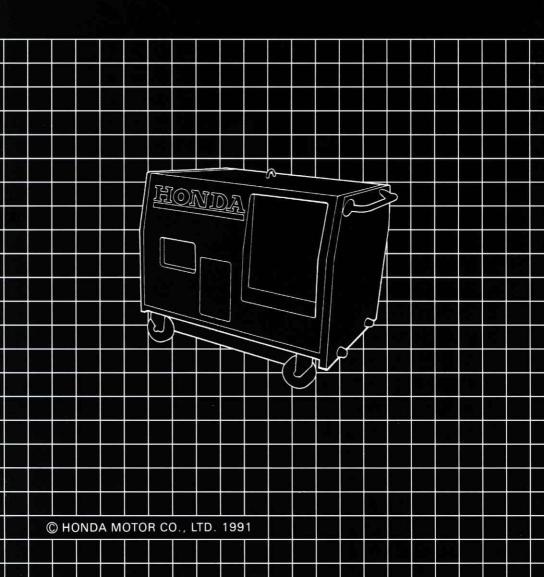
HONDA

**Power** 

**Equipment** 

# Owner's Manual EX3300S/4500S



#### **AW** ARNING

The generator is a potential source of electrical shock if misused. Do not expose the generator to moisture, rain or snow. Do not let the generator get wet, and do not operate it with wet hands.

# A WARNING: A

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Thank you for purchasing a Honda 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 Honda Generator: EX3300S/EX4500S

All information in this publication is based on the latest product information available at the time of printing.

Honda Motor Co., Ltd. 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:

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

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

ACAUTION 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:

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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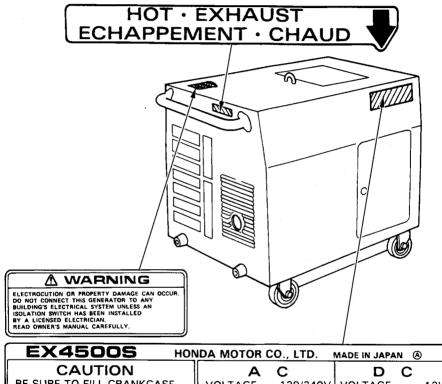
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#### SAFETY LABEL LOCATION

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 Honda Generator dealer for a replacement.



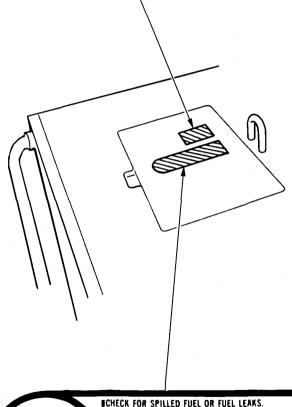
EX45005 HONDA MOTOR CO., LTD. MADE IN JAPAN &				
CAUTION	A C	DC		
BE SURE TO FILL CRANKCASE WITH RECOMMENDED OIL	FREQUENCY 60Hz	VOLTAGE 12V CURRENT 8.3A		
BEFORE USING. FOR DETAILED EXPLANATION, SEE THE OWNER'S MANUAL.	RATED OUTPUT 4.0kVA MAX. OUTPUT 4.5kVA PHASE 1Ø	FUEL GASOLINE (PETROL)		

CAUTION  BE SURE TO FILL CRANKCASE  WITH RECOMMENDED OIL  FREQUEN	_	VOLTAGE	C 12V
	ICY 60H; UTPUT 3.0kVA TPUT 3.3kVA	FUEL GAS	

WARNING DO NOT USE INDOORS. EXHAUST GAS CONTAINS POISONOUS CARBON MONOXIDE.

ATTENTION NE PAS UTILISER DANS UN ENDROIT FERME A CAUSE DU RISQUE D'EMPOISONNENT DU GAZ.

ATENCION NO LO USE EN LUGARES CERRADOS PORQUE EL MONOXIDE DE CARBONO ES VENENOSO.



STOP ENGINE BEFORE REFUELING.

ICONTROLER QU'IL N'Y A NI FUITE NI ESSENCE
REPANDUE SUR L'APPAREIL.

ARRETER LE MOTEUR AVANT DE REFAIRE LE PLEIN.

INSPECCIONAR PARA COMBUSTIBLE DERRAMADO
O ESCAPE.
PARAR MOTOR ANTES DE ECHAR.

#### SAFETY INFORMATION

Honda 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.

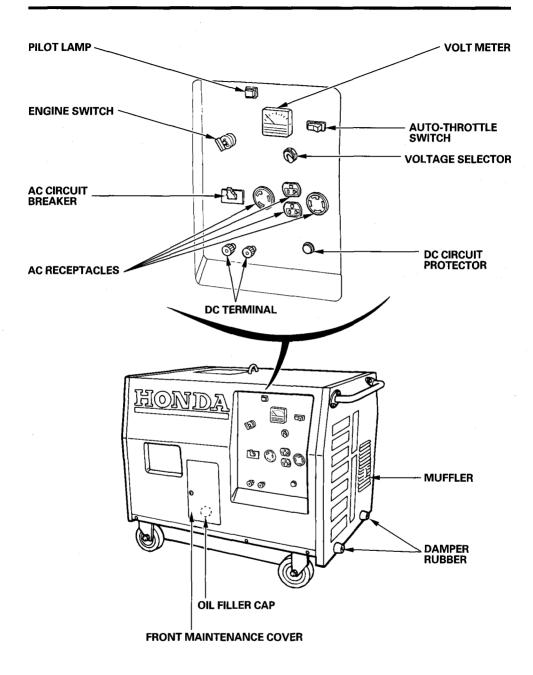
#### **Electric Shock Hazards**

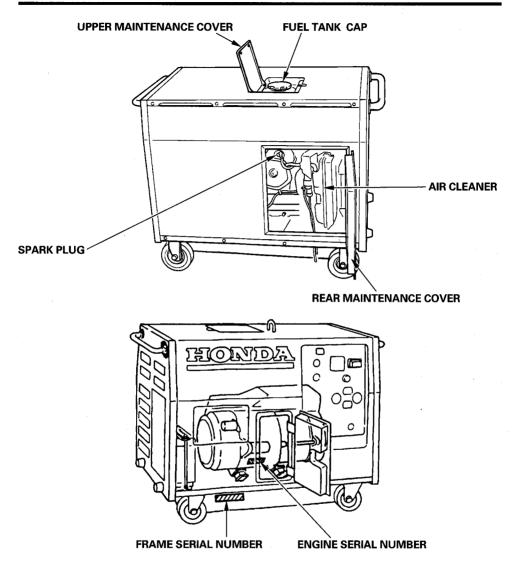
- The generator produces enough electric power to cause a serious shock or electrocution if misused.
- Using a generator or electrical appliance in wet conditions, such as rain or snow, or near a pool or sprinkler system, or when your hands are wet, could result in electrocution. Keep the generator dry.
- 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.

