



SILENT INVERTER GENERATORS
USER AND MAINTENANCE MANUEL
IS SERIES



DEAR GENPOWER GENERATOR SET USER;

Welcome to Genpower Family!

Thank you for choosing Genpower generator and hope your works will not be unfinished.

Genpower generator sets are produced in compliance with ISO 9001:2000 Quality Management System and “CE” norms and in an environment-friendly way compatible to ISO 14001:2004 Environment Management System.

Our generators are delivered to our end users by being subjected to a careful quality control and tests which are applied in every stage of production. We are attempting to continuously improve our product and provide a better service for you, with our staff specialized in their field of interests and in modern factory facilities.

Please read the operating manual carefully before initial starting of generator set and also recommend you have it be installed by our authorized service in order to avoid from any unfinished matter.

This operating manual, for engine service–maintenance and alternator service–maintenance books are delivered together with generator set.

This operating and maintenance manual was prepared in order to ensure users to easily handle the generator and help them how they are going to make its maintenance. This is not a workshop repair manual.

The generator is under guarantee for **2 (two) years or 1500 operating hours** provided the use of it in accordance with the matters stated in operating and maintenance manuals. Any repair or replacement of parts caused by any modification held on the generator without giving consent of the original manufacturer or by use of non-original parts are excluded from scope of guarantee.

We recommend you to make a periodical maintenance agreement with our authorized services which provide continuous service for 7 days/ 24 hours in order to have much more performance and prolonged life -cycle of generator.

Please comply with attention and warning indicators on the generator set and take necessary safety measures mentioned in this manual for your safety and your surrounding lives.

Information included in this manual may not contain all features belonging to the generator.

Genpower has the right of making any amendment to improve the product quality without notifying.

GENPOWER GENERATOR

“Keep this manual for later assistance”

GENPOWER GENERATORS UNIQUE SUPERIOR FEATURES AND ADVANTAGES

- ◆ **Half A Century Old Experience in Generator Production**
 - ◆ Low-level Noise
- ◆ **Advanced Technology and High-Quality Diesel Engines**
 - ◆ Low-level Exhaust Emission
- ◆ **Advanced Technology and High-Quality Alternators**
 - ◆ Low Operating Costs
- ◆ **Flexible Control Card Suitable for All Kinds of Applications**
 - ◆ Low Fuel Consumption
- ◆ **Reliable and High-Quality Technology**
 - ◆ Low Oil Consumption
- ◆ **Compact, Silent, Patented Design Canopy**
 - ◆ Tropical, 50 °C Radiator
- ◆ **Compatible to Heavy Duty Conditions**
 - ◆ Water and Particule Separated Fuel Filter
- ◆ **First Class Product Support**
 - ◆ Durability
- ◆ **Abundant and Reasonable Cost Spare Parts**
 - ◆ Global Network in Service and Maintenance

IMPORTANT GENERAL INFORMATION

Generator Rating Definitions:

Genpower generators are produced in compliance with; TS ISO 8528-1, 8528-4, ISO 8528-5, BS500, ISO 3046/1:1985, IEC 60034, NEMA MG-1.22, BS5514/1 standard.

Standby Power (ESP) is defined as the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a reliable utility power outage. over 24 hours of operation shall not exceed 70% of the ESP rating. Under the condition of generator's periodic maintenance has done in compliance with manufacturers maintenance procedures, total operating time at 70% ESP rating shall not exceed 200 hours/year. For applications supporting an unreliable utility service, the Prime Power (PRP) rating should be used.

Prime Power (PRP) is defined as being the maximum power which a generator set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year. The permissible average power output over 24 hours of operation shall not exceed 70% of the PRP. Total operating time at 100% PRP rating shall not exceed 500 hours/year. At 12-hour operating time %10 overloading can be done in one-hour zone, total operating time at overloading with 10% PRP rating shall not exceed 25 hours/year.

Limited Continuous Power (LTP) Under the condition of generator's periodic maintenance has done in compliance with manufacturers maintenance procedures, total operating time at %100 LTP rating shall not exceed 500 hours/year. No overload capability is available for this rating.

Continuous Power (COP) is defined as being able to supply utility power at a constant 100 percent load for an unlimited number of hours per year. No overload capability is available for this rating.



Recommended to follow these instructions in selection and operation of generator;

- Generator, In Continuous Power, under the condition of generator's periodic maintenance has done in compliance with manufacturers maintenance procedures and is used original spare parts and oil in compliance with manufacturer's catalogues, may operate maximum %70 load at PRP.
- Generators shall not operated under the level of %50 at PRP rating. This may cause extreme oil consumption in engine, after in a short while permanent and unrecoverable damages may occurs.
- Dual or triple sync, equally aged and with fault redundancy systems should be chosen if the power output necessity is 1000 kVa and higher.



ATTENTION! NEVER LOAD GENERATOR TILL TEMPERATURE OF WATER REACH 60 °C IN MANUAL OPERATED GENERATORS.

1. PART: SAFETY MEASURES

1.1. INTRODUCTION

* Generator groups produced by our company have been designed and conceived by prioritizing all sorts of safety of lives and property.

* Generators should be installed and used in accordance with maintenance and operating rules stated in this catalogue both in terms of using the generator economically for a long-term and ensuring continuous safety of life and property. Required safety measures should be taken in advance during the installation, usage and maintenance. Safe operating responsibility of the generator set belongs to user who is using and maintaining it. Provided that instructions, methods and safety rules in this manual are complied with, risk of accident will decrease.

