

# **OPERATIONS MANUAL**

**PLEASE READ THIS INSTRUCTION BOOK  
BEFORE USING THIS KIND OF MACHINE**

## PREFACE

Thank you for purchasing our machines and hope that you enjoy operating

one of the finest models in the market.

This Manual deals with the information and specifications concerning

operation and maintenance of gasoline engines, generators, welding

generators, water pump, etc. and should be considered as a permanent part

of the machine you bought and should remain with it if it is resold.

Please note the safety marks pasted on the machines.

If you are aware of any problem, please consult the authorized dealer.

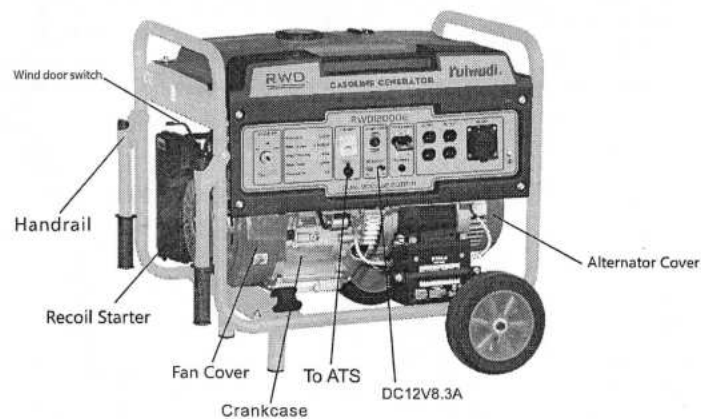
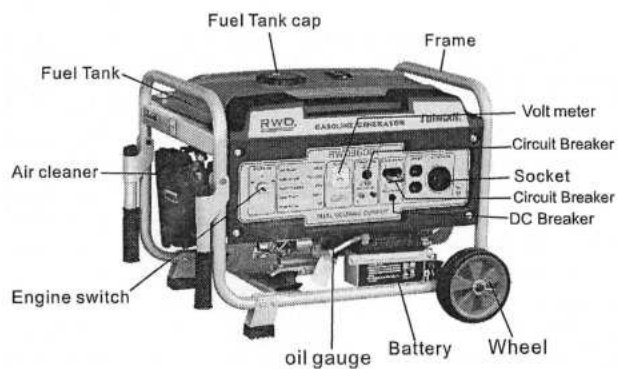
## Contents

I	MANUAL FOR GASOLINE GENERATOR.....	1
---	------------------------------------	---

### I MANUAL FOR GASOLINE GENERATOR

Model	RWD3600E	RWD6600E	RWD12000E
Engine	7.0HP	13.0HP	-
EngineType	4-stroke,singlecylinder		
Displacement	212cc	390cc	500cc
TurningSpeed	3600		
CoolingSystem	AirCooled		
EngineOil	0.6	1.1	1.3
FuelTank	15	25	25
AC Generator			
RatedVoltage	110V/220V		
Rated Frequency	60HZ		
DCCoutput	12V		
EngineModel	170F/P	188F/P	194F/P
RatedPower	2.8KW	5.0KW	9.0KW
Max.Power	3.0KW	5.5KW	9.5KW
Starting	manual&Electric	manual&Electric	manual&Electric
Length*Width* Hight	61*45*45cm	71*56*58.5cm	71*57*58.5cm
G.W(kg)	49	87	98

## 2 Instruction



## 3 SAFETY

- Read this manual carefully- familiarize yourself with the appliance. Follow all operational notes and restrictions, and take note of possible hazards of this device.
- Place the appliance on stable surfaces only.
- The load must not exceed the power marked on the rating label of the generator. Overloading may result in damage to, or a shorter life of the appliance.
- The motor must not be operated with excessive rotary speed. The operation of the motor with excessive rotary speed raises the risk of injury. Parts which affect the rotary speed must be altered or replaced.
- Do not operate or store the appliance in wet or humid surroundings or on highly conductive surfaces such as metal coatings or steel constructions.
- ⚠ **DANGER: POISONOUS GAS.** Engine exhaust gas is poisonous; don't operate in an unventilated room. When installed in ventilated room, additional requirement for fire and explosion protection shall be observed.
- ⚠ **WARNING:** Gasoline is highly flammable and easily ignited.
- Don't refuel during operation and while smoking or near naked flames, Fueling when the machine is not hot;
- Don't spill fuel, If gasoline is spilled, don't attempt to start the engine but move the machine away from the area of spillage
- Empty gasoline tank before storing or transporting the generator.
- Before transporting, turn fuel valve to off and disconnect spark plug.
- ⚠ **WARNING:** This generator produces powerful voltage, which can result in electrocution.
- ALWAYS ground the generator before using it (see the "Ground the Generator" portion of the "PREPARING THE GENERATOR FOR USE" section).

