



# **OPERATING INSTRUCTIONS FOR GASOLINE GENERATOR SET**

G12500E(10GF-4)

## PREFACE

Thank you for choosing the gasoline generator set produced by our Co.

Based on the latest technology at home and abroad, our Co. has successfully developed the gasoline generator set which adopts our self-developed 2V78F-3 as its engine.

The manual gives information with respect to operation and maintenance of the gasoline generator, and be sure to read it carefully first before operating. If any trouble occurs, call your dealer who will provide you with the best after service.

All the materials and diagrams of this manual are in accordance with the newest products at the publishing time. Due to revision and other change, the information described in this manual may be a little different from the actual states. The copyright of this manual belongs to our Co., any group or individual is forbidden to reprint or copy any it. The manual is subject to change without notice.

## IMPORTANT NOTICES

Please pay special attention to statements preceded by the following words:



### **WARNING:**

**A warning is used to alert the user to fact that hazardous operating and maintenance procedures may result in injury to or death of personnel if not strictly observed.**

### **CAUTION:**

**A caution is used to alert the user to fact that hazardous operation and maintenance procedures may result in injury or death of personnel if not strictly observed.**

### **NOTE:**

**Give helpful information.**

This manual should be considered as a permanent part of the unit and should remain with the unit when resold.

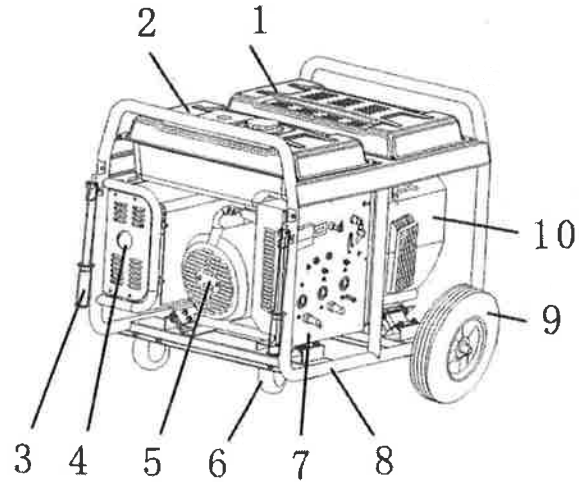
## Contents

1. GENERATOR SAFETY .....	4
2. INTRODUCTION TO PARTS AND COMPONENTS .....	5
3. PRE-OPERATING INSPECTION.....	7
4. STARTING THE GENERATOR .....	8
5. STOPPING THE ENGINE .....	8
7. BATTERY:.....	15
8. TRANSPORTING AND STORAGE:.....	17
9. TROUBLESHOOTING .....	18
10. WIRING DIAGRAM .....	20
11. SPECIFICATIONS .....	21
12. ASSEMBLY OF PARTS .....	23

## **1. GENERATOR SAFETY**

- 1.1 Never operate it in an enclosed room, as its exhaust gas contains carbon monoxide. If operate it in an limited room, please keep ventilate.
- 1.2 Never connect to home circuit.
- 1.3 Do not operate it under wet circumstance.
- 1.4 No smoking when filling fuel
- 1.5 Place inflammables away from the unit at least one meter.
- 1.6 Always fill fuel after stopping it.
- 1.7 Do not spill out when filling fuel.

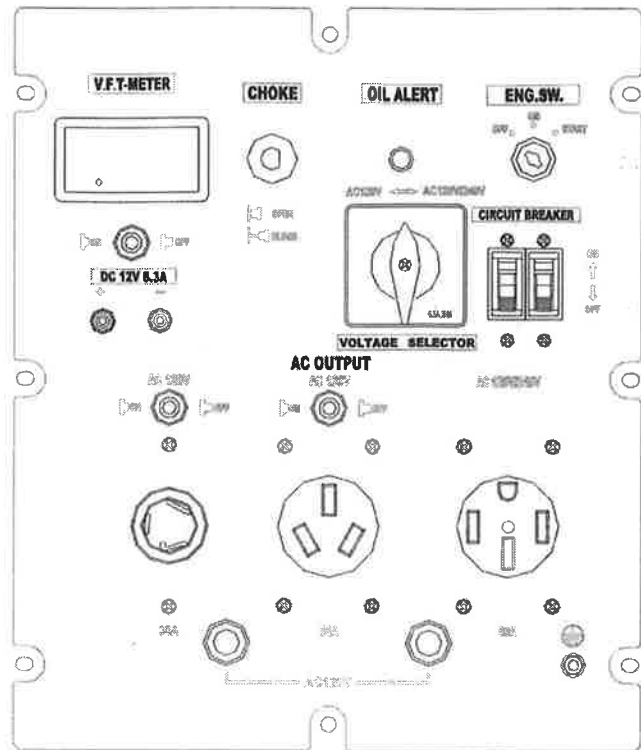
## 2. NTROUCITON TO PARTS AND COMPONENTS



