

# LIFAN GENERATOR MANUAL

G1800(1800W)

## PREFACE

Thank you for choosing a gasoline generator set by our Co.,

Based on the latest technology at home and abroad, our Co., has successfully developed the gasoline generator set. The unit is characterized by advanced design, compact structure, reliable performance, low noise and small vibration. With general gasoline engine 160F as power, it is widely used in many fields such as living, open working, shop, fishing, etc.

The manual gives information with respect to operation and maintenance of the gasoline generator, and be sure to read it carefully first before operation. 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 in this manual may be a little different from the actual status. 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 operation 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 to 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.**

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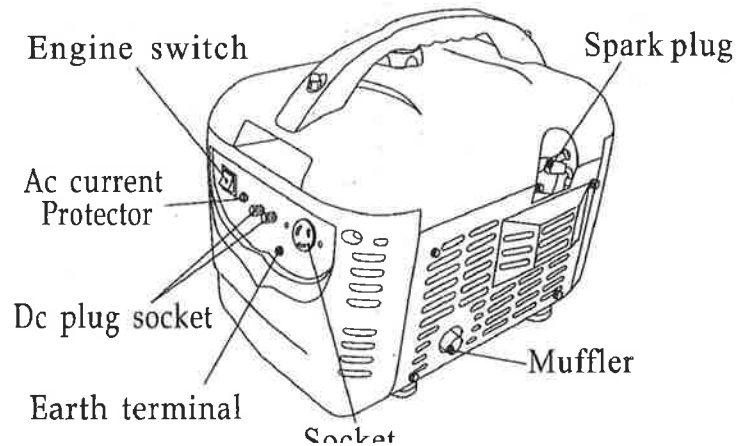
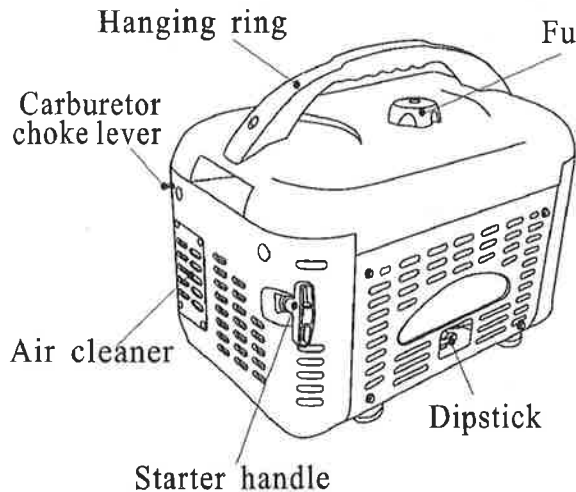
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## **1. GENERATOR SAFETY**

To ensure safe operation—

1. Place the generator at least 1m away from building or other equipment when operating the generator.
2. Operate the generator on a level surface. If the generator is tilted, fuel spillage away result.
3. Exhaust gas contains poisonous carbon monoxide. Never run the generator in an enclosed area. Be sure to provide adequate ventilation.
4. Know how to stop the generator quickly and understand operation of all the controls. Never permit any one to operate the generator without proper instructions.
5. Keep children and pets away from the generator when it is in operation.
6. Keep away from rotating parts while the generator is running.
7. The generator is a potential source of electrical shocks when misused, do not operate with wet hands.
8. Do not operate the generator in rain or snow and do not let it get wet.