- Generator should only be plugged into electrical devices, either directly or with an extension cord. When using extension lines or mobile distribution networks the total length of lines for a cross section of 1.5 mm<sup>2</sup> should not exceed 60 m; for a cross section of 2.5 mm<sup>2</sup> this should not exceed 100 m.
- Do not use in rainy or wet conditions.
- Protect children by keeping them at a safe distance from the generating set. Do not allow children or non-qualified persons to operate.

**⚠ WARNING:** This generator produces heat when running.

- Some parts of the internal combustion engine are hot and may cause burns. Do not touch hot surfaces. Pay attention to the warnings on the generating set.

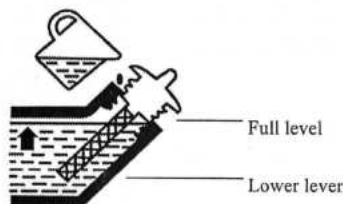
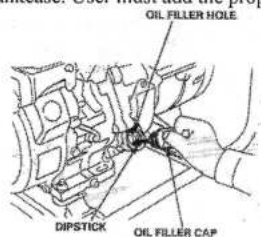
**CAUTION:** Misuse of this generator can damage it or shorten its life.

- Use generator only for its intended purposes.
- Operate only on dry, level surfaces.
- Allow generator to run for several minutes before connecting electrical devices.
- Shut off and disconnect any malfunctioning devices from generator.
- Do not exceed the load capacity of the generator by plugging in more electrical devices than the unit can handle.
- Do not turn on electrical devices until after they are connected to the generator.
- Turn off all connected electrical devices before stopping the generator.

#### 4 PREPARATIONS FOR USING THE GENERATOR

##### 1). Fill engine oil

The generator requires engine oil to operate properly. New generator fresh from the package contains *no* oil in the crankcase. User must add the proper amount of oil before operating the generator for the first time.



##### 2). Fill fuel

To ensure that the generator runs smoothly use only **FRESH, UNLEADED GAS**.

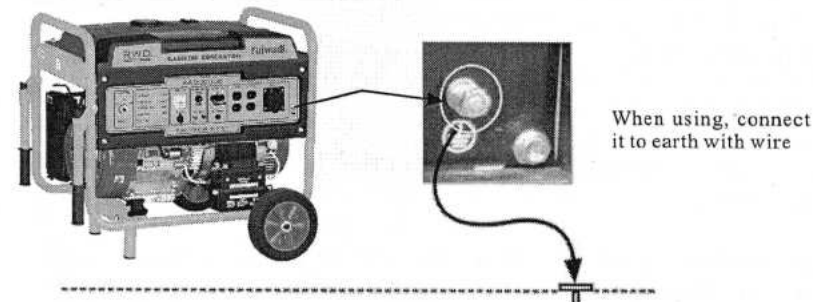
##### **IMPORTANT:**

- Never use an oil/gasoline mixture.
- Never use old gas.
- Avoid getting dirt or water in the fuel tank.
- Gas can age in the tank and make it hard to start up the generator in the future. Never store generator for extended periods of time with fuel in the tank.

#### 3). Ground the Generator

**⚠ WARNING:** Failure to properly ground the generator can result in electrocution.

Ground the generator by tightening the grounding nut against a grounding wire. This grounding wire should be connected at the other end to a copper or brass grounding rod that is driven into the earth.



#### 5 STARTING THE GENERATOR

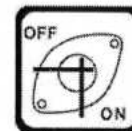
Before starting the generator, make sure you have read and performed the steps in the "PREPARATIONS FOR USING THE GENERATOR" section of this manual.