- 1 Fuel tank
- 2 Generator end over
- 3 Handle
- 4 Muffler end cover
- 5 Generator end cover

- 6 Wheel kit
- 7 Control panel
- 8 Pipe frame
- 9 Wheel
- 10 Generator

# Control panel (10GF-4)



### **3. PRE-OPERATING INSPECTION**

#### 3.1 ENGINE-OIL LEVEL

3.1.1 Turn out the oil filler cap and clean the dipstick with a clear clothe.

3.1.2 Insert the dipstick back into the oil filler hole and turn it out to check oil level.

3.1.3 In the case that the oil level is below the lower level mark of the dipstick, fill oil to the upper level mark of the dipstick.

3.1.4 Reinstall the oil filler cap well.

#### 3.2 FUEL LEVEL

3.2.1 Open the fuel filler cap

3.2.2 Check the fuel level, and fill fuel if necessary

3.2.3 Fill fuel to the shoulder of the filter.

3.2.4 Reinstall the fuel filler cap well.

#### 3.3 OIL RECOMMENDATION

3.3.1 Never use unclean or dirty fuel, keep water out of the tank

3.3.2 If hear crank sound when engine running unload, please refuel.

**Note: The continuous crank sound will damage the generator**

#### 3.4 Air cleaner

3.4.1 Remove the cover



3.4.2 Dismantle the air housing

3.4.3 Clean the core in the cleansing solvent .Put the filter element in to the original position, install the cover and secure it well.

## **4. STARTING THE GENERATOR**

4.1 Turn on the fuel cock.

4.2 Switch off the circuit protector.

4.3 Pull out the chock, turn on the ignition switch until START position and hold on for 3 to 5 seconds. Start the engine and excite the alternator at the same time during those 3 to 5 seconds. Push the chock back once after starting the engine. Loosen the ignition switch and turn back to ON position once after the generator generating electricity.

**Note: 1.Once the engine starts, loosen the ignition switch in order to protect electric start assy.**

**Do not use the ignition switch over 5 times continuously. If starts failed, release the ignition switch for cooling. Then restart 5 minutes later;2 . Oil alarm system: if the oil is not added or the oil is insufficient, the machine will automatically shut off in 1.8 seconds after starting . The oil alarm lamp will light up when the engine is shut off. When the power is completely shut off, the oil alarm lamp will go out.**

## **5. STOPING THE ENGINE**

**Note: To stop the generator in an emergency, turn the ignition switch to OFF.**

5.1 Turn the AC protector switch to OFF.

5.2 Turn the fuel cock to OFF and use up the fuel inside the carburetor to stop the generator.

5.3 Turn the ignition switch to OFF.

## 6. MAINTERNANCE

User should service the unit according to the Maintenance Schedule as follows:

### 6.1 Maintenance schedule

		Or first month	Or every 3 months	Or every 6 months	Or every one Year
Engine oil check	Check				
Replace engine oil		Replace		Replace	
Air cleaner check	Check				
Air cleaner wash			Clean		
Oil filter cup				Clean	
Battery electrolyte level	Clean				
Spark plug				Clean	
Valve clearance					Check, adjust
Cylinder cover wash					Clean
Fuel tank wash	Replace every 3-year				