## 2. INTROUCITON TO PARTS AND COMPONENTS



### 3. PRE-OPERATION INSPECTION

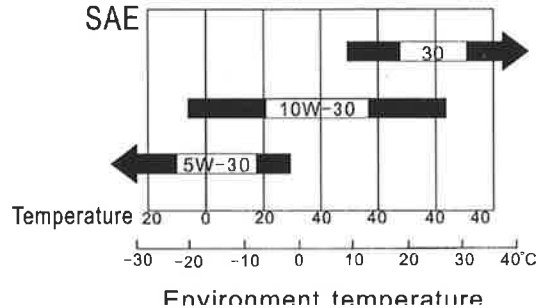
#### 3.1 Engine oil

#### CAUTION

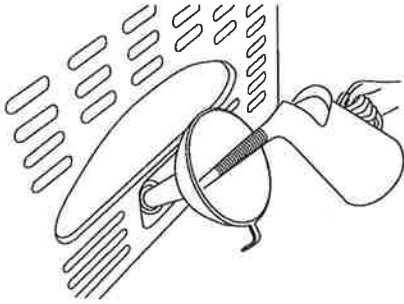
● Engine oil is a key factor in deciding the engine's performance. Do not apply engine oil with additives or 2-stroke gasoline engine oil, as they haven't enough lubrication, which may shorten the engine's service life.

● Check the engine with it stopped on a level ground.

SAE10W-30 is recommended for general, all temperature use.



As viscosity varies with region and temperatures, so the lubricant has to be selected in accordance with our recommendation. If single viscosity engine oil is to be used instead, its viscosity corresponding to average temperature of the region must be considered.



Check Ensure that the engine is stopped on a level ground.

- (1) Remove the dipstick and clean it.
- (2) Reinsert the dipstick into the oil filler without screwing in, and check oil level.
- (3) If the oil level is too low, add the recommended engine oil to the oil filler neck.
- (4) Reinstall the dipstick.

### **CAUTION**

- **Run with insufficient engine oil may damage severely.**

### 3.2 Air cleaner

Check the filter element for dirt, and remove it if any.

### **CAUTION**

- **Never run the engine without an air cleaner, or severe wear of the engine may occur.**

### 3.3 Fuel and Fuel tank

#### 3.3.1 Fuel



The engine must apply unleaded gasoline or low-leaded gasoline. Using unleaded gasoline will decrease the possibility of producing carbon deposit and prolong the engine's service life.

Never use an oil/gasoline mixture or dirty gasoline. Avoid getting dirt, dust or water in the fuel tank.

### 3.3.2 Fuel Tank

Fuel tank capacity: 7.5 liters

## **⚠ WARNING**

- **Gasoline is extremely flammable and is explosive under certain conditions.**
- **Refueling in a well-ventilation area with the engine stopped. Do not smoke and allow flames or sparks in the area where gasoline is stored or where the fuel tank is refueled.**
- **Do not overfill the tank (there should be no fuel in the filler neck). After refueling, make sure the fuel tank cap is set back securely.**
- **Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite.**
- **If petrol is spilled, do not attempt to start the engine but move the machine away from the area ignition until petrol vapour have dissipated.**
- **Avoid repeated or prolonged contact with skin or breathing of fuel vapor.**
- **Keep out of reach of children.**

## 4. STARTING THE ENGINE

### CONTROLS—

- Engine switch: To start and stop the engine
- Switch positions:
  - OFF: To stop the engine
  - ON: To start and run the engine
- Recoil starter:
  - To start the engine, pull the starter grip lightly until resistance is felt, then pull briskly

**NOTE: Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.**

- Choke rod:

The choke rod opens and closes the choke valve in the carburetor. Pulling the choke rod to the CLOSED position enrich the fuel mixture for starting a cold engine.

Pushing the choke rod to the OPEN position provides the correct fuel mixture for operation after starting ,and for restarting a warm engine.

- AC circuit breaker:

The AC circuit breaker will automatically switch OFF if there is a short circuit or an overload of the generator at the AC receptacle. If the AC circuit breaker is switched off automatically, check that appliance is working properly and does not exceed the real load capacity of the AC circuit before switching the AC circuit breaker ON again.

The AC circuit breaker may be used to switch the generator AC power ON or OFF.

- AC Circuit protector:

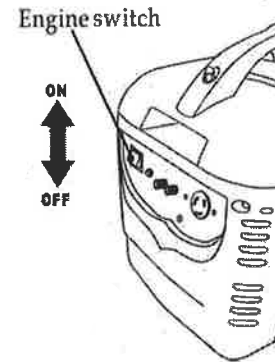
The AC circuit protector will automatically shut off the AC output power if there is a short circuit or an overload of the generator at the generator receptacle.

