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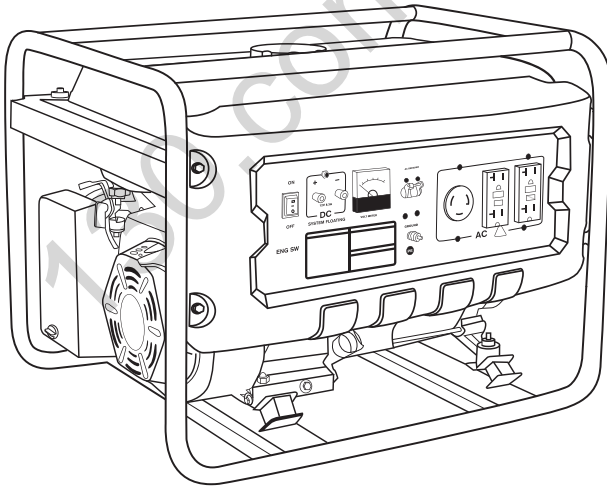
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R2200 R3500 R5500 R6000D

GENERATOR

Owner's Manual



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Thank you for choosing a generator set of our company.

This manual contains the information on how to do that. Please read it carefully before operating. Operating safely and correctly can help you get the best results.


All information in this publication is based on the latest product information available at the time of printing. The contents in this manual may be different from the actual parts due to revision and other changes.

Our company reserves the right to make changes at any time without notice and without incurring any obligation. No part of this publication may be reproduced without our company's written permission.

This manual should be considered a permanent part of the generator and should accompany the generator if it is resold.

SAFETY MESSAGES

Your safety and the safety of others are very important. We have provided important safety messages in this manual and on the generator. Please read these messages carefully.

A safety message alerts you to potential hazards that could hurt you or others. Each safety message is preceded by a safety alert symbol  and one of three words: DANGER, WARNING, or CAUTION. meaning as follows:

DANGER

You **WILL** be **KILLED** or **SERIOUSLY HURT** if you don't follow instructions.

WARNING

You **CAN** be **KILLED** or **SERIOUSLY HURT** if you don't follow instructions.

CAUTION

You **CAN** be **HURT** if you don't follow instructions.

NOTICE

Your generator or other property could be damaged if you don't follow instructions.

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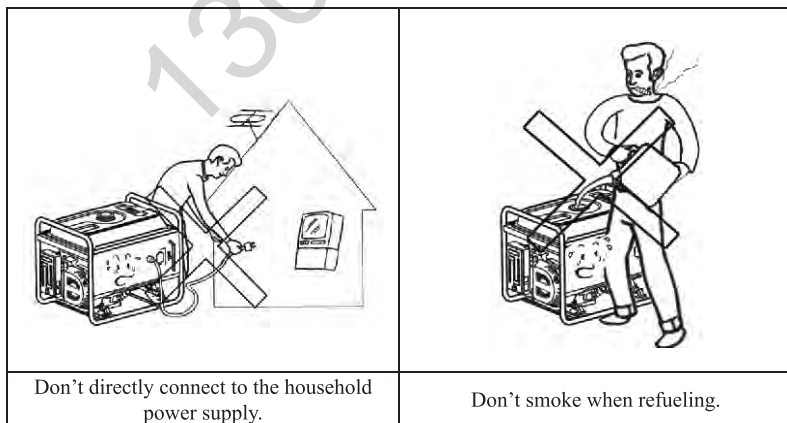
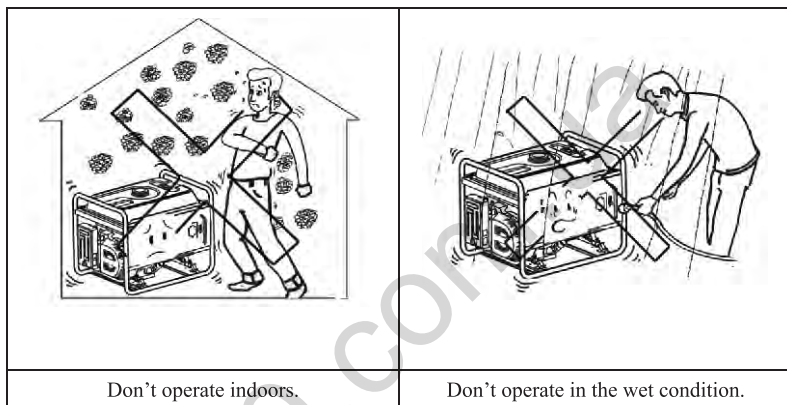
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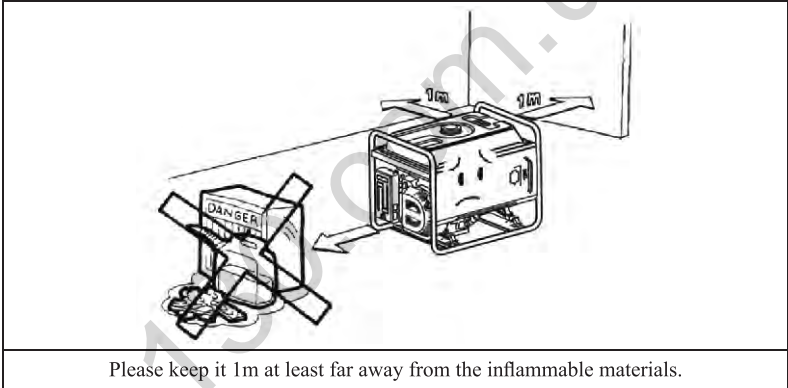
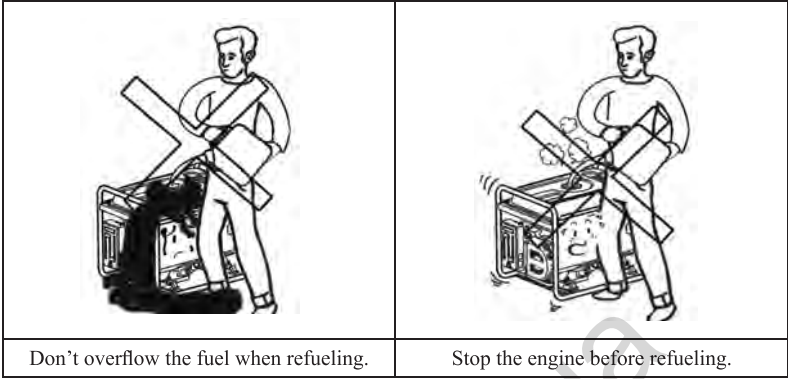
1. SAFETY NOTICE

1. Safety Standard

Read and understand this owner's manual before operating your generator. You can help prevent accidents by being familiar with your generator's controls, and by observing safe operating procedures.



