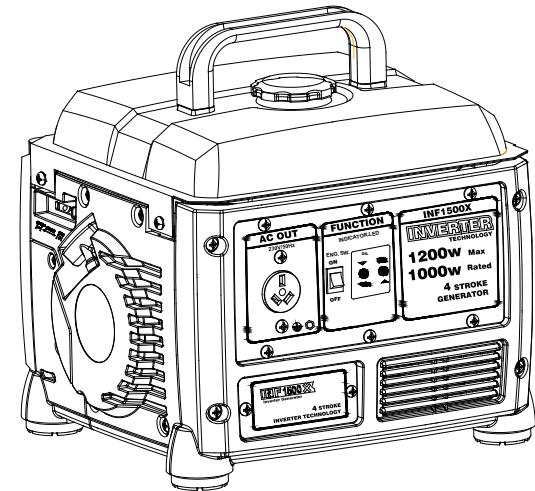


HG1600I

INVERTER GENERATOR

Portable 4 stroke gasoline generator



USER'S MANUAL

(Please read this manual before operating the generator)

SAFETY

Thank you for purchasing our generator.
This manual covers operation and maintenance of the generator.

All rights reserved to make changes at any time without notice,
and without incurring any obligation.

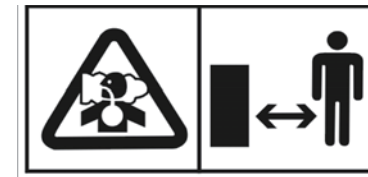
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Please pay special attention to the following words:

If a problem should arise, or if you have any question about our
products, please contact an authorized distributor.



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



Never operate the generator in a closed space due to the dangers of asphyxiation. Operate the generator in a well ventilated area.



The muffler produces a lot of heat during operation and remains hot for a while after engine shuts down. Do not touch the muffler while it is hot. Make sure the engine cools down before moving the generator to indoor areas.

(Pay attention to the warning marks attached to the generator)

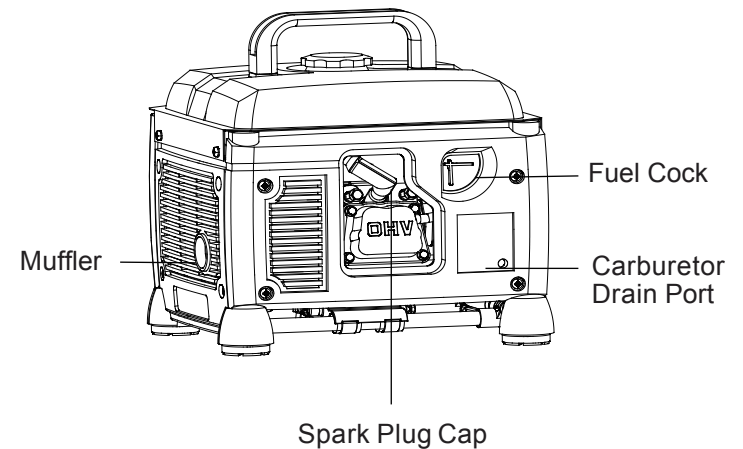
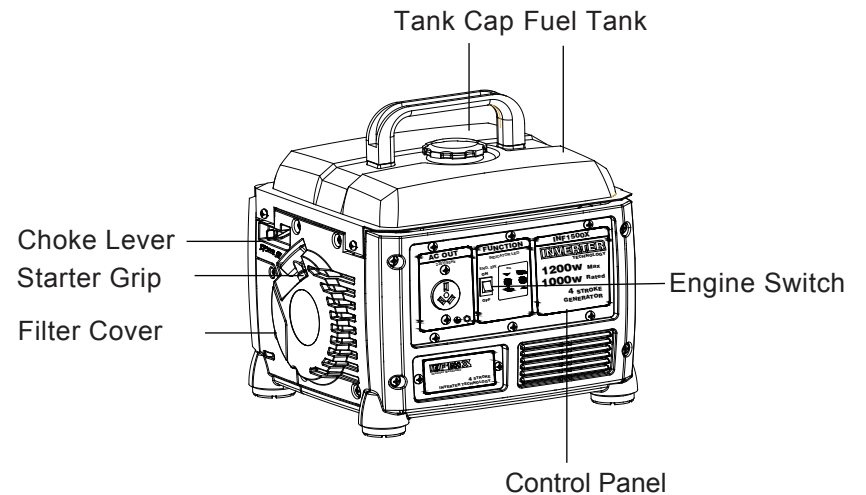
COMPONENT IDENTIFICATION



For safety reason, stop the engine before refueling. Gasoline is extremely flammable and potentially explosive material therefore refueling must take place in a ventilated environment. Keep away from cigarette, smoke and sparks when refueling. Always refuel the generator in a well-ventilated location. Wipe up spilled gasoline immediately.

