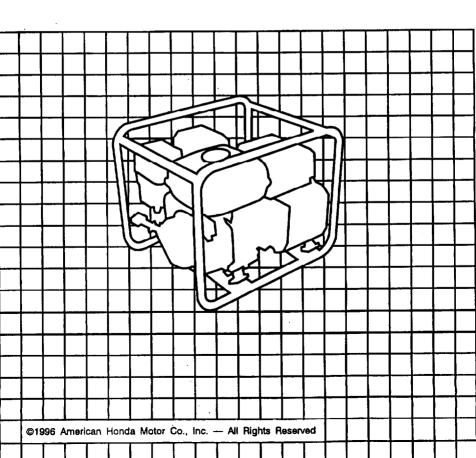
# HONDA

#### Power

Equipment

# Owner's Manual EG1400X • EG2200X



Thank you tor purchasing a Honda generator.

This manual covers operation and maintenace of EG1400X and EG2200X generators. All information in this publication is based on the latest product information available at the time of approval for 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 the generator when it is sold.

Pay special attention to statements preceded by the following words:

WARNING Indicates a strong possibility of severe personal injury or loss of life if instructions are not followed.

CAUTION: Indicates a possibility of personal injury or equipment damage if instructions are not followed.

NOTE: Gives helpful information.

If a problem should arise, or if you have any questions about the generator, consult an authorized Honda dealer.

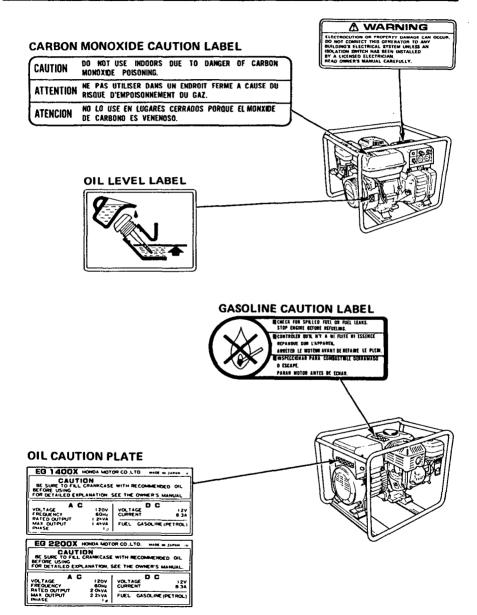
**WARNING** Honda generators are designed to give safe and dependable service if operated according to instructions. Read and understand the Owner's Manual before operating the generator. Failure to do so could result in personal injury or equipment damage.

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# **1.CAUTION LABEL LOCATION**