#### 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 wellventilated 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 or warranty inquiries (see page 56).

rrame senai number		
Engine serial number:		

#### **CONTROLS**

#### **Engine Switch**

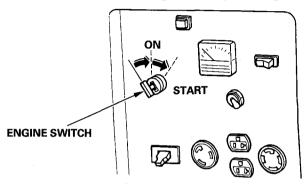
To start and stop the engine.

Key position:

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

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

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

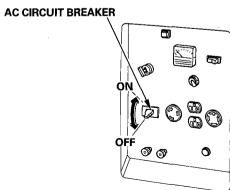


Return the key to the ON position once the engine has started. Do not use the starter for more than 5 seconds at a time. If the engine fails to start, release the switch and wait 10 seconds before operating the starter again.

#### **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.

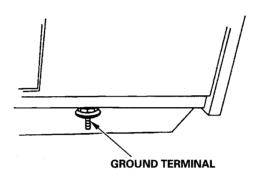
The circuit breaker may be used to switch the generator power on or off.



#### **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.

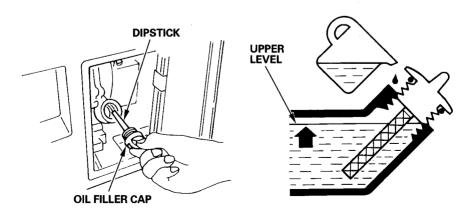
Before using the ground terminal, consult a qualified electrician, electrical inspector or local agency having jurisdiction for local codes or ordinances that apply to the intended use of the generator.



#### **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 23) before troubleshooting in other areas.



#### **Auto-throttle System**

The auto-throttle system automatically reduces engine speed when all loads are turned off or disconnected. When appliances are turned on or reconnected, the engine returns to the rated speed.

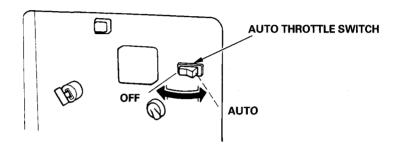
AUTO:

Recommended to minimize fuel consumption and further reduce noise levels when no load is applied to the generator.

OFF:

The auto-throttle system does not operate.

Recommended to minimize warm-up time when the generator is started.



#### Voltage Selector Switch (Dual Voltage System)

The voltage selector switches the main power carrying windings of the generator to produce "120V ONLY" or "120/240V". If a 240V appliance is connected to the 4-prong receptacle, the switch must be in the "120/240V" position. If a 120V appliance ONLY is being connected to any of the 120V 3-prong receptacles, select the "120V ONLY" position.

120/240V:

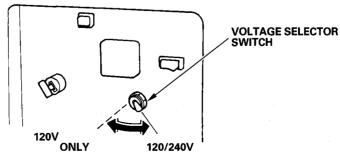
The 120V and 120/240V receptacles can be used

simultaneously.

**120V ONLY:** 

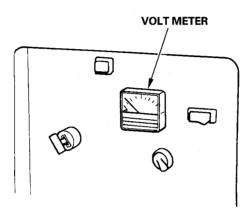
ONLY the 120V receptacles can be used. Do not use the 120/240V receptacle in this position. Rated power will be available at the 120V twist lock receptacle.

be available at the 120V twist lock receptacie.



#### **Volt Meter**

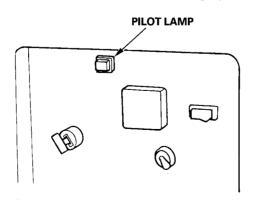
The volt meter displays the voltage the generator is producing depending on the position of the voltage selector switch. If the voltage selector switch is in the "120/240V" position, the volt meter will display 240 volts. If the voltage selector switch is in the "120V ONLY" position, the volt meter will display 120 volts.



#### **Pilot Lamp**

The pilot lamp is illuminated when the generator is operating normally. It indicates that the generator is producing electrical power at the 120 or 120/240 volt receptacles. If the pilot light is illuminated, the volt meter should be displaying 120 or 240 volts depending on the position of the voltage selector switch.

When the auto-throttle is in the AUTO position, and there is no load connected to the generator, the engine will run slower and the pilot light will be dimmer than at normal operating speed.



#### **DC Terminals**

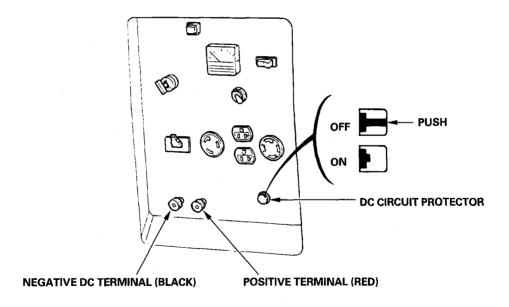
The DC terminals may ONLY be used for charging 12 volt automotive

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



#### **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.

#### **AW**ARNING

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.

#### NOTICE

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.

#### **Ground System**

Honda 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. If the generator is tested by a receptacle tester, it will not show the same ground circuit condition as for a home receptacle.

#### **Special Requirements**

There may be Federal or State Occupational Safety and Health Administration (OSHA) regulations, 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 which must be observed.