SAFETY NOTICE



2. Special Requirements

- Electrical equipment, including lines and plug connections should be free from being bare.
- The circuit breakers should match with the generator equipment. If the circuit breakers require replacement, they must be replaced with a circuit breaker of the same ratings and performance characteristics.
- Don't operate the generator before grounding.

- If using extension lines, the requirement should be met as following: for 1.5mm², the line should not be exceeded 60m; for 2.5mm², the line not exceeded 100m.

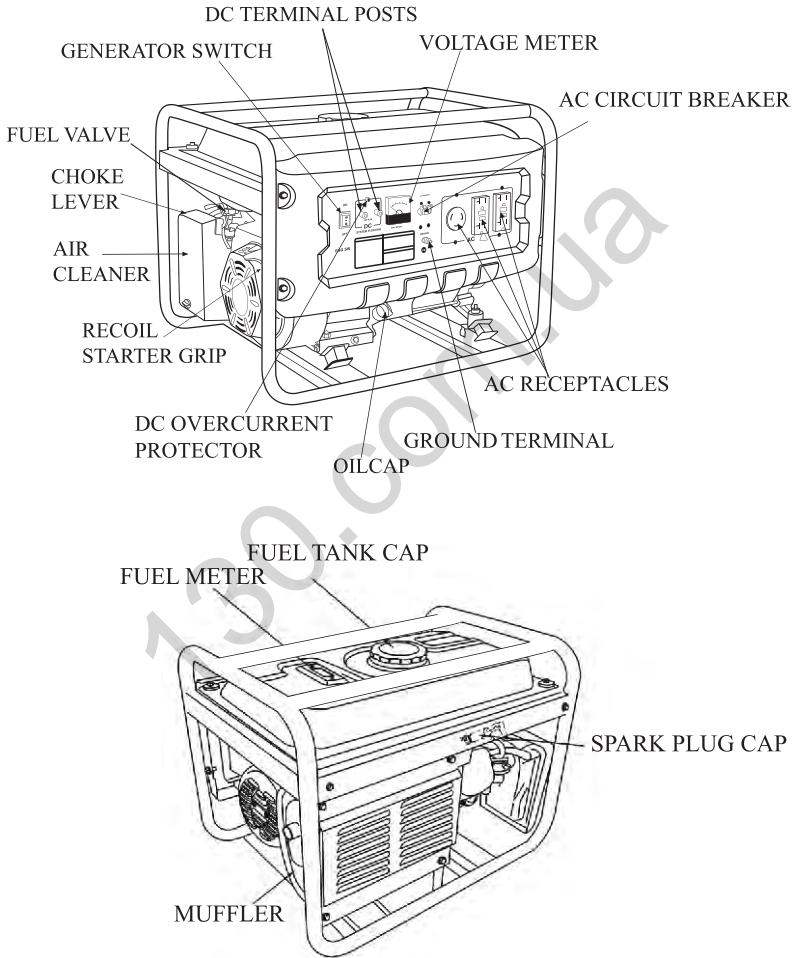
3. Overcurrent Protector

Environmental temperature will trigger the action of overcurrent protector. Please change the overcurrent protector with one that fits the local environment temperature if necessary.

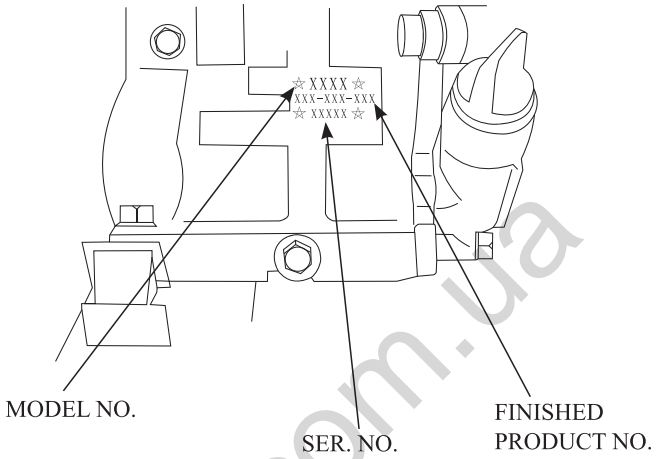
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2. COMPONENT IDENTIFICATION

1. R2200 R3500 R5500

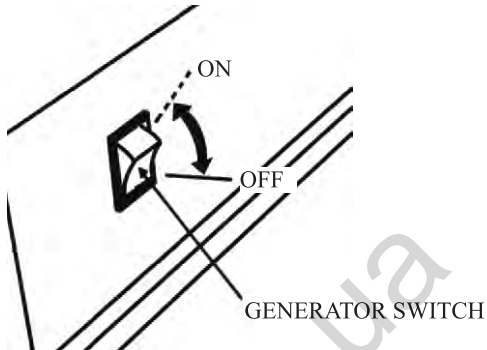


2. Engine Type & Serial Number



3. CONTROL

1. Generator Switch



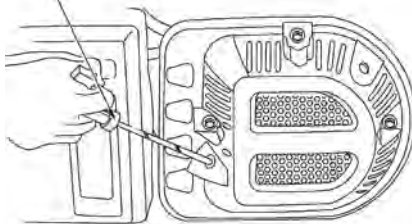
2. Recoil Starter

To start the engine, pull the starter grip lightly until resistance is felt, then pull briskly.

NOTICE

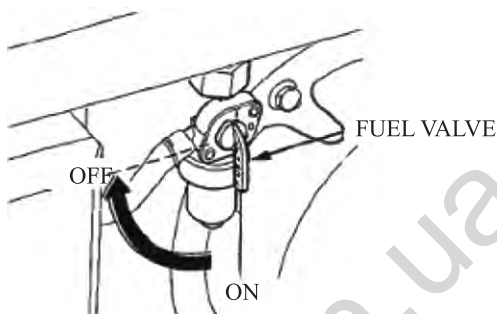
**Do not allow the starter grip to snap back against the engine.
Return it gently to prevent damage to the starter.**

STARTER GRIP



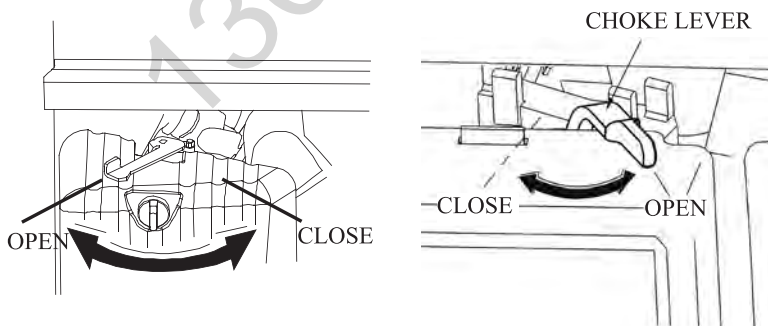
3. Fuel Valve

The fuel valve controls fuel flowing from the fuel tank to carburetor. Be sure to return the lever to “OFF” after stopping the engine.