## 6.2 Replacement of engine oil

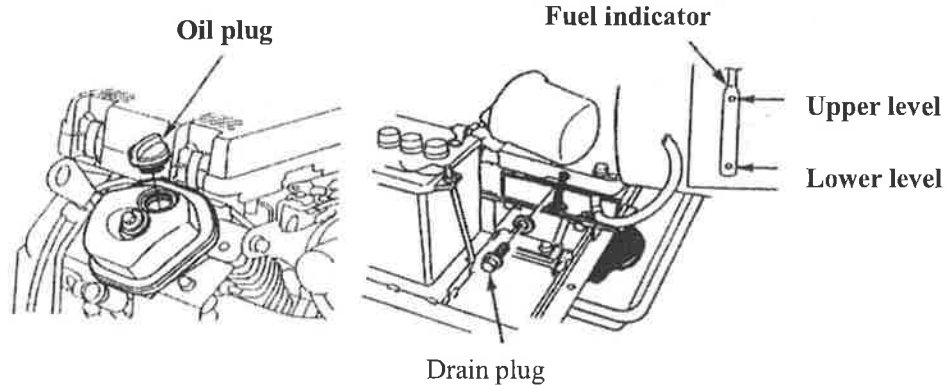
Empty the engine oil from the crankcase.

6.2.1 Remove the oil filter and oil drain valve, drain the oil.

6.2.1 Unscrew the drain plug, and empty the engine oil from the crankcase.

6.2.3 Screw on the drain plug.

6.2.4 Fill engine oil to the upper level mark of the dipstick.



**⚠** Don't pour containers and waste oil into the dustbin, or on the ground. We recommend that you put the oil into a closed container, sent to the local waste oil regeneration to stand, to protect the environment and health.

### 6.3 Oil filter replacement

6.3.1 Empty the rest oil completely, screw the drain plug.

6.3.2 Remove the oil filter, drain the oil.

6.3.3 Clean the oil filter, put O ring, screw the tank cap.

6.3.4 Screw the new oil filter 7/8 circle to make the O ring to the groove.

**Note: Only our company engine oil filter or the one of the matched specification can be used. Otherwise, it will lead to danger.**

6.3.5 Add lube to crankcase.

6.3.6 Open engines to check the oil filter.

6.3.7 Check the oil capacity.

### 6.4 Maintenance of air cleaner

**Warning: Please don't use oil to clean subassembly of air cleaner.**

**Note: Prevent dirties and dusts into dust room.**

If dusts fall into an engine, it will shorten the lifespan of the engine.

6.4.1 Open air cleaner cover

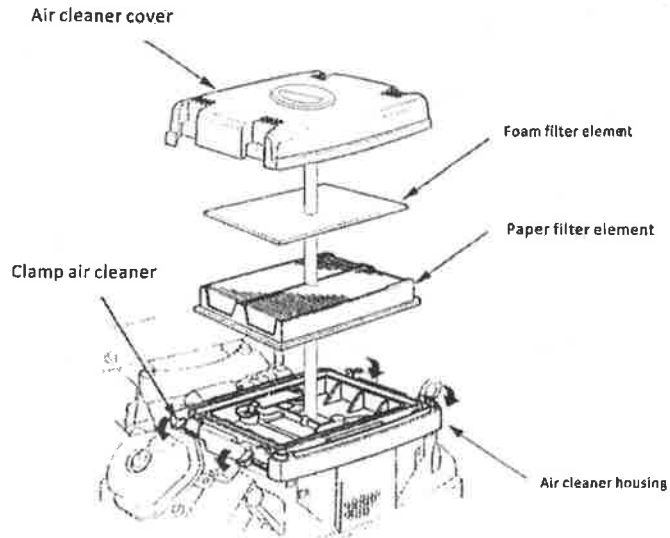
6.4.2 Move foam and take down paper washer;

6.4.3 Cleaning dust laying parts;

Use warm soap water to clean foam plastic. Do not use volatile chemical reagent or diesel. Paper washer can be flapped by hand or be blown by compressed air. Don't use brush to brush it, or it will make dirties agglomerate in the fiber. If it is too dirty, change it.

