ OUTPUT INDICATOR



NOTE:

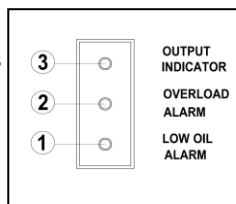
If the generator cannot start, verify the fuel switch is in the ON position, and pull the recoil starter. If the low oil alarm light flickers for a few seconds, it means the oil level is insufficient. Place the generator on a level surface, add oil (Refer to Periodic Maintenance) and restart the generator.

OVERLOAD ALARM (RED)

When the detected total power of connected electrical devices is close to rated power, the Overload Alarm Light (RED) ② will be ON and blink.

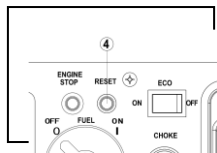
The Overload Alarm Light (RED) ② will be always ON when

detected power of all connected electrical devices is overloaded. The electrical breaker will trip to stop power generation in order to protect the generator and connected electric devices. The AC output indicator (Green) will be OFF, and the overload alarm light (Red) will stay ON, but the generator will not stop running.



When the overload indicator light is ON and has no power output, proceed as follows:

Disconnect all electric devices, reduce total wattage of connected electric devices within the range of rated power, and press the reset button ④ (green). The generator will recover power output.



NOTE:

- Generator output automatically resets, when engine is stopped and then restarted.
- Overload indicator light may flicker for seconds at initial times when using electric devices that require a large starting current, such as a compressor or submersible pump. It is not a fault.

OUTPUT INDICATOR (GREEN)

When the engine is started and outputs power, the output indicator ③ is ON.

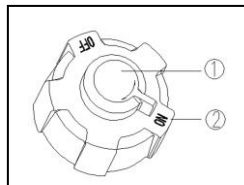
FUEL TANK CAP VENT KNOB

Fuel tank cap has a vent knob to balance inner and outer pressure of fuel tank and stop fuel overflow.

Turn the vent knob clockwise from OFF to ON to allow fuel flow into the carburetor for generator operation.

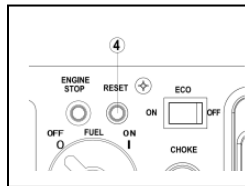
When the generator is stopped or moved, turn the vent knob Counter-clockwise from ON to OFF to avoid possible fuel overflow or vapor.

- ① Vent knob ② Fuel tank cap



RESET BUTTON (GREEN)

When generator stops output due to overload, disconnect all electric devices, reduce total wattage of connected electric devices within the application range, and press the reset button ④, generator will recover power output.



- ④ Reset button

PRE-OPERATION CHECK

NOTE:

Do a pre-operation check each time before using the generator.

FUEL



WARNING:

- Fuel for the generator is highly flammable and poisonous. Read the SAFETY INFORMATION carefully before refueling.
- Do not refuel over the fuel filter level, or fuel may overflow when it heats up and expands.
- Make sure to place the generator horizontally, and tighten the fuel tank cap after refueling.

NOTICE:

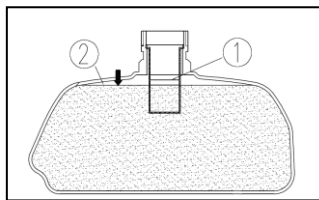
- Use clean and dry soft cloth to wipe any spilled fuel, and to avoid corrosion on part surfaces or plastic parts.
- Must use unleaded fuel to avoid serious corrosion on engine inner components.

Open fuel tank cap, fill with fuel to the red mark inside fuel filling screen, then reinstall the cap securely.

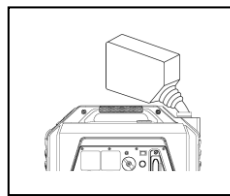
Recommended fuel:

Unleaded gasoline : #92 or above

Fuel tank capacity: 5.0L (1.3 US gal, or 1.1 Imp gal)



① Red mark ② Fuel level

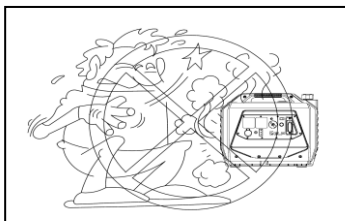




WARNING:

Engine and muffler will become very hot when the engine runs.

