

# Owner's Manual

2500

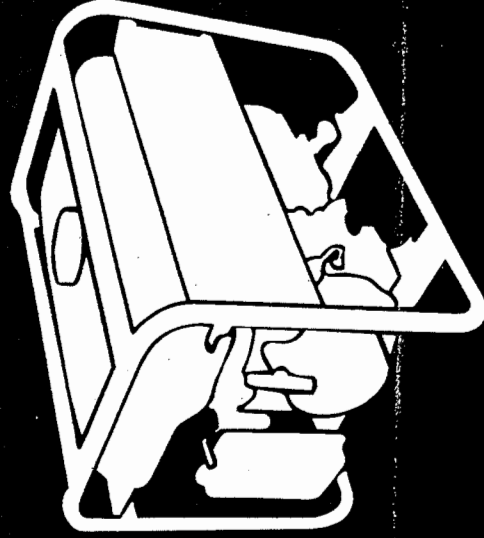
3000

4000

5000

7000

8000




Thank you for purchasing a generator. We want to help you get the best results from your new generator and to operate it safely. This manual contains the information on how to do that; please read it carefully.

This owner's manual describes the operation and maintenance of the Generator. All information in this publication is based on the latest product information available at the time of printing. 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 written permission.


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


### **Safety Messages**


Your safety and the safety of others is 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.

These mean

** 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.

Each message tells you what the hazard is, what can happen, and what you can do to avoid or reduce injury.

### **Damage Prevention Messages**

You will also see other important messages that are preceded by the word NOTICE.

This word means:

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

The purpose of these messages is to help prevent damage to your generator, other property, or the environment.

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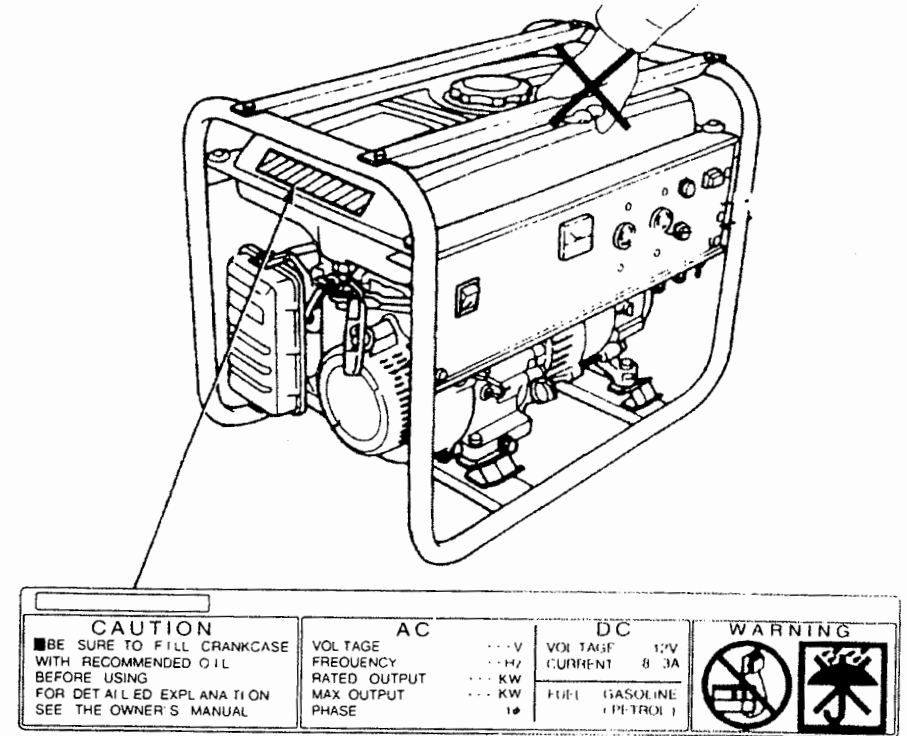
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# SAFETY

## SAFETY LABEL LOCATION

These labels warn you of potential hazards that can cause serious injury. Read them carefully.

If a label comes off or becomes hard to read, contact your Generator dealer for a replacement.



- Do not connect to a building's electrical system unless an isolation switch has been installed by a qualified electrician.



- Using a generator or electrical appliance in wet conditions, such as rain or snow, or near a pool or sprinkler system, or when your hands are wet, could result in electrocution. Keep the generator dry.

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## SAFETY INFORMATION

Generators are designed to give safe and dependable service if operated according to instructions. 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.

### Operator Responsibility

- Know how to stop the generator quickly in case of emergency.
- Understand the use of all generator controls, output receptacles, and connections.
- Be sure that anyone who operates the generator receives proper instruction. Do not let children operate the generator without parental supervision.

### Carbon Monoxide Hazards

- Exhaust contains poisonous carbon monoxide, a colorless and odorless gas. Breathing exhaust can cause loss of consciousness and may lead to death.
- If you run the generator in an area that is confined, or even partially enclosed, the air you breathe could contain a dangerous amount of exhaust gas. To keep exhaust gas from building up, provide adequate ventilation.

