

INTRODUCTION

Congratulations on your selection of a Honda generator. We are certain you will be pleased with your purchase of one of the finest generators in the market.

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

As you read this manual, you will find information preceded by a **NOTICE** symbol. That information is intended to help you avoid damage to your generator, other property, or the environment.

We suggest you read the warranty policy to fully understand its coverage and your responsibilities of ownership.

When your generator needs scheduled maintenance, keep in mind that your authorized Honda servicing dealer is specially trained in servicing Honda generators. Your authorized Honda servicing dealer is dedicated to your satisfaction and will be pleased to answer your questions and concerns.

Best Wishes,
Honda Motor Co., Ltd.


A FEW WORDS ABOUT SAFETY

Your safety and the safety of others are very important. And using this generator safely is an important responsibility.

To help you make informed decisions about safety, we have provided operating procedures and other information on labels and in this manual. This information alerts you to potential hazards that could hurt you or others.

Of course, it is not practical or possible to warn you about all the hazards associated with operating or maintaining a generator. You must use your own good judgement.

You will find important safety information in a variety of forms, including:

- **Safety Labels** — on the generator.
- **Safety Messages** — preceded by a safety alert symbol  and one of three signal words, DANGER, WARNING, or CAUTION.

These signal words 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.

- **Safety Headings** — such as *IMPORTANT SAFETY INFORMATION*.
- **Safety Section** — such as *GENERATOR SAFETY*.
- **Instructions** — how to use this generator correctly and safely.

This entire book is filled with important safety information — please read it carefully.

CONTENTS

GENERATOR SAFETY	6
IMPORTANT SAFETY INFORMATION	6
Operator Responsibility	6
Carbon Monoxide Hazards	6
Electric Shock Hazards	7
Fire and Burn Hazards	7
Refuel With Care	8
SAFETY LABEL LOCATION	9
 CONTROLS & FEATURES	 10
COMPONENT & CONTROL LOCATIONS	10
CONTROLS	12
Fuel Valve Lever	12
Choke Lever	12
Engine Switch	13
Starter Grip	13
AC Circuit Breaker	13
FEATURES	14
Oil Alert System	14
Ground Terminal	14
Fuel Gauge	15
Voltmeter	16
 BEFORE OPERATION	 17
ARE YOU READY TO GET STARTED?	17
Knowledge	17
IS YOUR GENERATOR READY TO GO?	17
Check the Engine	18

CONTENTS

OPERATION.....	19
SAFE OPERATING PRECAUTIONS	19
STARTING THE ENGINE	20
STOPPING THE ENGINE	22
AC OPERATION	23
AC Applications	24
STANDBY POWER.....	25
Connections to a Building's Electrical System	25
System Ground	25
Special Requirements.....	26
SERVICING YOUR GENERATOR	27
THE IMPORTANCE OF MAINTENANCE	27
MAINTENANCE SAFETY	28
Safety Precautions	28
MAINTENANCE SCHEDULE	29
REFUELING.....	30
FUEL RECOMMENDATIONS.....	32
ENGINE OIL LEVEL CHECK	33
ENGINE OIL CHANGE	34
ENGINE OIL RECOMMENDATIONS	36
AIR CLEANER SERVICE.....	37
AIR FILTER CLEANING	39
SEDIMENT CUP CLEANING	40
SPARK PLUG SERVICE.....	41
STORAGE.....	43
STORAGE PREPARATION.....	43
Cleaning.....	43
Fuel.....	43
STORAGE PROCEDURE.....	44
STORAGE PRECAUTIONS	46
REMOVAL FROM STORAGE	46

CONTENTS

TRANSPORTING	47
BEFORE TRANSPORTING	47
WHEN TRANSPORTING THE GENERATOR	47
Transporting the Generator by Truck	48
TAKING CARE OF UNEXPECTED PROBLEMS	49
ENGINE WILL NOT START	49
ENGINE LACKS POWER	49
NO POWER AT THE AC RECEPTACLE	50
TECHNICAL INFORMATION	51
SERIAL NUMBER LOCATIONS	51
CARBURETOR MODIFICATION FOR HIGH ALTITUDE OPERATION	52
SPECIFICATIONS	53
WIRING DIAGRAM	54

GENERATOR SAFETY

IMPORTANT SAFETY INFORMATION

Honda generators are designed for use with electrical equipment that has suitable power requirements. Other uses can result in injury to the operator or damage to the generator and other property.

Most injuries or property damage can be prevented if you follow all instructions in this manual and on the generator. The most common hazards are discussed below, along with the best way to protect yourself and others.

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

A generator's exhaust contains toxic carbon monoxide, which you cannot see or smell. Breathing carbon monoxide can KILL YOU IN MINUTES. To avoid carbon monoxide poisoning, follow these instructions when operating a generator:

- Only run a generator OUTSIDE, far away from windows, doors, and vents.
- Never operate a generator inside a house, garage, basement, crawl space, or any enclosed or partially enclosed space.
- Never operate a generator near open doors or windows.
- Get fresh air and seek medical attention immediately if you suspect you have inhaled carbon monoxide.

Early symptoms of carbon monoxide exposure include headache, fatigue, shortness of breath, nausea, and dizziness. Continued exposure to carbon monoxide can cause loss of muscular coordination, loss of consciousness, and then death.

GENERATOR SAFETY

Electric Shock Hazards

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

Fire and Burn Hazards

- The exhaust system gets hot enough to ignite some materials.
 - Keep the generator at least 1 meter 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.

GENERATOR SAFETY

Refuel With Care

Gasoline is extremely flammable, and gasoline vapor can explode.

Do not refuel during operation.

Allow the engine to cool if it has been in operation.

Refuel only outdoors in a well-ventilated area and on a level surface.

Never smoke near gasoline, and keep other flames and sparks away.

Do not overfill the fuel tank.

Make sure that any spilled fuel has been wiped up before starting the engine.

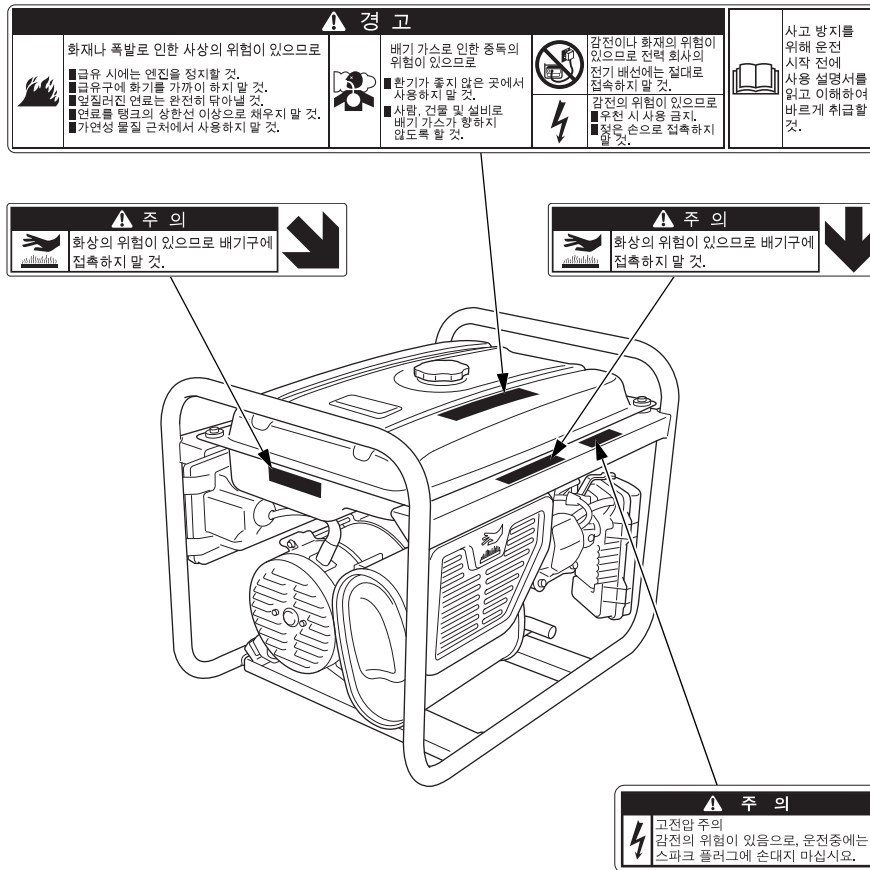
Always store gasoline in an approved container.