#### **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 30 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 30 minutes.

Maximum power is: EX3300S: 3.3 kVA

EX4500S: 4.5 kVA

For continuous operation, do not exceed the rated power.

Rated power is:

EX3300S: 3.0 kVA EX4500S: 4.0 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.

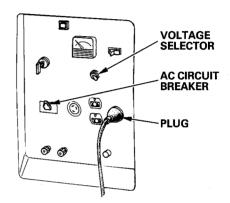
#### **AC Operation**

- 1. Start the engine (see page 27).
- 2. Turn the voltage selector switch to either position.

With the voltage selector switch in the "120/240V" position, you can use the 120V and 120/240V receptacles simultaneously. If you are NOT using the 120/240V receptacle, but require more power from the 120V locking plug receptacle, then select the "120V ONLY" position.

- 3. Switch ON the AC circuit breaker.
- 4. 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.

#### **AC Receptacle Selection**

The generator has two separate main power producing circuits. These two circuits supply equal power to different receptacles shown when the voltage selector switch is in the 120/240V position.

When two or more receptacles are used; prevent overloading by dividing the load between the two power circuits.

The chart below shows the rated load in amperes that can be connected to each receptacle to balance the generator.

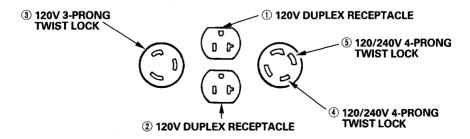
The total rated ampere draw for the EX3300S is 25.0A. The total rated ampere draw for the EX4500S is 33.3A.

Main power circuit	Receptacles powered by each main circuit	Power distribution		
Main Circuit I	1 and 5	1+5= 12.5A(EX3300S) 16.6A(EX4500S)		
Main Circuit II	2, 3 and 4	2+3+4= 12.5A(EX3300S) 16.6A(EX4500S)		

\* The table shows the specifications when the 120/240V locking plug receptacle is used for 120V.

Example:(EX4500S):

Receptacle 3 has a 15A load connected to it. Receptacle 2 has a 10 A load connected to it. Both receptacles are powered by main power circuit II. The equation tells us that the total power draw on circuit II is 25A. This is a substantial overload of this circuit. To eliminate the excess power draw on circuit II, the load from receptacle 2 should be switched to receptacle 1. Now circuit I is powering the 10A load (less than 16.6A) and circuit II is powering the 15A load (less than 16.6A).



#### **DC Operation**

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

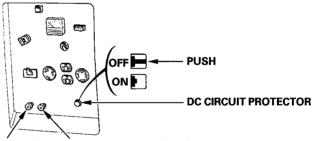
### Connecting the battery cables:

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

#### **∆W**ARNING

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.



NEGATIVE DC TERMINAL (BLACK) POSITIVE TERMINAL (RED)

- 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.

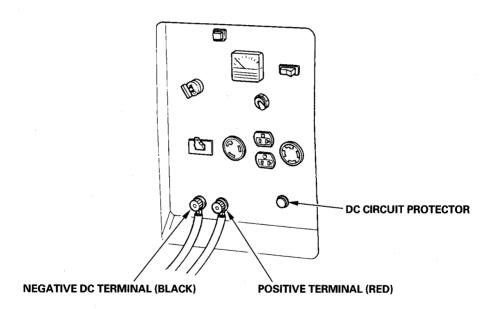
#### NOTICE

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 Honda 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 from the battery positive (+) terminal.
- 6. Connect the vehicle ground cable to the battery negative (-) terminal.
- 7. Reconnect the vehicle grounded battery cable.



#### **Auto-throttle System**

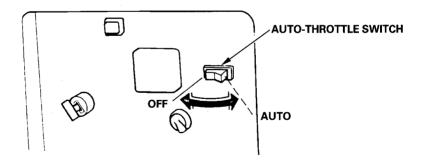
With the switch in the AUTO position, engine speed is automatically reduced when ALL loads are turned OFF or disconnected. When appliances are turned ON or reconnected, the engine returns to rated speed. In the OFF position, the auto-throttle system does not operate.

The auto-throttle system will not respond to electrical loads of less than 1 ampere. Turn the auto-throttle to the OFF position to operate loads of less than 1 amp.

Appliances with large start-up power demands may not allow the engine to reach normal operating rpm when they are connected to the generator. Turn the auto-throttle to the OFF position and connect the appliance to the generator. If the engine still will not reach normal operating speed, check that the appliance does not exceed the rated load capacity of the generator.

To avoid extended warm-up periods, keep the switch OFF until the engine reaches operating temperature.

The auto-throttle system is not effective for use with appliances that require only momentary power. If the tool or appliance will be turned ON and OFF quickly, the auto-throttle switch should be in the OFF position.



#### • 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.

High altitude performance can be improved by specific modifications to the carburetor. If you always operate your engine at altitudes above 1,800 meters (6,000 feet), have your dealer perform this carburetor modification.

Even with carburetor modification, engine horsepower will decrease about 3.5% for each 300 meter (1,000 foot) 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 1,800 meters (6,000 feet) with a modified carburetor may cause the engine to overheat and result in serious engine damage. For use at low altitudes, have your dealer return the carburetor to original factory specifications.

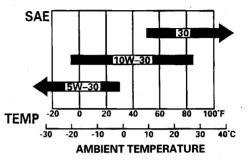
#### **Engine Oil**

#### 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.

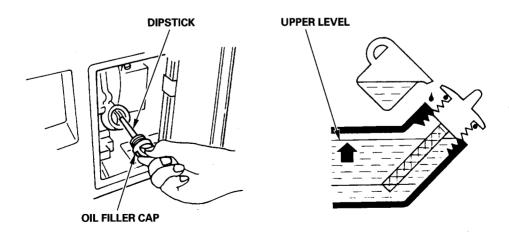
Check the oil level BEFORE EACH USE with the generator on a level surface and the engine stopped.

Use 4-stroke motor oil that meets or exceeds the requirements for API service classification SF or SG. Always check the API SERVICE label on the oil container to be sure TEMP it includes the letters SF or SG.