### Electric Shock Hazards

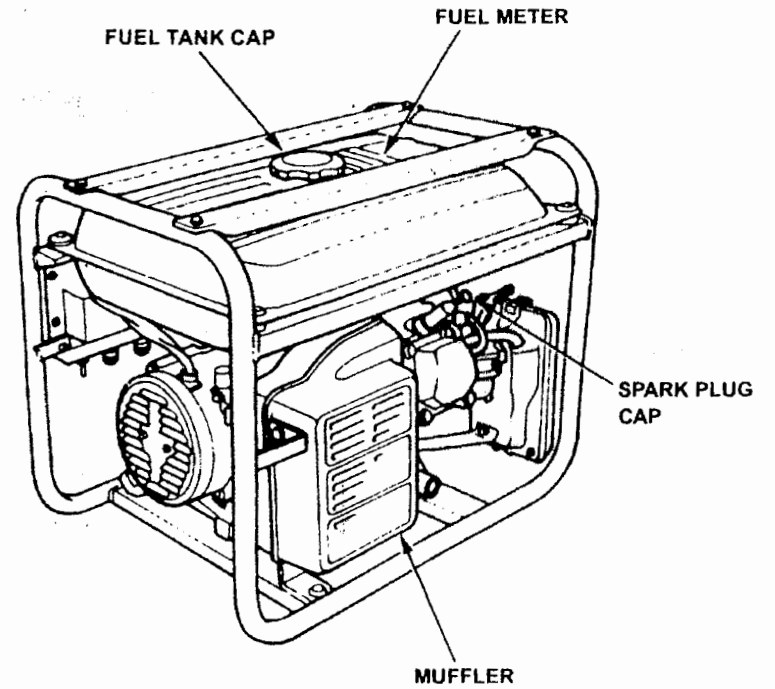
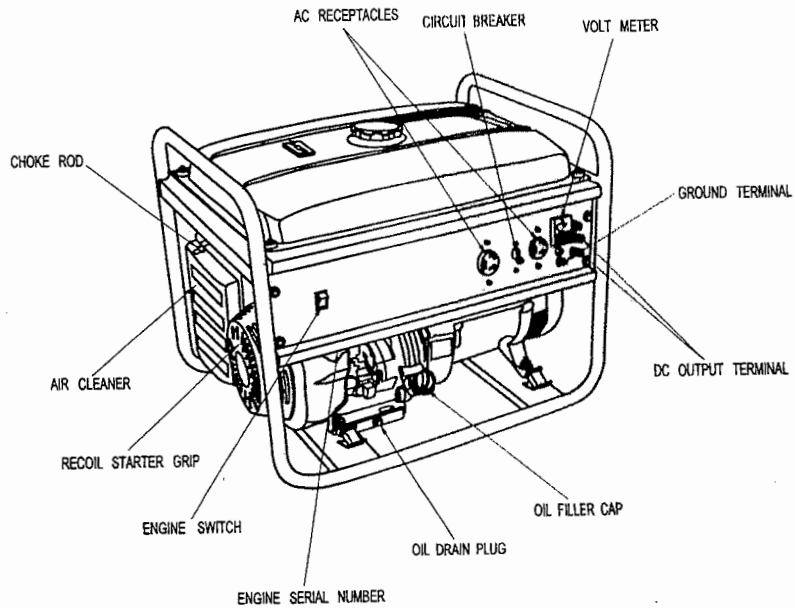
- The generator produces enough electric power to cause a serious shock or electrocution if misused.
- Using a generator or electrical appliance in wet conditions, such as rain or snow, or near a pool or sprinkler system, or when your hands are wet, could result in electrocution. Keep the generator dry.
- If the generator is stored outdoors, unprotected from the weather, check all electrical components on the control panel, before each use. Moisture or ice can cause a malfunction or short circuit in electrical components which could result in electrocution.
- Do not connect to a building's electrical system unless an isolation switch has been installed by a qualified electrician.

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## Fire and Burn Hazards

- The exhaust system gets hot enough to ignite some materials.
  - Keep the generator at least 1 meter (3 feet) away from buildings and other equipment during operation.
  - Do not enclose the generator in any structure.
  - Keep flammable materials away from the generator.
- The muffler becomes very hot during operation and remains hot for a while after stopping the engine. Be careful not to touch the muffler while it is hot. Let the engine cool before storing the generator indoors.
- Gasoline is extremely flammable and is explosive under certain conditions. Do not smoke or allow flames or sparks where the generator is refueled or where gasoline is stored. Refuel in a well-ventilated area with the engine stopped.
- Fuel vapors are extremely flammable and may ignite after the engine has started. Make sure that any spilled fuel has been wiped up before starting the generator.

# COMPONENT IDENTIFICATION



Record the engine and frame serial numbers for your future reference. Refer to these serial numbers when ordering parts, and when making technical.

Engine serial number: \_\_\_\_\_

# CONTROLS

## Engine Switch

To start and stop the engine.

**Switch position:**

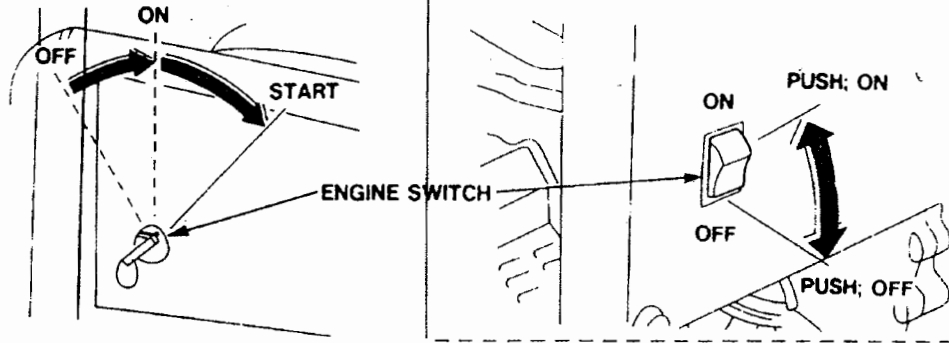
**OFF:** To Stop the engine. Key can be removed/inserted.

**ON:** To run the engine after starting.

**START:** To start the engine by turning the starter motor.

With in Electric Starter

With out Electric Starter

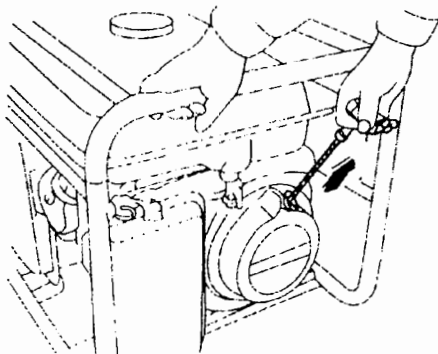


Return the key to the ON position once the engine has started. Do not use the starter for more than 5 seconds at a time. If the engine fails to start, release the switch and wait 10 seconds before operating the starter again.

## Recoil Starter

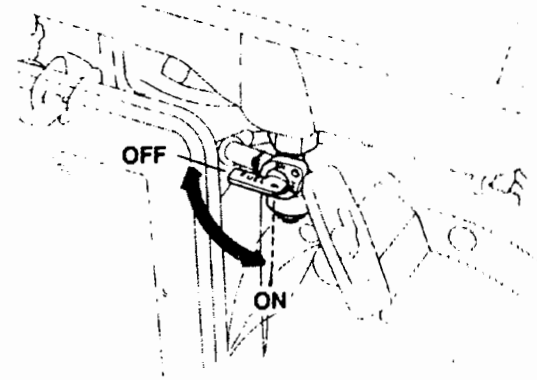
To start the engine, pull the starter grip lightly until resistance is felt, then pull briskly.