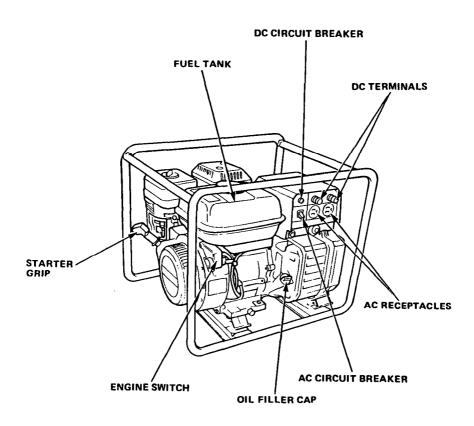


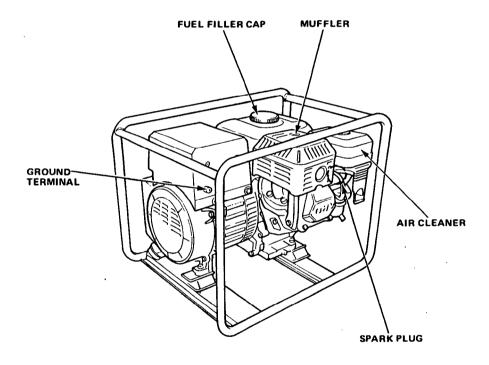
# 2.GENERATOR SAFETY

#### WARNING

To ensure safe operation -

- Place the generator at least 1 m (3 ft) away from buildings or other equipment during operation.
- Operate the generator on a level surface. If the generator is tilted, fuel spillage may result.
- Exhaust gas contains poisonous carbon monoxide. Never run the generator in an enclosed area. Be sure to provide adequate ventilation.
- Know how to stop the generator quickly and understand operation of all the controls. Never permit anyone to operate the generator without proper instructions.
- 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.
- Keep children and pets away from the generator when it is in operation.
- Keep away from rotating parts while the generator is running.
- Connections for standby power to a building's electrical system must be made by a qualified electrician and must comply with all applicable laws and electrical codes. Improper connections 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, and when utility power is restored, the generator may explode, burn, or cause fires in the building's electrical system.





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CAUTION: Be sure to check the generator on a level surface with the engine stopped.

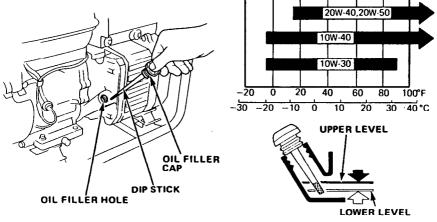
1. Check the engine oil level.

CAUTION: Engine oil is a major factor affecting engine performance and service life. Non-detergent or vegetable oils are not recommended.

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

Remove the oil filler cap, and wipe the dipstick with a clean rag. Check the oil level by inserting the dipstick in the filler hole without screwing it in. If the oil level is below the end of the dipstick, add oil to the upper level mark on the dipstick.

NOTE: The Oil Alert System will automatically stop the engine before the oil level falls below the safe limit. However, to avoid the inconvenience of an unexpected shutdown, it is still advisable to visually inspect the oil level regularly.



## 2. Check the fuel level

Remove the filler cap and check the fuel level. Refill the tank if the fuel level is low.

Your engine is designed to use any gasoline that has a pump octane number  $\left(\frac{R+M}{2}\right)$  of 86 or higher, or that has a research octane number of 91 or higher. Gasoline pumps at service station normally display the pump octane number.

We recommend that you use unleaded fuel because it produces fewer engine and spark plug deposits and extends the life of exhaust system components.

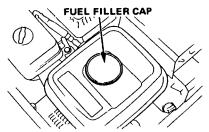
Never use stale or contaminated gasoline or an oil/gasoline mixture. Avoid getting dirt, dust or water in the fuel tank. Use of a lower octane gasoline can cause persistent "pinging" or heavy "spark knock" (a metallic rapping noise) which, if severe, can lead to engine damage.

CAUTION: If "spark knock" or "pinging" occurs at a steady engine speed under normal load, change brands of gasoline. If spark knock or pinging persists, consult your authorized Honda dealer. Failure to do so is considered misuse, and damage caused by misuse is not covered by Honda's Limited Warranty.

Occasionally you may experience light spark knock while operating under heavy loads. This is no cause for concern, it simply means your engine is operating efficiently.

Clean the fuel filler screen ragularly.

Fuel tank capacity EG1400X: 2.7 ℓ (0.71 US gal) EG2200X: 3.7 ℓ (0.98 US gal)



FUEL FILLER SCREEN

### WARNING

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

# **GASOLINES CONTAINING ALCOHOL**

If you decide to use a gasoline containing alcohol (gasohol), be sure it's cotane rating is at least as high as that recommended by Honda. There are two types of "gasohol": one containing ethanol, and the other containing methanol. Do not use gasohol that contains more than 10% ethanol. Do not use gasoline containing methanol (methyl or wood alcohol) that does not also contain consolvents and corrosion inhibitors for methanol. Never use gasoline containing more than 5% methanol, even if it has consolvents and corrosion inhibitors.