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. Open the front maintenance cover.
- 2. Remove the oil filler cap and wipe the dipstick clean.
- 3. Check the oil level by inserting the dipstick into the filler neck without screwing it in.
- 4.If the level is low, fill to the top of the oil filler neck with the recommended oil.
- 5. Close and latch the front maintenance cover.



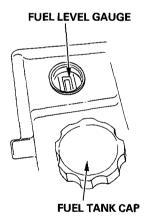
#### **Fuel Recommendation**

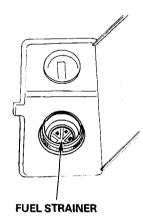
- 1. Check the fuel level gauge.
- 2. Refill the tank if the fuel level is low. Do not fill above the shoulder of the fuel strainer.

#### **AWARNING**

- 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: 19.0 & (5.02 US gal , 4.18 Imp gal)





Use unleaded gasoline with a pump octane rating of 86 or higher. This engine is certified to operate on unleaded gasoline.

Unleaded gasoline 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 rapping 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 Honda 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 conventional gasolines are being blended with alcohol or an ether compound. These gasolines are collectively referred to as oxygenated fuels. To meet clean air standards, some areas of the United States and Canada use oxygenated fuels to help reduce emissions.

If you use an oxygenated fuel, be sure it is unleaded and meets the minimum octane rating requirement.

Before using an oxygenated fuel, try to confirm the fuel's contents. Some states/provinces require this information to be posted on the pump.

The following are the EPA approved percentages of oxygenates:

ETHANOL — (ethyl or grain alcohol) 10% by volume

You may use gasoline containing up to 10% ethanol by volume. Gasoline containing ethanol may be marketed under the name "Gasohol".

MTBE— (methyl tertiary butyl ether) 15% by volume

You may use gasoline containing up to 15% MTBE by volume.

METHANOL - (methyl or wood alcohol) 5% by volume

You may use gasoline containing up to 5% methanol by volume as long as it also contains cosolvents and corrosion inhibitors to protect the fuel system. Gasoline containing more than 5% methanol by volume may cause starting and/or performance problems. It may also damage metal, rubber, and plastic parts of your fuel system.

If you notice any undesirable operating symptoms, try another service station or switch to another brand of gasoline.

Fuel system damage or performance problems resulting from the use of an oxygenated fuel containing more than the percentages of oxygenates mentioned above are not covered under warranty.

**Battery** 

If the generator is operated with insufficient battery electrolyte, sulfation and battery plate damage will occur.

If rapid loss of electrolyte is experienced, or if your battery seems to be weak, causing slow starting or other electrical problems, see your authorized Honda generator dealer.

#### **AWARNING**

• The battery gives off explosive gases; keep sparks, flames and cigarettes away. Provide adequate ventilation when charging or using batteries in an enclosed space.

 The battery contains sulfuric acid (electrolyte). Contact with skin or eyes may cause severe burns. Wear protective clothing and a face

shield.

-If electrolyte gets on your skin, flush with water.

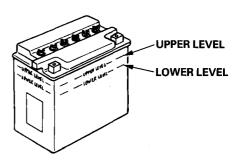
If electrolyte gets in your eyes, flush with water for at least 15 minutes and call a physician immediately.

Electrolyte is poisonous.

- —If swallowed, drink large quantities of water or milk and follow with milk of magnesia or vegetable oil and call a physician.
- KEEP OUT OF REACH OF CHILDREN.
- Open the left side maintenance cover.

2.Check the electrolyte level in each cell.

3. The electrolyte level must be maintained between the UPPER and LOWER level marks. If the electrolyte level is near the LOWER mark, add distilled water.



#### NOTICE

Use only distilled water in the battery. Tap water will shorten the service life of the battery. Filling the battery above the UPPER LEVEL line may cause the electrolyte to overflow, resulting in corrosion to engine or nearby parts. Immediately wash off any spilled electrolyte.

- 4. Check the battery terminals to be sure the cables are tightened and free of corrosion. Remove any corrosion, and coat the terminals and cables ends with grease. Refer to page 43 for battery maintenance.
- 5. Close and latch the maintenance cover.

- 1. Make sure that the AC circuit breaker is in the OFF position. The generator may be hard to start if a load is connected.
- 2. Make sure the auto-throttle switch is in the OFF position, or more time will be required for warm up.
- 3. Turn the engine switch to the START position and hold it there for 5 seconds or until the engine starts.

#### NOTICE

- Operating the starter motor for more than 5 seconds can damage the motor. If the engine fails to start, release the switch and wait 10 seconds before operating the starter again.
- If the speed of the starter motor drops after a period of time, it is an indication that the battery should be recharged.

When the engine starts, allow the engine switch to return to the ON position.

- 4. If the outside air temperature is below 75°., the automatic choke will stay ON until the engine warms up. The engine may run roughly until the choke OPENS; this is normal. Avoid connecting electrical loads to the engine until the choke has OPENED.
- 5. If you wish to use the auto-throttle system, turn the auto-throttle switch to the AUTO position after the engine has warmed up for 2 or 3 minutes.

#### STOPPING THE ENGINE

#### In an emergency:

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

#### In normal use:

- 1. Turn the AC circuit breaker to the OFF position. Disconnect DC battery charging cables.

  2. Move the engine switch to the OFF position.
- The fuel valve will automatically close.

#### The Importance of Maintenance

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

#### **AWARNING**

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

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

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 severe conditions, such as sustained high-load or high-temperature operation, or use in unusually wet or dusty conditions, consult your servicing dealer for recommendations applicable to your individual needs and use.

Maintenance, replacement, or repair of the emission control devices and systems may be performed by any engine repair establishment or individual, using parts that are "certified" to EPA standards.

#### **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.

#### AWARNING

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

Always follow the procedures and precautions in the 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.
     Be sure there is adequate ventilation whenever you operate the engine.
  - 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.

Remember that your 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, genuine Honda parts or their equivalents for repair or replacement.