* Otherwise, unexpected defects and accidents which may result within serious injured and death of people and damage on the equipment. Please have your generator used and maintained by well-trained people who issued or authorized persons in order to prevent these occasions.

* Please plan any part, machine or engine you are operating in a way to ensure easy access to every point. Take pre-safety measures about how you can avoid from exposure to occasions like touching with rotating parts, burning and cut with sharp edges while checking out the engine. Ensure that covers of turbo compressor driving shaft, pump shaft, fan belts and winglets among engine components are fitted.

* Never make any maintenance or repair while the generator set is operating. Turn off the generator and take all safety measures before any maintenance initiated.

* Never have unauthorized persons repaired and maintained, this will cause damage in your generator and also be out of from scope of guarantee. We recommend you to use our authorized services providing 7/24 service.

* This generator produces heat when running. Temperatures near exhaust can exceed 65 °C (150 °F).

1.2. **ATTENTION! DON'T DO THE FOLLOWINGS:**

* Do not carry the generator on its side or in an inclined position during transportation. Oil or fuel may overflows into the air filter and wets the filter, and the filter will not work if it does not absorb enough air. If this happens, remove the filter, wash it until the oil or fuel is clean, dry it and put it back or replace it with a new one.

* Don't start the engine indoors. Exhaust gases are odorless and can be deadly as they contain carbon monoxide.

* Do not insert your hands and feet into moving or rotating parts.

* Do not store, pour or use gasoline near open flames or appliances such as stoves, water heaters or sparking devices.

* Do not refuel in places such as poorly ventilated rooms. Do this in an open area.

* Do not refuel while the engine is running. Allow the engine to cool for 20 minutes before filling the gas tank. Store fuel in safe containers.

* Do not remove the fuel tank cap while the engine is running.

* Do not start the engine in the presence of gasoline odor or other explosive conditions.

* Do not start the engine if it is overflowing or dripping gasoline. Move the generator away from the stream and block ignition until the gasoline has evaporated.

* Do not carry the generator from one place to another with gasoline in the tank.

* Do not smoke while refueling.

* Do not run the engine at excessive speed. This can lead to accidents.

* Do not change the engine speeds selected by the manufacturer.

* Do not control sparking (ignition) by removing the spark plug or spark plug wire. Use a tester for this job.

* Do not hit the flywheel with a hard object while it is operating, it may break. Use the correct tool for servicing.

* Do not run the engine without a muffler. Check frequently and replace if necessary. If there is a muffler deflector, check it periodically and replace it with the correct deflector if necessary.

* Do not run the engine in the presence of flammable materials around the muffler.

* Do not use generators that do not have a spark arrester installed in the silencer in forest, groves and grassy environments. The spark arrester must be maintained by the user for effective operation.

* Do not touch the hot muffler, cylinder or cooling fins as this will cause burns.

* Do not operate the engine without the air cleaner, air cleaner cover and/or carburetor air intake cover.

* Never connect the generator to a building's electrical system without a qualified electrician.

* Do not use generator in rainy conditions.

1.3. **ATTENTION! DO THE FOLLOWINGS:**

* When the operation of the generator is completed; turn off the generator. Then, make sure to **close the fuel tap** at the bottom of the tank. If you do not turn off the tap; since the tank is at the top and has a large volume, the gasoline flows and drowns the carburetor. Remember to open the fuel tap before restarting. When the generator working is finished, close the fuel tap again.

* Clean the cylinder cooling fins and speed governor parts as they can affect engine speed.

* Pull the starter cord slowly until you feel resistance. Then quickly pull the handle to avoid kickback and hand injuries. For safety reasons, make sure that there is no one around the starter.

- * Check the muffler periodically to make sure it is working properly. Worn, leaking muffler should be repaired or replaced.
- * Use fresh gasoline. Stale fuel can cause gumming and leaking in the carburetor.
- * Check the fuel connections and gaskets for cracks and leaks. Renew if necessary.
- * Always keep the fuel cock closed when you do not start the generator.
- * Have sufficient amount of **fulfilled** fire **extinguisher** present near to the generator.
- * Always ground the generator before using it.
- * Generator should only be plugged into electrical devices, either directly or within an extension cord.

1.4. MOVING COMPONENTS AND IRRITATING MATERIALS:

- * As a general maintenance rule; ensure gasoline engine is on STOP state or its covers are installed on it. Never operate engines **without protection guard** which are disassembled except the case that exceptional maintenance and settings must be performed.
- * Coming close to an operating engine is a safety risk. Remember wide and loose clothes, long hairs may cause serious accidents by being put on rotating components.
- * Putting tools or equipment down on operating engine due to incaution may lead to serious injuries in case of close contact to the engine.
- * Avoid from touching with operating engine exhaust system.
- * Install materials for safety and protection purpose disassembled during the service on their places before **starting** the engine.
- * Avoid contact gasoline, oils, cooling water and accumulator electrolyte used in the engine with your **bare** body.
- * Wear **protection** gloves and oil proof clothes while engaging with these works.
- * Oils, especially used oils **influence under the skin and so** may lead to irritation and eczema on skin.
- * Thoroughly wash your skin after contact with oil and use protective creams.
- * Hot oils may cause burns. Do not touch hot oil, your skin may burn. Ensure there is no pressure in the system before starting to work while operating with the lubrication system.

1.5. EXHAUST GASES:

- * Breathing exhaust gases is toxic and dangerous. Operate the generator on OPEN air or in environments with a good air circulation.
- * Take attention that exhaust gas outlet points do not **exhaust** to human **living** areas or near to air intake channels.
- * Do not operate the generator in the exhaust system having gas **leakage**.