WARNING!

- Always make a pre-operation inspection(page 5) before you start the engine.
- Place the generator at least 1m(3ft) away from buildings or other equipment during operation.
- Operate the generator on a level surface.
Fuel may spill if the generator sits at a tilted position.
- Make sure you know how to properly operate the generator including knowing how to quickly switch off the unit. Never 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.
- Do NOT operate the generator with wet hands to avoid risk of electrocution.
- Do NOT operate the generator in rain or snow and do not let it get wet.



PRE-OPERATION CHECK

• CHECK ENGINE OIL

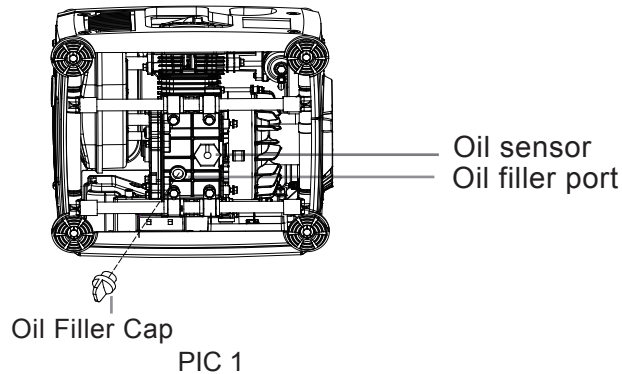
Note, running the generator with insufficient engine oil can cause serious engine damage.

Engine oil should be replaced during regular maintenance or when the oil level is below the end of the dipstick.

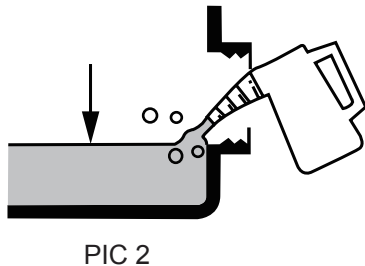
1. Put spark-plug side face up and control panel face down, vertically lay-down the generator on even surface, unscrew oil cap. (Pic 1)

ATTENTION!

Before checking or replacing oil, make sure the engine is fully stopped and the generator is situated on a stable and level surface.

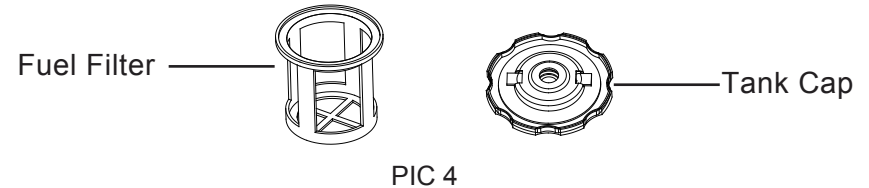
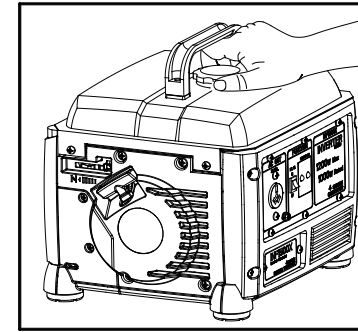


2. Add oil (oil type: 15W/40 SE) 260ml (Pic 2) , close oil cap and clean it with a rag, then put the generator back to the stand-up position.

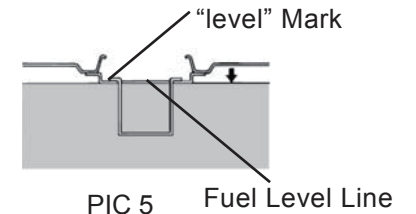


• CHECK FUEL

1. Unscrew fuel cap (PIC 3)



2. Remove and clean Fuel Filter (PIC 4) before putting it back in. Use 89 gasoline. First time usage or long time unused generator should not be filled fully. Normally fill gasoline to 3/4 level of tank (PIC 5). Fuel consumption is proportional to the load of household appliances.