## NOTE:

- Fuel system damage or engine performance problems resulting front the use of fuels that contain alcohol is not covered under the warranty. Honda cannot endorse the use of fuels containing methanol since evidence of their suitability is as yet incomplete.
- Before buying fuel from an unfamiliar station, try to find out if the fuel contans alcohol, if it does, confirm the type and percentage of alcohol used. If you notice any undesirable operating symptoms while using a gasoline that contains alcohol, or one that you think contains alcohol, switch to a gasoline that you know does not contain alcohol.

# **5.STARTING THE ENGINE**

(1) Disconnect any load from the DC terminals and make sure that the AC circuit breaker is in the OFF position.

ON

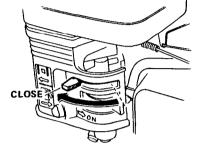
- (2) Turn on the fuel valve.
- DC OFF OFF ON õ
- (3) Turn on the engine switch.

(4) Move the choke lever to the CLOSED position.

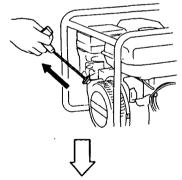
(5) Pull the starter rope lightly until resistance is felt, then pull briskly.

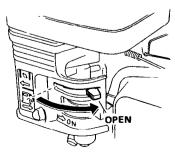
CAUTION: Do not allow the starter grip to snap back. Return it slowly by hand.

(6) Move the choke lever to the OPEN position as the engine warms up.





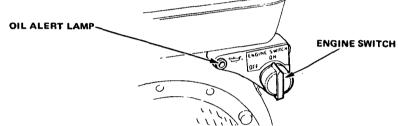




# Oil Alert System

Before the oil level in the crankcase can fall below a safe limit, the Oil Alert System will automatically shut off the engine. The Oil Alert Lamp will then light when the recoil starter grip is pulled to indicate that oil must be added to the crankcase.

To restart, add enough recommended engine oil to bring the oil level to the upper level mark on the dipstick (See page 7), and restart the engine.



NOTE: The engine switch will remain in the ON position if the engine is stopped by the Oil Alert System.

• Hight altitude operation

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

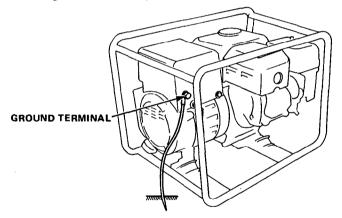
High altitude performance can be improved by installing a smaller diameter main fuel jet in the carburetor and readjusting the pilot screw. If you always operate the generator at altitudes highter than 6,000 feet above sea level, have your authorized Honda Generator dealer perform these carburetor modifications.

Even with suitable carburetor jetting, engine horsepower will decrease approximately 3.5 % for each 1,000 foot increase in altitude. The affect of altitude on horsepower will be greater than this if no carburetor modification in made.

CAUTION: Operation of the generator at an altitude lower than the carburetor is jetted for may result in reduced performance, overheating, and serious engine damage caused by an excessively lean air/fuel mixture.

#### WARNING

- To prevent elecrical shock from faulty appliances, the generator should be grounded. Connect a length of heavy wire between the generator's ground terminal and an external ground source.
- Connections for standby power to a building's electrical system must be made by a qualified electrician and must comply with all applicable laws and electrical codes. Improper connections 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, and when utility power is restored, the generator may explode, burn, or cause fires in the building's electrical system.



## CAUTION

• Limit operation requiring maximum power (1.4kVA for the EG1400X and 2.2kVA for the EG2200X) to 30 minutes.

For continuous operation, do not exceed the rated power (1.2kVA for the EG1400X and 2.0kVA for the EG2200X).

In either case, the total wattage of all appliances connected must be considered.

- Most appliance motors require more than their rated wattage for start-up.
- Do not exceed the current limit specified for any one receptacle.
- Do not connect the generator to a household circuit. This could cause damage to the generator or to electrical appliances in the house.