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



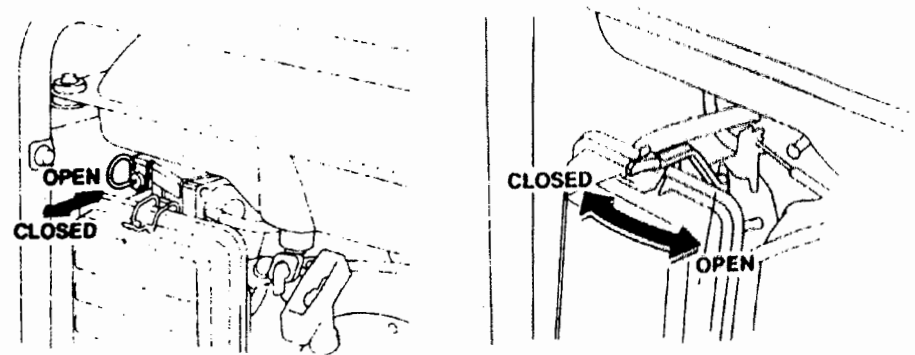
## Fuel Valve

The fuel valve is located between the fuel tank and carburetor. When the valve lever is in the ON position, fuel is allowed to flow from the fuel tank to the carburetor. Be sure to return the lever to OFF after stopping the engine.



## Choke Rod

The choke is used to provide an enriched fuel mixture when starting a cold engine. It can be opened and closed by operating the choke rod manually. Move the rod out toward CLOSED to enrich the mixture.

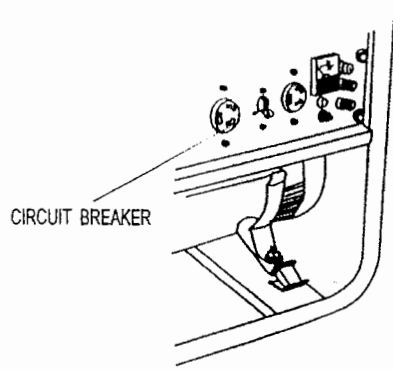


MODEL: 4000  
5000  
6500

MODEL: 2500  
3000

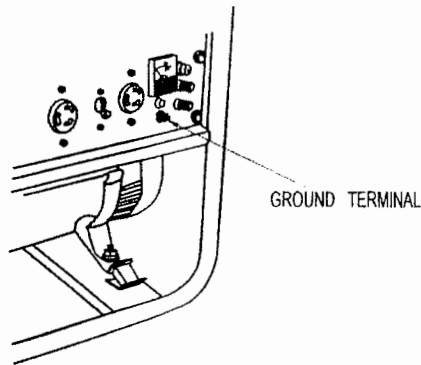
### Circuit Breaker

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



### Ground Terminal

The generator ground terminal is connected to the frame of the generator, the metal non-current carrying parts of the generator, and the ground terminals of each receptacle.



### Oil Alert System

The Oil Alert system is designed to prevent engine damage caused by an insufficient amount of oil in the crankcase. Before the oil level in the crankcase can fall below a safe limit, the Oil Alert system will automatically shut down the engine (the engine switch will remain in the ON position).

### Pilot Lamp

The pilot lamp is illuminated when the generator is operating normally.

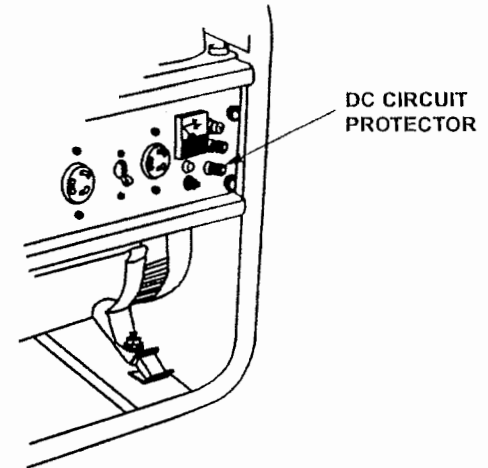
### DC Terminals

The DC terminals may ONLY be used for charging 12 volt automotive type batteries.

The terminals are colored red to identify the positive (+) terminal and black to identify the negative (-) terminal. The battery must be connected to the generator DC terminals with the proper polarity (battery positive to generator red terminal and battery negative to the generator black terminal).

### DC Circuit Protector

The DC circuit protector automatically shuts off the DC battery charging circuit when the generator is overloaded, when there is a problem with the battery or the connections between the battery and the generator are improper.



## GENERATOR USE

### Connections to a Building's Electrical System

Connections for standby power to a building's electrical system must be made by a qualified electrician. The connection must isolate the generator power from utility power, and must comply with all applicable laws and electrical codes.

**⚠ WARNING** Improper connections to a building's electrical system can allow electrical current from the generator to backfeed into the utility lines. Such backfeed may electrocute utility company workers or others who contact the lines during a power outage. Consult the utility company or a qualified electrician.

**⚠ CAUTION** Improper connections to a building's electrical system can allow electrical current from the utility company to backfeed into the generator. When utility power is restored, the generator may explode, burn, or cause fires in the building's electrical system.

In some areas, generators are required by law to be registered with local utility companies. Check local regulations for proper registration and use procedures.

### Generator Ground Circuits

Portable generators have a system ground that connects generator frame components to the ground terminals in the AC output receptacles. The system ground is not connected to the AC neutral wire.

Local regulations, codes or laws may require that the ground system be connected to the AC neutral wire. If the generator is tested by a receptacle tester, it will not show the same ground circuit condition as for a home receptacle.

If local regulations, codes, or laws require the system ground to be connected to the AC neutral wire, consult a qualified electrician or electrical inspector. Provide him with the electrical wiring diagram in this manual.

The ground terminal can be used to earth the generator or bond the frame of the generator to the frame of a vehicle, but only if it is required by local law or electrical code. Before using the ground terminal consult a qualified electrician or electrical inspector for regulations in your area.

### AC Applications

Before connecting an appliance or power cord to the generator:

- Make sure that it is in good working order. Faulty appliances or power cords can create a potential for electrical shock.
- If an appliance begins to operate abnormally, becomes sluggish or stops suddenly, turn it off immediately. Disconnect the appliance, and determine whether the problem is the appliance, or if the rated load capacity of the generator has been exceeded.
- Make sure that the electrical rating of the tool or appliance does not exceed that of the generator. Never exceed the maximum power rating of the generator. Power levels between rated and maximum may be used for no more than 5 minutes.