GENERATOR SAFETY

SAFETY LABEL LOCATION

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

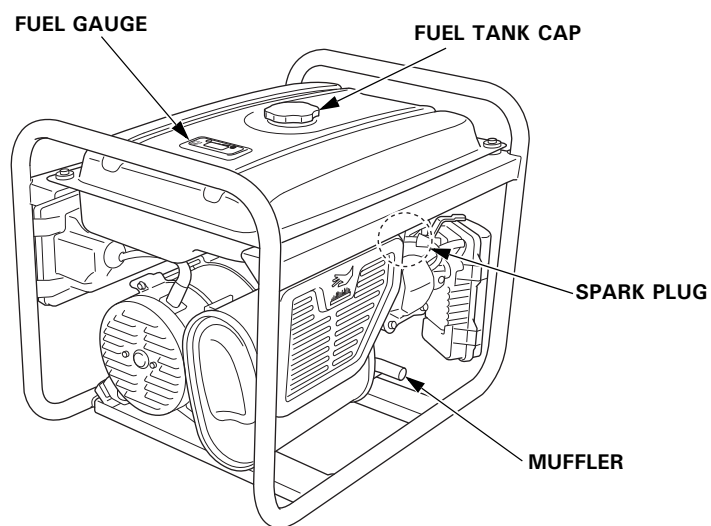
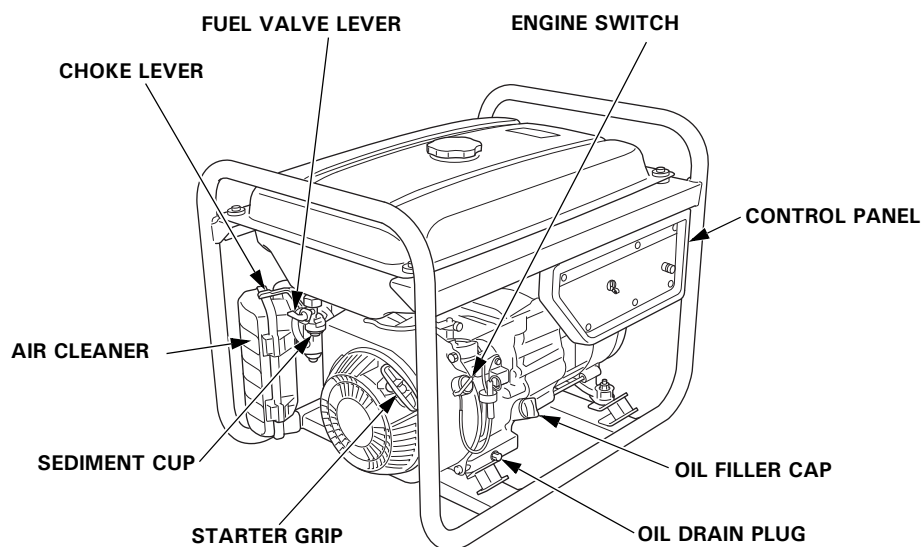
Read them carefully. If a label comes off or becomes hard to read, contact your servicing dealer for a replacement.



CONTROLS & FEATURES

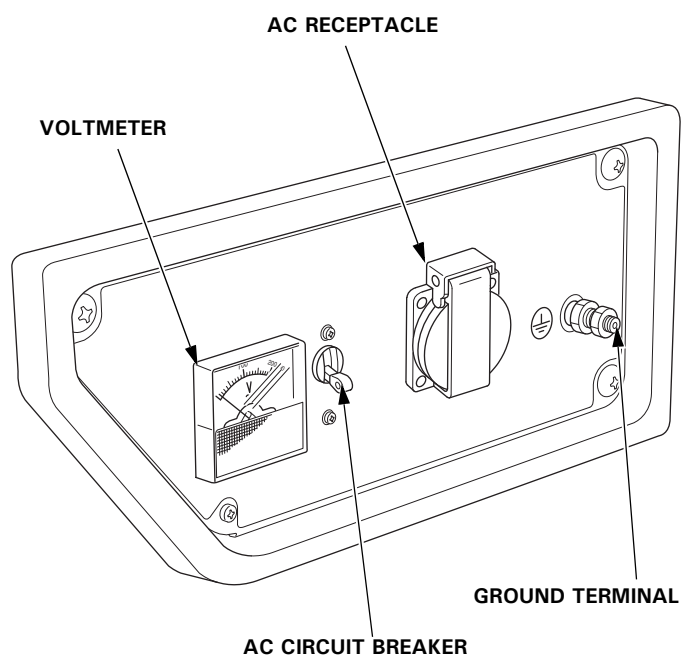
COMPONENT & CONTROL LOCATIONS

Use the illustrations on these pages to locate and identify the most frequently used controls.



CONTROLS & FEATURES

CONTROL PANEL



CONTROLS & FEATURES

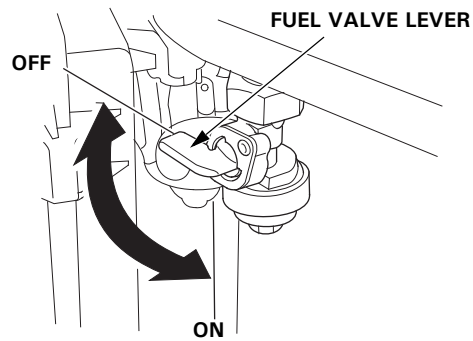
CONTROLS

Fuel Valve Lever

The fuel valve lever is located between the fuel tank and carburetor.

The fuel valve lever must be in the ON position for the engine to run.

After stopping the engine, turn the fuel valve lever to the OFF position.

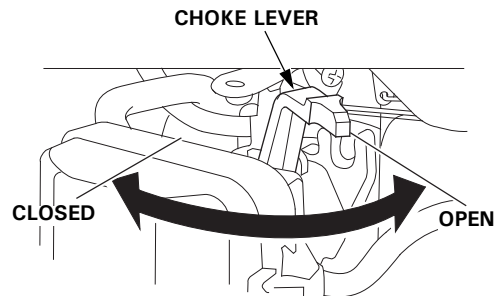


Choke Lever

The choke lever opens and closes the choke valve in the carburetor.

The CLOSED position enriches the fuel mixture for starting a cold engine.

The OPEN position provides the correct fuel mixture for operation after starting, and for restarting a warm engine.



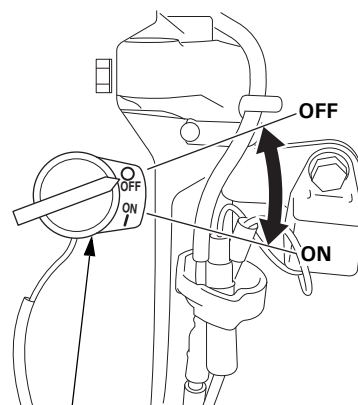
CONTROLS & FEATURES

Engine Switch

The engine switch controls the ignition system.

OFF – Stops the engine.

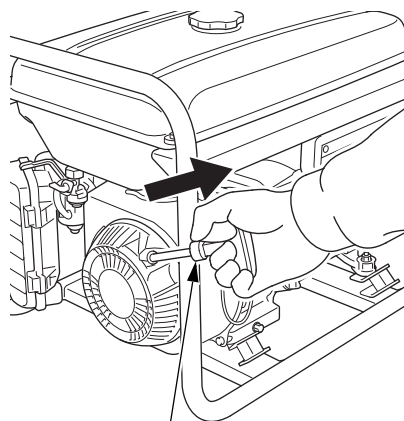
ON – Running position, and for starting.



ENGINE SWITCH

Starter Grip

Pulling the starter grip operates the recoil starter to crank the engine for starting.

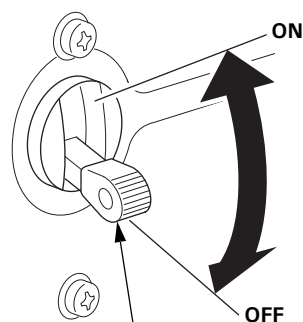


STARTER GRIP

AC Circuit Breaker

The circuit breaker will automatically switch OFF, if there is a short circuit or a significant overload at the receptacle.

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



AC CIRCUIT BREAKER

CONTROLS & FEATURES

FEATURES

Oil Alert System

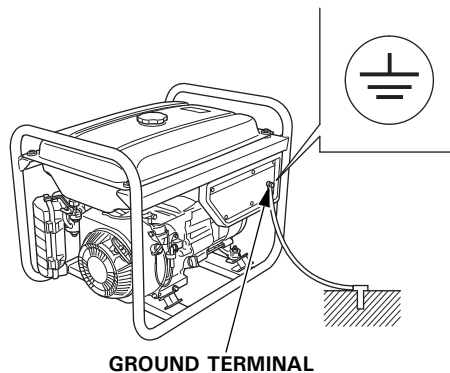
The Oil Alert system is designed to prevent engine damage caused by an insufficient amount of oil in the crankcase. Before the oil level in the crankcase can fall below a safe limit, the Oil Alert system will automatically stop the engine (the engine switch will remain in the ON position).

If the engine stops and will not restart, check the engine oil level (see page 33) before troubleshooting in other areas.

Ground Terminal

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

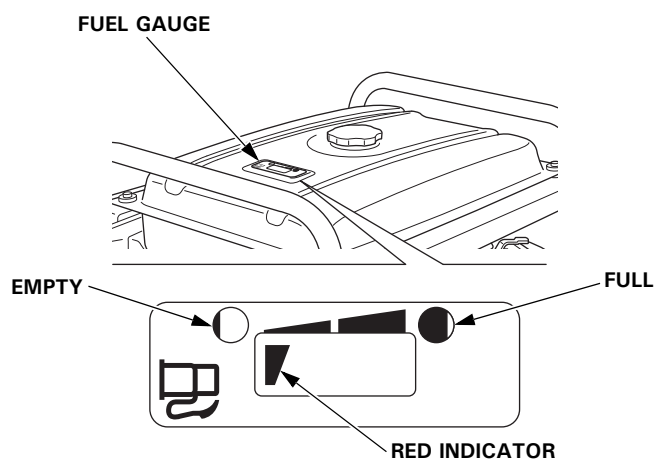
Before using the ground terminal, consult a qualified electrician, electrical inspector, or local agency having jurisdiction for local codes or ordinances that apply to the intended use of the generator.