6.4.4 Use wet cloth to clean the dust in dust room and the cover. Pay attention not to make dust into carburetor.

6.4.5 Install the cleaned cover of the air cleaner.



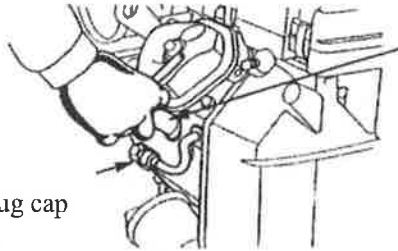
## 6.5 Spark plug

The advised mode: ZGR5A (NGK) J16CR-U (DENSO)

### 6.5.1 Offload the cap of a spark plug

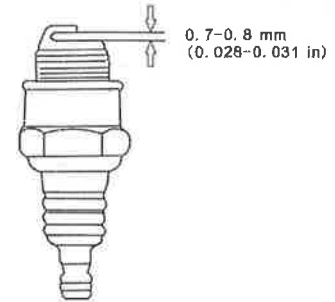
### 6.5.2 Offload a spark plug

### 6.5.3 Clean carbon



Spark plug cap

Spark plug wrench



### 6.5.4 Measure and adjust the gap of a spark plug

### 6.5.5 Install a spark plug and the cap of the spark plug.

#### Note:

- The spark plug must be screwed tightly. If it is not in the right place, it will lead to overheating of the generator until it is burned down.
- It is an ought to use the spark plug of the recommended mode. If the spark plug is not matched, it will

**damage the generator.**

6.6 The cleaning of a fuel valve

The fuel valve can prevent dirties and water into the carburetor.

6.6.1 Turn off the fuel valve and dismantle the cup of the fuel valve.

6.6.2 Clean oil cup.

6.6.3 Install O-ring

6.7 Fuel filter

6.7.1 Dismantle a dust cover and a clapboard;

6.7.2 Dismantle the screw of dust cover and the cleaning cover;

6.7.3 Remove the fuel filter from the dust cover.

6.7.4 Check whether there is the left oil or water in the fuel filter. If there is no oil or water, install the fuel filter and the cleaning cover.

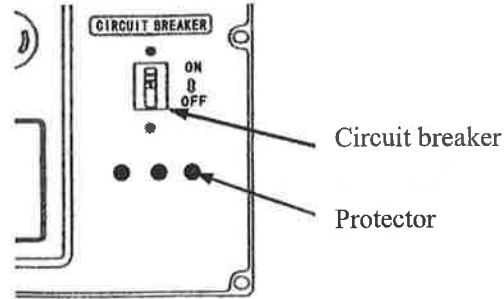
6.8 Changing the fuse:

If the fuse melts, engine cannot start.

6.8.1 Turn off the engine switch.

6.8.2 Remove the protector and change the fuse. Use only 5A fuse.

**Note: If it arises frequently that the fuse melts, check if the fuse is put correctly ahead of the each operation.**



## 7. BATTERY:

The 3A electric quantity will be provided to battery when engine is running. Regular maintenance for battery is needed if the generator is operated regularly.

Lead-acid battery release 0.5%-1.0% electric quantity automatically every day. That is, battery will release 30% electric quantity automatically if the generator does not work for one month. It makes engine stop working and shortens the life-span of battery.

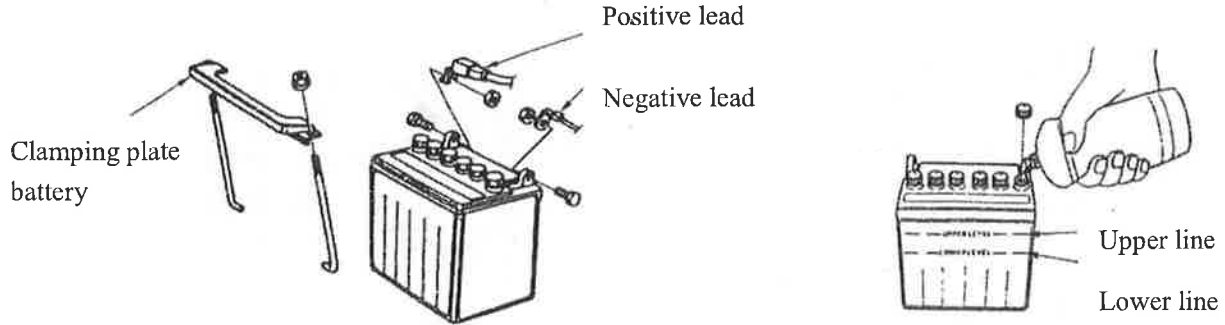
7.1 Charging the battery according to the following steps:

7.1.1 Remove the stand of battery;

7.1.2 Remove side lever.

7.1.3 Remove the negative lead of battery and connecting terminal on generator first, remove the positive lead of battery.