**NOTICE** 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.

Limit operation requiring maximum power to 5 minutes.

Maximum power is: See the following chart.

For continuous operation, do not exceed the rated power.

Rated power is: See the following chart.

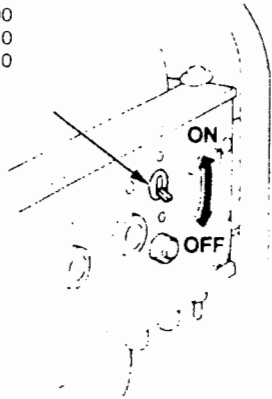
MODELS	2500		3000		4000		5000		6500	
Rated Frequency (Hz)	50	60	50	60	50	60	50	60	50	60
Maximum Power (KW)	2.2	2.5	2.5	2.8	2.1	3.5	4.5	3.0	5.5	6.0
Rated Power (KW)	2.0	2.3	2.2	2.5	2.8	3.1	4.0	4.5	5.0	5.5

In either case, the total power requirements (VA) of all appliances connected must be considered. Appliance and power tool manufacturers usually list rating information near the model number or serial number.

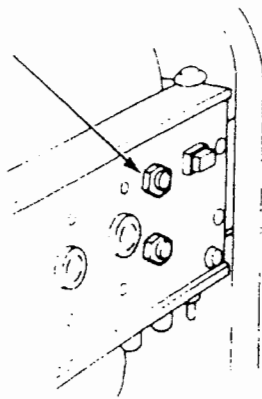
## AC Operation

1. Start the engine.
2. Switch ON the AC circuit breaker.

MODEL  
4000  
5000  
6500



MODEL  
2500  
3000



3. Plug in the appliance.  
Most motorized appliances require more than their rated wattage for startup.

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.

## DC Operation

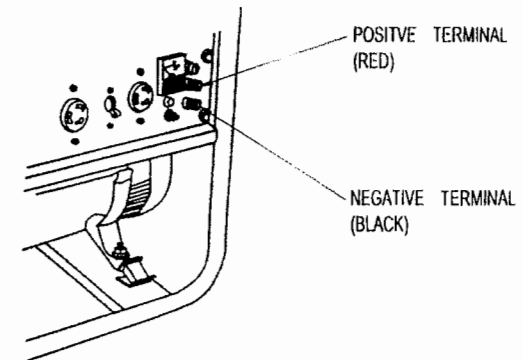
The DC terminals may ONLY be used for charging 12 volt automotive-type batteries.

### Connecting the battery cables:

1. Before connecting charging cables to a battery that is installed in a vehicle, disconnect the vehicle's grounded battery cable.

**⚠ WARNING** The battery gives off explosive gases; keep sparks, flames and cigarettes away. Provide adequate ventilation when charging or using batteries.

2. Connect the positive (+) battery cable to the battery positive (+) terminal.
3. Connect the other end of the positive (+) battery cable to the generator positive (+) terminal.



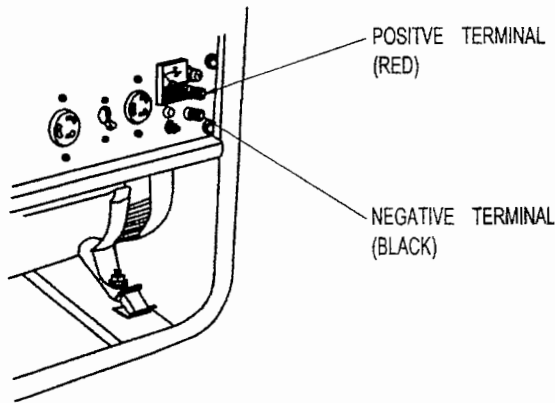
4. Connect the negative (-) battery cable to the battery negative (-) terminal.
5. Connect the other end of the negative (-) battery cable to the generator negative (-) terminal.
6. Start the generator.

**NOTICE** Do not start the vehicle while the battery charging cables are connected and the generator is running. The vehicle or the generator may be damaged.

An overloaded DC circuit, excessive current draw by the battery, or a wiring problem will trip the DC circuit protector (PUSH button extends out). If this happens, wait a few minutes before pushing in the circuit protector to resume operation. If the circuit protector continues to go OFF, discontinue charging and see your authorized generator dealer.

## Disconnecting the battery cables:

1. Stop the engine.
2. Disconnect the negative (-) battery cable from the generator negative (-) terminal.
3. Disconnect the other end of the negative (-) battery cable from the battery negative (-) terminal.
4. Disconnect the positive (+) battery cable from the generator positive (+) terminal.
5. Disconnect the other end of the positive (+) battery cable to the battery positive (+) terminal.
6. Connect the vehicle ground cable to the battery negative (-) terminal.
7. Reconnect the vehicle grounded battery cable.



## PRE-OPERATION CHECK

### 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.

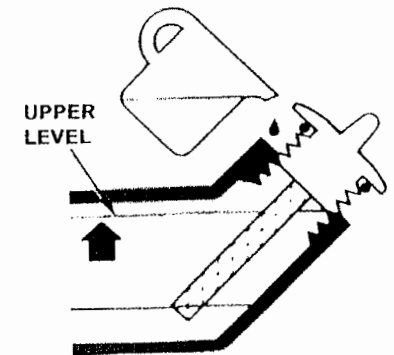
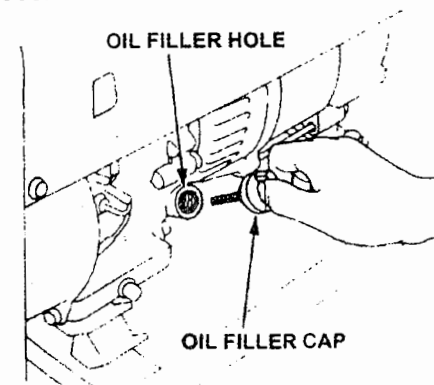
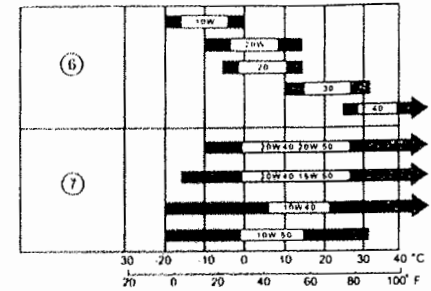
Check the oil level BEFORE EACH USE with the generator on a level surface with the engine stopped.