# AC applications

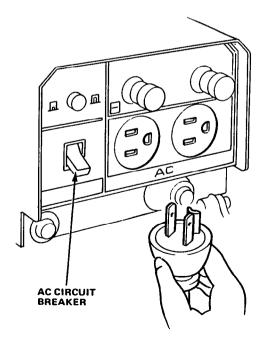
1. Start the engine and plug in the appliance; always use three-pronged plugs.

2. Switch on the AC Circuit Breaker.

CAUTION: Substantial overloading will switch off the circuit breaker. Marginal overloading may not switch off the circuit breaker, but it will shorten the service life of the generator.

Be sure that all appliances are in good working order before connecting them to the generator. If an appliance begins to operate abnormally, becomes sluggish, or stops suddenly, turn off the circuit breaker and the generator engine switch immediately. Then disconnect the appliance and examine it for signs of malfunction.

NOTE: If an overloaded circuit causes the AC circuit breaker to switch off, reduce the electrical load on the circuit and wait a few minutes before resetting the circuit breaker.



## **DC** application

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

## WWARNING

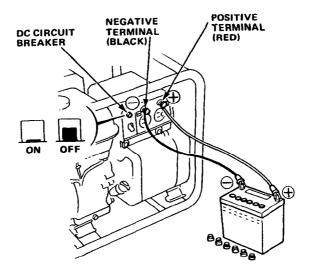
- The battery gives off explosive gases; keep sparks, flames and cigarettes away. Provide adequate ventilation when charging or using batteries in an enclosed space.
- The battery contains sulfuric acid (electrolyte). Contact with skin or eyes may cause severe burns. Wear protective clothing and a face 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.
- KEEF OUT OF REACH OF CHILDREN.
- To prevent the possibility of creating a spark near the battery, connect charging cables first to the battery, then to the generator. Disconnect cables first at the generator.
- Before connecting charging cables to a battery that is installed in a vehicle, disconnect the vehicle's grounded battery cable. Reconnect the vehicle's grounded battery cable after the charging cables are removed. This procedure will prevent the possibility of a short circuit and sparks if you make accidental contact between a battery terminal and the vehicle's frame or body.

#### CAUTION:

- Do not attempt to start an automobile engine while the generator is still connected to the battery. The generator may be damaged.
- Connect the positive battery terminal to the positive generator terminal. Do not reverse the charging cables, or serious damage to the generator and/or battery may occur.

### NOTE:

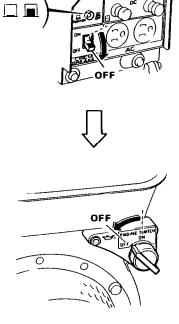
- The DC terminals may be used while the AC power is in use.
- An overloaded DC circuit will trip the DC circuit protector (push button comes out). If this happens, wait a few minutes before pushing in the circuit protector to resume operation.



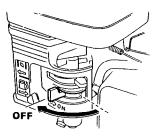
(1) Turn off the AC circuit breaker and disconnect any charging leads at the DC terminals.

(2) Turn the engine switch to the OFF position.

(3) Turn the fuel valve to the OFF position.







# 8. MAINTENANCE

The purpose of the maintenance and adjustment schedule is to keep the generator in the best operating condition.

Inspect or service as scheduled in the table on the next page.

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

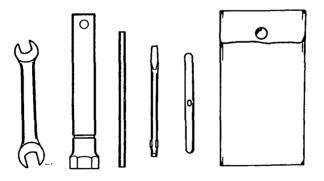
CAUTION: Use genuine HONDA parts or their equivalent. The use of replacement parts which are not of equivalent quality may damage the generator.

Tool kit

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The tools supplied are necessary for performing some periodic maintenance, simple adjustments and repairs.

Always keep the tool kit with the generator.