**⚠ CAUTION:** Disconnect all electrical loads from the generator before attempting to start.

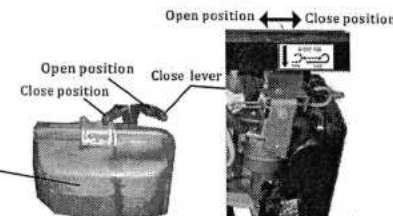
To start the generator using the electric start function, perform the following steps:

- 5.1 Make sure no electrical devices are connected to the generator. Such devices can make it difficult for the engine to start.
- 5.2 Check that the generator is properly grounded.
- 5.3 Check the oil and gas levels.
- 5.4 Turn the fuel valve to the "on" position.
- 5.5 Move the choke rod to the "closed" position.

Fuel valve



Air cleaner



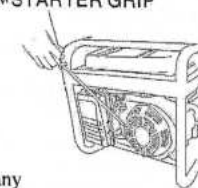
5.6 Set the engine switch to the "on" position.

5.7.1 Pull on the recoil starter grip slowly until a slight resistance is felt. Then pull quickly to start the engine. Return grip gently into the machine. Never allow **STARTER GRIP** the cord to snap back.

5.7.2 If engine fails to start, repeat step

5.7.1. **NOTE:** After repeated attempts to start the engine, please consult the troubleshooting guide before attempting again.

5.8 Once the engine has started, move the choke rod to the "open" position. Allow the generator to run for several minutes before attempting to connect any electrical devices.



## 6 USING THE GENERATOR

**⚠ WARNING:** Never connect a generator directly to other power sources.

·Be sure that all appliances are in good working order before connecting them to the generator. Faulty appliances or power cords can create a potential electrical shock. If an appliance begins to operate abnormally, becomes sluggish, or stops suddenly, turn off the engine switch immediately. Then disconnect the appliance and examine it for signs of malfunction.

·Most motorized appliances require more than rated load for startup.

·Substantial overloading will open the circuit breaker. Exceeding the time limit for maximum power operation or slightly overloading the generator may not switch the circuit breaker OFF, but will shorten the service life of the generator.

·Do not exceed the current limit specified for any one receptacle. If an overloaded circuit causes the AC circuit breaker to switch OFF, reduce the electrical load on the circuit, wait a few minutes and then reset the circuit breaker.

### NOTICE:

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

Once you have allowed the engine to run for several minutes, you may connect electrical devices to the generator.

### AC Usage

**CAUTION:** Please familiarize yourself with the markings on the panel before connecting electrical devices.

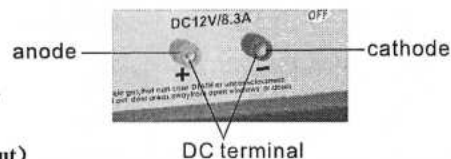
You may connect electrical devices running on AC current according to their load requirements.

### NOTICE:

Generating sets may only be loaded up to their rated power under the rated ambient conditions. The reduction in power is probably due to use in higher temperatures, altitudes and humidity than those given in the reference conditions.

The generator set can start-up and operate at ambient temperatures between -15°C and 40°C, and the standard reference conditions is:

- ambient air temperature: 25°C
- ambient air pressure: 100kPa
- relative humidity: 30%
- altitude: 1000m



### DC Usage (Just for generator with DC output)

The generator is equipped with a DC terminal. When powered by it, do make sure that both the anode and the cathode are right to those of DC.

### NOTICE:

**This terminal is not intended for use to charge automotive batteries.**

## 7 STOPPING THE GENERATOR

### 7.1 In an emergency:

To stop the generator in an emergency, turn the engine switch to the OFF position.

### 7.2 In normal use:

7.2.1 Turn off circuit breaker, then unplug all connected electrical devices.

ENG. SW.



7.2.2 Allow the generator to run for several more minutes with no electrical devices

connected. This helps stabilize the temperature of the generator.

7.2.3 Turn the engine switch to the "off" position.

7.2.4 Turn the fuel valve to the "off" position.

**⚠ WARNING:** Allow the generator to cool for several minutes before touching areas that become hot during use.

**CAUTION:** Allowing gas to store in the generator tank for long periods of time without use can make it difficult to start the generator in the future. Never store generator for extended periods of time with fuel in the tank.

## 8 BATTERY

**⚠ WARNING:** Battery contains sulfuric acid. Battery acid is poisonous. Tilting the generator with the battery installed can cause battery acid to spill.