WARNING!

Make sure you review each warning in order to prevent fire hazard.

- Do not refill tank while engine is running or hot.
- Close fuel cock before refueling.
- Be careful not to admit dust, dirt, water or other objects into fuel.
- Wipe off spilt fuel thoroughly before starting the engine.
- Keep away from open flames.

STARTING THE ENGINE

ATTENTION!

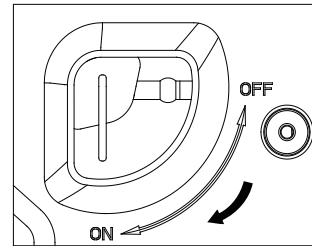
Always check the oil level before starting the engine(see Page 5).
Perform the specified daily inspection to see if it is in normal condition.

Before starting, disconnect all load from the DC terminals.

Step 1: Turn Fuel Cock to ON position.

Note:

The fuel cock on/off switch connects/cuts-off the fuel feed from the tank.



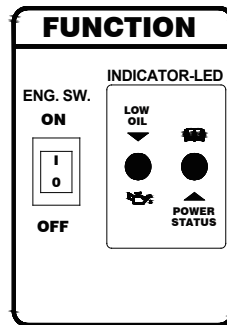
PIC 6

Turn fuel cock to ON position (PIC 6) and wait for at least one minute until the liquid fuel flows into the carburetor.

Step2: Turn engine switch to ON position.

Note:

This engine switch is an electronic ignition switch
“O” position means off, “I” position means on.



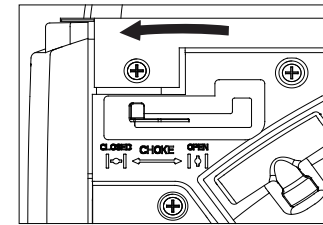
PIC 7

Step 3: Pull the choke lever to CLOSED position.

Note: Pull the choke lever to CLOSED position (PIC 8) for the carburetor to better blend the air and fuel while starting the engine.

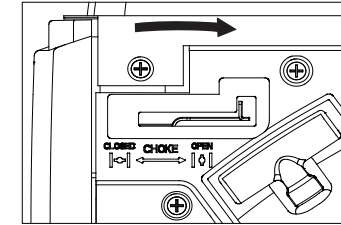
Pull the choke lever to OPEN position (PIC 9) to increase the amount of air in the fuel mixture after the engine is started.

Choke Closed While Starting the Engine



PIC 8

Choke Open After Starting the Engine



PIC 9

When engine is warm/air temperature is high, it can be started without any choke.

However, for cold starts or low ambient temperature, pull the choke lever to CLOSED position before starts and then pull it back to OPEN position when the engine has been started.

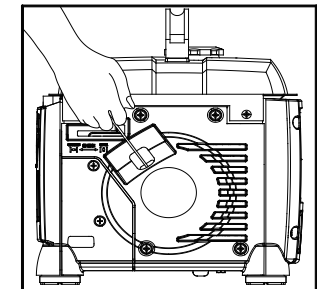
Step 4: Start the engine.

Note: This unit uses recoil start. In order to successfully start the engine, you may perform the following steps:

a. Grip the starter handle, pull and return the rope gently for 3-4 times to let the engine breath in the fuel mixture from the carburetor.

b. Pull the rope again in force to start the engine (PIC 10).

The engine usually starts within three pulls.



PIC 10

ATTENTION!

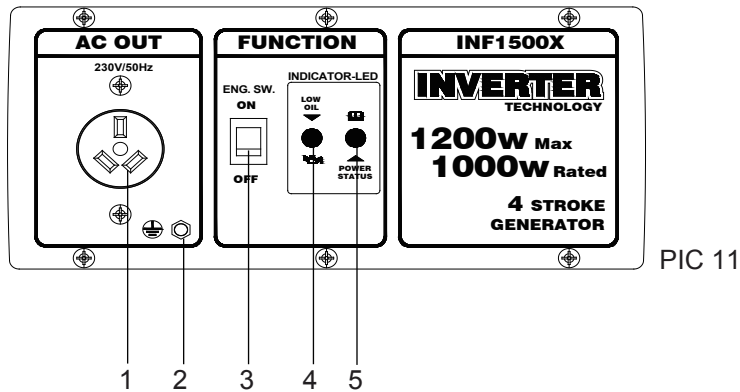
Please avoid damaging the plastic case of the crankshaft while pulling the rope. Always return the grip slowly.