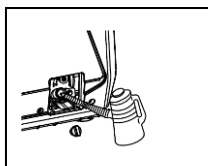
Avoid touching engine and muffler with any part of your body or clothing while they are not cooled down during inspection or repair.



ENGINE OIL

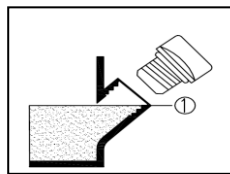
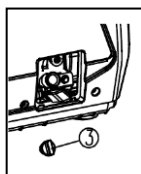
NOTICE:

- The generator leaves factory without oil. Generator will be protected for non-start without sufficient oil.
- Do not tilt the generator when filling engine oil, as it may result in overfilling and damage to the generator.



Place generator on a level surface and check the level of oil is at the lower edge ① position of the fill port. Add oil if necessary, then reinstall the oil plug securely.

① Lower edge, oil fill port

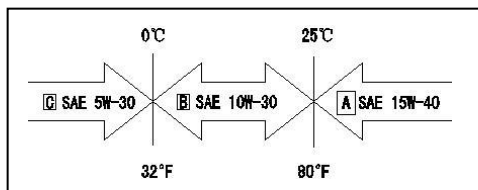


Recommended engine oil viscosity chart:

A: SAE15W-40

B: SAE10W-30

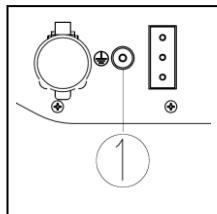
C: SAE5W-30



Engine oil capacity: 0.4L (0.42US qt, 0.35Imp qt)

GROUND (EARTH) TERMINAL

Make sure the ground (earth) terminal of the generator is connected to avoid electric shock. When an electric device is applied, the generator should connect with earth ground ①.

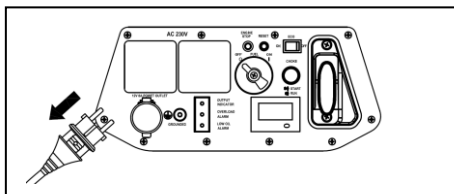


OPERATION



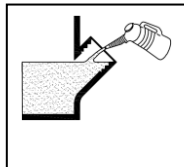
WARNING:

- Never operate the generator in a closed area or it may cause unconsciousness or death within a short time. Operate the generator in a well-ventilated area.
- Before starting the engine, do not connect any electric device.
- Clean dust, dirt or water off the socket before use.



NOTICE:

- The generator leaves the factory without engine oil. Generator will be protected for non-start without sufficient engine oil filled.
- Do not tilt the generator when filling engine oil, which may result in overfilling and damage to the generator.



NOTE:

- The generator can be used at rated power output in standard atmospheric conditions as follows:

Ambient temperature: 25 °C

Atmospheric pressure: 100KPa

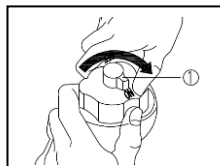
Relative humidity 30%

- Power output will differ due to changes in temperature, altitude (the higher altitude, the lower air pressure) and humidity. Power output will reduce when temperature, humidity and altitude are higher than standard atmospheric condition.
- In addition, please reduce the load in a confined area, as generator cooling will be affected.

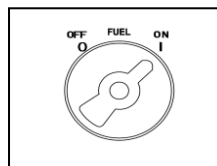
STARTING THE ENGINE

1. Hold the fuel tank cap securely and turn the vent, knob clockwise from OFF to ON to open the vent.

① Vent knob

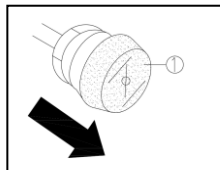


2. Turn the fuel switch to position ON.



3. Pull out choke completely.

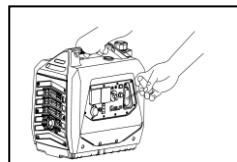
① Choke



NOTE:

Do not pull out choke to start a warm generator. Push the choke back to the original position.