**⚠ WARNING:** Battery gives off explosive hydrogen gas.

**CAUTION:** Leaving the battery connected for long periods of time without using the generator can cause the battery to drain. Disconnect the negative battery cable from the battery for storage. After disconnecting the cable, cover the free end with an insulator such as electrical tape.

**⚠ NOTE:** Changing the Battery.

If your generator will start manually (using the recoil starter pull cord) but will not start electrically (with the key), the battery may be drained. In this case, you can recharge the battery by starting the generator manually and allowing it to run for 20 minutes. However, if your battery will no longer hold a charge, you may need to replace it. To replace the battery:

- (1) Disconnect the positive (+) and negative (-) cables from the battery.
- (2) Remove the metal bracket that secures the battery to the generator.
- (3) Install the replacement battery and secure to the generator with the bracket.
- (4) Connect the positive and negative cables to the new battery.

## 9 MAINTENANCE

Proper routine maintenance of your generator will help prolong the life of your machine. Please perform maintenance checks and operations according to the schedule in figure.

**CAUTION:** Never perform maintenance operations while the generator is running.

Recommended Maintenance Schedule

Due to times for using		each use	first month of use or first 20 hrs	every 3 months or 50 hrs	every 6 months or 100 hrs	every year or 300 hrs	As necessary
Engine oil	check level	x					
	Replace		x	x			x
Air cleaner	check	x					
	Clean			x			
Fuel filter cup	Clean				x		

Due to times for using		each use	first month of use or first 20 hrs	every 3 months or 50 hrs	every 6 months or 100 hrs	every year or 300 hrs	As necessary
spark plug	check/clean				x		
gas tank	check gas level	x					
	Clean					x	
Battery	replace						x

### 9.1 Cleaning the Generator

Always try to use your generator in a cool dry place. In the event your generator becomes dirty you may clean the exterior with one or more of the following:

- a damp cloth
- a soft brush
- a vacuum
- pressurized air

Never clean your generator with a bucket of water or a hose. Water can get inside the working parts of the generator and cause a short circuit or corrosion.

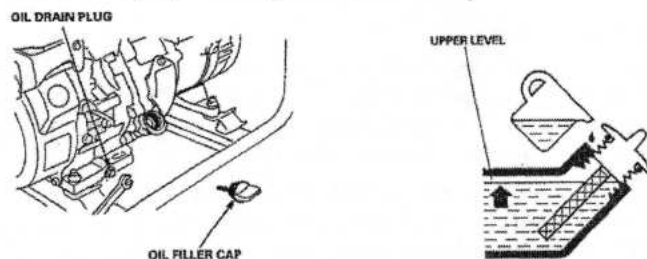
### 9.2 Changing engine oil

Drain the oil while the engine is warm to assure rapid and complete draining.

1. Remove the drain plug and sealing washer, remove the oil filler cap, and drain the oil.
2. Reinstall the drain plug and sealing washer. Tighten the plug securely.
3. Refill with the recommended oil and check the oil lever.

Wash your hands with soap after touching oil

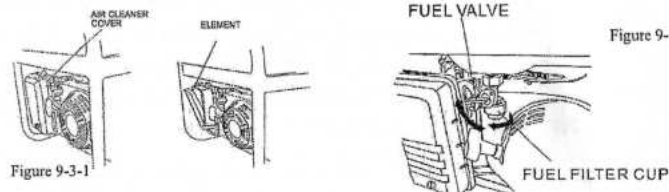
**NOTE: Never dispose of used motor oil in the trash or down a drain. Please call your local recycling center or auto garage to arrange oil disposal.**



### 9.3 Air Cleaner Maintenance

Routine maintenance of the air cleaner helps maintain proper air flow to the carburetor. Occasionally check that the air cleaner is free of excessive dirt. (See Figure 9-3-1 )

- Unscrew the nut on the air cleaner cover.
- Remove the foam elements from the casing.
- Wipe the dirt from inside the empty air cleaner casing
- Wash the foam elements in household detergent and warm water. Allow to dry.
- Soak the dry elements in engine oil. Squeeze out any excess oil.
- Replace the foam elements in the air cleaner casing and replace the cover.