Use 4-stroke oil, or an equivalent high detergent, premium quality motor oil certified to meet or exceed U.S. automobile manufacturer's requirements for Service Classification SG, SF/CC, CD. Motor oils classified SG, SF/CC, CD will show this designation on the container.

- (1) SG·SF/CC·CD SINGLE VISCOSITY
- (2) SG·SF/CC·CD MULTI VISCOSITY

SAE 10W-30 is recommended for general, all-temperature use. Other viscosities shown in the chart may be used when the average temperature in your area is within the indicated range.

1. Remove the oil filler cap and wipe the dipstick clean.
2. Check the oil level by inserting the dipstick into the filler neck without screwing it in.
3. If the level is low, fill to the top of the oil filler neck with the recommended oil.



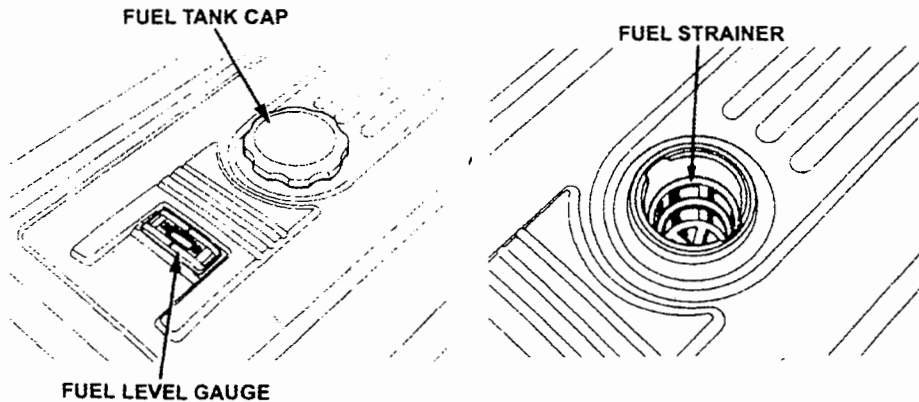
## Fuel Recommendation

1. Check the fuel level gauge.
2. Refill the tank if the fuel level is low. Do not fill above the shoulder of the fuel strainer.

### **⚠ WARNING**

- Gasoline is extremely flammable and is explosive under certain conditions.
- Refuel in a well-ventilated area with the engine stopped. Do not 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 (there should be no fuel in the filler neck). After refueling, make sure the tank cap is closed properly and securely. Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.
- Avoid repeated or prolonged contact with skin or breathing of vapor.
- **KEEP OUT OF REACH OF CHILDREN.**

Fuel tank capacity: 17.0



Use gasoline with a pump octane rating of 86 or higher

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

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

Occasionally you may hear light "spark knock" or "pinging" (metallic rattling noise) while operating under heavy loads. This is no cause for concern.

If spark knock or pinging occurs at a steady engine speed, under normal load, change brands of gasoline. If spark knock or pinging persists, see an authorized generator dealer.

**NOTICE** Running the engine with persistent spark knock or pinging can cause engine damage.

Running the engine with persistent spark knock or pinging is misuse, and the Distributor's Limited Warranty does not cover parts damaged by misuse.

### **Oxygenated Fuels**

Some gasolines are being blended with alcohol or an ether compound to increase the octane. These gasolines are collectively referred to as oxygenated fuels. Some areas of the United States use oxygenated fuels to help meet clean air standards.

If you use an oxygenated fuel, be sure its pump octane rating is 86 or higher.

### **Ethanol (ethyl or grain alcohol)**

Gasoline containing more than 10% ethanol by volume may cause starting and/or performance problems. Gasoline containing ethanol may be marketed under the name "Gasohol".

### **Methanol (methyl or wood alcohol)**

Gasoline containing methanol must contain cosolvents and corrosion inhibitors to protect the fuel system. Gasoline containing more than 5% methanol by volume may cause starting and/or performance problems and may damage metal, rubber and plastic parts of your fuel system.

### **MTBE (methyl tertiary butyl ether)**

You may use gasoline containing up to 15% MTBE by volume. Before using an oxygenated fuel, try to confirm the fuel's contents. Some states require this information to be posted on the pump. If you notice any undesirable operating symptoms, switch to a conventional unleaded gasoline. Fuel system damage or performance problems resulting from the use of an oxygenated fuel are not the responsibility of Honda and are not covered under warranty.

**NOTICE** Oxygenated fuels can damage paint and plastic. Be careful not to spill fuel when filling your fuel tank. Damage caused by spilled fuel is not covered under warranty.

## STARTING THE ENGINE

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1. Make sure that disconnect all electrical loads from panel receptacles. The generator may be hard to start if a load is connected.
2. Turn the fuel valve to the ON position.
3. The automatic choke will be closed if the engine is cold. If you want to operate the choke manually, move the choke rod out to the CLOSED position.
4. Start the engine  
With recoil starter:  
Turn the engine switch to the ON position.  
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 or housing.

5. If you have manually closed the choke, move it to the OPEN position as the engine warms up.

## STOPPING THE ENGINE

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### In an emergency:

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

### In normal use:

1. Turn the AC circuit breaker to the OFF position.  
(MODEL; 4000, 5000, 6500)
2. Disconnect all electrical loads from panel receptacles.  
Disconnect DC battery charging cables.
3. Turn the engine switch to the OFF position.
4. Turn the fuel valve to the OFF position.

## MAINTENANCE

Periodic maintenance and adjustment is necessary to keep the generator in good operating condition. Perform the service and inspection at the intervals shown in the Maintenance schedule below.

**⚠ WARNING** 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.

**NOTICE** Use only our genuine parts or their equivalent for maintenance or repair. Replacement parts which are not of equivalent quality may damage the generator.

### MAINTENANCE SCHEDULE

REGULAR SERVICE PERIOD Performed at every indicated month or operating hour interval, whichever comes first.		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)
ITEM						
Engine oil	Check level	o				
	Change		o		o	
Air cleaner	Check	o				
	Clean			o (1)		
Sediment Cup	Clean				o	
Spark plug	Check-Clean				o	
Valve clearance	Check-Adjust					o (2)
Fuel tank and strainer	Clean					o (2)
Fuel line	Check (Replace if necessary)		Every 2 years (2)			

(1) Service more frequently when used in dusty areas.