CONTROLS & FEATURES

Fuel Gauge

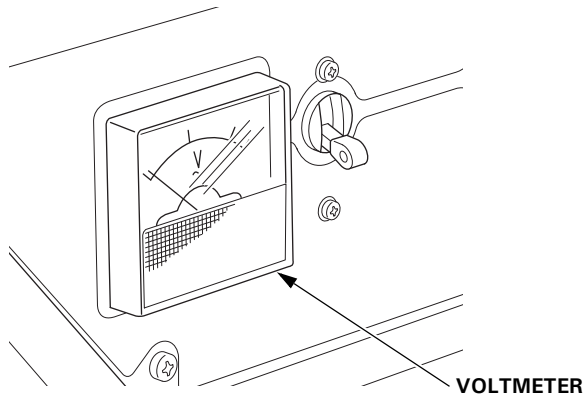
The fuel gauge is a mechanical device that measures the fuel level in the tank. The red indicator in the window will reference the level in relation to full or empty. To provide increased operating time, start with a full tank before beginning operation. Check the fuel level with the generator on a level surface. Always refuel with the engine OFF and cool.



CONTROLS & FEATURES

Voltmeter

The voltmeter displays the voltage the generator is producing.



BEFORE OPERATION

ARE YOU READY TO GET STARTED?

Your safety is your responsibility. A little time spent in preparation will significantly reduce your risk of injury.

Knowledge

Read and understand this manual. Know what the controls do and how to operate them.

Familiarize yourself with the generator and its operation before you begin using it. Know how to quickly shut off the generator in case of an emergency.

If the generator is being used to power appliances, be sure that they do not exceed the generator's load rating (see page 24).

IS YOUR GENERATOR READY TO GO?

For your safety, to ensure compliance with environmental regulations, and to maximize the service life of your equipment, it is very important to take a few moments before you operate the generator to check its condition. Be sure to take care of any problem you find, or have your servicing dealer correct it, before you operate the generator.

⚠ WARNING

Failure to properly maintain this generator, or failing to correct a problem before operation, could result in a significant malfunction.

Some malfunctions can seriously hurt or kill you.

Always perform a pre-operation inspection before each operation and correct any problems.

To prevent a possible fire, keep the generator at least 1 meter away from building walls and other equipment during operation. Do not place flammable objects close to the engine.

BEFORE OPERATION

Before beginning your pre-operation checks, be sure the generator is on a level surface and the engine switch is in the OFF position.

NOTICE

Operating this generator less than 1 meter from a building or other obstruction can cause overheating and damage the generator. For proper cooling, allow at least 1 meter of empty space above and around the generator.

Check the Engine

- Before each use, look around and underneath the engine for signs of oil or gasoline leaks.
- Check the oil level (see page 33). A low oil level will cause the Oil Alert system to shut down the engine.
- Check the air filter (see page 37). A dirty air filter will restrict air flow to the carburetor, reducing engine and generator performance.
- Check the fuel level (see page 30). Starting with a full tank will help to eliminate or reduce operating interruptions for refueling.

OPERATION

SAFE OPERATING PRECAUTIONS

Before operating the generator for the first time, review chapters *GENERATOR SAFETY* (see page 6) and *BEFORE OPERATION* (see page 17).

For your safety, do not operate the generator in an enclosed area such as a garage. Your generator's exhaust contains poisonous carbon monoxide gas that can collect rapidly in an enclosed area and cause illness or death.

WARNING

Exhaust contains poisonous carbon monoxide gas that can build up to dangerous levels in closed areas.

Breathing carbon monoxide can cause unconsciousness or death.

Never run this product's engine in a closed, or even partly closed area where people may be present.

Before connecting an AC appliance or power cord to the generator:

- Use grounded 3 prong extension cords, tools, and appliances, or double insulated tools and appliances.
- Inspect cords and plugs, and replace if damaged.
- Make sure that the appliance is in good working order. Faulty appliances or power cords can create a potential for electric shock.
- Make sure the electrical rating of the tool or appliance does not exceed the rated power of the generator or the receptacle being used.
- Operate the generator at least 1 meter away from buildings and other equipment.
- Do not operate the generator in an enclosed structure.
- Do not place flammable objects close to the engine or locate the generator near flammable materials.

OPERATION

STARTING THE ENGINE

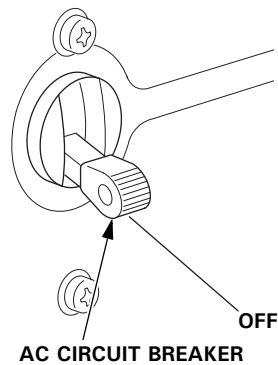
To prevent a possible fire, keep the generator at least 1 meter away from building walls and other equipment during operation. Do not place flammable objects close to the engine.

NOTICE

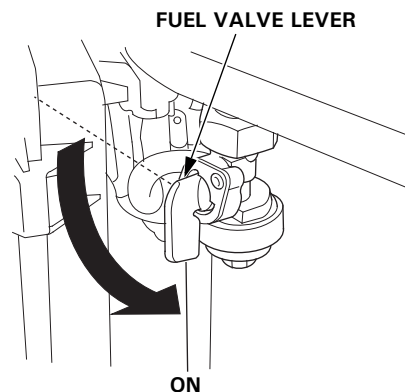
Operating this generator less than 1 meter from a building or other obstruction can cause overheating and damage the generator. For proper cooling, allow at least 1 meter of empty space above and around the generator.

Refer to *SAFE OPERATING PRECAUTIONS* on page 19 and perform the *IS YOUR GENERATOR READY TO GO?* checks (see page 17). Refer to *AC OPERATION* (see page 23) for connecting loads to the generator.

1. Make sure that all appliances are disconnected from the AC receptacle.
2. Make sure that the AC circuit breaker is in the OFF position.



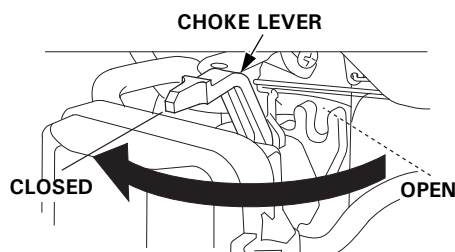
3. Turn the fuel valve lever to the ON position.



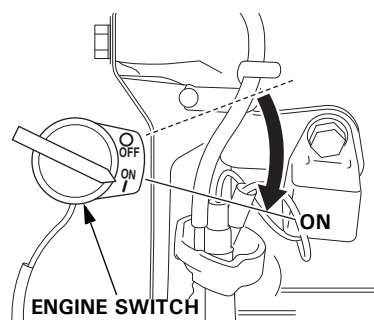
OPERATION

4. Move the choke lever to the CLOSED position to start a cold engine.

Leave the choke lever in the OPEN position to restart a warm engine.



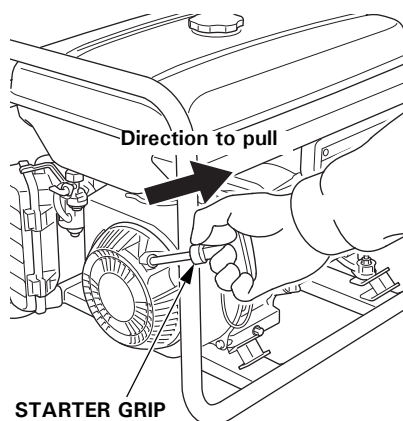
5. Turn the engine switch to the ON position.



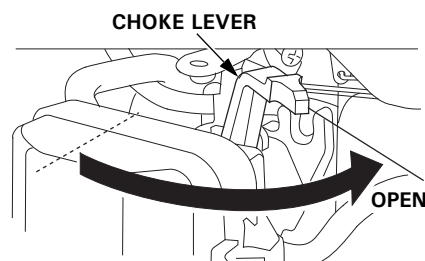
6. Pull the starter grip lightly until you feel resistance, then pull briskly in the direction of the arrow as shown.

NOTICE

- Do not allow the starter grip to snap back against the generator. Return it gently to prevent damage to the starter.
- Do not let the starter rope rub against the generator body, or the rope will wear out prematurely.



7. If the choke lever was moved to the CLOSED position to start the engine, gradually move it to the OPEN position as the engine warms up.

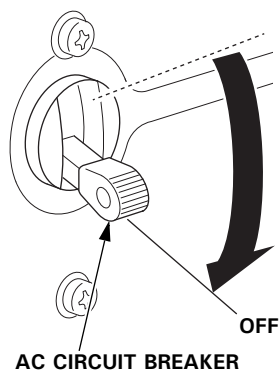


OPERATION

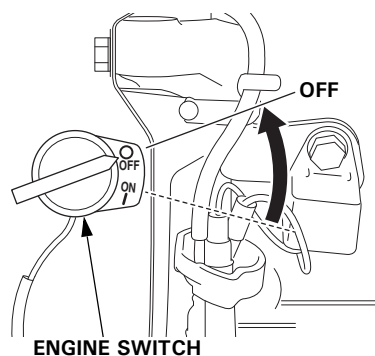
STOPPING THE ENGINE

To stop the engine in an emergency, simply turn the engine switch to the OFF position. Under normal conditions, use the following procedure.