### 9.4 Fuel Filter Cup Cleaning

The fuel filter cup is a small well underneath the fuel valve. It helps to trap dirt and water that may be in your fuel tank before it can enter the engine. To clean the fuel filter cup: See Figure 9-4

- Turn the fuel valve to the "off" position.
- Unscrew the fuel filter cup from the fuel valve using a wrench. Turn the valve toward you to unscrew.
- Clean the cup of all sediment using a rag or brush.
- Reinstall the fuel filter cup.

### 9.5 SPARK PLUG SERVICE

In order to service the spark plug, you will need a spark plug wrench.

To ensure proper engine operation, the spark plug must be properly gapped and free of deposits. If the engine has been running, the muffler will be very hot. Be careful not to touch the muffler.

- Remove the spark plug cap.
- Clean any dirt from around the spark plug base.
- Use a spark plug wrench to remove the spark plug..
- Visually inspect the spark plug. Discard it if the insulator is cracked or chipped. Clean the spark plug with a wire brush if it is to be reused.
- Measure the plug gap with a feeler gauge.

Correct as necessary by carefully bending the side electrode.

**The gap should be : ( 0.70-0.80 mm)**

10.5.6 Check that the spark plug washer is in good condition, and thread the spark plug in by hand to prevent cross-threading.

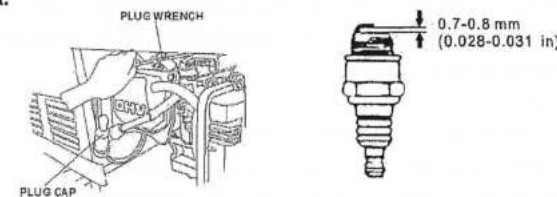
10.5.7 After the spark plug is seated, tighten with a spark plug wrench to compress the washer.

-If installing a new spark plug, tighten 1/2 turn after the spark plug seats to compress the washer. If reinstalling a used spark plug, tighten 1/8-1/4 turn after the spark plug seats to compress the washer.

### NOTICE

**The spark plug must be securely tightened. An improperly tightened spark plug can become very hot and could damage the engine.**

**Never use spark plugs which have an improper heat range. Use only the recommended spark plugs or equivalent.**



### 10 STORAGE/TRANSPORTATION

When transporting the generator, turn the engine switch and the fuel valve OFF. Keep the generator level to prevent fuel spillage. Fuel vapor or spilled fuel may be ignited.

**⚠ WARNING Contact with a hot engine or exhaust system can cause serious burns or fires. Let the engine cool before transporting or storing the generator.**

Take care not to drop or strike the generator when transporting. Do not place heavy objects on the generator.

#### 10.1 Before storing the unit for an extended period:

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

-Service according to the table below:

STORAGE TIME	RECOMMENDED SERVICE PROCEDURE TO PREVENT HARO STARTING
Less than 1 month	No preparation required
1 to 2 months	Fill with fresh gasoline and add gasoline conditioner*.
2 months to 1 year	Fill with fresh gasoline and add gasoline conditioner*. Drain the carburetor float bowl.

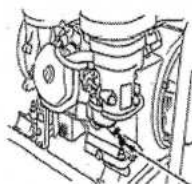
1 year or more	Fill with fresh gasoline and add gasoline conditioner*. Remove the spark plug. Put a tablespoon of engine oil into the cylinder. Turn the engine slowly with the pull rope to distribute the oil. Reinstall the spark plug. Change the engine oil. After removal from storage, drain the stored gasoline into a suitable container, and fill with fresh gasoline before starting.
----------------	---

\*Use gasoline conditioners that are formulated to extend storage life.

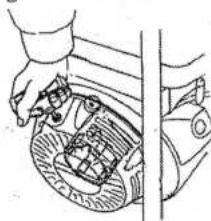
Contact your authorized WEIMA generator dealer for conditioner recommendations.

#### 10.2 Storage

-Drain the carburetor by loosening the screw. Drain the gasoline into a suitable container.



DRAIN SCREW



**⚠ WARNING** Gasoline is extremely flammable and is explosive under certain conditions. Perform task in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area during this procedure

-Change the engine oil.

-Remove the spark plug, and pour about a tablespoon of clean engine oil into the cylinder. Turn the engine several revolutions to distribute the oil, then reinstall the spark plug.

-Slowly pull the starter grip until resistance is felt, then continue pull until resistance is disappear. At this point, the piston is coming up on its compression stroke and both the intake and exhaust valves are closed. Storing the engine in this position will help to protect it from internal corrosion.