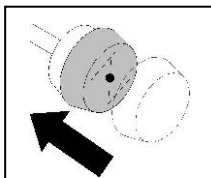
4. Pull slowly on the recoil starter handle until it is tightened, then pull it hard.



NOTE:

Hold the top of generator firmly to obtain maximum pulling force and to prevent the generator from falling over when pulling the recoil starter.

5. After starting, warm up the engine until the engine does not stop when the choke is pushed back to its original position.

**NOTICE:**





Choke should be pushed back to original position when the generator runs normally, otherwise generator will not work well.

NOTE (FOR STARTING GENERATOR):

- When starting the engine, verify the ECO switch is in position OFF and there is no load connected to the generator.
- In ambient temperature below 3°C (37°F), engine should run at rated speed for 5 minutes to warm up.
- In ambient temperature above 3°C (37°F), engine should run at rated speed for 3 minutes to warm up.
- After engine warm-up, place ECO switch in position ON, and run the generator in economy status.

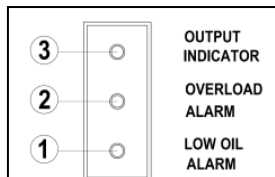
APPLICATION RANGE

When using the generator, please make sure total load is under the range of the generator rated output, or the generator may be damaged.

A AC				D DC
B Power factor	1	0.8–0.95	C 0.4–0.75 (Efficiency 0.85)	
2000	1800VA	1440VA	612VA	E Rated voltage 12V Rated current 8A
2500	2100VA	1680VA	714VA	Rated voltage 12V Rated current 8A

NOTE:

When total watts exceed the application range, the overload alarm indicator ② is ON (red)
Refer to OVERLOAD ALARM

**NOTICE:**

- Make sure the total load is under the range of generator rated output, otherwise generator damage will occur.
- The simultaneous usage of AC and DC power is possible, but total watts should not exceed the rated output, otherwise generator damage will occur.

SERIES		20i	25i
GENERATOR RATED POWER		1800VA	2100VA
	POWER FACTOR		
AC	1	1800VA	2100VA
	0.8	1440VA	1680VA
DC		96W (12V/8A)	96W (12V/8A)

NOTICE:

- Do not overload. The total load of all electrical appliances must not exceed the supply range of the generator. Overloading will damage the generator.
- When powering precision equipment, electronic controllers, PCs, electronic computers, microcomputer-based equipment or battery chargers, keep the generator a sufficient distance away to prevent electrical interference. Also ensure that electrical noise from the generator does not interface with any other electrical devices located near the generator.
- If the generator is to power medical equipment, consult the manufacturer, a medical professional or hospital first.
- Some electrical appliances or general-purpose electric motors have high starting currents, and cannot therefore be used, even if their watts are within the range of the rated output. Consult the equipment manufacturer for further advice.

AC CONNECTION



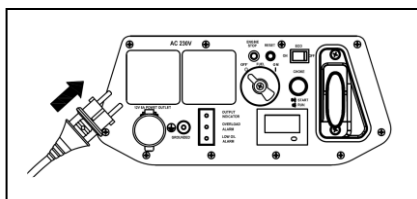
WARNING:

Make sure all electric devices are turned off before connection.

NOTICE:

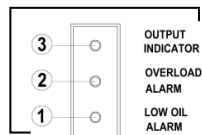
1. Be sure all electric devices including lines and plug connections are in good condition before connecting to a generator.
2. Be sure the total load is within generator rated output.
3. Be sure the socket load current is within socket rated current.
4. Make sure generator is connected to ground (earth).

1. Start the generator.
2. Connect the plug to the AC socket.

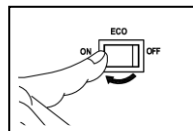


3. Make sure the AC output indicator is ON (Green).

③ AC output indicator



4. Turn the ECO switch to position ON, and then turn on electric devices.



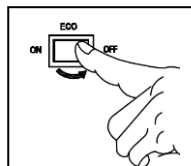
NOTICE:

When using electric devices that require a large starting current, such as a compressor or submersible pump, the ECO switch must be placed in position OFF.