7.1.4 Remove battery;

7.1.5 Remove the cover of battery;

7.1.6 Check the electric quantity of each battery (level line of electrolyte)

7.1.7 If electrolyte reach near the lower line, add distilled water.

**Warning:**

As battery contains sulfuric acid with toxicity and causticity, please wear protective clothing when operating. If sulfuric acid gets on your body unexpectedly, flush with water and call a physician.

**Warning:**

As the hydrogen gas which is given off when battery running normally is flammable, keep heat, sparks, and flame away. Wear protective clothing and a face shield when operating. And operate it by a professional technician.

## 7.2 Charging:

Rated current of battery should be 14AH. Charging current is the rated current which should be 10%A per hour. The discharging quantity of charging battery should be adjusted to 14A.

7.2.1 Remove the cover of battery and charge the battery according to the instruction manual.

7.2.2 The duration of charging is 3-4 hours.

7.2.3 Check the electrolyte when charging is ending, and add the distilled water for demands.

7.2.4 Install the outer cover of battery and clean it.

## 7.3 Installation:

7.3.1 Install the battery on engine

7.3.2 Connect the positive lead and the negative lead.

7.3.3 Install the battery seat

## **8. TRANSPORTING AND STORAGE:**

When transporting the generator, turn the engine switch and the fuel valve OFF, and keep the generator level to prevent fuel spillage. Fuel vapor or spilled fuel may ignite. If the generator has been used, allow it cool for at least 15 minutes before loading the generator on the transport vehicle. Remnant waste-gas can burn you or cause incidents.

8.1 When the generator will be stored for a long time:

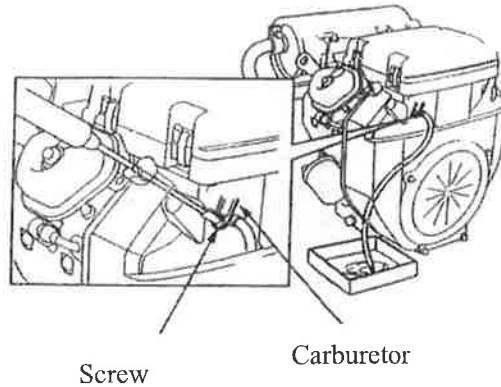
8.1.1 Drain the fuel sediment cup. Change washer and tighten the sediment cup.