#### **Emission Control System**

#### Source of Emissions

The combustion process produces carbon monoxide, oxides of nitrogen, and hydrocarbons. Control of hydrocarbons and oxides of nitrogen is very important because, under certain conditions, they react to form photochemical smog when subjected to sunlight. Carbon monoxide does not react in the same way, but it is toxic.

Honda utilizes lean carburetor settings and other systems to reduce the emissions of carbon monoxide, oxides of nitrogen, and hydrocarbons.

#### The U.S. and California Clean Air Acts

EPA and California regulations require all manufacturers to furnish written instructions describing the operation and maintenance of emission control systems.

The following instructions and procedures must be followed in order to keep the emissions from your Honda engine within the emission standards.

#### **Tampering and Altering**

Tampering with or altering the emission control system may increase emissions beyond the legal limit. Among those acts that constitute tampering are:

- Removal or alteration of any part of the intake, fuel, or exhaust systems.
- Altering or defeating the governor linkage or speed-adjusting mechanism to cause the engine to operate outside its design parameters.

#### **Problems That May Affect Emissions**

If you are aware of any of the following symptoms, have your engine inspected and repaired by your servicing dealer.

- Hard starting or stalling after starting.
- Rough idle.
- · Misfiring or backfiring under load.
- Afterburning (backfiring).
- Black exhaust smoke or high fuel consumption.

#### **Replacement Parts**

The emission control systems on your Honda engine were designed, built, and certified to conform with EPA and California emission regulations. We recommend the use of genuine Honda parts whenever you have maintenance done. These original-design replacement parts are manufactured to the same standards as the original parts, so you can be confident of their performance. The use of replacement parts that are not of the original design and quality may impair the effectiveness of your emission control system.

A manufacturer of an aftermarket part assumes the responsibility that the part will not adversely affect emission performance. The manufacturer or rebuilder of the part must certify that use of the part will not result in a failure of the engine to comply with emission regulations.

#### Maintenance

Follow the maintenance schedule on page 34. Remember that this schedule is based on the assumption that your machine will be used for its designed purpose. Sustained high-load or high-temperature operation, or use in unusually wet or dusty conditions, will require more frequent service.

Maintenance Schedule

$\setminus$	REGULAR SERVICE	PERIOD (3)		First	Every	Every	Every
ITEM			month	3 months	6 months	year	
Performed at every indicated		Each use	or	or	or	or	
month or operating hour interval,			20 Hrs.	50 Hrs.	100 Hrs.	300 Hrs.	
]	whichever comes first.						
•	Engine oil	Check level	0				
l		Change		0		0	
•	Air cleaner	Check	0			,	
		Clean			0(1)		
		Check level	0				
•	Battery electrolyte	Check level		O(4)			
L		and gravity					
	Sediment cup	Clean				0	
•	Spark plug	Clean-Readjust				0	
		Replace					0
	Spark arrester	Clean				0	
•	Valve clearance	Check-Readjust		<del></del>			0(2)
•	Fuel tank and filter	Clean					0(2)
•	Fuel line	Check	Eve	ry 2 years	(Replace if	necessary	(2)

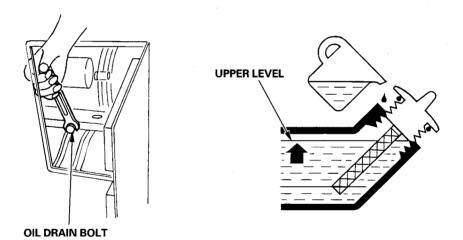
- NOTE: Emission related items.
  - (1) Service more frequently when used in dusty areas.
  - (2) These items should be serviced by an authorized Honda generator dealer, unless the owner has the proper tools and is mechanically proficient. See the Honda Shop Manual.
  - (3) For commercial use, log hours of operation to determine proper maintenance intervals.
  - (4)Once each month.

# **Engine Oil Change**

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

- 1. Open the front maintenance cover.
- 2. Remove the drain plug and sealing washer, remove the oil filler cap, and drain the oil.
- 3. Reinstall the drain plug and sealing washer. Tighten the plug securely.
- 4. Refill with the recommended oil (see page 23 ) and check the oil level.
- 5. Close and latch the front maintenance cover.

Oil capacity: 1.1 & (1.2 US qt, 1.0 lmp qt)



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, pour it on the ground, or down a drain.

### **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**

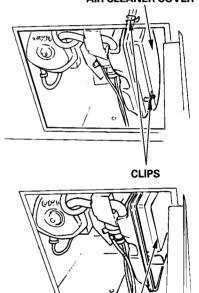
Using gasoline or flammable solvent to clean the filter element can cause a fire or explosion. Use only soapy water or nonflammable solvent.

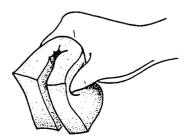
### NOTICE

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

AIR CLEANER COVER

- 1. Open the rear maintenance cover.
- 2. Unsnap the air cleaner cover clips, remove the air cleaner cover, and remove the element.
- 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.
- 4. 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.
- Reinstall the air cleaner element and the cover.
- 6. Close and latch the rear maintenance cover.





AIR CLEANER ELEMENT

### SPARK PLUG SERVICE

In order to service the spark plug, you will need a spark plug wrench (commercially available).

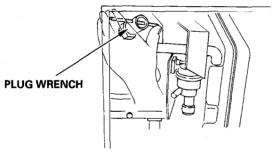
Recommended spark plugs: BPR5ES (NGK)

W16EPR-U (DENSO)

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. Open the rear maintenance cover.
- 2. Remove the spark plug cap.
- 3. Clean any dirt from around the spark plug base.
- 4. Use a spark plug wrench to remove the spark plug.

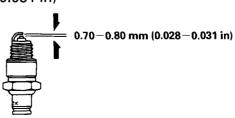


- 5. Visually inspect the spark plug. Discard it if the insulator is cracked or chipped. Clean the spark plug with a wire brush if it is to be reused.
- 6. Measure the plug gap with a feeler gauge.