4. Choke Lever

The choke lever is used to provide an enriched fuel mixture when starting a cold engine. Slowly put the choke lever to “OPEN” position after the engine is started.

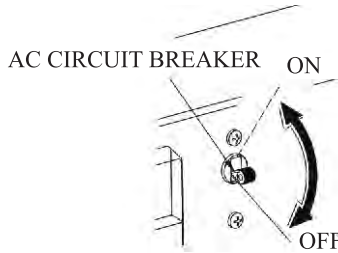


1kW

2.3kW/2.8kW/5.5kW/6.5kW

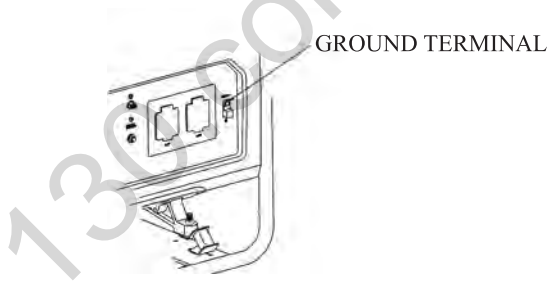
5. AC Circuit Breaker

The overload current will automatically switch OFF circuit breaker to avoid short circuiting of the load or overload. If the circuit breaker is switched OFF automatically, check load before switching the circuit breaker ON again.



6. Ground Terminal

This ground terminal is dedicated to reliably grounding the whole generator.



7. Oil Alert System

The oil alert system is especially designed to prevent engine damage caused by an insufficient amount of oil in the crankcase. When the oil level in the crankcase fall down below the safe limit, the oil alert system will automatically shut down the engine(though the generator switch still remains in the ON position), so that the engine can't be damaged due to the insufficient amount of the oil.

4. GENERATOR OPERATION

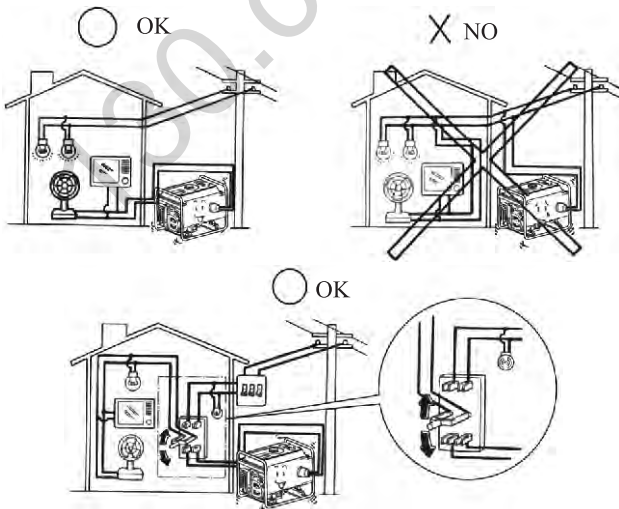
Generator operation environment:

- Temperature: $-15^{\circ}\text{C} \sim 40^{\circ}\text{C}$.
- Humidity: below 95%.
- Height above sea level: below 1,000 m (If the area is over 1,000 m high, the power should be lowered for operation).

1. Connection to the Household Power Supply

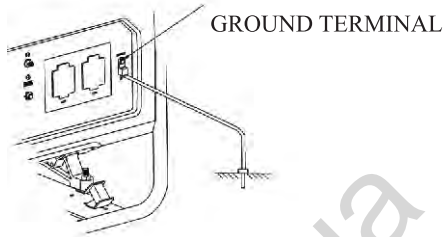
NOTICE

When connecting the generator to a household power supply, connection must be made by a qualified electrician. After connecting, carefully check electric connection for their safety and reliability, if not, damage to the generator, burning and firing may be caused.



2. Generator Grounding

To prevent electrical shock or misuse from faulty appliances, the generator should be grounded with an insulated lead.



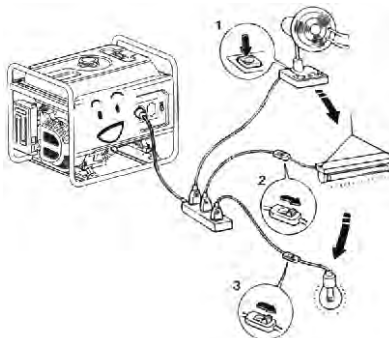
3. AC Current

Before starting the generator, make sure that total power of loads (total of resistive, capacitive and inductive loads) does not exceed rated power of the generator.









NOTICE

Overload operation will greatly shorten generator service life.

If the generator set is connected to multiple loads or electric appliances, please first connect to one with the highest starting power, then, the one with the second highest starting power, and connect others one by one, each with a lower starting power than the preceding one, finally, connect the one with the lowest starting power.



In general, capacitive and inductive loads, especially motor-driven devices have a big starting current when starting. The following table is a reference for when connecting to the electric appliances

Type	Wattage		Typical Device	Examples		
	Start	Rated		Device	Starting	Rated
Incandescent Lamp Heating Device	×1	×1	 Incandescent Lamp  Tv Set	 Incandescent Lamp 100W	100VA (W)	100VA (W)
Fluorescent Lamp	×2	×1.5	 Fluorescent Lamp	 Fluorescent Lamp 40W	80VA (W)	60VA (W)
Motor Drive Device	×3-5	×2	 Refrigerator  Electric Fan	 Refrigerator 150W	450-750VA (W)	300VA (W)

4. DC Current

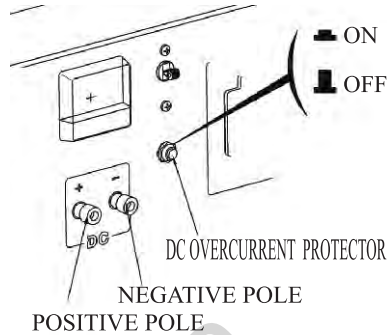
DC Terminals

The DC terminals are used to provide power supply for lower-power DC loads and charging other batteries.

The terminals are colored as such: red to identify the positive (+) terminal and black to identify the negative (-) terminal. Load connection method: The load must be connected to DC terminals with the proper polarity (load's positive to positive DC terminal and load's negative to negative DC terminal).

DC OVERCURRENT PROTECTOR

The DC overcurrent protector will automatically shut off when the DC circuit is overloaded or poor connection occurs. If the indicator inside the DC overcurrent protector button pops out, it shows that the DC overcurrent protector has switched off. Wait a few minutes and then push the button in to return to “ON” position.