8.1.2 Turn the fuel valve ON and drain the fuel from the fuel tank.

8.1.3 Loosen the carburetor drain screw and drain the gasoline from the carburetor.

8.1.4 Remove the oil drain plug and drain the oil and reinstall the oil drain plug.

8.1.5 Be sure the storage area is free of excessive humidity and dust.



## 9. TROUBLESHOOTING

9.1 When the engine will not start:

9.1.1 Check if the engine switch is in the ON position.

9.1.2 Check if there is fuel in the fuel tank.

9.1.3 Check if there is enough oil in the engine.

9.1.4 Check if there is a spark at the spark plug.

9.1.5 If the engine still does not start, take the engine to the after-service department of our company.

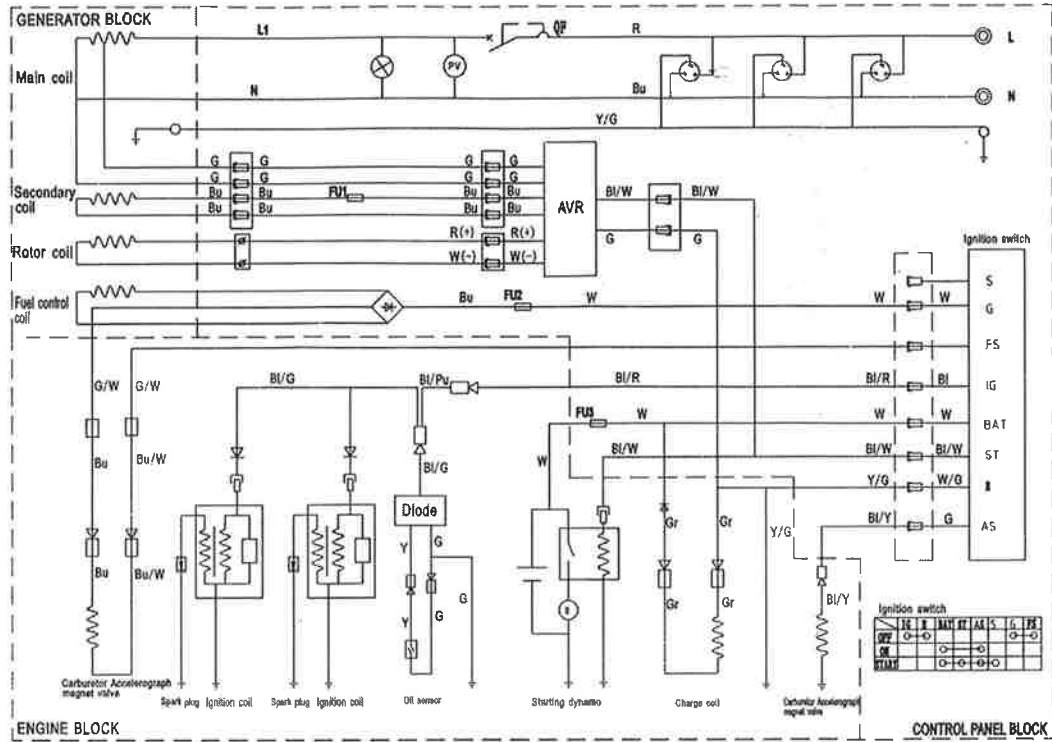
9.2 When appliance does not operate:

9.2.1 Check if the output indicator light is ON.

9.2.2 Check if the AC circuit breaker is ON.

9.2.3 If the appliance still does not operate, take the generator to the after-service department of our company.

# 10. WIRING DIAGRAM ( 10GF-4)



## 11. SPECIFICATONS

### Engine

Model	2V78F-3
Type	V-shaped, double-cylinder,4-stroke,forced air-cooled, OHV
Displacement (cm <sup>3</sup> )	688cm <sup>3</sup>
Bore × Stroke (mm)	78x72mm
Engine oil capacity (L)	1.4L
Spark plug	ZGR5A (NGK), J16CR-U (DENSO)
Ignition system	Non-contact transistor
Start system	Electric

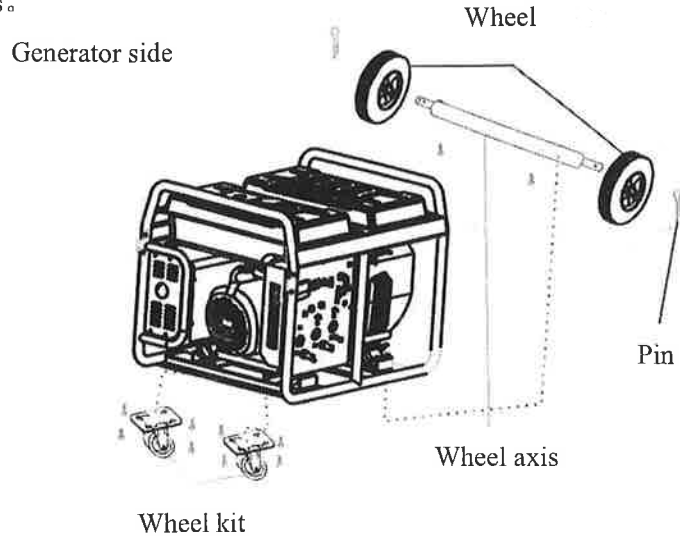
### Generator

Model		10GF-4
Voltage adjusting		AVR
AC output	Rated voltage (V)	120/240
	Rated frequency (Hz)	60
	Rated current (A)	91.7/45.8
	Rated power (kW)	11.0
	Max. power (kW)	12.0
	Power factor	1
	Phase	Dual voltage
Generating set	Overall length (mm)	815
	Overall length (mm)	840
	Overall length (mm)	795
	Dry mass (kg)	154

## 12. ASSEMBLY OF PARTS

12.1 Install the wheels into the wheel-holders;

12.2 Install the wheels.



### Note:

- Install the wheels and wheel-locker;
- Please make sure that the wheels have been installed tightly before operating the generator.



**K-1868-1**