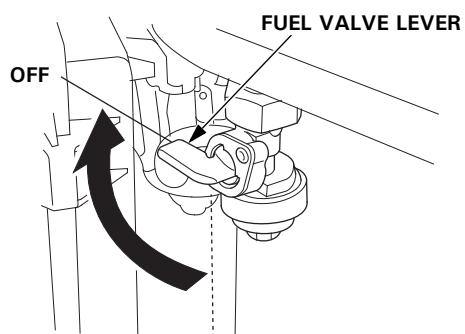
1. Move the AC circuit breaker to the OFF position.



2. Turn the engine switch to the OFF position.



3. Turn the fuel valve lever to the OFF position.



OPERATION

AC OPERATION

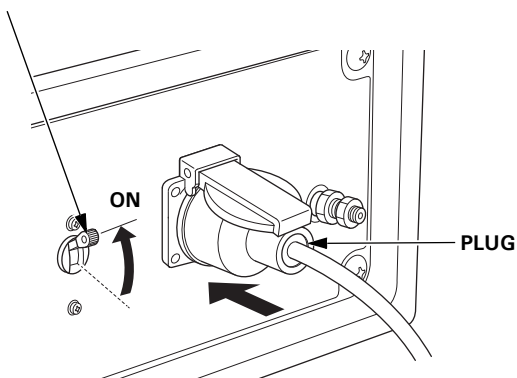
If an appliance begins to operate abnormally, becomes sluggish or stops suddenly, turn it off immediately. Disconnect the appliance, and determine whether the problem is in the appliance or the rated load capacity of the generator has been exceeded.

NOTICE

Substantial overloading may damage the generator. Marginal overloading may shorten the service life of the generator.

1. Start the engine (see page 20).
2. Switch ON the AC circuit breaker.
3. Plug in the appliance.
Most motorized appliances require more than their rated wattage for startup.

AC CIRCUIT BREAKER



OPERATION

AC Applications

Before connecting an appliance or power cord to the generator:

- Make sure that it is in good working order. A faulty appliance or power cord 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 the rated load capacity of the generator has been exceeded.

Most appliance motors require more than their rated wattage for startup.

Make sure the electrical rating of the tool or appliance does not exceed the maximum power rating of the generator.

Maximum power is:

2.5 kVA

For continuous operation, do not exceed the rated power.

Rated power is:

2.3 kVA

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.

NOTICE

Substantial overloading will open the circuit breaker. Slightly overloading the generator may not switch the circuit breaker OFF, but will shorten the service life of the generator.

OPERATION

STANDBY POWER

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 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, and the generator may explode, burn, or cause fires when utility power is restored.

Consult the utility company or a qualified electrician prior to making any power connections.

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

System Ground

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

OPERATION

Special Requirements

NOTICE

Do not lay the generator on its side when moving, storing, or operating it. Oil may leak and damage the engine or your property.

There may be applicable laws, local codes, or ordinances that apply to the intended use of the generator. Please consult a qualified electrician, electrical inspector, or the local agency having jurisdiction.

- In some areas, generators are required to be registered with local utility companies.
- If the generator is used at a construction site, there may be additional regulations that must be observed.

SERVICING YOUR GENERATOR

THE IMPORTANCE OF MAINTENANCE

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

To help you properly care for your generator, the following pages include a maintenance schedule, routine inspection procedures, and simple maintenance procedures using basic hand tools. Other service tasks that are more difficult or require special tools are best handled by professionals and are normally performed by a Honda technician or other qualified mechanic.

The maintenance schedule applies to normal operating conditions. If you operate your generator under unusual conditions, such as sustained high load or high temperature operation, or use it in dusty conditions, consult your authorized Honda servicing dealer for recommendations applicable to your individual needs and use.

⚠ WARNING

Failure to properly maintain this generator, or failing to correct a problem before operation, could result in a significant malfunction.

Some malfunctions can seriously hurt or kill you.

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

Remember that your authorized Honda servicing dealer knows your generator best and is fully equipped to maintain and repair it.

To ensure the best quality and reliability, use only new, Honda Genuine parts or their equivalents for repair and replacement.

SERVICING YOUR GENERATOR

MAINTENANCE SAFETY

Some of the most important safety precautions follow. However, we cannot warn you of every conceivable hazard that can arise in performing maintenance. Only you can decide whether or not you should perform a given task.

⚠ WARNING

Improper maintenance can cause an unsafe condition.

Failure to properly follow maintenance instructions and precautions can cause you to be seriously hurt or killed.

Always follow the procedures and precautions in this owner's manual.

Safety Precautions

Make sure the engine is off before you begin any maintenance or repairs. This will eliminate several potential hazards:

- **Carbon monoxide poisoning from engine exhaust.**
Operate outside away from open windows or doors.
- **Burns from hot parts.**
Let the engine and exhaust system cool before touching.
- **Injury from moving parts.**
Do not run the engine unless instructed to do so.
- Read the instructions before you begin, and make sure you have the tools and skills required.
- To reduce the possibility of fire or explosion, be careful when working around gasoline. Use only a nonflammable solvent, not gasoline, to clean parts. Keep cigarettes, sparks, and flames away from all fuel related parts.

SERVICING YOUR GENERATOR

MAINTENANCE SCHEDULE

REGULAR SERVICE PERIOD (3) Perform at every indicated month or operating hour interval, whichever comes first.		Each use	First month or 20 hrs.	Every 3 months or 50 hrs.	Every 6 months or 100 hrs.	Every year or 300 hrs.	Page
ITEM							
Engine oil	Check level	o					33
	Change		o		o		34
Air cleaner	Check	o					37
	Clean			o (1)			39
Sediment cup	Clean				o		40
Spark plug	Check-adjust				o		41
	Replace					o	41
Valve clearance	Check-adjust					o (2)	—
Combustion chamber	Clean		After every 500 hrs. (2)				—
Fuel tank and filter	Clean				o (2)		—
Fuel tube	Check		Every 2 years (Replace if necessary) (2)				—

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

(2) These items should be serviced by your servicing dealer, unless you have the proper tools and are mechanically proficient. Refer to the Honda shop manual for service procedures.

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

Failure to follow this maintenance schedule could result in nonwarrantable failures.

Tools

A box wrench and wrench handle are supplied with the generator. Use the supplied tools to perform maintenance tasks. Using an incorrect tool may damage the generator.

SERVICING YOUR GENERATOR

REFUELING

With the engine stopped, check the fuel gauge. Refill the fuel tank if the fuel level is low.

⚠ WARNING

Gasoline is highly flammable and explosive.

You can be burned or seriously injured when handling fuel.

- Stop the engine and keep heat, sparks, and flame away when refueling.
- Handle fuel only outdoors.
- Wipe up spills immediately.

NOTICE

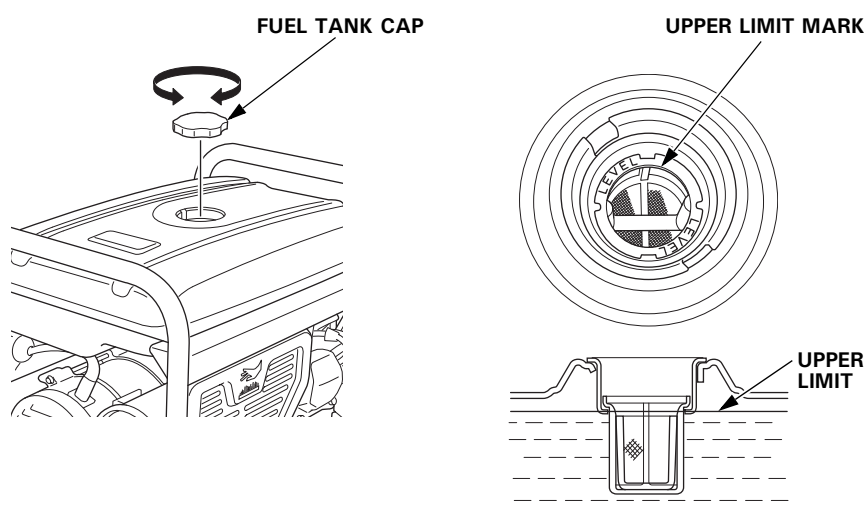
Fuel can damage paint and plastic. Be careful not to spill fuel when filling your fuel tank. Damage caused by spilled fuel is not covered under warranty.

Refuel in a well-ventilated area before starting the engine. If the engine has been running, allow it to cool. Refuel carefully to avoid spilling fuel. Do not fill the fuel tank above the upper limit mark on the fuel strainer.

Never refuel the engine inside a building where gasoline fumes may reach flames or sparks. Keep gasoline away from appliance pilot lights, barbecues, electric appliances, power tools, etc.

Spilled fuel is not only a fire hazard, it causes environmental damage. Wipe up spills immediately.

SERVICING YOUR GENERATOR



After refueling, reinstall the fuel tank cap securely.