5. High Altitude Operation

At a high altitude, the standard carburetor air-fuel mixture will be excessively rich. Output power will decrease, and fuel consumption will increase.

Engine performance can be improved by installing a smaller diameter main fuel jet in the carburetor and readjusting the pilot screw. If you always operate the engine at altitudes 1,000 meters above the sea level, have our company authorized dealer perform this carburetor modification. If not, you should lower load power in operating generator.

Even equipped with suitable carburetor, engine horsepower will decrease approximately 3.5% for each 300 meter increase in altitude. The effect of altitude on horsepower will be lowered greater than this if no carburetor modification is made.

NOTICE

If a carburetor for high altitude operation is installed onto an engine suitable to a lower altitude, the lean air fuel mixture will cause lower engine output power, over heating and serious damage.

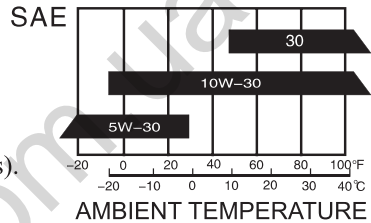
5. PRE-OPERATION CHECK

1. Engine Oil

NOTICE

Engine oil is a major factor affecting engine performance and service life. Non-detergent and 2-stroke engine oils will damage the engine and are not recommended. Check the oil level before each use with the generator on a level surface with the engine stopped.

Recommended engine oil
4-stroke gasoline engine oil
SF under API service classification
or SAE10W-30 (equivalent to SG class).



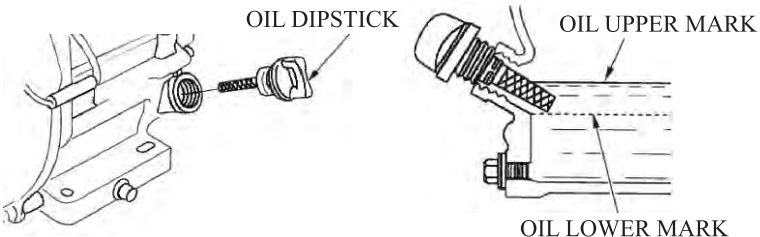
Method of checking engine oil level:

Remove the oil filler cap and wipe the dipstick to clean it.

Check the oil level by inserting the dipstick into the filler neck without screwing it in.

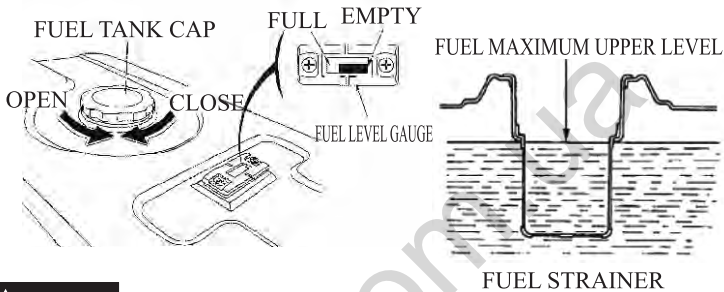
If the level is low, add the recommended engine oil until oil level can reach the upper mark on the dipstick.

After adding, don't forget to refit and screw the oil dipstick tight.



2. Fuel

- 1) Check the fuel level gauge.
- 2) Replenish the tank if the fuel level is low. Do not let oil level rise above the shoulder of the fuel strainer.
- 3) Refit and screw the fuel tank cap tight after refueling.



⚠ WARNING

- **Refuel in a well-ventilated area with the engine stopped. Never smoke or allow flames or sparks in the area where the engine is refueled or where gasoline is stored.**
- **Do not overfill the fuel tank.**
- **Avoid repeated or prolonged contact with skin or breathing in of fuel vapor.**
- **Keep children from contacting fuel.**
- **Never use the oil/gasoline mixture or gasoline containing impurity.**

Use gasoline with octane rating ≥ 90 .

We recommend unleaded gasoline because it produces fewer engine carbon deposits and spark plug deposits and extends exhaust system's life.

Never use stale or contaminated gasoline or oil/gasoline mixture. Avoid getting dirt or water into the fuel tank.

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6. STARTING THE ENGINE

Recoil Starter

- (1) Remove all the loads from the output side.
- (2) Turn the fuel valve to the “ON” position.
- (3) Turn the AC circuit breaker to the “OFF” position.
- (4) Turn the choke lever to the “CLOSE” position.

NOTICE

Don't close the choke when starting the engine in a warm state

- (5) Turn the generator switch to the “ON” position.
- (6) Pull the starter grip until a resistance is felt, then pull it out briskly.
- (7) Turn the choke lever to the “OPEN” position after the engine is warm.
- (8) Don't use electric apparatus before setting circuit breaker to the “ON” position.

NOTICE

Turn the generator switch to electric starting position and hold for not longer than 5 seconds, or damage will be caused to the starting motor. If starting fails, release the switch and wait for 10 seconds before operating it again.

If the speed of the starting motor drops fast after running for a period of time, it means the battery should be recharged.

7. STOPPING THE ENGINE

- (1) Turn the AC circuit breaker to the OFF position.
- (2) Turn the generator switch to the OFF position.
- (3) Turn the fuel valve to the OFF position.

NOTICE

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

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8. MAINTENANCE

Good maintenance is essential for safe, economical, and trouble-free operation. It will also help reduce air pollution.



Exhaust gas contains poisonous carbon monoxide. Shut off the engine before performing any maintenance. If the engine must be run, make sure the area is well ventilated.

Periodic maintenance and adjustment are necessary for keeping the generator in good operating condition. Perform the service and inspection at the intervals shown in the Maintenance schedule below:

REGULAR SERVICE PERIOD		Each Use	First Month or 20 Hrs. (3)	Every 3 Months or 50 Hrs. (3)	Every 6 Months or 100 Hrs. (3)	Every Year or 300 Hrs. (3)
Engine Oil	Check Level	○				
	Change		○		○	
Air Cleaner	Check	○				
	Clean			○ (1)		
Sediment Cup	Clean				○	
Spark Plug	Clean				○	renew
Valve Clearance	Check-Adjust					○(2)
Cylinder Cover	Clean	Every 300 Hours (2)				
Fuel Tank and Strainer	Clean	Every 2 Years (2)				
Fuel Line	Replace	Every 2 Years (2)				
Cylinder head and the head of piston	Clean carbon	Every 125 hours(2)				

- (1) Service more frequently when operation is done in dusty areas.
- (2) These items should be serviced by an authorized generator dealer.
- (3) When use is more frequent, only servicing according to above correct intervals can insure the generator set's long-term use.