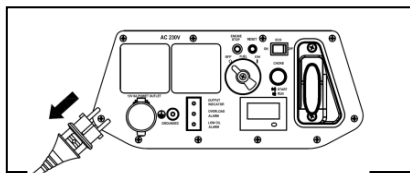
STOPPING THE ENGINE

NOTE:

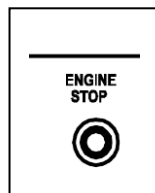
1. Disconnect all electric devices.
2. Place the ECO switch in position OFF.



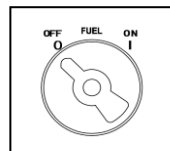
1. Disconnect all electric devices.



2. Press the engine stop button for 2-3 seconds, and the engine will shut down completely.

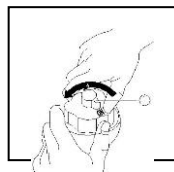


3. Turn the fuel switch to position OFF



4. Turn the vent knob to position OFF after the engine is completely cooled down.

① Vent knob



PERIODIC MAINTENANCE

The user must pay attention to product safety. Periodic inspection, adjustment and lubrication will keep the generator in the safest and most efficient condition. The key points of periodic maintenance are explained on the following pages.



WARNING:

If you are not familiar with maintenance work, please consult a designated dealer.

MAINTENANCE CHART



WARNING: Stop the engine before starting maintenance work.

NOTICE:

Use only specified genuine parts for replacement. Consult a designated dealer for further information.

Item	Routine	Pre-operation check	Every 6 months or 100 hours	Every 12 months or 300 hours
Spark plug	Check condition Clean and replace if necessary		○	
Fuel	Check fuel level and leakage	○		
Fuel hose	Check fuel hose for cracks or damage. Replace if necessary.	○		
Engine oil	Check oil level in engine	○		
	Replace		○(1)	
Air filter element	Check condition		○(2)	
	Clean			
Flame retardant element	Check condition Clean and replace if necessary		○	
Fuel screen	Clean and replace if necessary			○
Crankcase breather hose	Check breather hose for cracks or damage. Replace if necessary.			○
Cylinder head	Decarbonizes cylinder head More frequently if necessary			★
Valve clearance	Check and adjust when engine is cold.			★
Fittings/ fasteners	Check all fittings and fasteners. Correct if necessary.			★
The point where abnormality was recognized by use.		○		

Maintenance Chart Notes:

1. Initial engine oil replacement is after one month or 20 hours of operation.
2. Air filter element must be cleaned more frequently when using in unusually wet or dusty areas.

★Since these items require special tools, data and technical skills, have a designated dealer perform this maintenance.

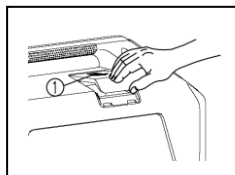
CARBURETOR ADJUSTMENT

The carburetor is a key part of the engine. Have a designated dealer qualified with professional knowledge, special materials and special equipment adjust it for you to ensure correct performance.

SPARK PLUG INSPECTION

1. Remove spark plug cover and spark plug cap.

- ① Spark plug cover
- ② Spark plug cap



2. Place spark plug socket on the spark plug, turn it counter-clockwise with wrench, and remove the spark plug.

- ③ Spark plug socket
- ④ Spark plug

3. Check for discoloration and remove any carbon.
Standard electrode color: Medium-to-light tan color

4. Check spark plug type and clearance.

Standard spark plug: A5RTC (TORCH)

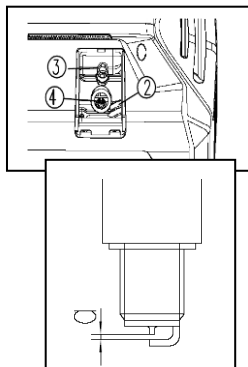
Spark plug clearance: $a=0.6\text{mm}$

5. Install spark plug.

Spark plug torque: $12\sim 15\text{N.m}$

NOTE: When installing spark plug, twist it clockwise for 2-3 rounds by hand, and then tighten to the specified torque value.