SERVICING YOUR GENERATOR

FUEL RECOMMENDATIONS

Use automotive unleaded gasoline with a Research Octane Number of 91 or higher (a Pump Octane Number of 86 or higher).

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

You may use regular unleaded gasoline containing no more than 10% ethanol (E10) or 5% methanol by volume. In addition, methanol must contain cosolvents and corrosion inhibitors.

Use of fuels with content of ethanol or methanol greater than shown above may cause starting and/or performance problems. It may also damage metal, rubber, and plastic parts of the fuel system.

Engine damage or performance problems that result from using a fuel with percentages of ethanol or methanol greater than shown above are not covered under warranty.

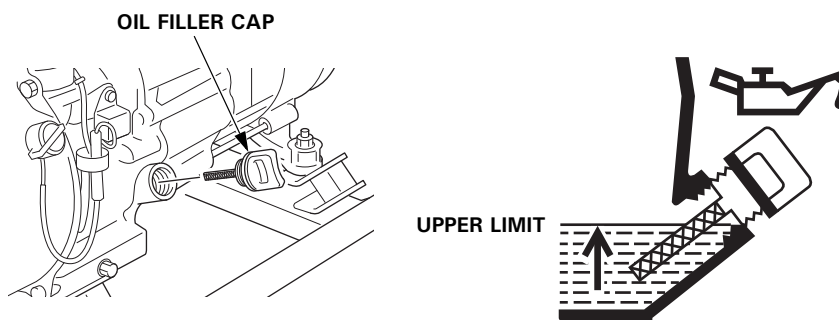
If your equipment will be used on an infrequent basis, please refer to the fuel section of the STORAGE chapter (see page 43) for additional information regarding fuel deterioration.

SERVICING YOUR GENERATOR

ENGINE OIL LEVEL CHECK

Check the engine oil level with the engine stopped and in a level position.

1. Remove the oil filler cap.
2. Check the oil level. If it is below the upper limit, fill with the recommended oil (see page 36) to the upper limit.
3. Reinstall the oil filler cap securely.



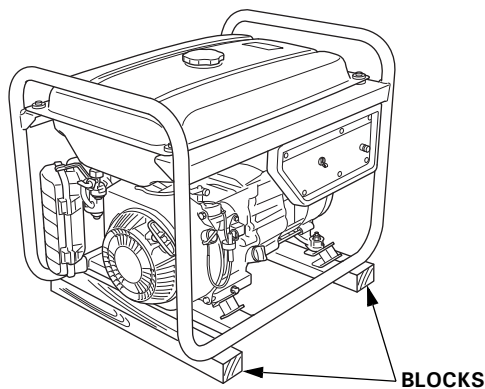
The Oil Alert system will automatically stop the engine before the oil level falls below safe limits. However, to avoid the inconvenience of an unexpected shutdown, check the oil level regularly.

SERVICING YOUR GENERATOR

ENGINE OIL CHANGE

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

1. Place blocks under the generator, and check that the generator is in a suitable and level position.



2. Place a suitable container below the engine to catch the used oil, and then remove the oil filler cap, drain plug, and sealing washer.
3. Allow the used oil to drain completely, and then reinstall the drain plug and a new sealing washer. Tighten the plug securely.

NOTICE

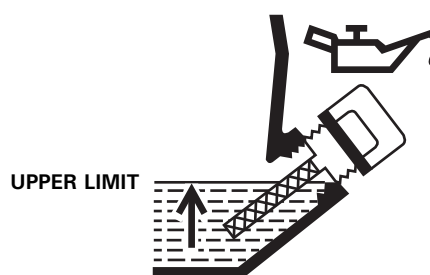
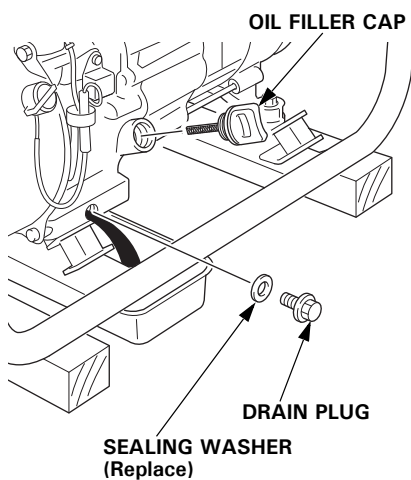
Improper disposal of engine oil can be harmful to the environment. If you change your own oil, please dispose of the used oil properly. Put it in a sealed container, and take it to a recycling center. Do not discard it in a trash bin, dump it on the ground, or pour it down the drain.

SERVICING YOUR GENERATOR

4. With the generator in a level position, fill with the recommended oil (see page 36) to the outer edge of the oil filler hole.

5. Reinstall the oil filler cap securely.

Wash your hands with soap and water after handling used oil.

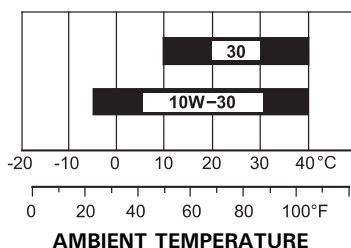


SERVICING YOUR GENERATOR

ENGINE OIL RECOMMENDATIONS

Oil is a major factor affecting performance and service life. Use 4-stroke automotive detergent oil.

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

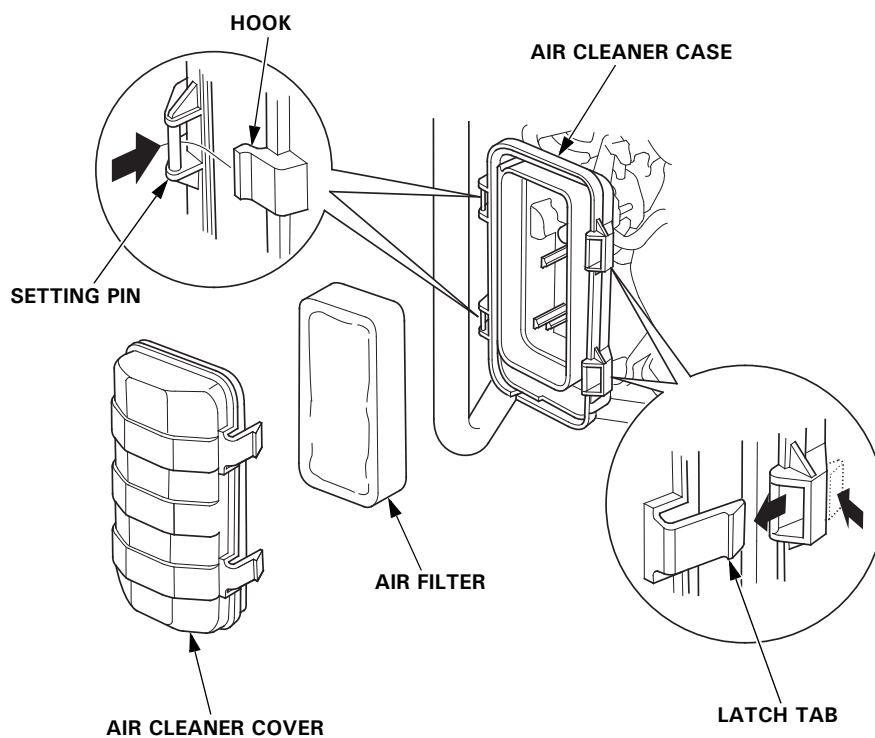


The SAE oil viscosity and service category are in the API label on the oil container. Honda recommends that you use API service category SE or later (or equivalent) oil.

SERVICING YOUR GENERATOR

AIR CLEANER SERVICE

1. Push the latch tabs and open the air cleaner cover.
2. Free the hooks from the setting pins on the air cleaner case and remove the air cleaner cover to the right side of the frame pipe, taking care not to damage the air cleaner cover.
3. Remove the air filter from the air cleaner case.
4. Check the air filter to be sure it is clean and in good condition.
If the air filter is dirty, clean it as described on page 39.
Replace the air filter if it is damaged.