The red indicator inside the clear circuit protector has switch off . Wait a few minutes and push the button in to reset the circuit protector, and then restart the engine.

If the circuit protector is switched off check that the appliance is working properly and does not exceed the rated load capacity of the circuit before switch the circuit protector ON again.

4.1 Remove all loads from AC socket.

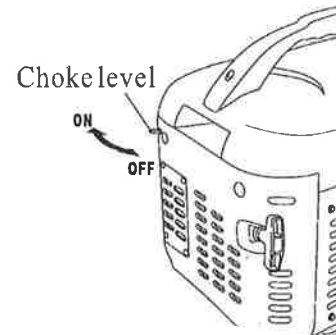
4.2 Turn engine switch to “ON”.



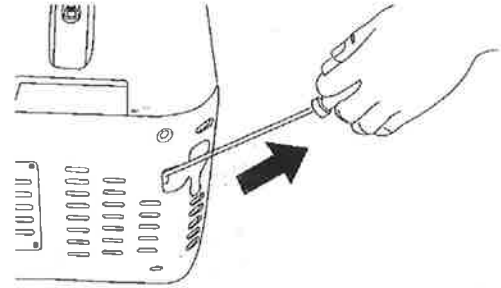
## NOTE

- Do not use the choke when the engine is warm or the air temperature is high.

4.3 Push the choke lever to the OFF position.



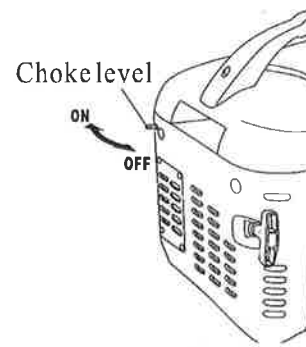
4.4 Pull slowly on recoil starter until engaged, then pull it briskly.



## NOTE

● **Do not allow the starter grip to snap back. Return it slowly by hand.**

4.5 Gradually move the choke lever to the **ON** position. Warm up the engine until it runs smoothly.



## 5. GENERATOR USE

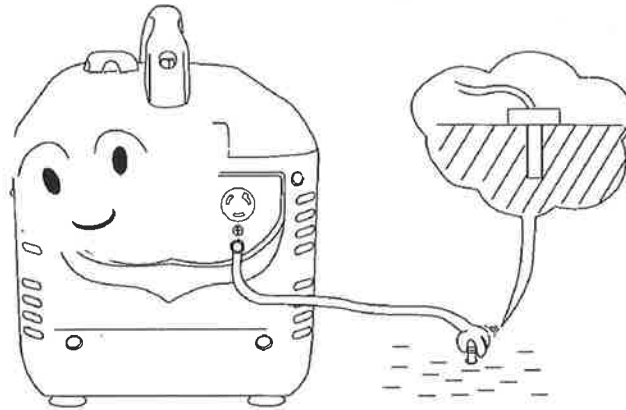
Always do as following described to keep the generator in a sound condition.











### WARNING

**5.1 Always connect the generator to the earth to prevent misusing. The generator ground terminal is connected to the frame of the generator, the metal non-current-carrying parts of the generator, and the ground terminal of each receptacle**