6. Install spark plug cover.



ENGINE OIL REPLACEMENT



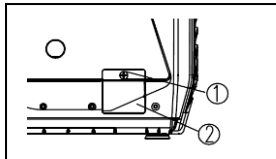
WARNING:

Never drain engine oil immediately after generator shut down to avoid scald.

1. Place generator on a level surface. Start and run the engine for 2-3 minutes to warm the oil, then shut down the engine. Turn the fuel tank cap vent knob to position OFF.

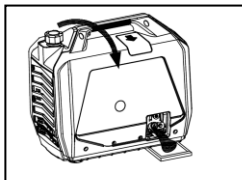
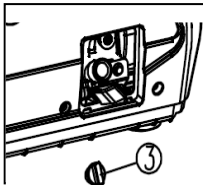
2. Loose screw and remove the oil filling cover.

- ① Screw
- ② Oil filling cover



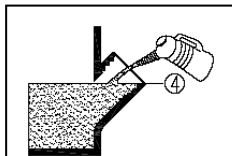
3. Remove oil drain plug, place an oil pan under the engine, and tilt the generator to drain the oil completely.

- ③ Oil drain plug



4. Place the generator on a level surface and add engine oil to the lower level of the fill port.

- ④ Lower level



NOTICE:

Do not tilt the generator when filling engine oil. This can result in overfilling and damage to the generator.

Be sure no other material enters the engine crankcase.

Recommended engine oil: (See page 16)

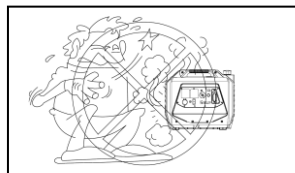
- 5. Wipe any spilled oil around the fill port, then install and tighten the refill plug.
- 6. Install oil filling cover and tighten screw.

FIRE ARRESTOR ELEMENT AND SCREEN



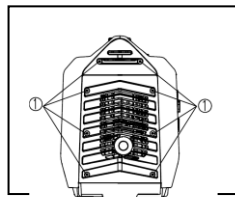
WARNING:

- The engine and muffler will be very hot after running the engine. Allow it to cool.
- Avoid touching engine and muffler directly with any part of your body or clothing during inspection and repair.



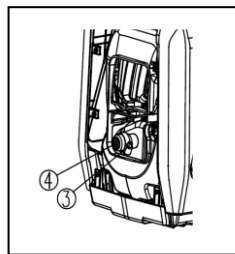
1. Remove screws on both sides, and remove the exhaust cover.

- ① Screws
- ② Exhaust cover



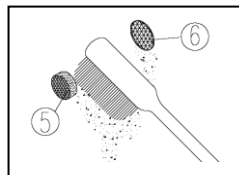
2. Loosen the clamp, and remove the flame arrestor element locking cap.

- ③ Clamp
- ④ Locking cap



3. Use a wire brush to remove carbon deposits from the element and screen.

- ⑤ Flame arrestor element
- ⑥ Screen



NOTICE:

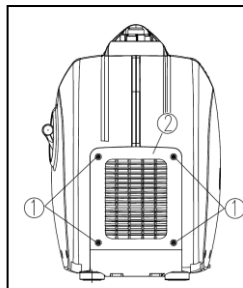
When cleaning, wire brush lightly to avoid damaging or scratching the flame retardant element and screen.

4. Inspect the flame arrestor element and screen. Replace them if damaged.
5. Install the element and screen into the locking cap, then install into the muffler with clamp and tighten.
6. Install the exhaust cover, then tighten the screws on both sides.

AIR FILTER

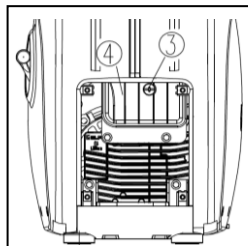
1. Loosen screws and remove air inlet cover.