Step 5: After the engine starts:

a. Pull the choke lever to OPEN after 20 secs(30 secs during winter).

b. Keep the generator running for another 1-2 mins before connecting loads to the unit.

CONTROL PANEL INTRODUCTION



PIC 11

- 1.AC Receptacle(other sockets available) which supplies rated output.
- 2.Safety ground terminal.
- 3.Electronic engine switch.
- 4.Oil pressure alarm indicator(Red).
 - a. It will start flashing when the engine starts with insufficient amount of engine oil.
 - b. It glows in red indicating oil level below the safe limit before the engine automatically shuts down within 10 seconds.
- 5.Output indicator light (green) will remain ON during the operation. However, when the green light starts flashing:
 - a.Interval Flash 1 time, low-voltage protection, engine speed low.
 - b.Interval Flash 2 times, high temperature protection.
 - c.Interval Flash 3 times, overload protection, too many loads.
 - d.Interval Flash 4 times, short-circuit protection.

The output power will be cut off should the generator is experiencing any of the faults that are mentioned above. User will need to stop the engine to fix the issue before restarting the engine.

DC Charger socket & overcurrent protector reset-button (Optional)

The DC charger supplies 12-20V DC pulse voltage with maximum current of 3A. Note it CANNOT be used as a voltage-stabilized power source.

When loads over 3A, overcurrent protector will jump in and button will pop-up while the output is cut off.

9

STOPPING THE GENERATOR

ATTENTION!

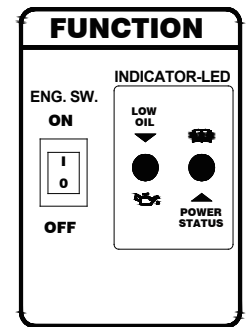
In case of emergency, the easiest way to stop the generator is to directly put engine switch to OFF position.

Avoid doing so in non-emergency circumstances as it carries the risk of damaging the generator.

In non-emergency circumstances, stop the engines by:

- 1.Shut down the loading devices and disconnect them from the generator.

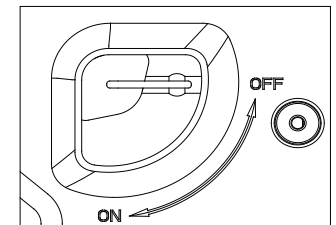
- 2.Switch off the engine by putting the engine switch to the OFF position (PIC 12).



PIC 12

- 3.Leave the engine spinning for another while before it cools down.

- 4.Close the fuel cock by switching it to the OFF position (PIC 13).



PIC 13

NOTICE:

After disconnecting all loads, leave the generator running for another 1-2 minutes before shutting it down. then switch off the engine switch and the fuel cock.

Switching off engine with loads on may damage the unit and cause difficulty to start the generator next time. keep out of reach of children at anytime.

MAINTENANCE

1. ENGINE OIL REPLACEMENT

Initial oil change: After the first 20 hours of operation.

Thereafter: Every 50 hours of operation.

When changing oil, stop the engine and loosen the drain plug, and then:

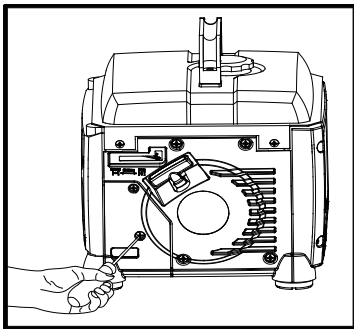
- Put a container under unit to collect oil, tilt unit, remove oil cap, and place unit to drain oil.
- Start refilling once it is drained (Refer to Page 5).
- Make sure the cap is tightened afterwards.