⚠ WARNING

Improper maintenance, or failure to correct a problem before operation, can cause a malfunction by which you can be seriously hurt or killed.

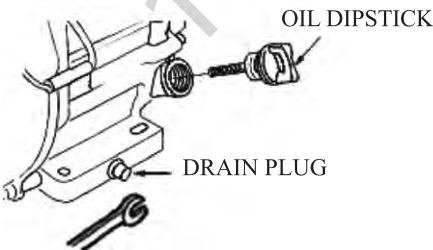
Always follow the inspection and maintenance recommendations and schedules in this owner's manual.

1. Engine Oil Change

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

1. Remove the oil dipstick and drain plug to drain the oil.
2. Reinstall the drain plug, then tighten the plug securely.
3. Refill oil and check the oil level.

Oil capacity: R2200	0.6 L
R3500/R5500/R6000D	1 L



⚠ CAUTION

Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is still advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil.

Please dispose of used engine oil in a manner that is compatible with the environment. We suggest you take use a sealed container to take it to your local service station or recycling center for reclamation. Do not throw it in the trash or pour it on the ground.

2. Air Cleaner Service

A dirty air cleaner will restrict air flow into the carburetor. To prevent carburetor malfunction, service the air cleaner regularly. Service more frequently when operating the generator in extremely dusty areas.

⚠ CAUTION

Using gasoline or flammable solvent to clean the filter element can cause a fire or explosion. Use only soapy water or a nonflammable solvent.

NOTICE

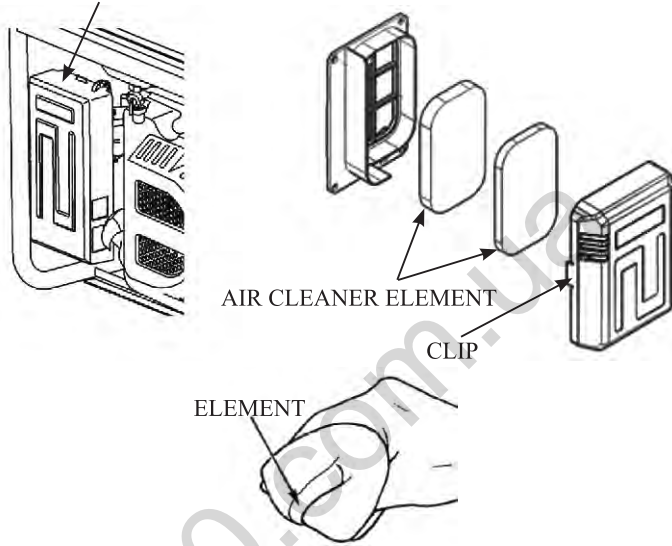
Never run the generator without the air cleaner. If not, rapid engine wear will result.

- (1) Open the air cleaner clip and open the air cover. Check the air cleaner element to see if it's complete and clean.
- (2) If the air cleaner element is dirt, please clean it:

Wash the air cleaner element in a solution of household detergent and

warm water, then rinse thoroughly or wash in nonflammable or high flash point solvent: Drop a few points engine oil in, then, squeeze out.

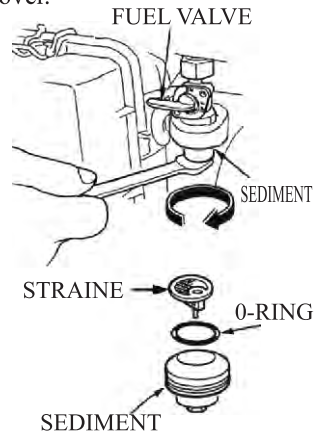
AIR CLEANER COVER



- (3) Reinstall the air cleaner element and the cover.

3. Fuel Sediment Cup Cleaning

- (1) Turn the fuel valve to the OFF position. Remove the sediment cup, o-ring and strainer according to the arrow direction.
- (2) Clean the sediment cup, and o-ring, and strainer in nonflammable or high flash point solvent.

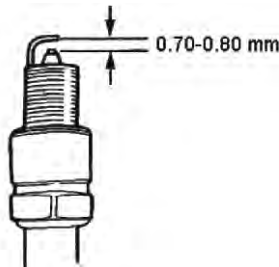
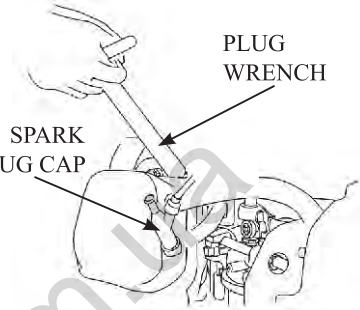


- (3) Reinstall the O-ring, and strainer and screw back the sediment cup.
- (4) Turn the fuel valve ON and check for leaks.

4. Spark Plug Service

Recommended spark plugs: F6TC
E7RTC(1kW) or other equivalents.

- (1) Remove the spark plug cap.
- (2) Use the plug wrench to remove the spark plug.
- (3) Visually inspect the spark plug to see if the insulator is cracked, if so, replace it with a new the spark plug.
- (4) 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.
- (5) Check the spark plug washer to see if it's good.
- (6) Reinstall the spark plug, tighten it with the plug wrench and impact the washer. Reinstall the spark plug cap accurately.



NOTICE

Please use the spark plug in a suitable heat range.

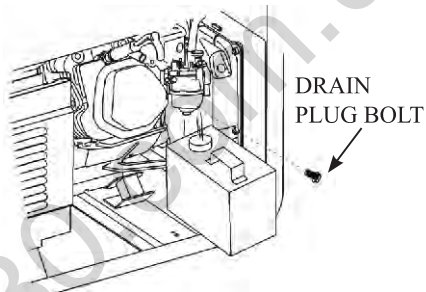
9. STORAGE

⚠ WARNING

In order to avoid burning or fire due to contact with any hot part of the generator, don't pack and store the generator before it is cooled.

If it need be stored for a long time, be sure the storage area is clean and dry.

- (1) Drain the fuel in the fuel tank out, clean strainer, o-ring and sediment, then refit them well. Drain fuel out of the carburetor by loosening the drain bolt, then refit it and screw the carburetor bolt tight.



R2200/R3500/R5500/R6000D

⚠ WARNING

Gasoline is extremely flammable and is explosive under certain conditions. Drain fuel in a well ventilated area with the engine stopped. Never smoke or allow flames or sparks in the area during this procedure.

- (2) Screw the oil dipstick off and screw the drain bolt off the crankcase to completely drain the oil out. Then screw back the drain bolt and add fresh oil to upper mark, finally refit the oil dipstick well.