### Maintenance Schedule

REGULAR SERVICE PERIOD Perform at every indi- cated month or oper- ating hour interval, whichever occurs first.		Daily	First month or 20 Hrs.	Every 3 months or 50 Hrs.	Every 6 months or 100 Hrs.	Every year or 300 Hrs.
Engine oil	Inspection	٠				
Engine oil	Change		•		•	
Air cleaner	Inspection	٠				
element	Cleaning			•(1)		
Sediment cup cleaning					•	· · · ·
Spark plug maintenance					•	
Valve clearance adjustment						•(2)
Combustion chamber and valve cleaning						• (2)
Fuel line inspection (Replace if necessary)		<u> </u>				•
Spark arrester		Clean every 100 operating hours.				

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

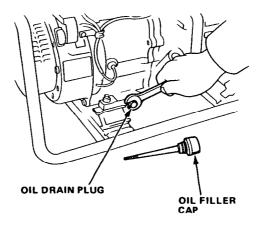
(2): These items should be serviced by an authorized Honda dealer, unless the owner has the proper tools and is mechanically proficient. See the Honda Shop Manual.

## Changing oil

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

- 1. Remove the drain plug and filler cap, and drain the oil. Retighten the plug securely.
- 2. Refill with the recommended oil (see page 7) and check the level.

OIL CAPACITY: 0.6 & (0.63 USqt)



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

NOTE: 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 for reclamation. Do not throw it in the trash or pour it on the ground.

#### Air cleaner service

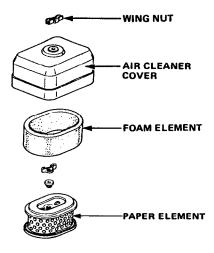
A dirty air cleaner will restrict air flow to the carburetor. To prevent carburetor malfunction, service the air cleaner regularly (page 19). Service more frequently when operating the generator in extremely dusty areas.

WABNING Never use gasoline or low flash point solvents for cleaning the air cleaner element. A fire or explosion could result.

CAUTION: Never run the genetrator without the air cleaner. Rapid engine wear will result.

#### <Dry type>

- 1. Remove the wing nut and the air cleaner cover. Remove the elements and separate them. Carefully check both elements for holes or tears and replace if damaged.
- 2. Foam element: Clean in warm soapy water, rinse and allow to dry thoroughly. Or clean in high flash-point solvent and allow to dry. Dip the element in clean engine oil and squeeze out all the excess. The engine will smoke during initial startup if too much oil is left in the foam.
- 3. Paper element: Tap the element lightly several times on a hard surface to remove excess dirt, or blow compressed air through the filter from the inside out. Never try to brush the dirt off; brushing will force dirt into the fibers.

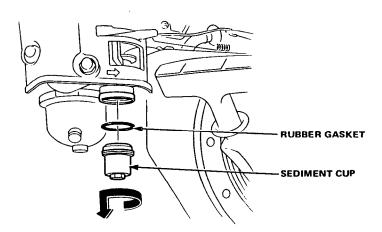


## Sediment cup

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 cup should be cleaned.

- 1. Turn the fuel valve OFF. Remove the sediment cup.
- 2. Clean the cup thoroughly.
- 3. Reassemble. Do not damage the rubber gasket.

**WWARNING** After installing the sediment cup, check for fuel leaks and make sure the area is dry before starting the engine.



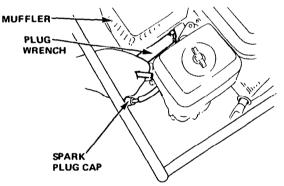
Spark plug service

Recommended spark plug: BP6ES, BPR6ES (NGK) W20EP-U, W20EPR-U (ND)

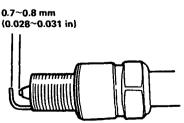
To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.

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

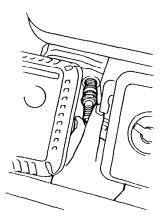
- 1. Remove the spark plug cap.
- 2. Clean any dirt from around the spark plug base.
- 3. Use the wrench supplied in the tool kit to remove the spark plug.