1.6. ELECTRIC SHOCK AND FIRST AID:

1.6.1. What Is First Aid?

In the event of an accident or life-threatening situation, the treatment without medicines is called first aid until the assistance of the medical staff is provided, in order to prevent life from getting worse or worse.
FIRST AID APPLICATION IS ABSOLUTELY NOT USED.

1.6.2. What Is The Purpose In First Aid?

- * Protection and maintenance of life
- * Prevent deterioration of the situation
- * Facilitate the healing process.

1.6.3. What Are The Features And Responsibilities Of The First Aider?

- * He must be calm and unhurried.
- * Keep the patient calm.
- * Determine whether there is a danger that evaluates the environment.
- * Do not endanger the safety of his / her life.
- * Organize the people in charge to inform health institutions, fire and security.
- * Evaluate the condition of the patient and begin appropriate first aid.
- * Ensure that the patient arrives at the health facility as soon as possible.

1.6.4. What are the basics of First Aid?

- * Opening of the breathing passage
- * Correcting the respiratory system.
- * Ensuring activity of the circulatory system.

1.6.5. First Aid In Electric Shock

- * First ensure your own (first-aider) safety.
- * Turn off the source of electricity, if possible.
- * If not, move the source away from you and the person, using a dry, nonconducting object like plastic or wood.
- * Begin CPR if the person shows no signs of circulation, such as breathing, coughing or movement.
- * Apply a bandage. Cover any burned areas with a sterile gauze bandage.

1.6.6. First Aid for Carbon Monoxide Poisoning

- * The patient is immediately moved to fresh air.
- * Deep breathing is carried out in the fresh air.
- * CPR is applied to patients who are unable to breathe or breathe.
- * Cover the top of the body to prevent the patient from chilling.
- * The patient shall be sent to the health center immediately.

1.6.7. First Aid for Bleeding

- * If the wound is on the arm or leg, raise limb above the heart, if possible, to help slow bleeding.
- * Apply direct pressure on the cut or wound with a clean cloth, tissue, or piece of gauze until bleeding stops.
- * Apply a tourniquet if the bleeding is severe and not stopped with direct pressure in 5 minutes.

1.6.8. First Aid for Minor Burnings

- * **Cool the burn.** Hold the burned area under cool (not cold) running water or apply a cool, wet compress until the pain eases.
- * Remove rings or other tight items from the burned area.
- * Don't break blisters.
- * **Bandage the burn.** Cover the burn with a sterile gauze bandage (not fluffy cotton)

2. PART: BEFORE STARTING

- * **GENPOWER generators** have been produced in international standards.
- * There is an oil level sensor in the generators to prevent damage to the engine in case of oil shortage. When the oil level falls below a certain level, this sensor does not allow the generator to operate.
- * The oil capacity of the engine crankcase is **0.35 liters (0.37 quarts)**.
- * Use **SAE 10W30** oil which also used in gasoline vehicles as oil.
- * Each generator has a group identification plate. Serial number, qualifications, weights and manufacturing date of generators are written on this group plate. Use this serial number in spare parts, repair claims, interviews and at your demands.
- * It is recommended to use high quality detergent oils classified as SE, SF, SD or SC. Detergent oils keep the engine clean and prevent gumming and deposits. Nothing should be added to the recommended oil. The viscosity of the lubricating oil used should be selected in accordance with the ambient temperature range in which the engine operates.

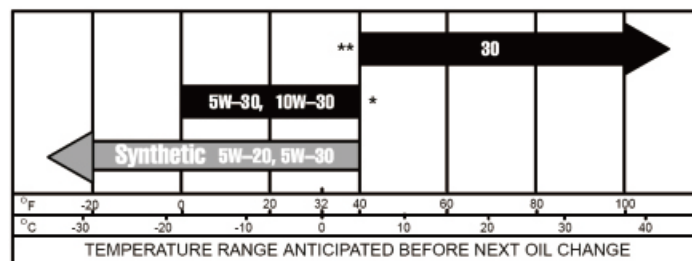


Figure 1

2.1. FILLING OIL:

! ATTENTION! Your generator has been shipped without oil. Before using, be sure to fill in the oil. Do not ship with oil.

- * Put the generator on a flat surface.
- * Open the access panel, remove oil dipstick as shown in **Figure 2**.

* Remove the oil filler plug or rod, fill the oil slowly. If there is a oil dipstick, fill it to the maximum point on the dipstick. Do not overfill.



Figure 2

* Put oil dipstick in its place.

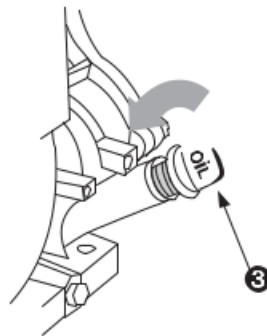


Figure 3

2.2. CHECKING THE OIL LEVEL:

- * Put the generator on a flat surface.
- * Remove the dipstick and wipe it with a clean cloth.
- * Put the dipstick back in place.
- * Take it out again to check the oil level.
- * While engine running, the dipstick should be firmly seated in its socket.

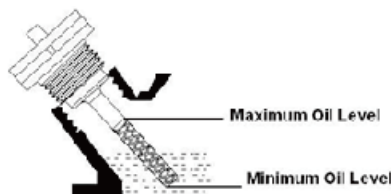


Figure 4

2.3. GASOLINE RECOMMENDATIONS:

- * Your generator runs efficiently with all gasoline used for automotive.
- * It is recommended to use gasoline with an octane rating of at least 77. Do not mix oil with fuel.
- * Use clean, fresh and unleaded gasoline.
- * The capacity of the fuel tank is 1 gallon.
- * Do not fill the fuel tank to the very top. Gasoline will expand and spill over during use even with the fuel cap in place.