  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.

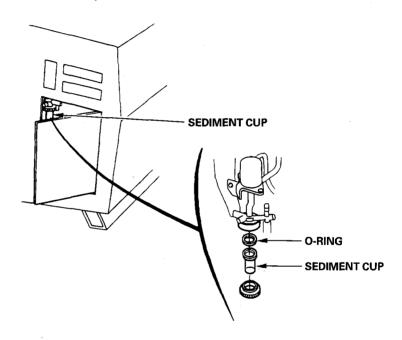
9. Close and latch the rear maintenance cover.

# **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.

Shut the engine off and make sure the key switch is in the OFF position. The fuel valve is electrically opened when the key is in the ON position.

- 1. Open the left side maintenance cover.
- 2. Remove the sediment cup.



- 3. Clean the cup thoroughly in nonflammable or high flash point solvent.
- 4. Check to be sure the O-ring is in place, and reinstall the sediment cup.
- 5. Turn the key to the ON position and check for fuel leaks.
  - Do not attempt to start the engine if fuel has leaked from the sediment cup.
  - -Be sure the area is dry before starting the engine.
- 6. Turn the key to the OFF position.
- 7. Close and latch the left side maintenance cover.

**Spark Arrester Maintenance** 

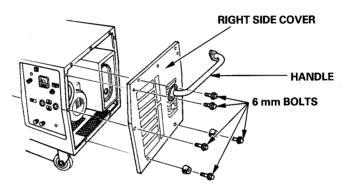
If the generator has been running, the muffler will be very hot. Allow it to cool before proceeding.

NOTICE

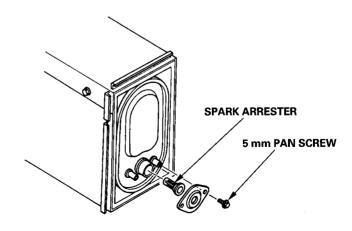
The spark arrester must be serviced every 100 hours to maintain its efficiency.

Clean the spark arrester as follows:

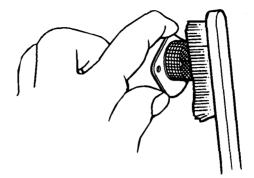
1. Remove the nine 6 mm bolts, the handle and the right side cover.



2. Remove the two 5 mm pan screws by the exhaust port of the muffler and remove the spark arrester.



3. Use a brush to remove carbon deposits from the spark arrester screen.



- 4. Inspect the screen for breaks or tears and replace it if necessary.5. Install the spark arrester right side cover and handle in the reverse order of removal.

**Battery** 

The generator's engine has 3 amp charging system to charge the battery while the engine is running. If the generator is only used periodically, the battery must be charged monthly to maintain the battery service life.

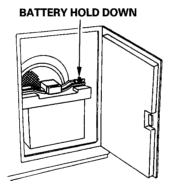
A lead acid battery self discharges at a rate of 0.5-1.0% per day. This means that the battery, if the generator is not operated in a month, can discharge as much as 30% in the same period. This could cause the engine not to crank or shorten the service life of the battery. To charge the battery, follow the procedures below.

### Removal:

1. Open the rear maintenance cover.

2. Remove the battery hold down and cover.

3. Remove the negative (-) cable from the battery negative (-) terminal; then remove the positive (+) cable from the battery positive (+) terminal.

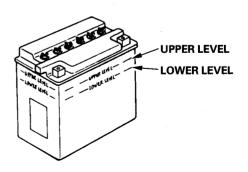


4. Remove the battery from the battery tray.

# Inspection:

1. Remove the battery cell caps.

- 2. Inspect the electrolyte level of each cell. The electrolyte level must be maintained between the UPPER and LOWER level marks.
- 3. If the electrolyte level is near the LOWER mark, add distilled water as necessary.



## Charging:

The battery is rated at 14AH (ampere-hour). 10% of the ampere-hour rating should be used as the charging current. A battery charger should be used that can be adjusted to deliver 1.4 amps.

# **AW**ARNING

The battery gives off explosive gasses; keep sparks, flames and cigarettes away from the battery while charging. Provide adequate ventilation when charging.

- The battery contains sulfuric acid (electrolyte). Contact with skin or eyes may cause severe burns. Wear protective clothing and a face shield.
  - -If electrolyte gets on your skin, flush with water.
  - —If electrolyte gets in your eyes, flush with water for at least 15 minutes and call a physician immediately.
- Electrolyte is poisonous.
  - If swallowed, drink large quantities of water or milk and follow with milk of magnesia or vegetable oil and call a physician.
- KEEP OUT OF REACH OF CHILDREN.
- 1. Remove the battery cell caps.
- 2. Connect the battery charger following the manufacturer's instructions.
- 3. Charge the battery 3-4 hours.
- 4. After the battery is charged, inspect the electrolyte level in each of the cells. Add distilled water as necessary.
- 5. Install the battery caps.
- 6. Clean the outside of the battery and the battery tray compartment with a solution of baking soda and water.

# Installation:

- 1. Install the battery in the generator.
- 2. Install the positive (+) cable to the battery positive (+) terminal; then install the negative (-) cable to the battery negative (-) terminal.
- 3. Install the battery cover and hold down.
- 4. Close and latch the rear maintenance cover.

### **Fuse Replacement**

The fuse holder is located in the left side maintenance cover above the battery.

The fuses protect the following functions on the generator. If the fuse is blown, the symptoms for each fuse is indicated.

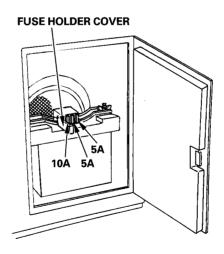
Fuse	Function	Symptom (if blown)
5A	Charging system	Battery discharges
5A	Fuel valve	Engine cranks but won't start
10A	Starting circuit	Starter motor won't crank

- 1. Turn the engine switch to the OFF position.
- 2. Open the rear maintenance cover, open the fuse holder cover and replace the fuse. The specified fuses are 5A, 5A, 10A.