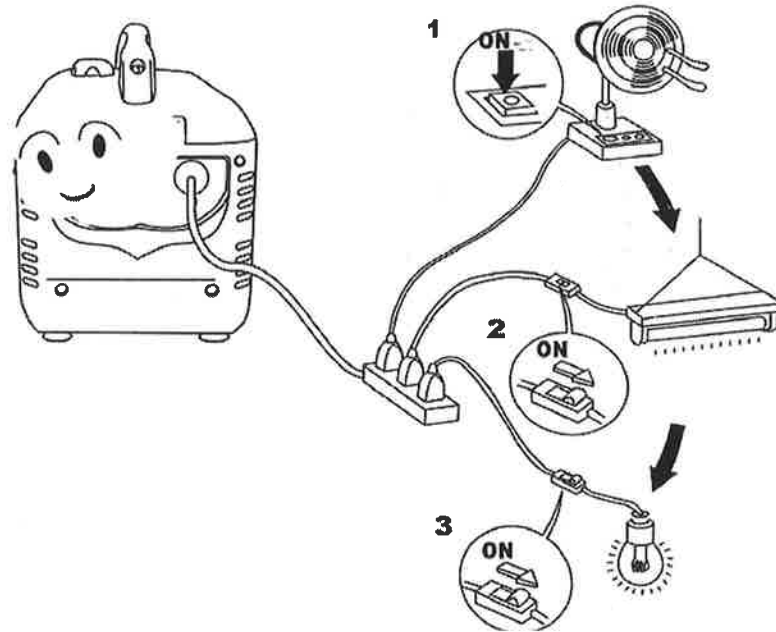
5.2 The user shall integrate the generator with an earth fault supervise system to know that there is a fault and to track it and eliminate it promptly before a second fault occurs.



5.3 The following table gives reference information to connect the electric appliances to generator.

| Description   | Wattage |        | Typifier   | Example   |                  |              |
|---|---------|--------|--|---|------------------|--------------|
|   | Start   | Rating |  | Electric device   | Start            | Rating       |
| <ul style="list-style-type: none"> <li>● Incandescent lamp</li> <li>● Heating device</li> </ul> | ×       | × 1    |  Incandescent lamp<br> TV      | Incandescent lamp<br> 100W | 100VA<br>(W)     | 100VA<br>(W) |
| <ul style="list-style-type: none"> <li>● Fluorescent lamp</li> </ul>                            | × 2     | × 1.5  | Fluorescent lamp<br>  | Fluorescent lamp<br> 40W   | 80VA<br>(W)      | 60VA<br>(W)  |
| <ul style="list-style-type: none"> <li>● Motor drive device</li> </ul>                          | × 3~5   | × 2    |  Refrigerator<br> Electric fan | Refrigerator<br> 150W      | 450~750VA<br>(W) | 300VA<br>(W) |

5.4 If the generator is to supply two or more loads with power, be sure to connect them one by one. The one with the higher start current first.





## **⚠WARNING**

● When connect the generator to home power supply, be sure that a skilled electrician does this job. Improper connecting between the generator and loads may cause damage to the generator, even a fire.

### **AC application**

- Start the engine and make sure the pilot lamp comes on. If not, the filament may be burnt out.
- Switch on the AC circuit breaker.

### **NOTE:**

- The breaker will automatically switch off when the circuit is short-circuited.
- Plug in the appliance, use three-pronged plugs.

### **NOTICE:**

When operators, maintenance men use or maintain it, please do as the follows to avoid damages to the human body:

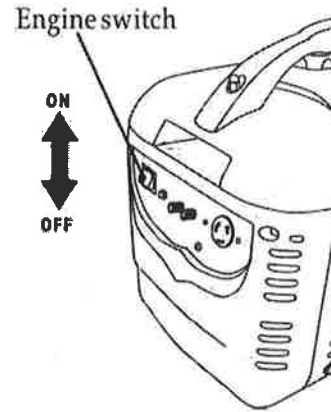
- Please put on the earphones due to the noise from the exhaust system.
- Please put on the overall and gloves as there is a hot component.

When connect or test the electronics, please put on the insulative shoes and gloves in case the electric shock caused by the touch to the electriferous.

## 6. STOPPING THE ENGINE

6.1 Turn the engine switch OFF.

6.2 Turn the choke lever ON.



**NOTICE:** To stop the engine in an emergency , turn the engine switch OFF.

## 7. MAINTENANCE SCHEDULE

Periodic inspection and adjustment of the essential if high level performance is to be maintained. Regular maintenance will also ensure a long service life. The required service intervals and the kind of maintenance to be performed are described on the table below.