- * Purchase the amount of fuel to be used in the 30-day period. This ensures fuel freshness and the required fuel viscosity according to the season.
- * When unleaded petrol is not available, leaded petrol can be used. Unleaded gasoline prolongs valve life as it reduces combustion residues.
- * Do not use gasoline containing alcohol. If alcohol is to be used with the fuel, the gasoline should not contain more than 10% ethanol and should be drained when the engine is not in use.
- * Do not open the fuel cap while the engine is running.

2.4. RECOMMENDATIONS FOR AN EFFICIENT PERFORMANCE:

- * Keep the generator flat while filling, storing and operating with oil and fuel.
- * Do not use pressurized starting fluid.
- * Use oil suitable for the temperature.
- * Do not start the engine with a low oil level.
- * Run the generator at no load (idle).
- * Use fresh fuel.
- * If the engine is cold, make sure to adjust the choke fully.
- * A hot engine requires less choke than a cold engine.

3. PART: MAIN PARTS OF THE GENERATOR:

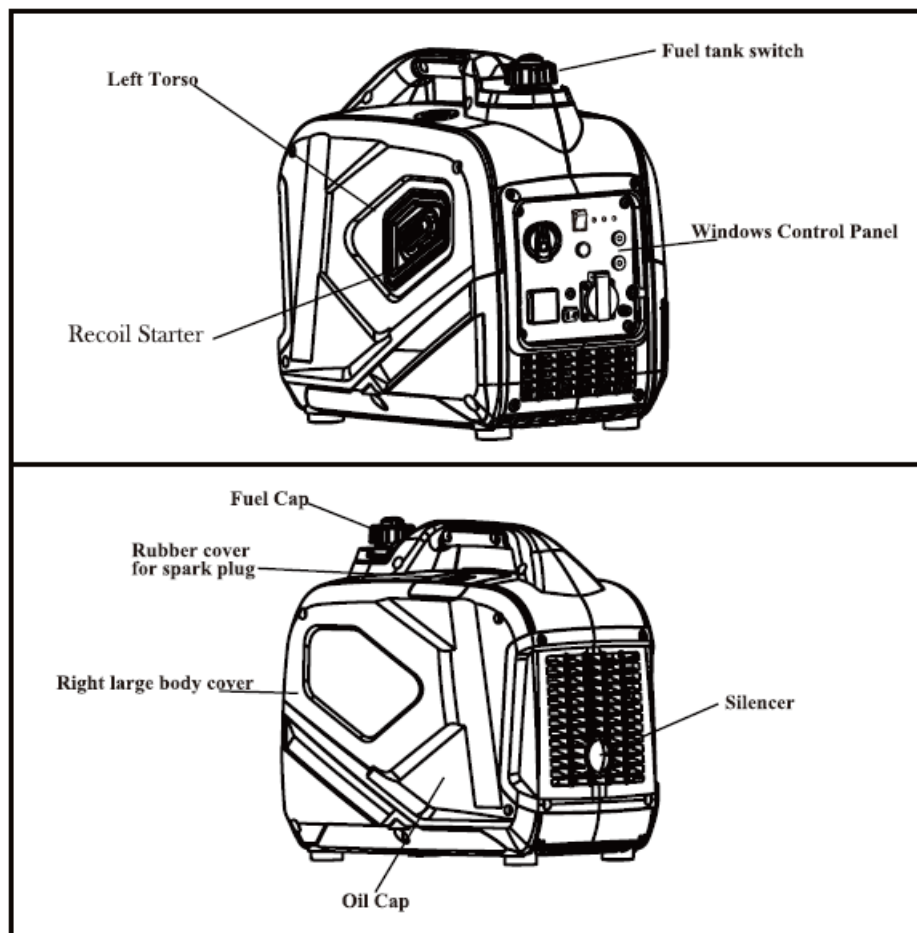


Figure 5

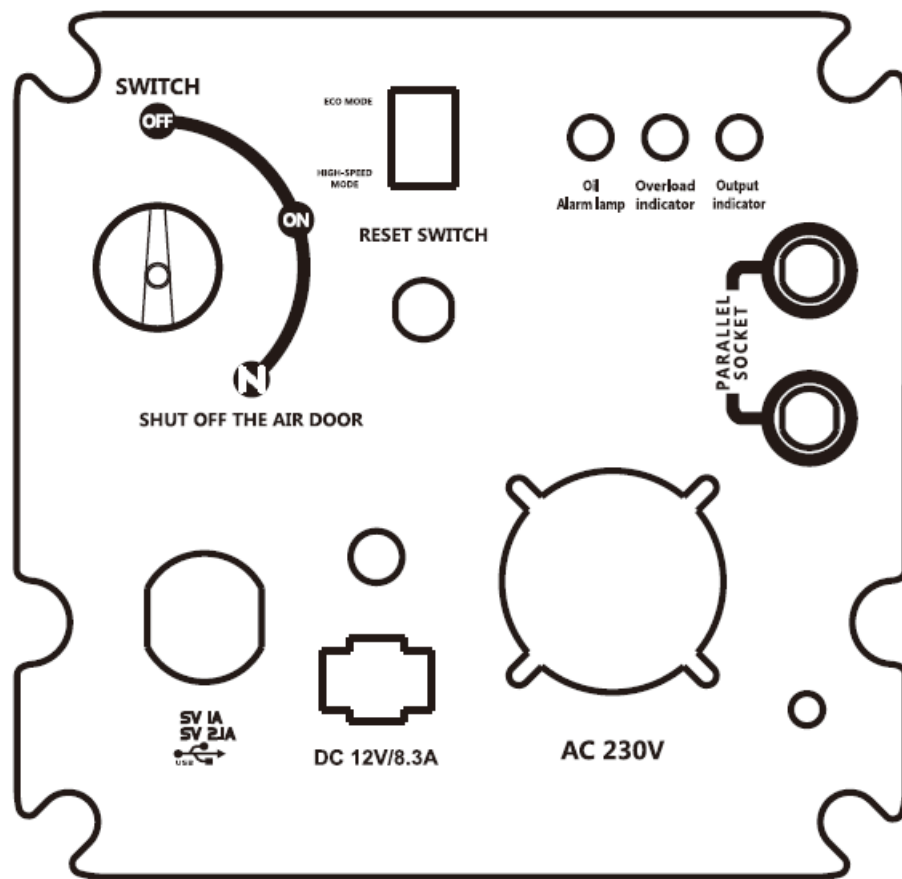


Figure 6

4. PART: STARTING GENERATOR

- 4.1. Unplug all electrical devices from the generator during starting; otherwise it can be difficult for the engine to start.
- 4.2. Check that the generator properly grounded,
- 4.3. Check the oil and fuel levels,
- 4.4. Open vacuum relief valve on top of fuel cap. Rotate clockwise to the “ON” position.

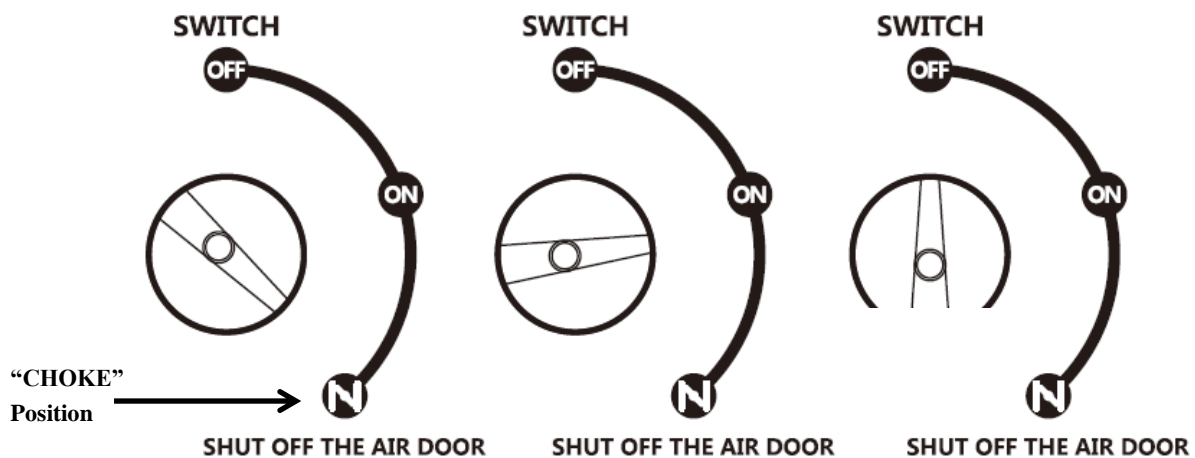


Figure 7

4.5. Turn the 3-in-1 switch to the “CHOKE”  position as shown on **Figure 7**.