2. SERVING AIR CLEARNER

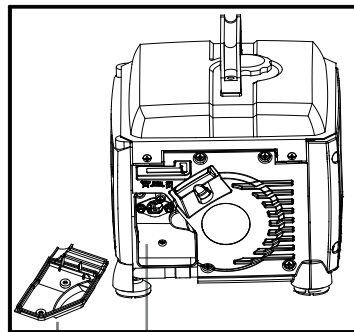
A dirty air cleaner element will cause starting difficulty, power loss, engine malfunctions, and shorten engine life extremely.

Always keep the air cleaner element clean. Replace the air cleaner elements set more often in dusty environments.

- Open air filter cover (PIC 14).
- Take out Sponge filter (PIC 15).
- Clean filter using kerosene, wait filter to dry after cleaning.
- Soak the dry filter with new oil and install it back.
- Install the filter cover back.



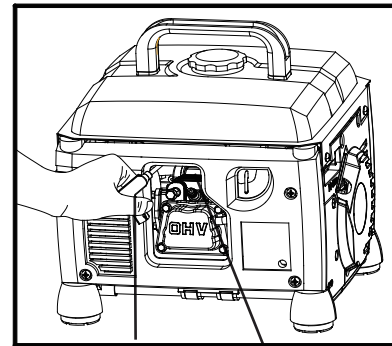
PIC 14



Air Cleaner
Sponge filter
PIC 15

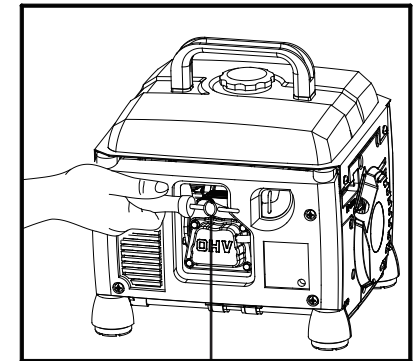
3. Spark plug

- Remove Spark plug cap, clean dust around spark plug. (PIC 16)
- Use spark plug socket to remove spark plug (PIC 17).
- Remove carbon deposits. Replace spark plug if broken insulator or fallen electrode. Make sure electrode gap is 0.60mm-0.80mm.
- Screw spark plug back by hand, avoid damaging threads of cylinder.
- Put the spark plug back in position and use spark plug socket to tighten it.
Tighten 1/8-1/4 round if old spark plug be installed, tighten 1/2 round if new spark plug be installed.
- Put spark plug cap back.



Spark plug cap
Spark plug

PIC 16

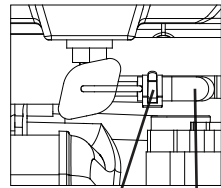


Spark plug socket

PIC 17

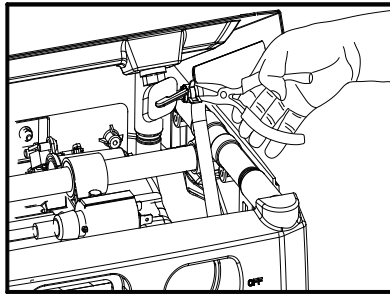
4. Fuel Switch

- a. Put Fuel switch to OFF position.
- b. Unscrew 4 bolts on fuel tank, use pliers to lose tubing clamp and unplug it. (PIC 18 & 19)
- c. Remove fuel switch from fuel tank.
- d. Remove filter from fuel switch. (PIC 20)
- e. Clean the filter.
- f. Check the washer, replace if broken.
- g. Assemble everything back together after inspection.

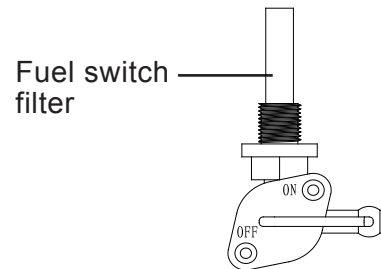


Tubing clamp Tubing

PIC 18



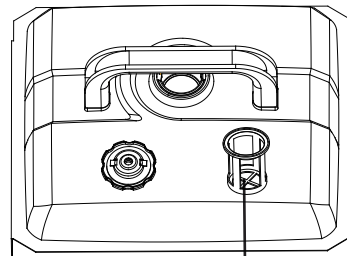
PIC 19



PIC 20

5. Fuel tank filter

- a. Remove fuel cap and filter (PIC 21)
- b. Clean the filter, replace if broken.
- c. Dry the filter, assemble it back.