**Maintenance Schedule**

| PERIOD \ ITEMS               |                 | Each time   | Initial 1 month<br>or 20 Hrs | Initial 3 month<br>or 50 Hrs | Every 6 month<br>or 100 Hrs | Every 1 years<br>or 300 Hrs |
|------------------------------|-----------------|---|------------------------------|------------------------------|-----------------------------|-----------------------------|
| Engine oil                   | Check oil level | △   |                              |                              |                             |                             |
|                              | Replace         |   | △                            |                              | △                           |                             |
| Air cleaner                  | Check           | △   |                              |                              |                             |                             |
|                              | Replace-clean   |   |                              | △①                           |                             |                             |
| Deposit cup                  | Clean           |   |                              | △①                           | △                           |                             |
| Spark plug                   | Check-clean     |   |                              |                              | △                           |                             |
|                              | Replace         |   |                              |                              |                             | △                           |
| Valve clearance              | Check-adjust    |   |                              |                              |                             | △②                          |
| Combustion chamber           | Check-adjust    |   |                              |                              |                             | △②                          |
| Fuel tank and<br>Fuel fitter | Clean           |   |                              |                              |                             | △②                          |
| Fuel supply line             | Clean           | Every two years (do a replacement if necessary) ② |                              |                              |                             |                             |

### CAUTION

Use only genuine parts manufactured by the company or equivalents in quality; otherwise damage to equipment may occur.

## NOTES

- **The item should be serviced more often than that in the schedule if used in dusty circumstances.**
- **The item should be done by your dealer unless you are specially trained is well equipped with tools.**
- **The installation and major repair work shall be carried out by specifically trained personnel.**

### 7.1 Replacement of engine oil

A still hot engine is helpful to drain out the engine oil in the crankcase rapidly and entirely.

7.1.1 Turn off the oil filler cap and drain plug to drain engine oil thoroughly.

7.1.2 Reinstall the drain plug and screw in securely.

7.1.3 Fill the specified engine, and check the oil level.

7.1.4 Reinstall the oil filler cap.

Engine oil capacity: 0.35L .

## CAUTION

**Do not contact engine oil repeatedly for long-time, it may cause skin cancer. Wash your hands with soap and water immediately after handling oil.**

## NOTE

**Do not dump oil containers or discarded engine oil into rubbish boxes or onto the ground. For the sake of environmental protection, we suggest you take in discarded engine oil with a closed container and bring to local recycling station.**

### Service of air cleaner

A dirty air cleaner may block enough air's flowing into the carburetor. To prevent the carburetor from producing of trouble, please service the air cleaner periodically. If operating the engine in extremely dusty area, the job should be done more often.

**⚠ WARNING:**

**Never clean the air cleaner core in gasoline or low flash-point detergents, or explosion may happen.**

**Never run the engine without an air cleaner, or air with dirt and dust may enter the engine so speed the engine's wear.**

Unscrew 2 nuts M5 and remove the air cleaner cover, take out the element.

Wash the element in a nonflammable or high flash point solvent and dry it thoroughly.

Soak the element in clean engine oil until it becomes saturated, and then squeeze out the excess oil.

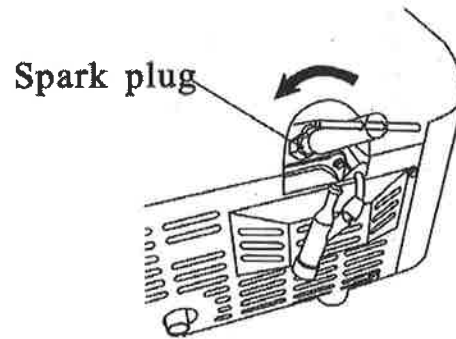
Install the removed parts in the reverse order of removal.

## **⚠ WARNING:**

- Gasoline is extremely flammable and explosive in certain conditions. Keep cigarette, sparks and open flames away.
- After reinstalling the deposit cup, check if for leakage and make sure the area around the engine is dry enough.