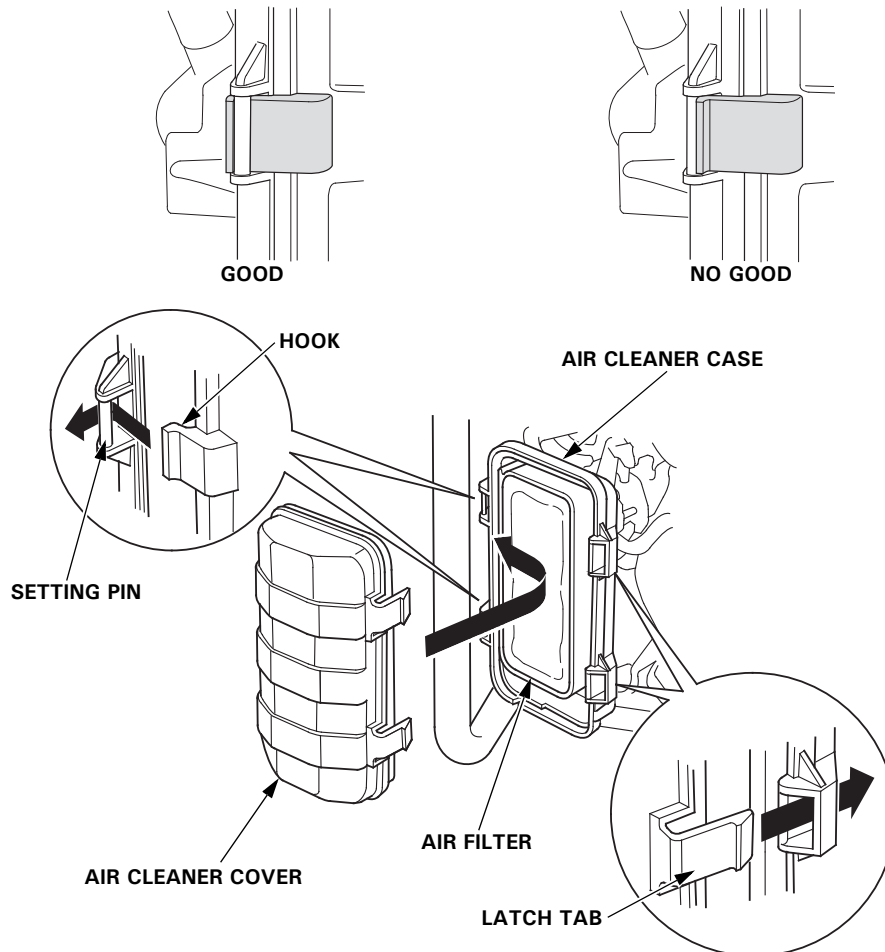


SERVICING YOUR GENERATOR

5. Reinstall the air filter in the air cleaner case.
6. Set the hooks of the air cleaner cover to the setting pins securely, then push the air cleaner cover to lock the latch tabs. Be sure that the cover is set securely. There must be no clearance between the air cleaner cover and case.

NOTICE

Operating the engine without an air filter, or with a damaged air filter, will allow dirt to enter the engine, causing rapid engine wear. This type of damage is not covered by the warranty.

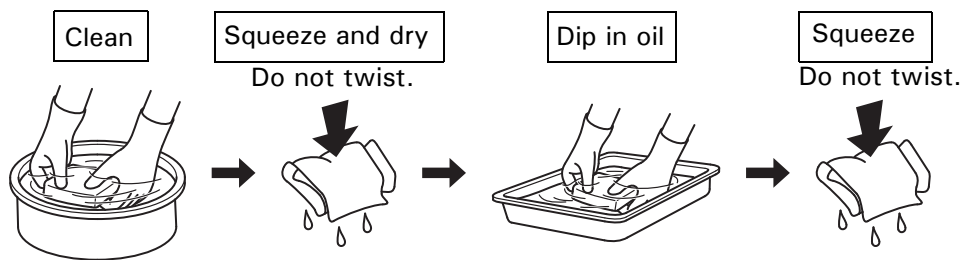


SERVICING YOUR GENERATOR

AIR FILTER CLEANING

A dirty air filter will restrict air flow to the carburetor, reducing engine performance. If you operate the generator in very dusty areas, clean the air filter more frequently than specified in the Maintenance Schedule (see page 29).

1. Clean the air filter in warm soapy water, rinse, and allow to dry thoroughly, or clean in nonflammable solvent and allow to dry.
2. Dip the air filter in clean engine oil, then squeeze out all excess oil. The engine will smoke when started if too much oil is left in the air filter.



3. Wipe dirt from the air cleaner case and cover using a moist rag. Be careful to prevent dirt from entering the air duct that leads to the carburetor.

SERVICING YOUR GENERATOR

SEDIMENT CUP CLEANING

The sediment cup prevents dirt or water that 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 lever to the OFF position, then remove the sediment cup, O-ring, and filter. Discard the O-ring.

⚠ WARNING

Gasoline is highly flammable and explosive.

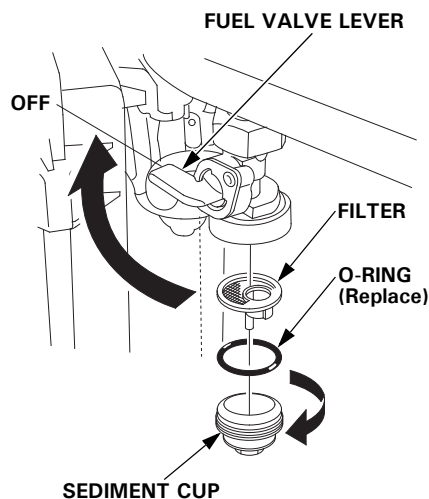
You can be burned or seriously injured when handling fuel.

- Stop the engine and keep heat, sparks, and flame away when refueling.
- Handle fuel only outdoors.
- Wipe up spills immediately.

2. Clean the sediment cup and filter in nonflammable or high flash point solvent, and dry them thoroughly.

3. Reinstall the filter, new O-ring, and sediment cup, and tighten the sediment cup securely.

4. Turn the fuel valve lever to the ON position and check for leaks.



SERVICING YOUR GENERATOR

SPARK PLUG SERVICE

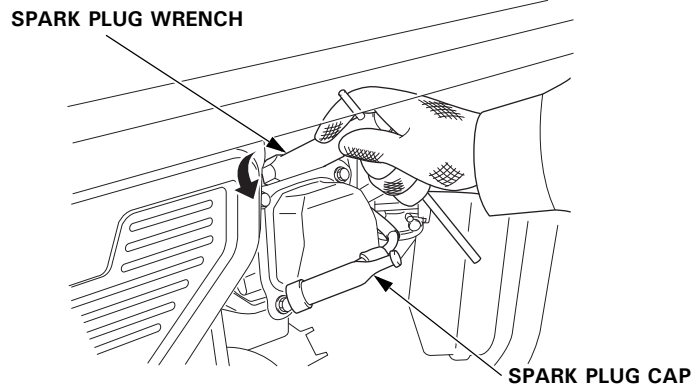
Recommended spark plugs: BPR6ES (NGK)
W20EPR-U (DENSO)

NOTICE

An incorrect spark plugs can cause engine damage.

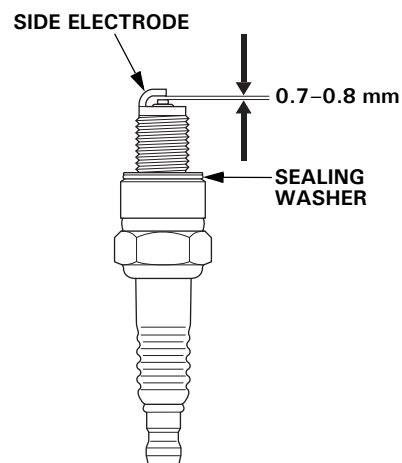
If the engine is hot, allow it to cool before servicing the spark plug.

1. Disconnect the spark plug cap, and remove any dirt from around the spark plug area.
2. Remove the spark plug with a spark plug wrench.



3. Inspect the spark plug. Replace it if the electrodes are worn or if the insulator is cracked, chipped, or fouled.
4. Measure the spark plug electrode gap with a wire type feeler gauge. Correct the gap, if necessary, by carefully bending the side electrode.

The gap should be:
0.7–0.8 mm



SERVICING YOUR GENERATOR

5. Make sure that the spark plug sealing washer is in good condition, and thread the spark plug in by hand to prevent cross threading.
6. After the spark plug seats, tighten with the spark plug wrench to compress the washer.

If reinstalling a used spark plug, tighten $1/8 - 1/4$ turn after the spark plug seats.

If installing a new spark plug, tighten $1/2$ turn after the spark plug seats.

NOTICE

*A loose spark plug can overheat and damage the engine.
Overtightening the spark plug can damage the threads in the cylinder head.*

TORQUE: 18 N·m (1.8 kgf·m, 13 lbf·ft)

7. Attach the spark plug cap.

STORAGE

STORAGE PREPARATION

Proper storage preparation is essential for keeping your generator trouble free and looking good. The following steps will help to keep rust and corrosion from impairing your generator's function and appearance, and will make the engine easier to start when you use the generator again.

Cleaning

Wipe the generator with a moist cloth. After the generator has dried, touch up any damaged paint, and coat other areas that may rust with a light film of oil.

Fuel

NOTICE

Depending on the region where you operate your equipment, fuel formulations may deteriorate and oxidize rapidly. Fuel deterioration and oxidation can occur in as little as 30 days and may cause damage to the carburetor and/or fuel system. Please check with your authorized Honda servicing dealer for local storage recommendations.

Gasoline will oxidize and deteriorate in storage. Old gasoline will cause hard starting, and it leaves gum deposits that clog the fuel system. If the gasoline in your generator deteriorates during storage, you may need to have the carburetor and other fuel system components serviced or replaced.

The length of time that gasoline can be left in your fuel tank and carburetor without causing functional problems will vary with such factors as gasoline blend, your storage temperatures, and whether the fuel tank is partially or completely filled. The air in a partially filled fuel tank promotes fuel deterioration. Very warm storage temperatures accelerate fuel deterioration. Fuel deterioration problems may occur after 30 days from keeping the fuel in the fuel tank, or even less if the gasoline was not fresh when you filled the fuel tank.

The warranty does not cover fuel system damage or engine performance problems resulting from neglected storage preparation.