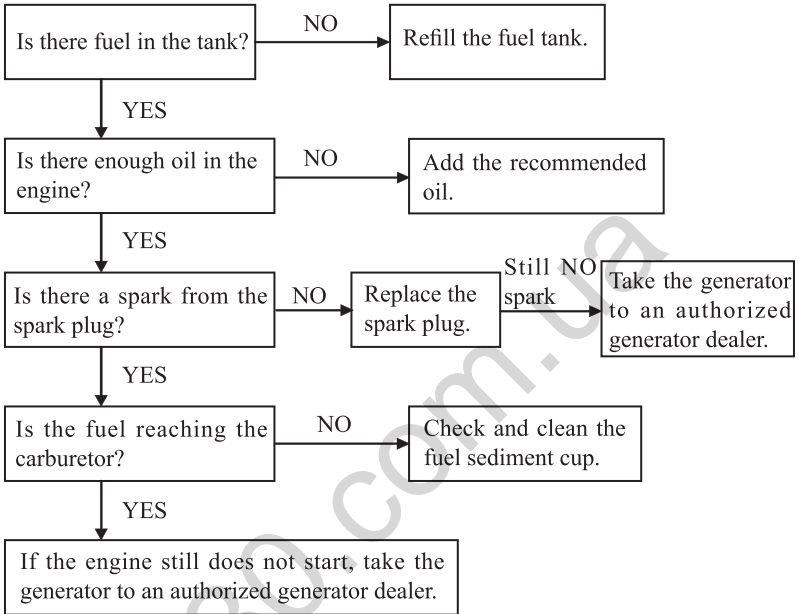
STORAGE

- (3) Remove the spark plug, and pour about a tablespoon of clean engine oil into the cylinder. Crank the engine several revolutions to distribute the oil, then reinstall the spark plug.
- (4) Slowly pull the starter grip until resistance is felt. Let the intake and exhaust valves in “close” position.
- (5) Place the generator in a clean area.

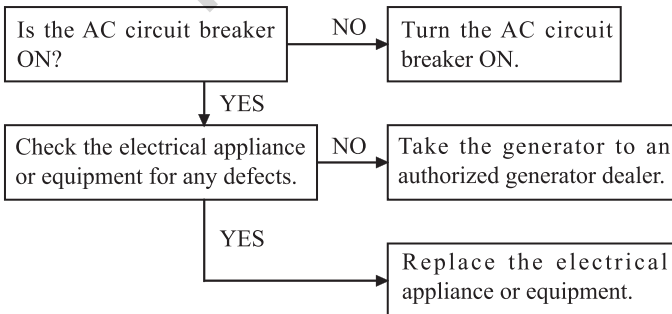
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10. TROUBLESHOOTING

Engine unable to start:



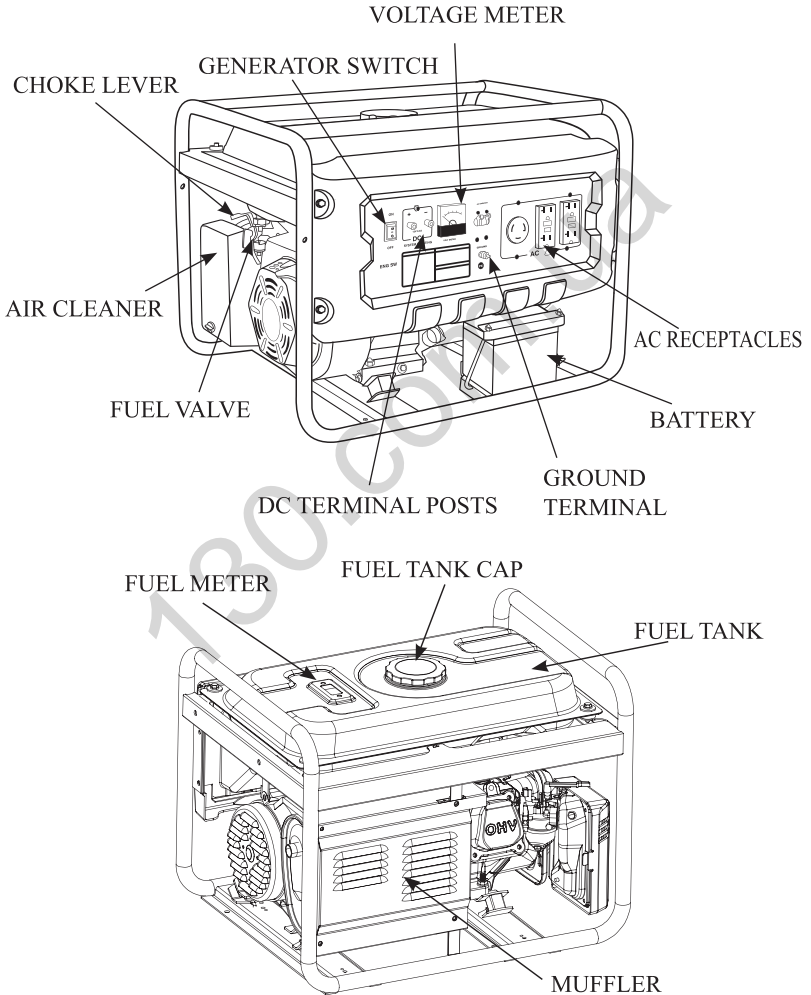
No power supply:



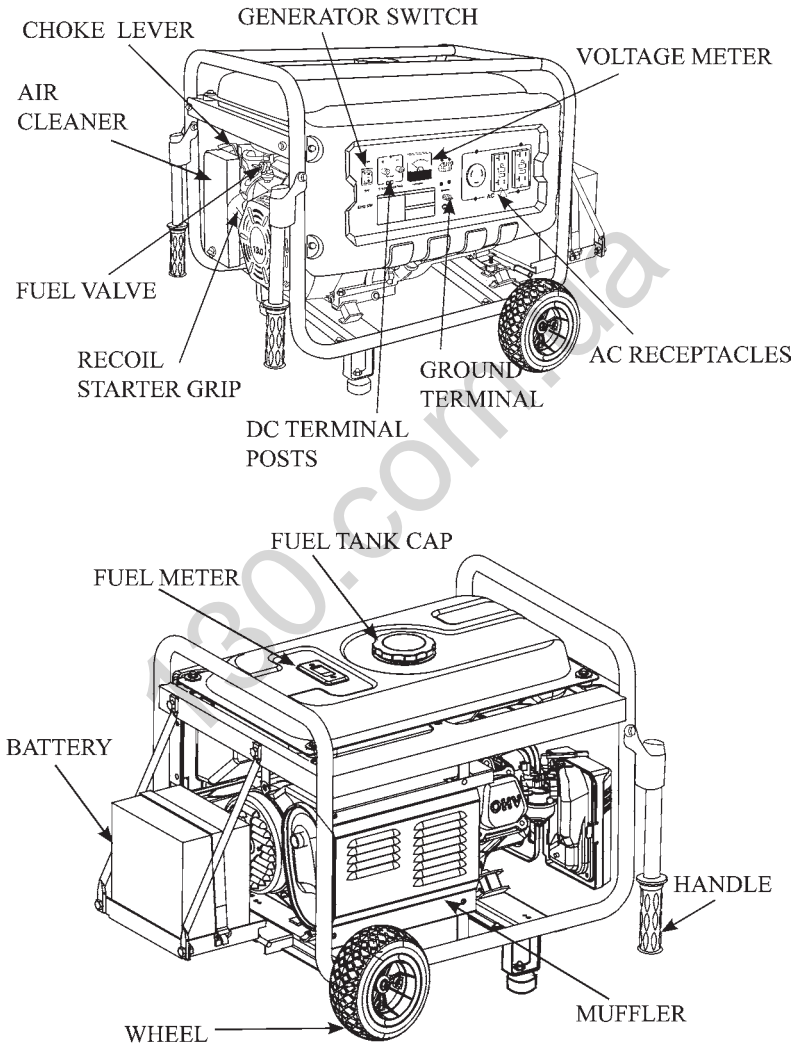
11. ELECTRIC STARTING

1. Component Identification

R6000D (Internal battery)



R6000D (External battery)

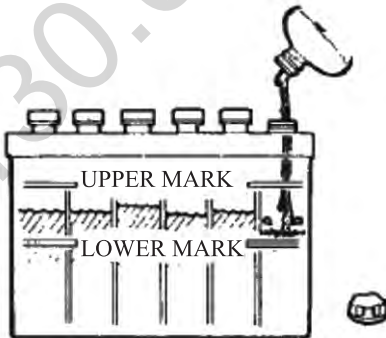


2. Battery

NOTICE

Don't connect the battery positive and negative poles reversely (pay attention to leads mark). When connecting, first connect the positive poles, then negative poles. When disconnecting, first disconnect the negative pole, then positive poles, if not, serious damage may be caused to the generator set and battery.

Check the electrolyte of the battery's each cell if the fluid level is kept between upper mark and lower mark. If the fluid level is under the lower mark, screw off the cap and add the distilled water up to upper mark. All cells' electrolyte fluid level should be approximately maintained at the same level.



⚠ WARNING

- If improper operation is performed, the battery may be explosive and may potentially hurt persons nearby. Keep the fire and inflammable materials far away from the battery.

- **The battery will release the explosive gas, please keep the fire far away from it. Keep a good air ventilation condition when battery is being charged or used. .**
- **Be careful not to spill or overflow when refilling electrolyte.**

3. Electric Starting

- (1) Remove all the loads form the output side.
- (2) Turn the fuel valve to the “ON” position.
- (3) Turn the AC circuit breaker to the “OFF” position.
- (4) Turn the choke lever to the “CLOSE” position.

NOTICE

Don't close the choke when starting the engine in warm state.

- (5) Turn the GENERATOR switch to electric starting position.
- (6) After starting engine, immediately release generator switch and generator switch can automatically return to open position.
- (7) Turn the choke lever to the “OPEN” position after the engine is warm.

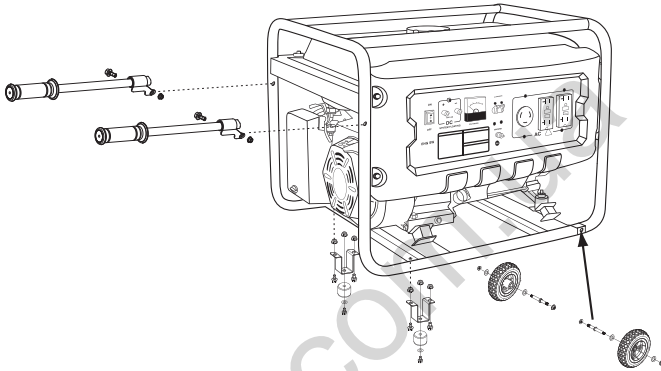
NOTICE

Turn the GENERATOR switch to electric position and hold for more than 5 seconds or damage may be caused to the starting motor. If starting fails,, release the switch and wait for 10 seconds before starting it again.

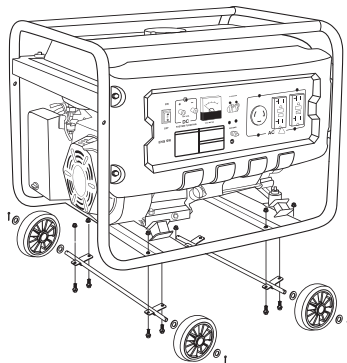
If the speed of the starting motor drops fast after a period of time, it suggests the battery should be recharged.

12. WHEEL (OPTION)

- (1) Install the two wheels on the wheel axle with gaskets and pins.
(2) Install the wheel on the bottom plate of the generator frame with bolts and nuts.
(3) Fix the handle on the frame.



- (1) Install the two wheels on the wheel axle with gaskets and pins.
(2) Install the wheel on the bottom plate of the generator frame with bolts and nuts.