Fuel tank filter

PIC 21

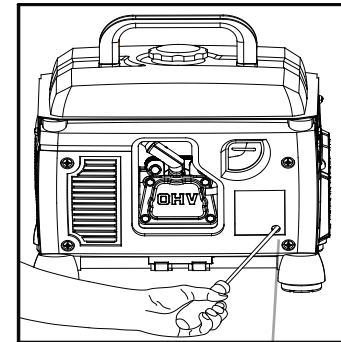
6. Fuel tank

- a. Use clean gasoline to clean internal.

STORAGE

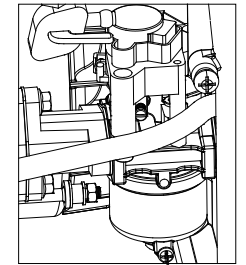
If you need store this unit for long term (over 6 months), please make sure to:

1. Store this unit at a dry and ventilated place.
2. Turn off fuel cock, make sure fuel is drained and the tank is empty.
Residual of the gasoline over a long time will cause difficulty when starting the engine next time.
3. Loosen oil drain plug to drain fuel in carburetor (PIC 22-23)
Alternatively, to run the unit without loads until all fuel is out.



Oil drain plug part

PIC 22



Oil drain plug

PIC 23

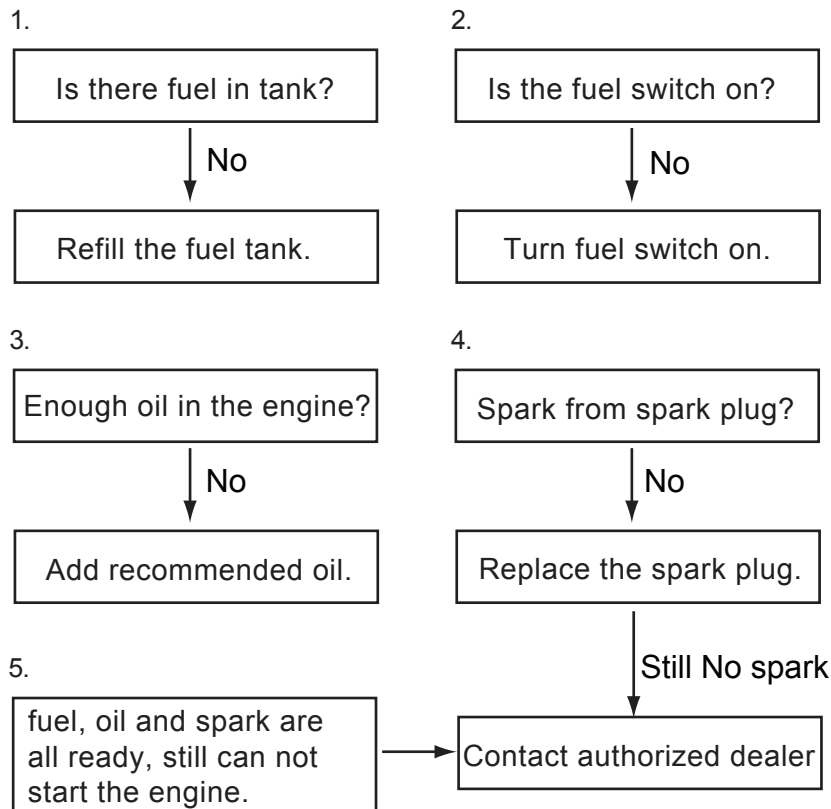
4. Change Oil.

Long-term unchanged oil cause many deposits, this could damage the engine when running.

5. Check and tighten all nuts and bolts.
6. Clean the generator with rag, spray preservative on it if needed.
DO NOT use water to clean the generator.

TROUBLESHOOTING

When the engine failed to start.



WARNING!

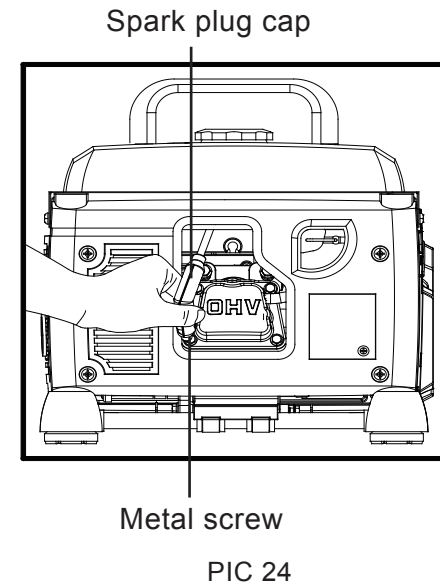
Be sure there is no spilled fuel around the spark plug, this may cause fire hazard.