STORAGE

STORAGE PROCEDURE

1. Drain the fuel tank and carburetor.

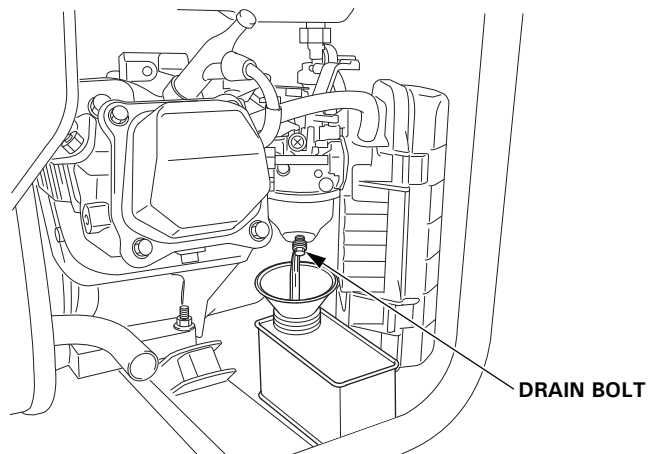
⚠ WARNING

Gasoline is highly flammable and explosive.

You can be burned or seriously injured when handling fuel.

- Stop the engine and keep heat, sparks, and flame away when refueling.
- Handle fuel only outdoors.
- Wipe up spills immediately.

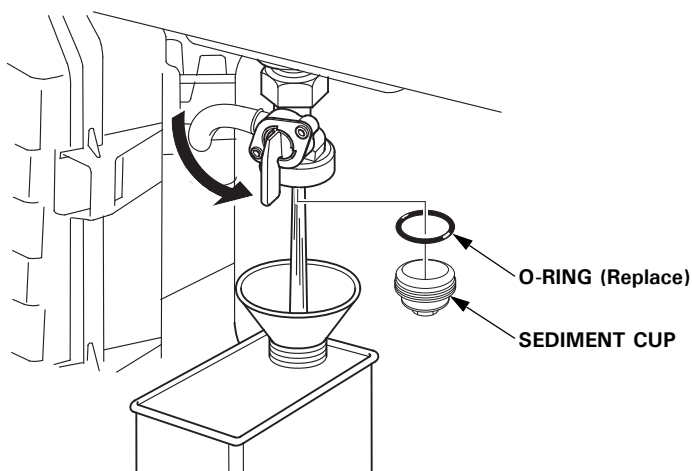
- a. Place a suitable gasoline container below the carburetor, and use a funnel to avoid spilling fuel.
- b. Turn the fuel valve lever to the OFF position, loosen the carburetor drain bolt by turning 1 to 2 turns counterclockwise and drain the fuel from the carburetor.



- c. Place a suitable gasoline container below the sediment cup, and use a funnel to avoid spilling fuel.

STORAGE

- d. Remove the sediment cup, and then turn the fuel valve lever to the ON position and drain the fuel from the fuel tank.



- e. After all the fuel has drained into the container, tighten the drain bolt securely.
- f. Reinstall a new O-ring and sediment cup, and tighten the sediment cup securely.
- g. Turn the fuel valve lever to the OFF position.
2. Change the engine oil (see page 34).
3. Remove the spark plug (see page 41).
4. Pour a teaspoon (5 cm^3) of clean engine oil into the cylinder.
5. Pull the starter grip several times to distribute the oil in the cylinder.
6. Reinstall the spark plug.
7. 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 it from internal corrosion. Return the starter grip gently.

STORAGE

STORAGE PRECAUTIONS

If your generator will be stored with gasoline in the fuel tank and carburetor, it is important to reduce the hazard of gasoline vapor ignition.

Select a well-ventilated storage area away from any appliance that operates with a flame, such as a furnace, water heater, or clothes dryer. Also avoid any area with a spark-producing electric motor, or where power tools are operated.

If possible, avoid storage areas with high humidity, because that promotes rust and corrosion.

Unless all fuel has been drained from the fuel tank, leave the fuel valve lever in the OFF position (see page 22) to reduce the possibility of leakage.

Place the generator on a level surface. Tilting can cause fuel or oil leakage.

With the engine and exhaust system cool, cover the generator to keep out dust. A hot engine and exhaust system can ignite or melt some materials.

Do not use sheet plastic as a dust cover. A nonporous cover will trap moisture around the generator, promoting rust and corrosion.

REMOVAL FROM STORAGE

Check your generator as described in the BEFORE OPERATION chapter of this manual (see page 17).

If the fuel was drained during storage preparation, fill the tank with fresh gasoline. If you keep a container of gasoline for refueling, be sure that it contains only fresh gasoline. Gasoline oxidizes and deteriorates over time, causing hard starting.

If the cylinder was coated with oil during storage preparation, the engine may smoke briefly at startup. This is normal.

TRANSPORTING

BEFORE TRANSPORTING

1. Make sure the engine switch, fuel valve are OFF (see page 22).
2. Drain all gasoline from the fuel tank and carburetor (see page 44).

⚠ WARNING

Gasoline is highly flammable and explosive.

You can be burned or seriously injured when handling fuel.

- Stop the engine and keep heat, sparks, and flame away when refueling.
- Handle fuel only outdoors.
- Wipe up spills immediately.

WHEN TRANSPORTING THE GENERATOR

If the generator has been running, allow the engine to cool down before loading the generator on the vehicle.

A hot engine and exhaust system can burn you and can ignite some materials.

Do not load the generator on a vehicle to transport with the fuel filled. The fuel may leak due to vibration during transport.

When transporting the generator, turn the engine switch and the fuel valve lever OFF, and Keep the generator level to reduce the possibility of fuel leakage.

Avoid a place exposed to direct sunlight when putting the generator on a vehicle. If the generator is left in an enclosed vehicle for many hours, high temperature inside the vehicle could cause fuel to vaporize resulting in a possible explosion.

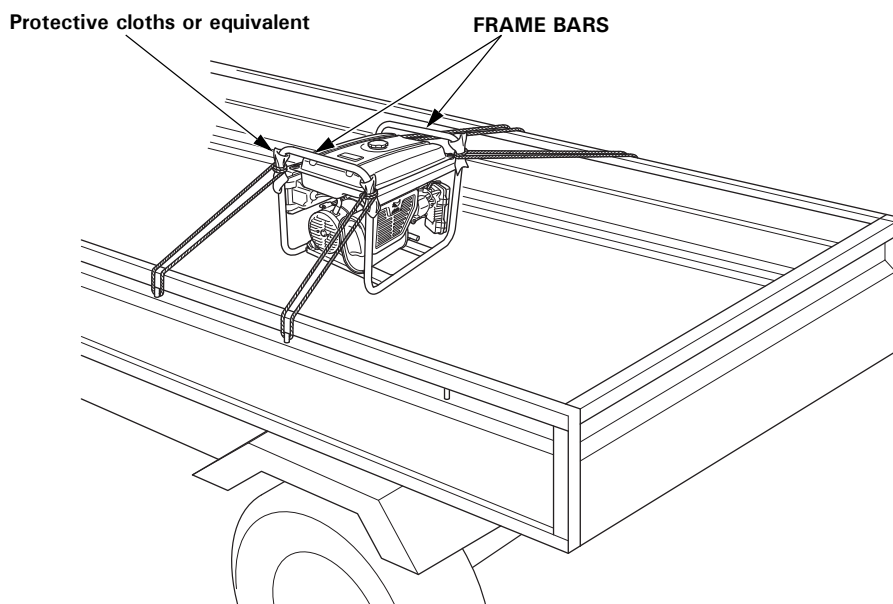
Do not drive on a rough road for an extended period with the generator on board.

TRANSPORTING

Transporting the Generator by Truck

Load the generator on a place where it will not drop off, tumble over or be damaged and tie it up with ropes or tie down straps.

When using ropes or tie down straps to secure the generator for transportation, only use the frame bars as attachment points, by protecting them with protective cloths or equivalent. Do not fasten ropes or straps to any other portions of the generator body.



TAKING CARE OF UNEXPECTED PROBLEMS

ENGINE WILL NOT START

Possible Cause	Correction
Fuel valve OFF.	Turn valve ON (see page 12).
Choke OPEN.	Move to CLOSED unless engine is warm (see page 12).
Engine switch OFF.	Turn engine switch to ON (see page 13).
Out of fuel.	Refuel (see page 30).
Bad fuel; generator stored without draining gasoline, or refueled with bad gasoline.	Drain fuel tank and carburetor (see page 44). Refuel with fresh gasoline (see page 30).
Low oil level caused Oil Alert to stop engine.	Add oil (see page 33). Turn engine switch to OFF and restart the engine.
Spark plug faulty, fouled, or improperly gapped.	Gap, or replace spark plug (see page 41).
Spark plug wet with fuel (flooded engine).	Dry and reinstall spark plug.
Fuel filter restricted, carburetor malfunction, ignition malfunction, valves stuck, etc.	Take generator to your servicing dealer, or refer to shop manual.