(2) These items should be serviced by an authorized generator dealer, unless the owner has the proper tools and is mechanically proficient.

(3) For professional commercial use, log hours of operation to determine proper maintenance intervals.

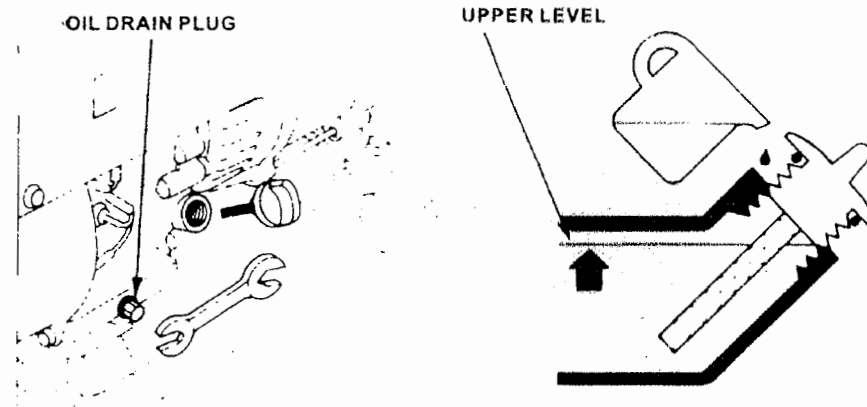
### Engine oil change

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

1. Remove the drain plug and sealing washer, 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 level.

Oil capacity:

MODEL	2500	3000	4000	5000	6500
OIL CAPACITY (ℓ)	0.6		1.1		



**⚠ CAUTION** Used motor oil may cause skin cancer if repeatedly 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 motor oil in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local service station or recycling center for reclamation. Do not throw it in the trash or pour it on the ground.

### Air cleaner service

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

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

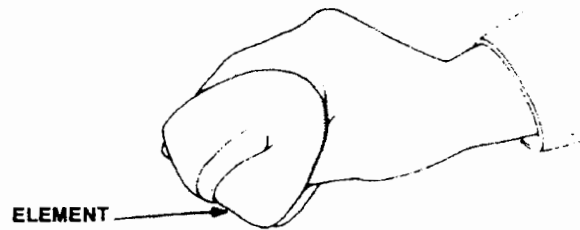
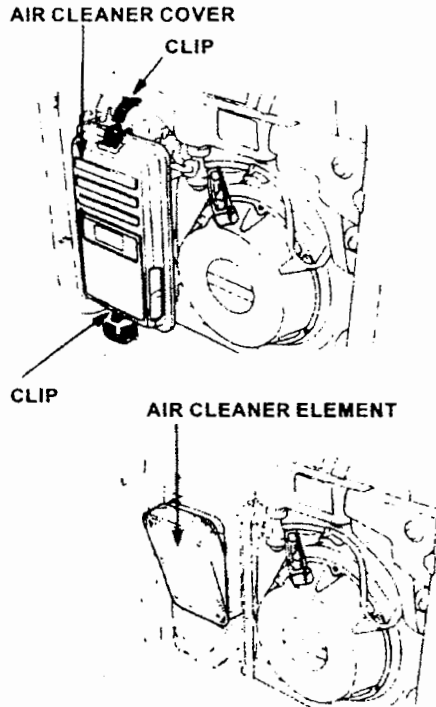
**NOTICE** Never run the generator without the air cleaner. Rapid engine wear will result.

1. Unsnap the air cleaner cover clips, remove the air cleaner cover, and remove the element.

2. Wash the element in a solution of household detergent and warm water, then rinse thoroughly; or wash in nonflammable or high flash point solvent. Allow the element to dry thoroughly.

3. Soak the element in clean engine oil and squeeze out the excess oil. The engine will smoke during initial start-up if too much oil is left in the element.

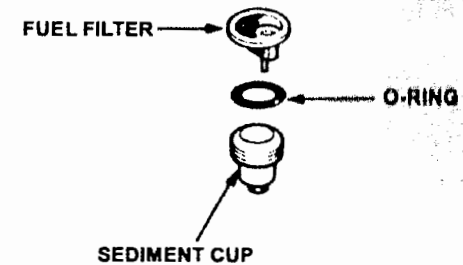
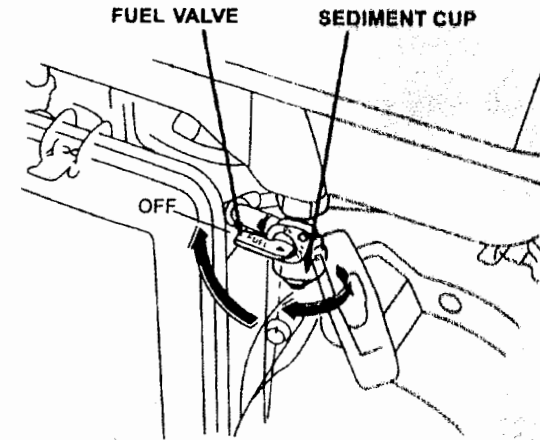
4. Reinstall the air cleaner element and the cover.



### Fuel Sediment Cup Cleaning

The sediment cup prevents dirt or water which may be in the fuel tank from entering the carburetor. If the engine has not been run for a long time, the sediment cup should be cleaned.

1. Turn the fuel valve to the OFF position. Remove the sediment cup, O-ring, and filter.
2. Clean the sediment cup, O-ring, and filter in nonflammable or high flash point solvent.
3. Reinstall the filter, O-ring, and sediment cup.
4. Turn the fuel valve ON and check for leaks.



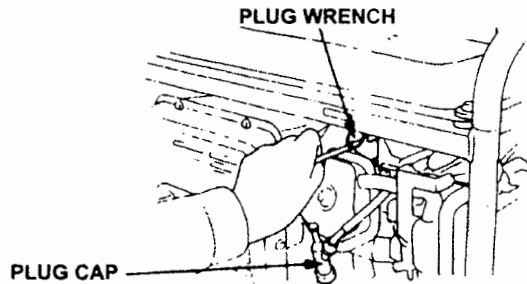
## Spark Plug Service

**Recommended spark plugs:** 2500,3000 F6TC (LD)  
4000,5000,6500 F7TC (LD)

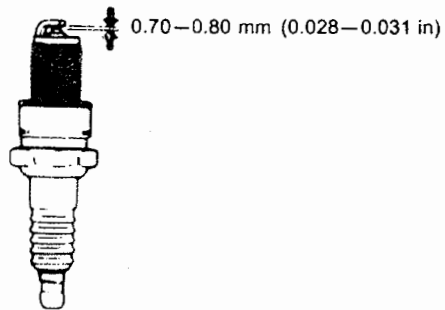
To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.