- 4. 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.
- 5. Measure the plug gap with a feeler gauge. The gap should be 0.7~0.8 mm (0.028~0.031 in). Correct as necessary by carefully bending the side electrode.



6. Attach the plug washer and thread the plug in by hand to prevent cross threading.



7. After a new spark plug has been seated by hand, it should be tightened 1/2 turn with a wrench to compress its washer.

If a used plug is being reinstalled, it should only require 1/8 to 1/4 turn after being seated.

CAUTION:

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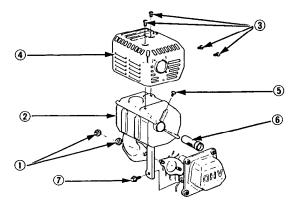
- The spark plug must be securely tightened. An improperly tightened plug can become very hot and could possibly damage the generator.
- Never use a spark plug with an improper heat range.

Spark arrester maintenance.

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

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

- 1. Loosen ① two 8 mm nuts and ⑦ 8mm bolt to remove the ② muffler assembly.
- 2. Loosen (3) four 5 mm screws and remove the (4) muffler protector from the muffler.
- 3. Loosen (5) 4 mm screw and remove (6) spark arrester from the muffler. NOTE: Take care not to damage the wire mesh.



4. Check for carbon deposits around the exhaust port and the spark arrester. Carefully clean the spark arrester with a brush as shown.



NOTE: The spark arrester must be free of breaks and holes. Replace, if necessary.

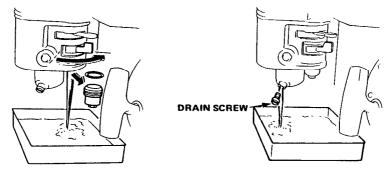
5. Install the spark arrester and the muffler in reverse order of disassembly.

# 9.TRANSPORTING/STORAGE

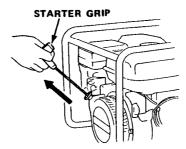
WARNING When transporting the generator, turn the engine switch and the fuel valve OFF and keep the generator level to prevent fuel spillage. Fuel vapor or spilled fuel may ignite.

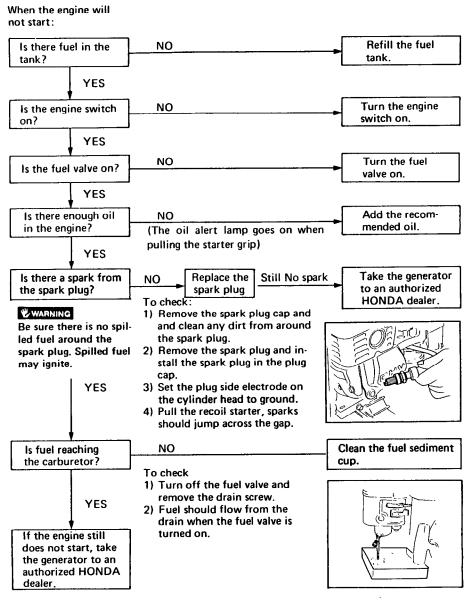
Before storing the unit for an extended period:

- 1. Be sure the storage area is free of excessive humidity and dust.
- 2. Drain the fuel
  - a. With the fuel valve OFF, remove and empty the sediment cup.
  - b. Turn the fuel valve ON and drain the gasoline in the fuel tank into a suitable container.
  - c. Replace the sediment cup and tighten securely.
  - d. Loosen the carburetor drain screw and drain the gasoline from the carburetor into a suitable container.

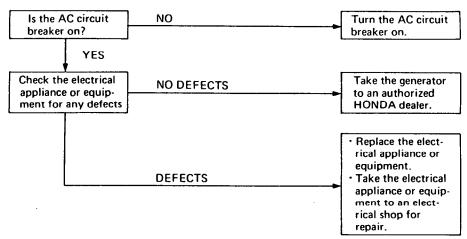


3. Slowly pull the starter grip until resistance is felt. At this point, the piston is coming up on its compression stroke and both the intake and exhaust valves are closed. Storing the engine in this position will help to protect it from internal corrosion.