ENGINE LACKS POWER

Possible cause	Correction
Air filter restricted.	Clean or replace air filter (see page 37 through 39).
Bad fuel; generator stored without draining gasoline, or refueled with bad gasoline.	Drain fuel tank and carburetor (see page 44). Refuel with fresh gasoline (see page 30).
Fuel filter restricted, carburetor malfunction, ignition malfunction, valves stuck, etc.	Take generator to your servicing dealer, or refer to shop manual.

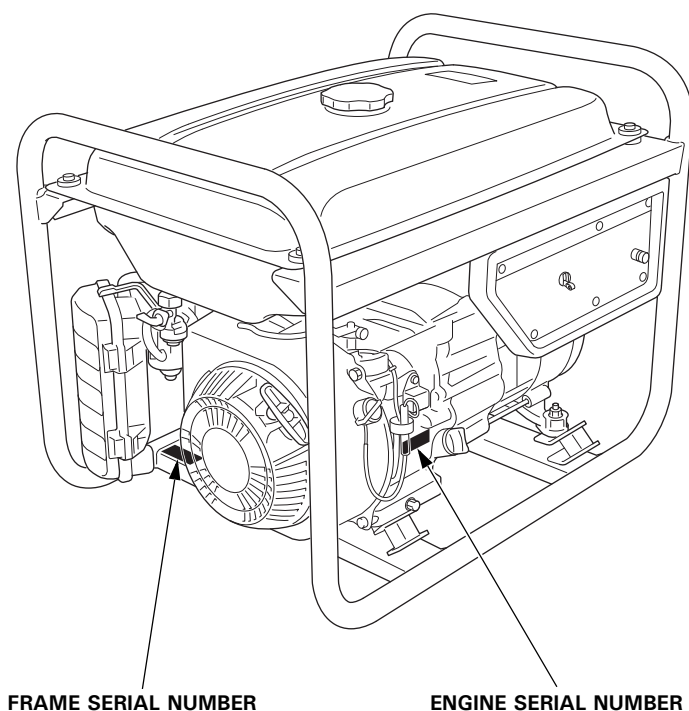
TAKING CARE OF UNEXPECTED PROBLEMS

NO POWER AT THE AC RECEPTACLE

Possible Cause	Correction
Circuit breaker left in the OFF position after starting.	Switch circuit breaker ON (see page 23).
Faulty power tool or appliance.	Replace or repair power tool or appliance. Stop and restart the engine.
Faulty generator.	Take generator to your servicing dealer, or refer to shop manual.

TECHNICAL INFORMATION

SERIAL NUMBER LOCATIONS



Record the engine and frame serial numbers and date purchased in the spaces below. You will need this information when ordering parts and when making technical or warranty inquiries.

Engine serial number: _____

Frame serial number: _____

Date purchased: _____

TECHNICAL INFORMATION

CARBURETOR MODIFICATION FOR HIGH ALTITUDE OPERATION

At high altitude, the standard carburetor air fuel mixture will be too rich. Performance will decrease, and fuel consumption will increase. A very rich mixture will also foul the spark plug and cause hard starting. Operation at an altitude that differs from that at which this engine was certified, for extended periods of time, may increase emissions.

High altitude performance can be improved by specific modifications to the carburetor. If you always operate your generator at altitudes above 1,500 meters, have your authorized Honda servicing dealer perform this carburetor modification.

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

NOTICE

When the carburetor has been modified for high altitude operation, the air/fuel mixture will be too lean for low altitude use. Operation at altitudes below 1,500 meters with a modified carburetor may cause the engine to overheat and result in serious engine damage. For use at low altitudes, have your authorized Honda servicing dealer return the carburetor to original factory specifications.

TECHNICAL INFORMATION

SPECIFICATIONS

Dimensions

Model	ER2500CX
Description code	ECCC
Length	591 mm
Width	432 mm
Height	462 mm
Dry mass (weight)	40.0 kg

Engine

Model	GP160
Engine Type	4-stroke, overhead valve, single cylinder
Displacement	163 cm ³
Bore × Stroke	68.0 × 45.0 mm
Cooling System	Forced air
Ignition System	Transistor magneto ignition
Oil Capacity	0.58 L
Fuel Tank Capacity	14.5 L
Spark Plug	BPR6ES (NGK), W20EPR-U (DENSO)

Generator

AC output	Rated voltage	220 V
	Rated frequency	60 Hz
	Rated ampere	10.5 A
	Rated output	2.3 kVA
	Maximum output	2.5 kVA
Operating temperature range		-5 C° – 40 C°

Specifications are subject to change without notice.

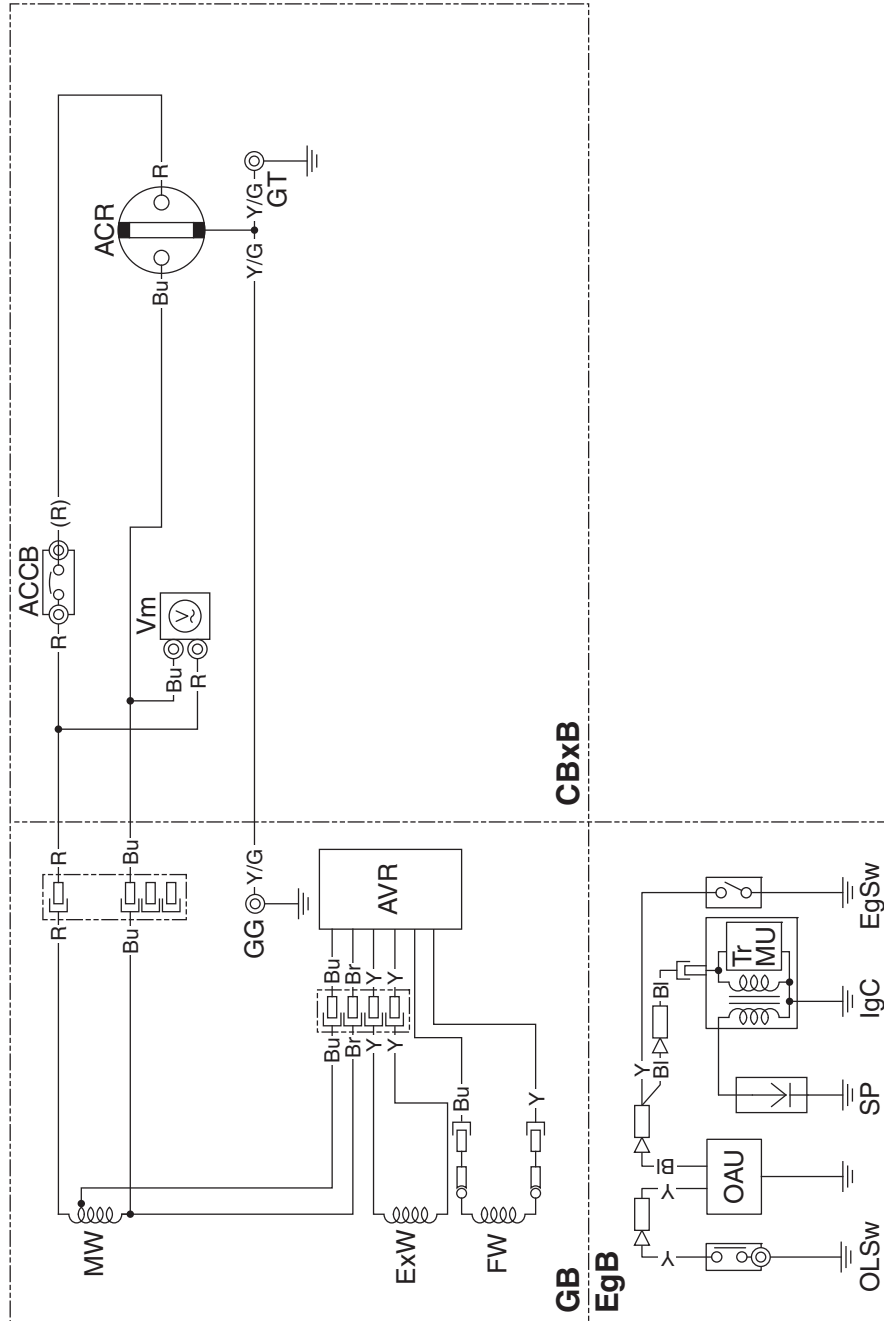
TECHNICAL INFORMATION

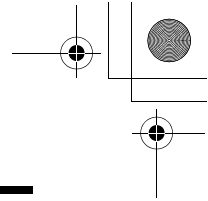
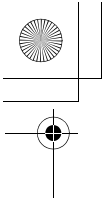
WIRING DIAGRAM

	Part Name
ACCB	AC Circuit Breaker
ACR	AC Receptacle
AVR	Automatic Voltage Regulator
CBxB	Control Box Block
EgB	Engine Block
EgSw	Engine Switch
ExW	Engine Winding
FW	Field Winding
GB	Generator Block
GG	Generator Ground
GT	Ground Terminal
IgC	Ignition Coil
MW	Main Winding
OAU	Oil Alert Unit
OLSw	Oil Level Switch
SP	Spark Plug
TrMU	Transistor Magneto Unit
Vm	Voltmeter

	Wire Color
Bl	Black
Br	Brown
G	Green
Bu	Blue
O	Orange
R	Red
W	White
Y	Yellow

TECHNICAL INFORMATION





MEMO