### 7.2 Spark plug

Spark plug recommended: F6TC



Proper spark plug clearance ensures the engine's normal running under no deposit around the spark plug.

#### 7.2.1 Remove the spark by means of spark plug wrench.

Visually inspect the spark plug. Clean the spark plug with a steel brush. If the insulator is cracked or chipped, or if there is apparent wear, replace the spark plug with new one.

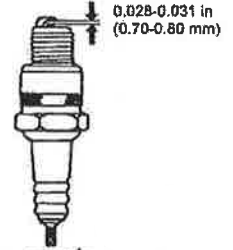
## **⚠ WARNING:**

**Be careful not to touch the muffler during or just after running the engine.**

**Changing the spark plug before the engine cooling to ambient temperature is forbidden.**

7.2.2 Measure the spark plug clearance with a feeler. The clearance should be 0.7~0.8mm.

If adjustment is necessary, bend the side electrode carefully.



7.2.3 Check if the spark plug gasket is in good conditions, or replace with a new one. Screw on the spark plug to the bottom first by hand to prevent cross-threading.

7.2.4 After the spark plug is seated, tighten it up by a spark plug wrench to compress the gasket.

## **NOTE**

If a new spark plug is used, twist 1/2 more turns after impacting the gasket; if reinstall the original one, just twist 1/8~1/4 more turns.

## **CAUTION**

**The spark plug must be tightened securely, or it may become very hot to damage the engine.**

**Only use recommended spark plug or the equivalent. Incorrect heat range of the spark plug may damage the engine.**

## 8. TRANSPORT AND STORAGE

### 8.1 Transport

Transport with the fuel cock turned off. Transport or store engine when it is cool so as to avoid getting burns or fire.

### CAUTION

**Do not incline the engine so as to avoid spilling fuel. Spilled fuel or fuel vapor may ignite to cause fire.**

### 8.2 Storage

Before storing the engine for an extended period:

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

8.2.2 Drain the fuel as follows:

### ⚠WARNING:

**Gasoline is extremely flammable and is explosive under certain conditions. Do not smoke or allow flames or sparks in the area.**

- a) Set the fuel cock to the OFF position, remove the deposit cup and clean it.
- b) Set the fuel cock to the ON position, and drain the fuel into the container.
- c) Install the deposit cup to the original position.
- d) Loosen the carburetor drain screw to drain the fuel into the container.

8.2.3 Change the engine oil.



- a) Remove the spark plug and pour about a tablespoon of clean engine oil into the cylinder. Crank the engine several revolutions to scatter evenly the oil inside the cylinder, then reinstall the spark plug.
- b) Pull the starter rope slowly until resistance is felt, thus closing the valve. Such operation prevents, getting of dust of protects the cylinder well from rusting.

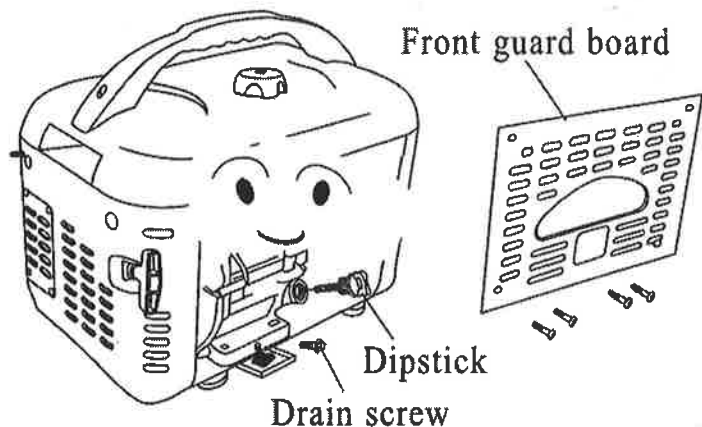
Cover the engine to keep out dust.