If the engine has been running, the muffler will be very hot. Be careful not to touch the muffler.

1. Remove the spark plug cap.
2. Clean any dirt from around the spark plug base.
3. Use the wrench supplied in the tool kit to remove the spark plug.



5. 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.
6. 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 (0.028-0.031 in)



7. Check that the spark plug washer is in good condition, and thread the spark plug in by hand to prevent cross-threading.
8. 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.

## TRANSPORTING/STORAGE

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

**⚠ 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.

Before storing the unit for an extended period:

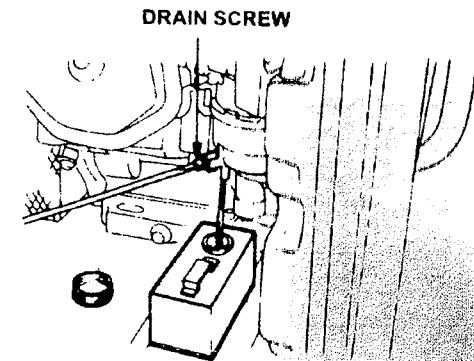
1. Be sure the storage area is free of excessive humidity and dust.
2. Service according to the table below:

STORAGE TIME	RECOMMENDED SERVICE PROCEDURE TO PREVENT HARD 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. Drain the fuel sediment cup.
1 year or more	Fill with fresh gasoline and add gasoline conditioner*. Drain the carburetor float bowl. Drain the fuel sediment cup. 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 generator dealer for conditioner recommendations.	

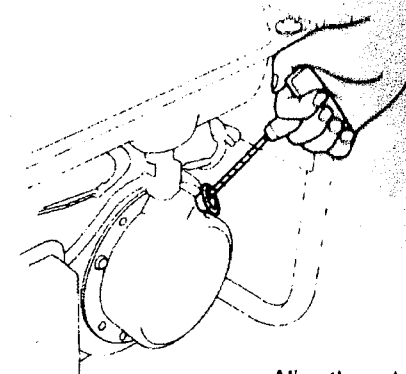
1. Drain the carburetor by loosening the drain screw. Drain the gasoline into a suitable container.

**⚠ WARNING**

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



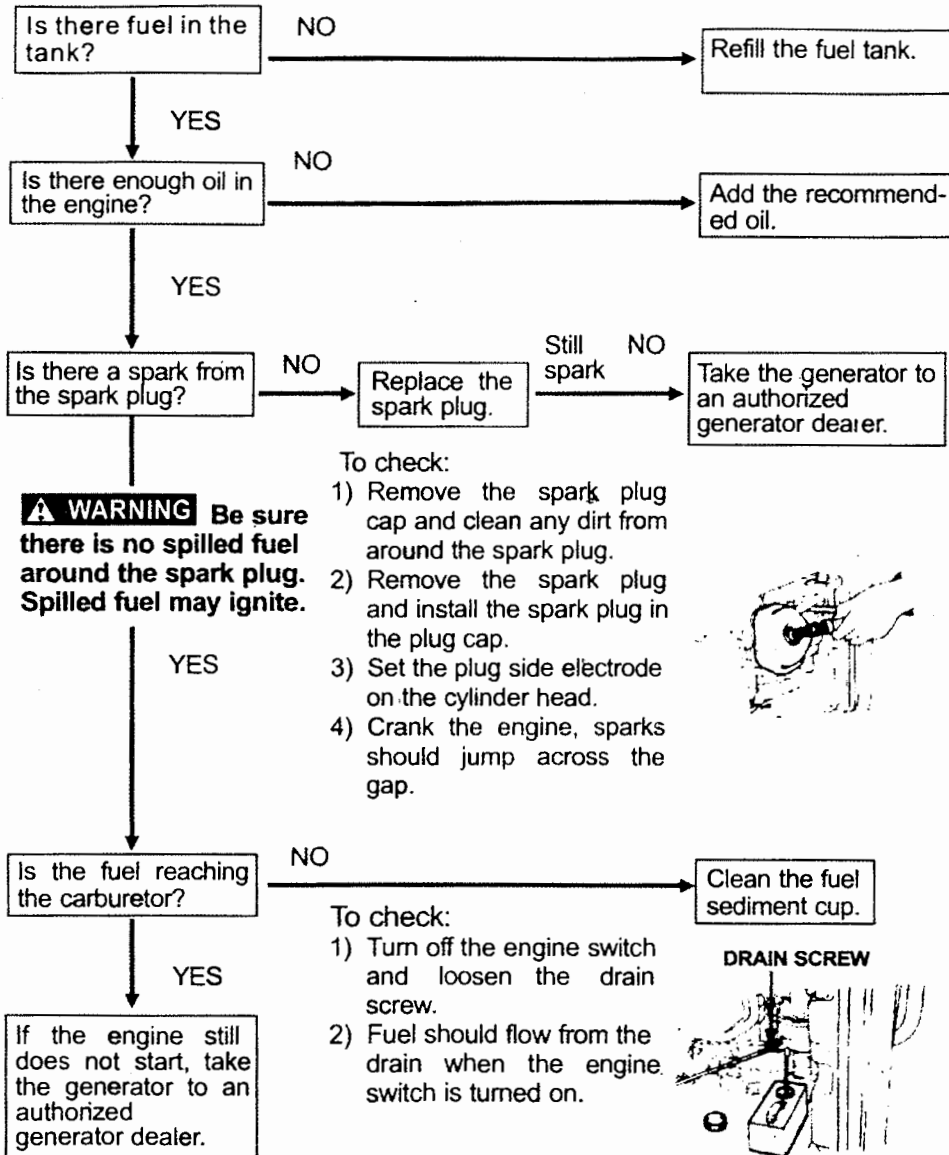
2. Change the engine oil.
3. Remove the spark plug, and pour about a tablespoon of clean engine oil into the cylinder. Crank the engine several revolutions to distribute the oil then reinstall the spark plug.
4. Slowly pull the starter grip until resistance is felt. At this point, the piston is coming up on its compression stroke and both the intake and exhaust valves are closed. Storing the engine in this position will help to protect from internal corrosion.