# NOTICE

If fuse failure occurs, determine the cause and correct the problem before attempting to operate the generator further.

Never use a fuse with a different rating from that specified. Serious damage to the electrical system or fire may result.



# TRANSPORTING

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

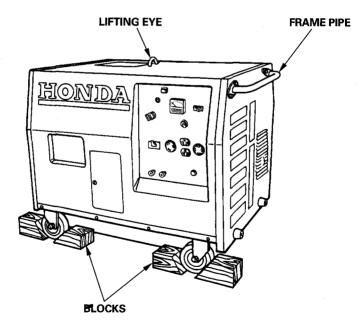
### **AW**ARNING

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.

Load and unload the generator in a level area. Use the lifting eye when lifting the generator. Do not use the frame pipes to lift the generator.

When transporting the generator in a truck, tie ropes to the frame pipes to secure the generator. Place blocks under the wheels to secure 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:

CTODA OF TIME	DECOMMENDED CEDIVICE DECOEDURE TO	
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. (page 47).  Drain the fuel sediment cup. (page 40).	
1 year or more		
life.	ditioners that are formulated to extend storage orized Honda generator dealer for conditioner	

- a. Open the rear maintenance cover.
- b. Loosen the carburetor drain screw.
- c. Drain the gasoline from the carburetor into a suitable container.

## **AWARNING**

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.



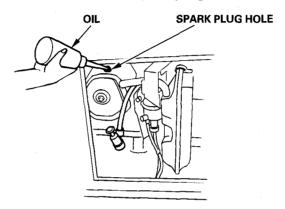
d. Tighten the carburetor drain screw.

e. Drain the fuel sediment cup (see page 40).

f. Close the rear maintenance cover.

3. Change the engine oil (see page 35).

4. Remove the spark plug, and pour about tablespoon of clean engine oil into the cylinder. Crank the enigne several revolutions to distribute the oil, then reinstall the spark plug.



5. Check the air cleaner and clean as necessary (see page 37).

6. Cover the generator to keep out dust.

7. Once a month, recharge the battery (see page 44).

When starting the generator after adding fuel for the first time, after long-term storage, or after running out of fuel, turn the engine switch to the "ON" position and wait for 10 to 20 seconds before starting the engine.

When the engine will not start: NO Is there fuel in the Refill the fuel tank. tank? YES Is there enough oil Add the recom-NO in the engine? mended oil. Still NO spark YES NO Take the generator Is there a spark Replace the spark plug. to an authorized from the spark Honda generator plug? dealer. To check: 1) Remove the spark **AW**ARNING plug cap and clean any dirt from around Be sure there is no spilled fuel around the the spark plug. spark plug. Spilled fuel 2) Remove the spark may ignite. plug and install the spark plug in the YES plug cap. 3) Set the plug side electrode on the cylinder head. 4) Crank the engine, sparks should jump across the gap. Is the fuel reaching NO Clean the fuel the carburetor? sediment cup. DRAIN SCREW YES To check: 1) Turn off the engine switch and loosen If the engine still the drain screw. does not start, take 2) Turn the fuel valve to the generator to an ON. Fuel should flow

from the drain when

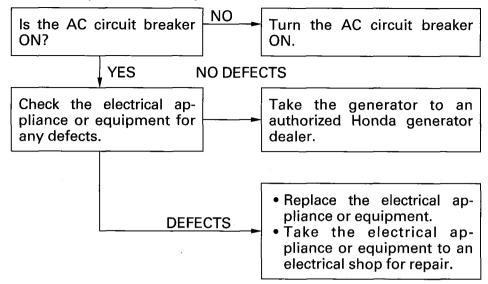
the fuel valve is

turned ON.

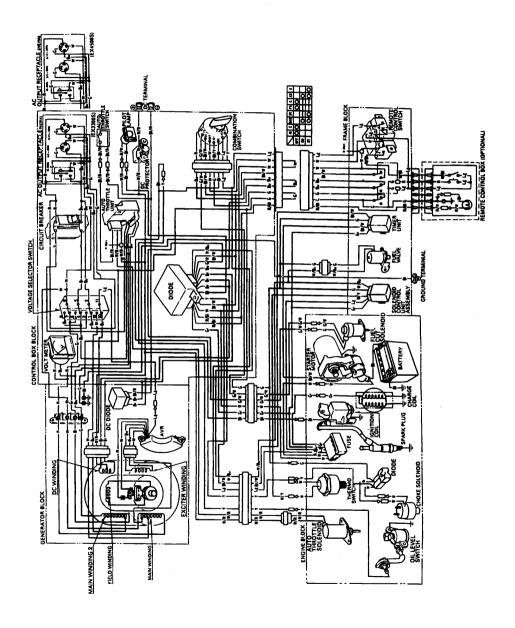
authorized Honda

generator dealer.

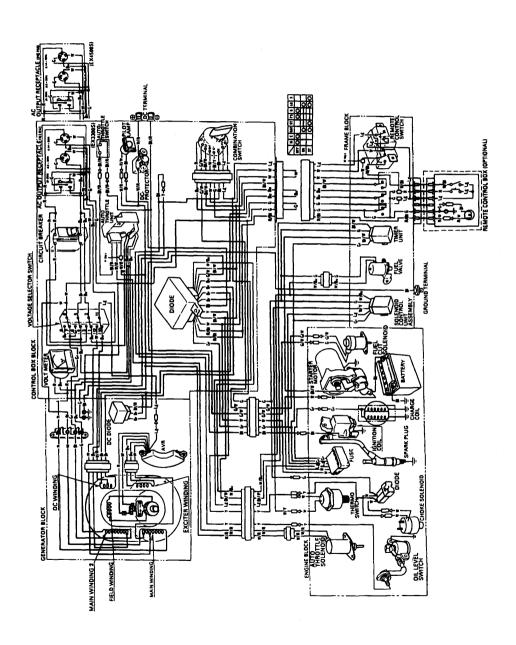
# No electricity at the AC receptacles:



# EX3300S



# **EX4500S**



### **Dimensions**

Model	EX3300S	EX4500S
Power product description code	EB2	EB3
Length	910 mm (35.8 in)	
Width	530 mm (20.9 in)	•/
Height	695 mm (27.4 in)	
Dry weight	109.0 kg (240.3 lbs)	122.0 kg (269.0 lbs)

**Engine** 

Model	GX240K1	GX340K1	
Engine Type	4-stroke, over head valve	4-stroke, over head valve, single cylinder	
Displacement	242 cm³ (14.8 cu-in)	338 cm³ (20.6 cu-in)	
[Bore x Stroke]	[73 x 58 mm (1.9 x 2.3 in)]	(82 x 64 mm (3.2 x 2.5 in))	
Compression Ratio	8.2 : 1	8.0 : 1	
Engine Speed	3,600 r.p.m.		
Cooling System	Forced air		
Ignition System	Transistorized magne	to	
Oil Capacity	1.1 & (1.2 US qt , 1.0 In	1.1 l (1.2 US qt , 1.0 Imp qt)	
Fuel Tank Capacity		19.0 ℓ (5.02 US gal , 4.18 Imp gal)	
Spark Plug	BPR5ES (NGK)	BPR5ES (NGK)	
	W16EPR-U (DENSO)		

### Generator

	Model	EX3300S	EX4500S	
Type		Α		
AC output	Rated voltage	120/240 V		
	Rated frequency	60 Hz		
	Rated Ampere	25.0/12.5 A	33.3/16.7 A	
	Rated Output	3.0 kVA	4.0 kVA	
	Maximum Output	3.3 kVA	4.5 kVA	
DC output		Only for charging 12V automotive batteries.		
		Maximum charging output=8.3A		

**Tune-up Specifications** 

ITEM	SPECIFICATION	MAINTENANCE
Spark plug gap	0.70-0.80 mm (0.028-0.031 in)	Refer to page: 38
Valve clearance	IN: 0.15±0.02 mm (cold)	See your authorized
	EX: $0.20 \pm 0.02$ mm (cold)	Honda dealer
Other specifications	No other adjustments needed.	

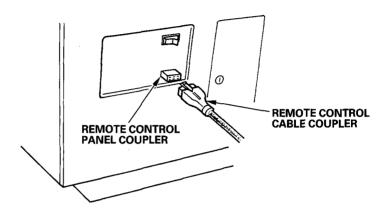
### NOTE:

Specifications may vary according to the types, and are subject to change without notice.

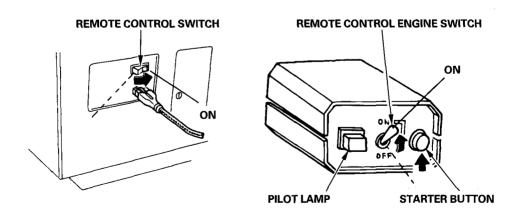
# **INSTALLATION OF OPTIONAL PARTS**

## **Remote Control Kit (Installation)**

- 1. Remove the panel from the front cover.
- 2. Disconnect the jumper coupler from the 9-P coupler.
- 3. Connect the 9- coupler of the remote control panel to the 9-P coupler disconnected in step 2.
- 4. Install the remote control panel with four screws.

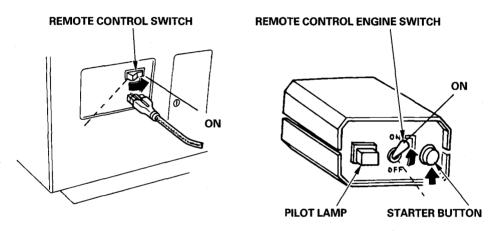


5. Connect the remote control cable coupler to the remote control panel coupler.



# **Starting With Remote Control**

- 1. Make sure the engine switch is OFF.
- 2. Turn the auto throttle switch to OFF.
- 3. Remove the ignition switch key from the generator.
- 4. Turn the remote control switch to ON.
- 5. Flip the remote control engine switch knob up to ON.
- 6. Depress the starter button until the pilot lamp comes ON.
- 7. Turn the remote control switch to the OFF position if you wish to start the generator by using the engine swtich on the generator control panel.



8. To stop the engine, flip the remote control engine switch to the OFF position.

# WARRANTY SERVICE INFORMATION

Honda power equipment dealership personnel are trained professionals. They should be able to answer any question you may have. If you encounter a problem that your dealer does not solve to your satisfaction, please discuss it with the dealership's management. The Service Manager or General Manager can help. Almost all problems are solved in this way.

If you are dissatisfied with the decision made by the dealership's management, contact the Honda Power Equipment Customer Relations Office. You can write to:

American Honda Motor Co., Inc. Power Equipment Division Customer Relations Office 4475 River Green Parkway Duluth, Georgia 30136-2565

Or telephone:

(770) 497-6400

When you write or call, please give us this information:

- Model and serial number (see page 9)
- Name of dealer who sold the generator to you
- Name and address of dealer who services your generator
- Date of purchase
- Your name, address, and telephone number
- A detailed description of the problem

# **Current customer service contact information:**

# United States, Puerto Rico, and U.S. Virgin Islands:

Honda Power Equipment dealership personnel are trained professionals. They should be able to answer any question you may have. If you encounter a problem that your dealer does not solve to your satisfaction, please discuss it with the dealership's management. The Service Manager or General Manager can help. Almost all problems are solved in this way.

If you are dissatisfied with the decision made by the dealership's management, contact the Honda Power Equipment Customer Relations Office. You can write:

American Honda Motor Co., Inc. Power Equipment Division Customer Relations Office 4900 Marconi Drive Alpharetta, GA 30005-8847

Or telephone: (770) 497-6400 M-F, 8:30 am - 7:00 pm EST

When you write or call, please provide the following information:

- Model and serial numbers
- Name of the dealer who sold the Honda power equipment to you
- Name and address of the dealer who services your equipment
- Date of purchase
- Your name, address, and telephone number
- A detailed description of the problem

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# **MEMO**

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