## 9. TROUBLESHOOTING

9.1 When the engine will not start with the recoil starter:

- a) Is the engine switch in the ON position?
- b) Is there engine oil enough?
- c) Is there fuel cock in the ON position?
- d) Is there fuel in the fuel tank?
- e) If gasoline reaching the carburetor?

To check, loosen the carburetor drain screw and set the fuel Cock to the ON position.



## **⚠ WARNING:**

**If any fuel is spilled, make sure that the area is dry before checking the spark plug or starting the engine.**

**Spilled fuel or fuel vapor may ignite.**

9.2 Is there a spark the spark plug?

- a) Disconnect the spark plug cap. Clean any dirt from around the spark plug base, then remove the spark plug.
- b) Install the cap onto the spark plug.
- c) Grounding the side electrode to the engine body, pull the recoil starter to if sparks jump across the gap.

9.3 If the engine is still not workable, take it to your dealer for help.

- a) If there are no sparks, replace the plug. If ok, try to start the engine according to the instructions.
- b) When the engine starts but stops immediately:

Is there enough oil in the crankcase?

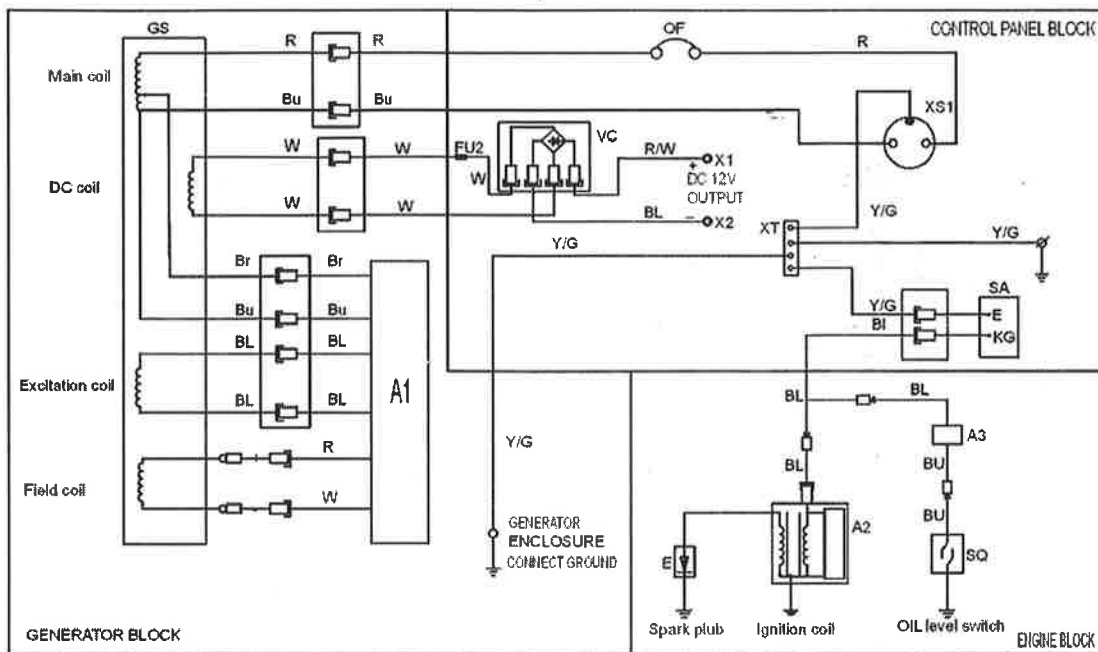
If not, the engine switch will turn off after starting.

- c) No electricity at the AC receptacles:

Is the AC circuit breaker on?

Check the electrical appliance or equipment for any defects.

# 10. ELECTRICITY PRNACLE DIAGRAM



|     |    |   |
|-----|----|---|
| SA  | KG | E |
| OFF |    |   |
| ON  |    |   |

|    |        |    |       |
|----|--------|----|-------|
| BL | Black  | R  | red   |
| Y  | yellow | W  | white |
| BU | blue   | Br | Brown |
| G  | green  |    |       |