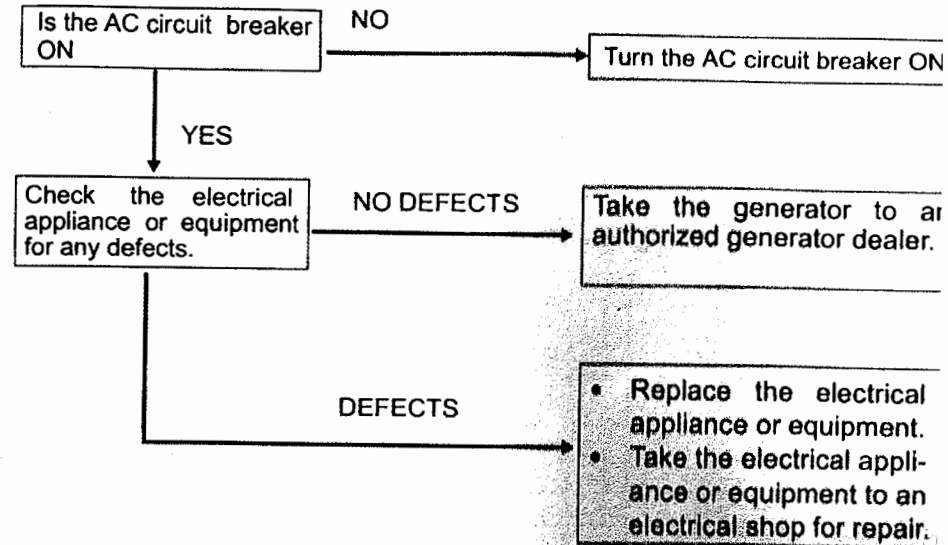
Align the notch on the starter pulley with the hole at the top of recoil starter.

# TROUBLESHOOTING

## When the engine will not start:

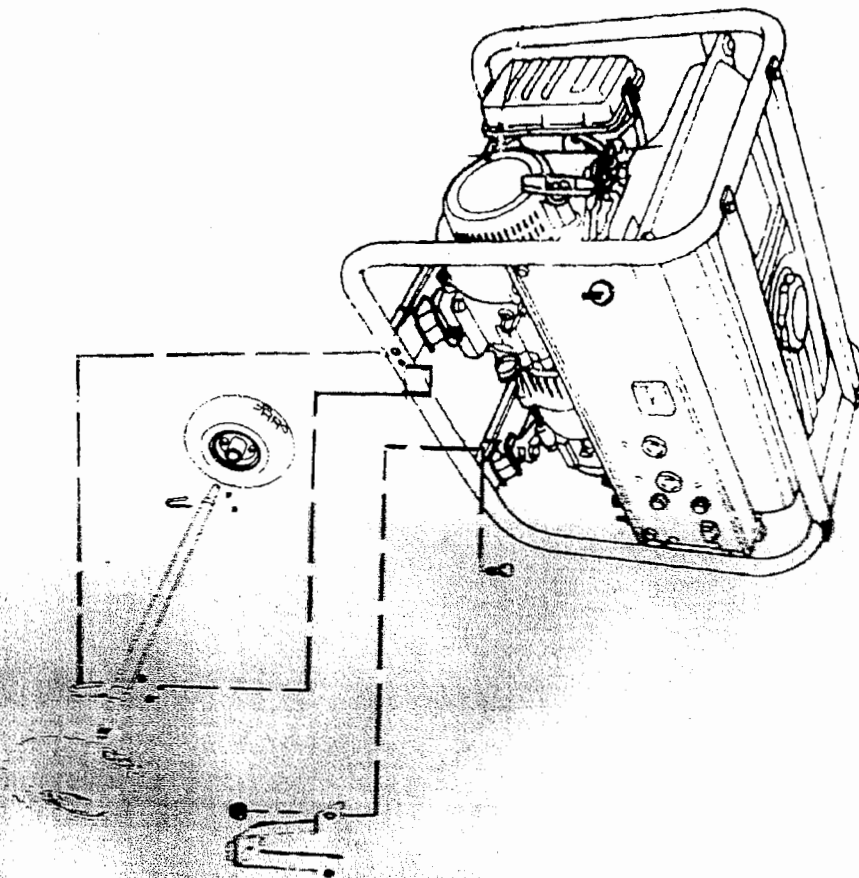


## No electricity at the AC receptacles:



MODELS		2500	3000	4000	5000	6500	
<b>★ ENGINE</b>							
Models		XR168F	XR168F-1	XR173F196	XR182F	XR188F	
Displacement		cc	163	196	242	340	389
Rated horsepower	3,000rpm	HP	5.0	6.0	7	10	12.0
	3,600rpm		5.5	6.5	8	11	13.0
Ignition system		Transistor					
Oil alert system		YES	YES	YES	YES	YES	
Starting system		Recoil			Recoil, Electric		
<b>★ GENERATOR</b>							
Type		Self-exciting, 2-pole, field rotating type					
Voltage regulation system		AVR					
Phase		Single					
AC output	Rated	50Hz	2000	2200	2800	4000	5000
		60Hz	2300	2500	3100	4500	5500
	Maximum	50Hz	2200	2500	3100	4500	5500
		60Hz	2500	2800	3500	5000	5000
Rated voltage		V	110/220, 220, 120/240				
DC output		V-A	12V8.3A	12V8.3A	12V8.3A	12V8.3A	12V8.3A
Rated power factor		cos $\phi$	1.0				
<b>★ OTHERS</b>							
Fuel Tank Capacity		ℓ	17	17	25	25	25
Dimension	Length	In.	23.6	23.6	28.1	28.1	28.1
	Width		16.5	16.5	20.1	20.1	20.1
	Height		18.3	18.3	21.3	21.3	21.3
Weight		Lbs	83.8	92.6	148	176.4	178

## SPECIFICATIONS



Wheel Kit Installation

## STALLATION OF OPTIONAL PARTS

## Battery Tray Kit

1. Install the battery guard on the frame.  
Set the battery tray on the battery guard and tighten the bolts.
2. Route the starter cable under the tank and connect it to the starter solenoid.
3. Connect the ground cable to the generator rear housing.
4. Set the battery on the battery tray and secure with the battery bracket.  
Connect the starter cable to the battery positive (+) terminal first, then to the negative (-) terminal. when disconnecting, disconnect at the battery negative (-) terminal first.
5. Install the battery guard plate on the battery guard.