- ① Screw
- ② Air inlet cover



2. Loosen screw, remove the air filter cover, and take out the air filter element.

- ③ Screw
- ④ Air filter cover
- ⑤ Filter element



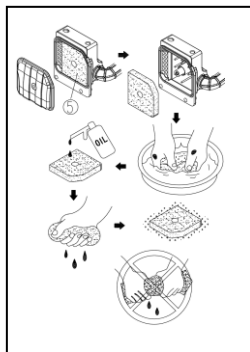
3. Wash the filter element with solvent and dry it.

4. Add 5grams of engine oil to element, work it in, then squeeze out any excess oil.

The element should be wet, but not dripping.

Recommended filter oil:

Foam-air-filter oil or SAE#20 lubricant oil.



NOTICE:

Do not wring out the element or it will be damaged.

5. Insert the element into the air filter housing.

NOTE:

Be sure the element sealing surface matches the air filter housing so as not to leak air.

NOTICE:

Never run the engine without a filter element or it may cause excessive poisonous gas and cylinder wear.

6. Install air filter cover, then install and tighten the screws.

NOTE:

When installing the air filter cover, check placement of the air filter sealing strip.

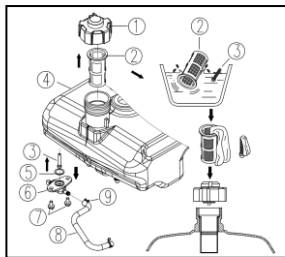
7. Assemble the air intake cover, then tighten the screws.

FUEL TANK FILTERS

1. Drain the fuel tank.

2. Open fuel tank cap, and take out the fuel inlet filter screen. Loosen the fuel inlet line clamp and remove the fuel line to the carburetor. Loosen the fuel valve mounting bolts, then pull down the fuel valve and o-ring seal. Take out the fuel outlet filter screen.

- ① Fuel tank cap
- ② Fuel inlet filter screen
- ③ Fuel outlet filter screen
- ④ Fuel tank
- ⑤ O-ring seal
- ⑥ Fuel control valve
- ⑦ Bolts



- ⑧ Fuel inlet line, carburetor
- ⑨ Clamp

3. Clean the fuel inlet filter screen and fuel outlet filter screen with solvent. Replace them if damaged.
4. Dry the fuel inlet filter screen and outlet filter screens, then install them into the fuel tank inlet port and outlet port.
5. Check if the fuel valve o-ring seal is damaged or aging. Replace it if any abnormality is found.
6. Assemble fuel valve and outlet line in correct position, then install the bolts and clamp securely. Install the fuel tank cap and tighten it.



WARNING:

- Make sure to tighten fuel tank cap, and install the fuel line clip.
- Replace the fuel valve o-ring seal if any damage or aging is found.
- Tighten the mounting bolts of the fuel control switch securely.

TROUBLESHOOTING

Engine will not start

1. There is no fuel or enough fuel in the tank:

- Check fuel level:

When the pointer of fuel gauge is in position

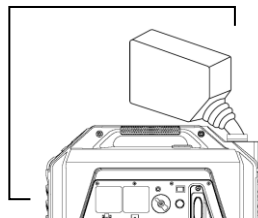
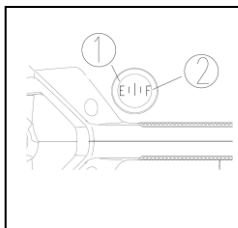
①, please add fuel; when the pointer is in

position ②, it means the fuel is enough

and no need add fuel (please see page

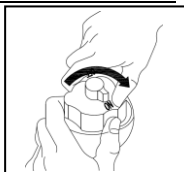
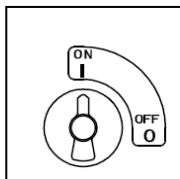
15 for fuel adding.)

- If there is fuel in the tank, check the vent knob on the fuel tank cap, and turn it to position ON.



Check the fuel control switch and turn it to position ON.