4.6. **Recoil Starting:** Gently pull the starter lever until you feel resistance as shown on **Figure 8**. Pull until it meet the pressure and prevent kickback, pull quickly and start the engine. Repeat the same steps if necessary. Never allow the cord to snap back. After starting the engine, turn the 3-in-1 switch to the “ON” position as shown on **Figure 7**.

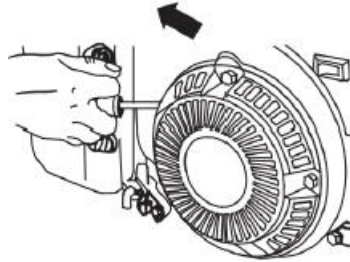


Figure 8

4.7. Allow the generator to run for several minutes before attempting to connect any electrical devices. This allows the generator to stabilize its speed and temperature.

5. PART: STOPPING GENERATOR

- * Before stopping the generator, always disconnect it from the load.
- * Turn the 3-in-1 switch to the “OFF” position as shown on the **Figure 7**,
- * Close vacuum relief valve on top of fuel cap. Rotate clockwise to the “OFF” position.
- * Do not use the choke to stop the engine. If choke used, explosion may occur due to the rich mixture. This is harmful to the engine.



ATTENTION! Allow the generator to cool for several minutes before touching areas that become hot during use.

6. PART: MAINTENANCE

- * General maintenance of the generator is described in this section.
- * Always have authorized persons or authorized services maintained your generator set. Note that guarantee will be void in case of maintenance, repair and setting made by unauthorized services or persons.
- * Always use original spare parts in maintenance and repair. Never use non-original parts or those approved by **GENPOWER** in written form.
- * Guarantee of the generator set will be void as a result of damages caused by non-original maintenance or repair parts.
- * Comply with safety measures mentioned in previous sections while performing the maintenance.



ATTENTION! When servicing your generator, disconnect the spark plug wire from the spark plug to prevent the engine from starting suddenly. Take safety precautions and follow them.