CHECK!

1. Put out spark plug cap, clean dirt around spark plug.
2. Remove spark plug and install it in the plug cap.
3. Use plug electrode to touch metal screw. (PIC 24)
4. Pull the recoil starter, sparks should appear.

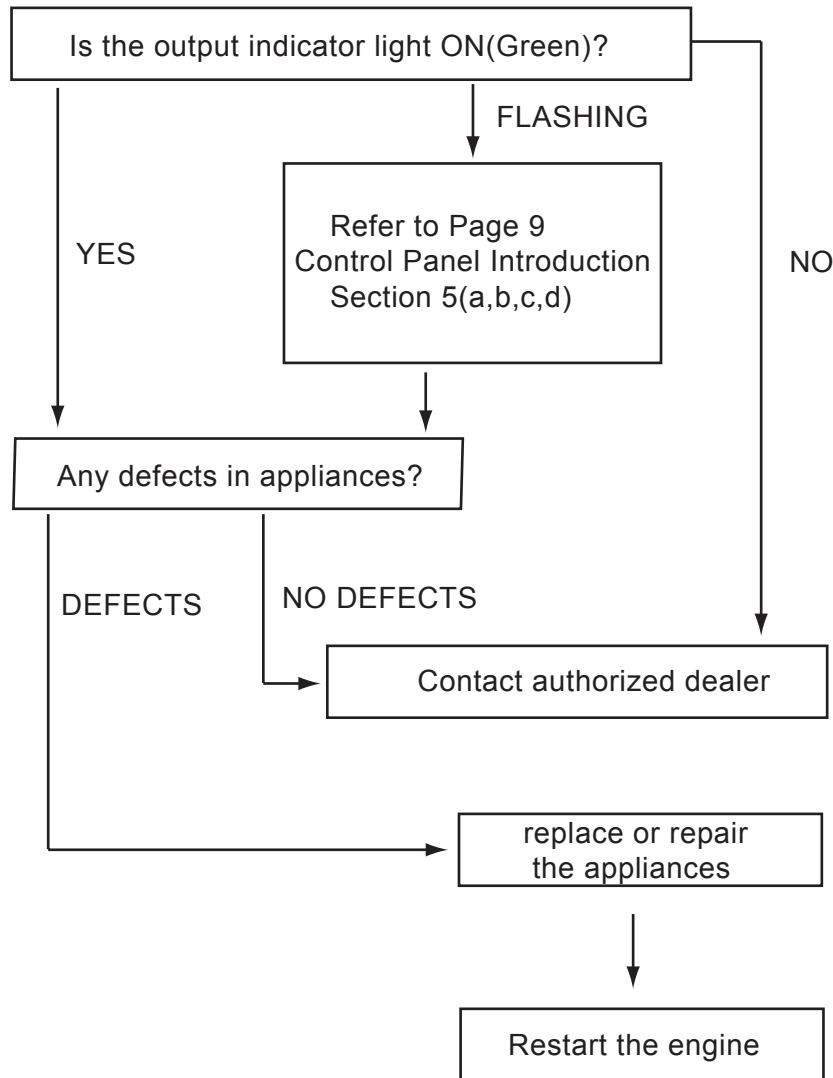
ATTENTION!

Do NOT use hands to touch spark plug metal part to avoid risk of electrocution.



SPECIFICATIONS

If the engine operating without output:



Model	HG1600I
Engine Type	4-stroke, forced air, 1 cylinder
Displacement	53.5cc
Engine Speed	3800 - 5000rpm
Ignition System	Electronic
Start Method	Recoil
Oil Capacity	260ml
Fuel Tank Capacity	4.2L
Spark Plug	NGK CR7HSA
Noise	< 73dB
Rated Frequency	50Hz
Rated Voltage	230V
Rated Output	1000W
Max Output	1200W
Length	355mm
Width	324mm
Height	306mm
Net Weight	12.8kg