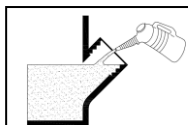
- Clogged fuel line: Clean fuel line.
- Clogged carburetor: Clean carburetor.



2. Low engine oil level:

Add engine oil to specified level.

(see page 16)



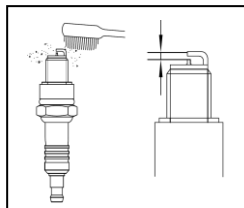
3. Poor spark:

- Spark plug is dirty with carbon or wet:
Remove carbon or wipe and dry spark plug.

- Check spark plug clearance 0.5~0.7mm:

Replace it if worn over tolerance.

- Fault in the ignition system: Consult a designated dealer.

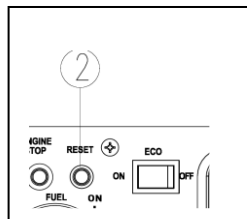


Generator has no output

Overload, no output from generator:

- Disconnect all electric devices, reduce total wattage of connected electric devices within the output range, and press the reset button ②.

② Reset button (green)



STORAGE

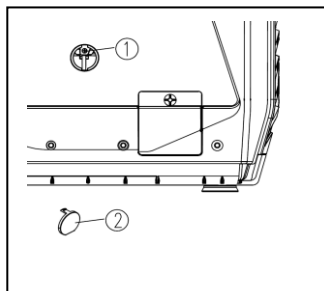
Long term storage of the generator will require some preventive procedures to guard against deterioration:

DRAIN THE FUEL

1. Remove fuel tank cap. Drain the fuel from fuel tank into an approved gasoline container by a commercially available hand siphon, then install fuel tank cap.
2. Remove the carburetor drain cover. Loosen the drain screw on the carburetor bowl, and drain fuel into an approved gasoline container.

① Drain screw

② Carburetor drain cover



3. Tighten the carburetor drain screw, and install the carburetor drain cover.



WARNING:

- Fuel is highly flammable and poisonous. Check SAFETY INFORMATION (see page 7) carefully before adding or removing fuel.
- Make sure to wipe up any spilled fuel immediately to avoid damage on rubber or plastic parts.

4. Start the engine and leave it run with no electrical load until it automatically stops to remove any remaining fuel in the carburetor.

ENGINE

In order to protect engine inside cylinder, piston rings and other parts, please proceed as following steps:

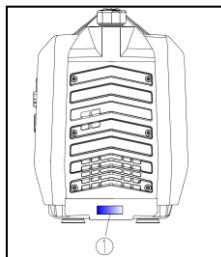
1. Remove the spark plug and pour about one spoon SAE10W\30 or 20W\40 engine oil into the spark plug hole, then install the spark plug. Pull the recoil starter several times to coat the cylinder wall, piston rings and other parts with engine oil.
2. Slowly pull the recoil starter until you feel compression and then stop pulling (This prevents the cylinder and valves from rusting).
3. Clean the exterior parts of the generator.
4. Store the generator in a dry and well-ventilated place, with a clean cloth covering.
5. The generator must remain in a vertical position when stored, carried and operated.