6.1. Check Oil Level Regularly: Check every 5 hours of operation or daily. Make sure the oil level is just right.

6.2. Oil Change:

- * Replace oil after the first 5 hours of use.
- * Under normal operating conditions, engine oil should be changed every 50 working hour.
- * At high temperatures and loads the oil should be changed every 25 hours.
- * When the engine is warm drain the oil by removing the oil drain plug and replace the plug. Fill the oil with the recommended oil.
- * Follow the next steps:

- 6.2.1 Place generator on elevated platform such as table or desk. Put a container next to it to hold the used oil.
- 6.2.2 Remove the side panel.
- 6.2.3 Close vacuum relief valve on top of fuel cap. Rotate clockwise to the “OFF” position.
- 6.2.4 Unscrew the dipstick and put aside.
- 6.2.5 Tilt the generator so the used oil flows from the generator into the container. Tilt some more to ensure all oil is out of the crankcase.
- 6.2.6 Fill the crankcase with fresh oil and reinstall the dipstick.
- 6.2.7 Clean any oil spillage before closing the side panel.

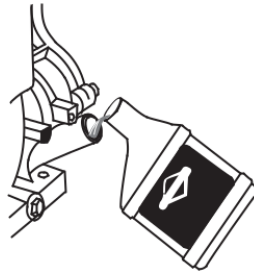


Figure 9

6.3. Air Cleaner Maintenance:

- * Routine maintenance of the air cleaner helps maintain proper airflow to the carburetor.
- * Occasionally check the air cleaner is free of excessive dirt.
- * Follow the next steps:

- 6.3.1 Remove the side panel,
- 6.3.2 Remove 3 screws than pull the air cleaner cartridge out,
- 6.3.3 Unscrew the filter attachment screws.
- 6.3.4 Carefully remove the pre-cleaner and wash it with liquid detergent and water.

 **ATTENTION!** Perform maintenance more frequently in dusty conditions.

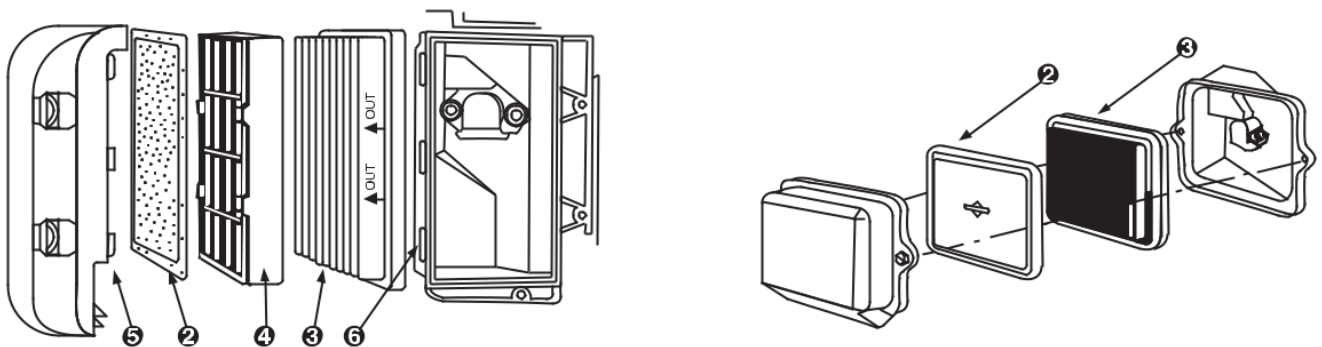


Figure 10

6.4. Cleaning of Generator:

- * Remove dirt and debris with a cloth or brush and clean it.
- * Water jet washing does not recommended due to engine fuel system with alternator winding and electrical equipment may break down.
- * Do not keep combustible parts on or near of exhaust muffler.
- * Generator cooling provided by the air flow passing over it. Therefore, the air ducts on the engine body and the alternator air outlet windows must be open and clean.
- * Grass and dirt can clog the starter guard and the air cooling system becomes inadequate, especially as a result of extended maintenance time.

- * Every 100 hours or every season, remove the starter guard and clean the area shown in Figure 11.

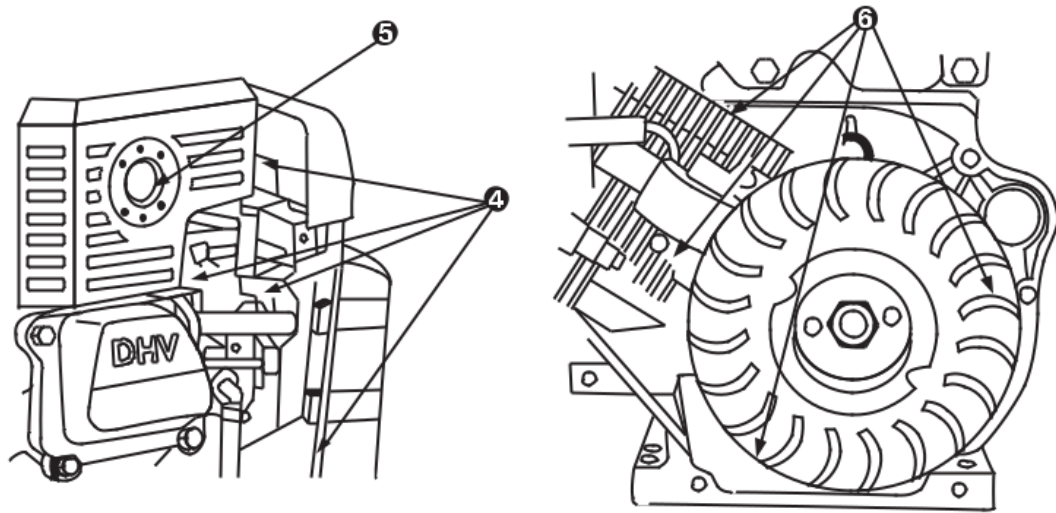


Figure 11

6.5. Sparking Plug Replacement or Maintenance:

- * The spark plug is important for proper engine operation,
- * A good spark plug should be intact, free of deposit and properly gapped.
- * Replace or clean the spark plug after every 100 operating hours.
- * Follow the next steps:

- 6.5.1 Remove side panel,
- 6.5.2 Remove spark plug boot, be careful not to tear insulation or wire,
- 6.5.3 Unscrew the spark plug from the engine using the spark plug wrench provided. There is limited space for the wrench to turn. Use both rows of holes in the spark plug wrench to gain leverage to loosen the plug,
- 6.5.4 Visually inspect the spark plug for cracks or excessive electrode wear. Replace as necessary.
- 6.5.5 Adjust the spark plug gap to 0.76 mm with a feeler (Figure 12).
- 6.5.6 Do not destroy while cleaning spark plug.
- 6.5.7 Clean the spark plug by scraping or with a wire brush.
- 6.5.8 Screw the spark plug back into the spark plug hole using the spark plug wrench. Do not overtighten spark plug. Recommended tightening spark plug is $\frac{1}{2}$ to $\frac{3}{4}$ of a turn after spark plug gasket contacts spark plug hole. Reinstall the spark plug boot and control panel.

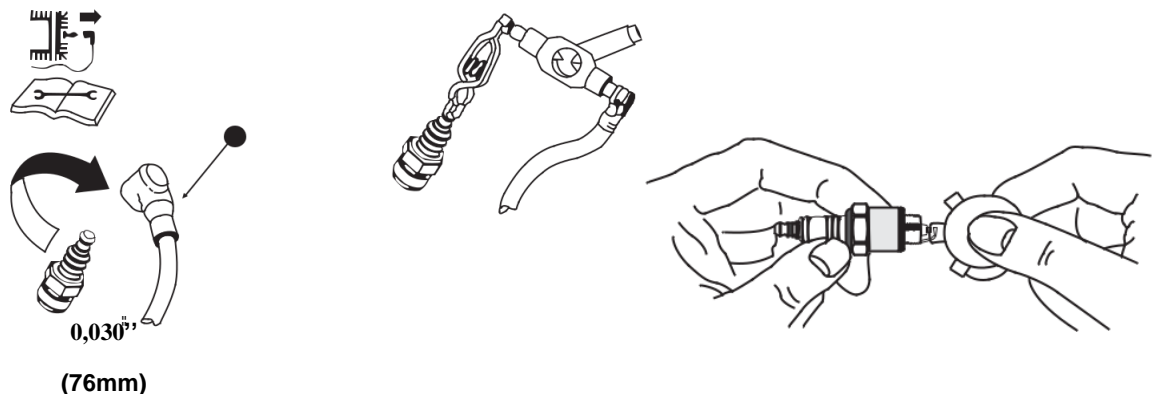


Figure 12

6.6. Example Of Maintenance Schedule:

ITEM	PERIOD				
	Daily	First Month	Every 3 Months	Every 6 Months	Every 1 Year
Engine Oil Check	Check				
Replace Engine Oil		Replace		Replace	
Air Cleaner Check	Check				
Air Cleaner wash			Clean		
Oil Filter Cup				Clean	
Spark Plug				Clean	
Valve Clearance					Check, readjust
Cylinder Cover Wash					Clean
Fuel Tank Wash	Replace every 3-year				

7. PART: TROUBLESHOOTING

Problem	Cause	Solution
Engine will not start	Engine switch in "OFF" position	Set engine switch to "CHOKE" position.
	Engine is filled with contaminated or old fuel	Change the fuel in the tank.
	Not enough oil in crankcase	Add or replace oil.
	Air cleaner is dirty.	Clean or replace air cleaner.
	Spark plug is dirty.	Clean spark plug.
	Spark plug is broken.	Replace spark plug.
	Generator is not on level surface.	Move generator to a level surface to prevent low oil shutdown from triggering.
	Engine needs maintenance	Get a professional engine tune-up at an authorized small engine repair shop
	Generator was tilted when adding oil, or shipped side-down	Remove spark plugs, turn off engine switch then pull recoil starter four times to remove oil form the combustion chamber.
Engine stops	Vacuum relief valve in "OFF" position	Turn vacuum relief valve to "ON" position
	Not enough oil in crankcase	Add or change oil
	Engine is out of fuel	Add fuel.
Blue smoke in exhaust	Generator inclined, oil entered combustion chamber	Move generator to a level position
	Too much oil was added to the crankcase.	Drain excessive oil.
Generator runs but does not support all electrical devices connected.	Bad connecting wires/cables.	If using an extension cord, try a different one.
	Bad electrical device connected to generator.	Try connecting a different device
	Generator is overloaded, Overload light is on	Perform these steps: 1. Turn off all electrical devices. 2. Unplug all electrical devices. 3. Shut down the engine. 4. Wait several minutes and then start the engine. 5. Try connecting fewer electrical loads to the generator.
	Short in one of the connected devices.	Try disconnecting any faulty or short-circuited electrical loads.