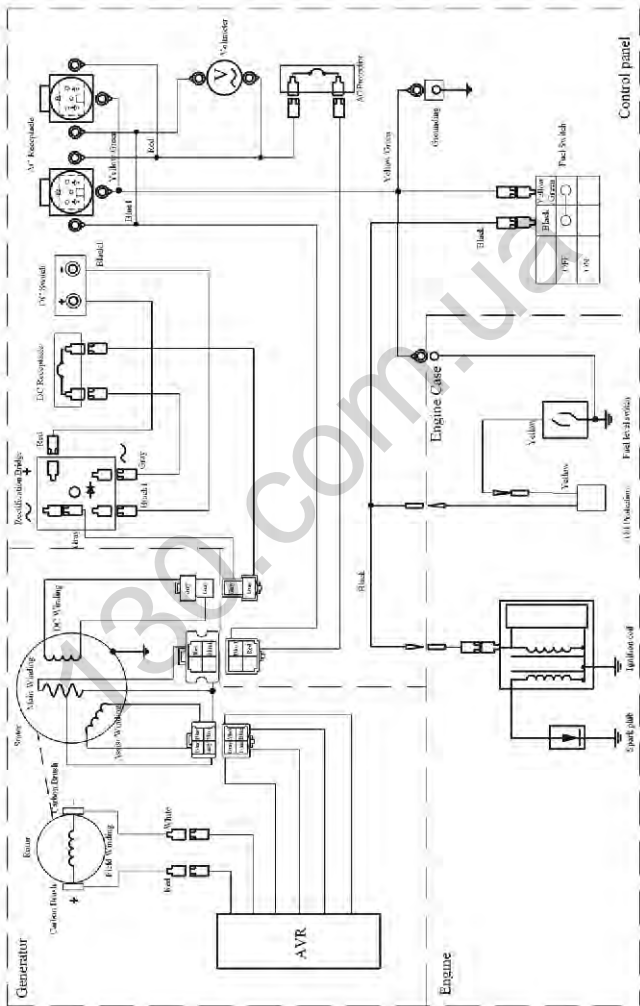
13. SPECIFICATIONS

	Item	R2200	R3500	R5500	R6000D
Engine	Engine Style	R210	R270	R390	R420
	Engine Type	Single cylinder, 4-Stroke, Forced Air Cooling, OHV			
	Displacement (cc)	212	270	389	420
	Igniting Mode	Transistorized Magneto			
	Fuel Volume (L)	15	25	25	25
	Fuel consumption(g/(kW·h))	≤395	≤374	≤374	≤374
	Full load continuum running time	8	8	9	9
	1/2 load continuum running time	12	12	13	13
	Oil Capacity (L)	0.6	1.1	1.1	1.1
Generator	Rated Frequency (Hz)	50			
	Rated Voltage (V)	230			
	Rated Output Power (kW)	2	3.2	5	5.5
	Maximum Output Power (kW)	2.2	3.5	5.5	6
General purpose Accessory	Large Air Cleaner	●	●	●	●
	Large Muffler	●	●	●	●
	Large Fuel tank	●	●	●	●
	Fuel Gauge	●	●	●	●
	Voltmeter	●	●	●	●
	Automatic Voltage Regulator	●	●	●	●
	Oil Alert system	●	●	●	●
	Overcurrent Protector	●	●	●	●
Electric starting accessory	-	-	-	-	

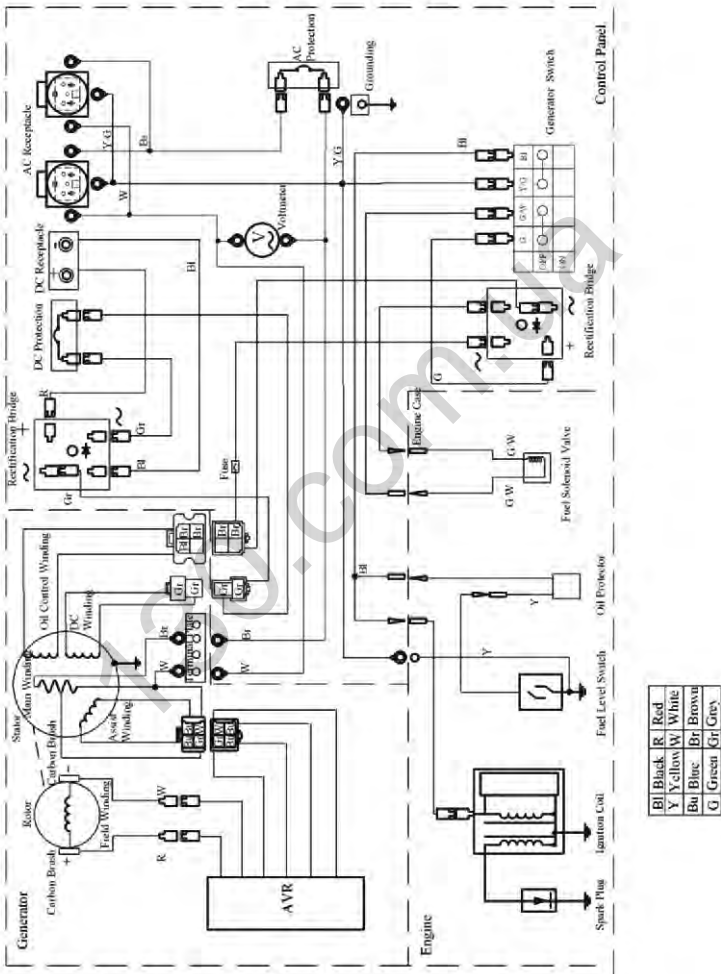
Remarks: ● means available, - means unavailable

14. WIRING DIAGRAM

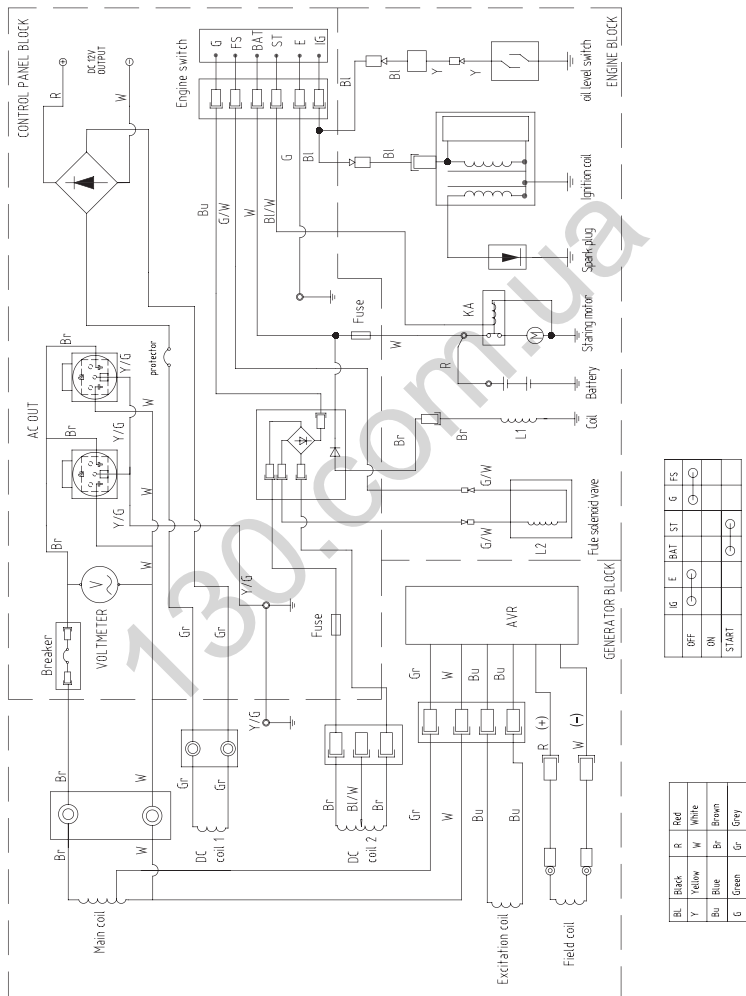
R2200



R3500/R5500



R6000D



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