IDENTIFICATION

MACHINE IDENTIFICATION for 2000i/2500i series

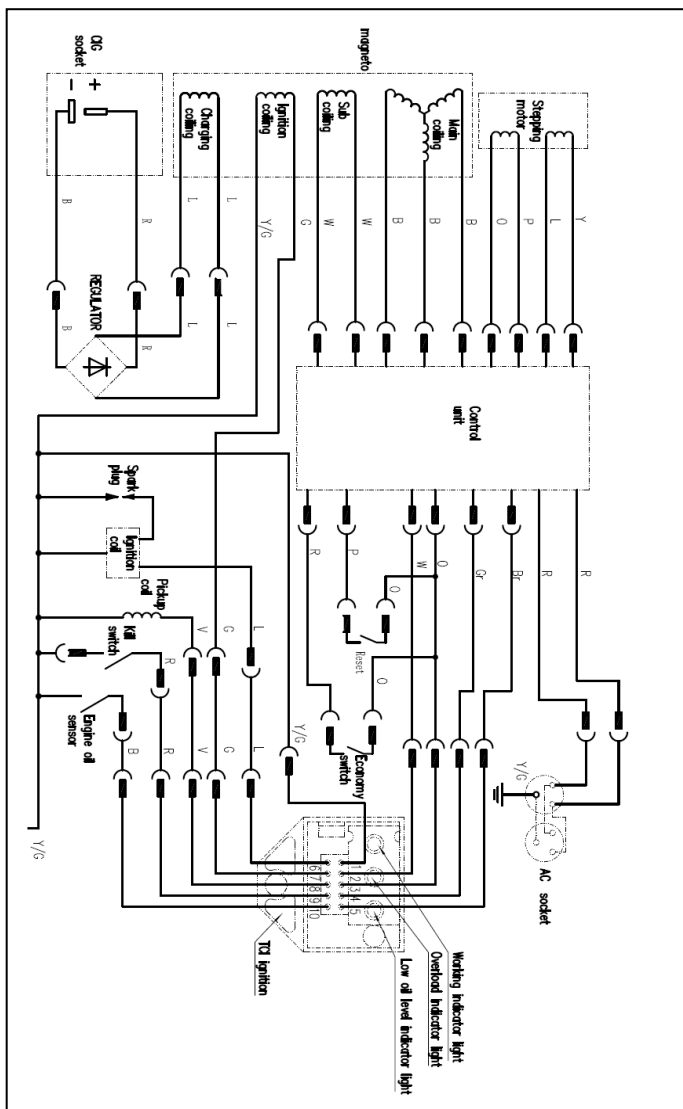
The machine identification series number is attached in the location as shown in drawing.

- ① Machine series number



WIRE DIAGRAM

20i/25i series



SPECIFICATIONS

Item	Unit	20i Series	25i Series	/
Engine model		LH148F	LH148F-G	/
Engine type	4 stroke, air-cooled, single cylinder, OHV gasoline engine			
Displacement	ml	79	79	/
Rated power	kW	2.3	2.6	/
Engine oil	ml	400	400	/
AC rated voltage	V	230/120	230/120	/
AC rated current	A	7.8/15	9.1/17.5	/
Frequency	Hz	50/60	50/60	/
AC rated output	VA	1800	2100	/
AC max. output	VA	2000	2400	/
Power factor		1.0	1.0	/
Fuel tank capacity	L	5.0	5.0	/
Noise level *	dB/LWA	52—59	52—59	/
DC rated voltage	V	12	12	/
DC rated current	A	8	8	/
Dimension	mm	500X315X438	500X315X438	/
N.W.	Kg	19.8	19.8	/

★ Noise level is measured when the ECO switch is ON.

LWA shows the sound power level under the ISO3744 standard test condition.

The noise level in dB (A)/7M is the arithmetic mean value in four directions measured 7 meters away from each side of the generator.

The noise level may vary in different environments.

★ NOISE LEVEL

The figures quoted are emission levels and are not necessarily safe working levels. While 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 in different countries. This information, however, will enable the user of the generator to make a better evaluation of the hazard and risk.

REMARKS:



WARNING

- For safety, read owner's manual carefully before operating this machine, according to the rules of operation and maintenance.
- Il convient de lire attentivement ce manuel avant la première utilisation de la machine.
- Lea este manual atentamente antes de utilizar este equipo.
- Bitte lesen Sie diese Bedienungsanleitung sorgfältig durch, bevor Sie die Maschine in Betrieb nehmen.
- Les denne håndboken nøye før du tar maskinen i bruk.
- Διαβάστε προσεκτικά αυτό το βιβλίο πριν λειτουργήσετε τη μηχανή.
- Lees deze handleiding aandachtig door voordat u deze machine gaat gebruiken.
- Leggere attentamente questo manuale prima di utilizzare questa macchina.
- 为保证安全，使用前请务必仔细阅读使用说明书并按规定操作保养。

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