8. PART: TECHNICAL DATA SHEET OF MODELS

GENERATOR	MODEL		GBG 25IS	GBG 30IS
	Type		Silent Type Digital Inverter (Permanent magnet motor	
	Max. Output Power	kVA	2.5	3
	Rated Output Power	kVA	2.1	2.5
	Power Factor	Cos Q	0.8	0.8
	Frequency	Hz	50	50
	Voltage	V	230	230
	Current	A	9	11
	Noice Level (from 7 meter @ 1/4 Load)	dBA	≤50	≤50
ENGINE	Type		OHV, Single Cylinder, Forced Air Cooled, Four Stroke	
	Model	GBE	148	152
	Series		F	F
	Displacement	cc	79.7	98
	Bore x Stroke	mm	48 x 43	52 x 46
	Compression Ratio		0.375694444	8.5:1
	Ignition		CDI	
	Fuel Tank Capacity	L	5.6	5.6
	Run Time @ %50 Load		6	5
	Oil Capacity	L	0.6	0.6
	Engine Start System		Recoil	Recoil
	Speed	rpm	2000/4400	
ALTERNATOR	Model		25I	30I
	Type		Digital Inverter (Permanent magnet motor	
	Phase		Single Phase	
	Voltage Regulation		Electronic	
	Protection Class		IP23	
	Insulation Class		H/F	
	Wire	100%	Copper	
	THD (Total Harmonic Distorsion)	%	≤3	≤3
OTHER DETAILS	Over Load Protection		√	√
	Low Oil Alert		√	√
	Reset Socket		√	√
	European Socket		√	√
	Analog Voltmeter		-	-
	3-in-1 director light(oil alert+output+overload)		√	√
	Engine Switch		√	√
	3 in 1 Digital Display		√	√
	DC Socket (12V/8, 3A)		√	√
	DC Protector		√	√
	USB Socket		√	√
	Parallel Socket		√	√
	Grounding Terminal		√	√
	Wheel and Handle		Handle Type	
	Certification		CE/EU5/EPA	
PACKING	Package		Color Carton and Coated with plastic	
	Carton Size	cm	55x35x53	55x35x53
	Net Weight/Gross Weight	Kg	20/22,5	20/22,5
LOADING Q' ty	20GP/40GP/40HQ	Pcs	276/556/695	276/556/695

9. PART: MONO PHASE GENERATOR CONNECTION DIAGRAM

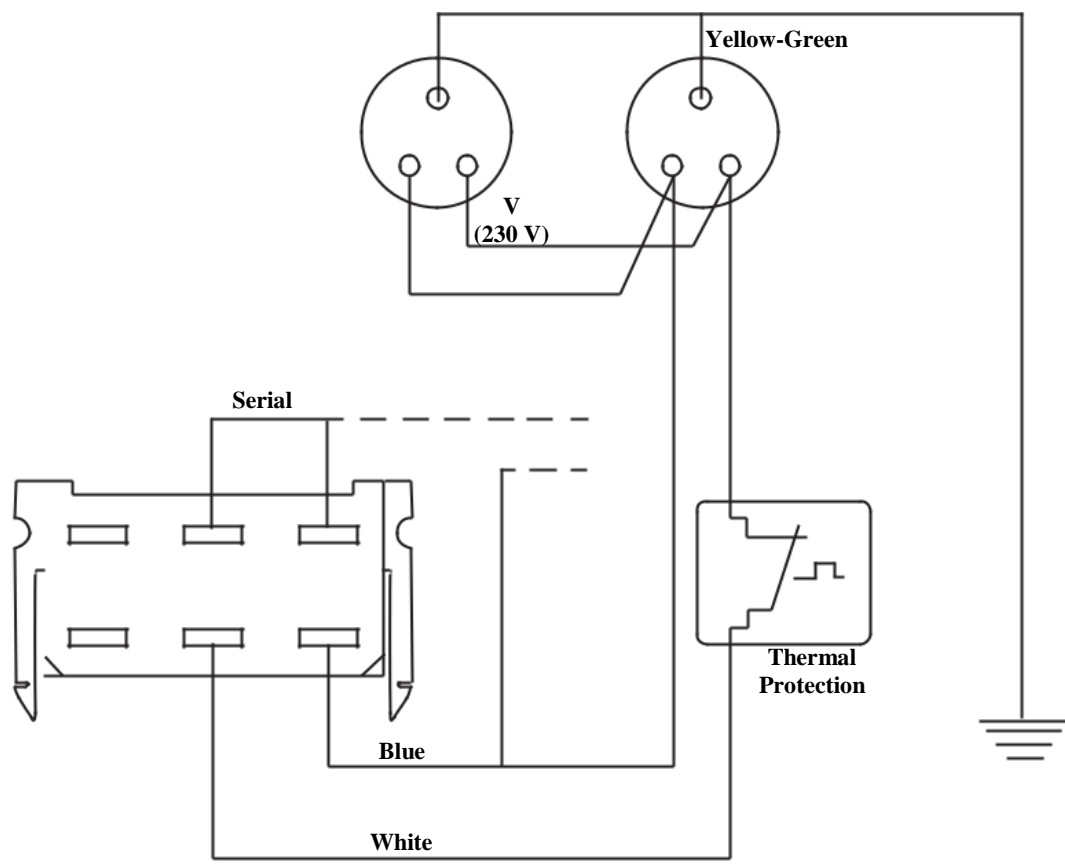


Figure 17

***THANK YOU FOR CHOOSING GENPOWER GENERATOR SETS, WE WISH FOR YOU TO USE
YOUR GENPOWER GENERATOR THROUGH LONG AGES IN ACCORDANCE WITH THESE
OPERATING AND MAINTANCE MANUAL.***



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