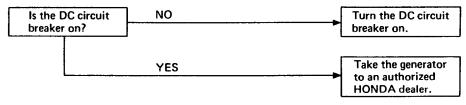




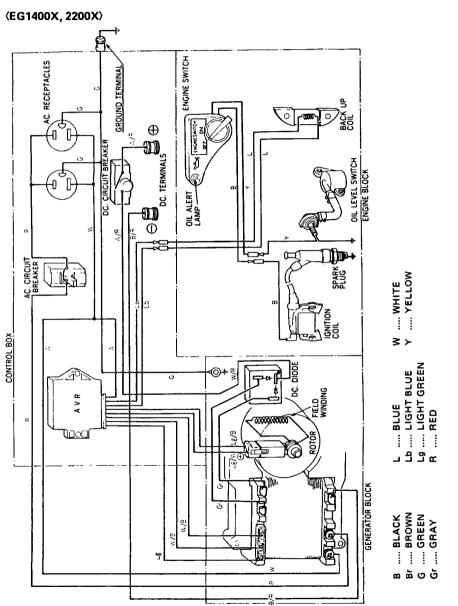
No electricity at the AC receptacles:



No electricity at the DC terminals:



# **11.WIRING DIAGRAM**



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# **12.SPECIFICATIONS**

## Dimensions

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	EG1400X	EG2200X
Length x Width x Height	475 x 390 x 400 mm (18.7 x 15.4 x 15.7 in)	505 x 410 x 415 mm (19.9 x 16.1 x 16.3 in)
Dry Weight	31.0 kg (68.4 lb)	37.0 kg (81.6 lb)

### Engine

Model	HONDA GX110	HONDA GX140	
Engine Type	4-Stroke, O.H.V. 1 cylinder		
	(25°	tilted)	
Displacement	107 cm <sup>3</sup> (6.6 cu.in)	144 cm <sup>3</sup> (8.8 cu.in)	
[Bore x Stroke]	57 x 42 cm (2.2 x 1.7 in)	64 x 45 cm (2.5 x 1.8 in)	
Compression Ratio	8.75 : 1		
Engine Speed 3600 rpm		) rpm	
Cooling System	Forced air cooled		
Ignition System	Transistor Magneto Ignition		
Oil Capacity	0.6 l (0.63 USqt)		
Fuel Tank Capacity	2.7 & (0.71 USgal)	3.7 f (0.98 USgal)	
Spark Plug	BP6ES, BPR6ES (NGK)		
	W20EP-U, W20EPR-U (ND)		

#### Generator

AC output	Rated voltage Rated frequency	120 V 60 Hz		
	Rated ampere	10.0 A	16.7 A 2.0 kVA (2000 W)	
	Rated output	1.2 kVA (1200 W)		
	Maximum output	1.4 kVA (1400 W)	2.2 kVA (2200 W)	
DC output		Only for charging 12 V automotive batteries Maximum charging output = 8.3 A		

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#### **Owner Satisfaction**

Your satisfaction and goodwill are important to your dealer and to us. All Honda warranty details are explained in the Distributor's Limited Warranty. Normally, any problems concerning the product will be handled by your dealer's service department. If you have a warranty problem that has not been handled to your satisfaction, we suggest you take the following action:

- Discuss your problem with a member of dealership management. Often complaints can be quickly resolved at that level. If the problem has already been reviewed with the Service Manager, contact the owner of the dealership or the General Manager.
- If your problem still has not been resolved to your satisfaction, contact:

American Honda Motor Co., Inc. P.O. Box 100021 Duluth, Georgia 30136-9421 Telephone: (404) 497-6400

We will need the following information in order to assist you:

- Your name, address, and telephone number
- Product model and serial number
- Date of purchase
- Dealer name and address
- Nature of the problem

After reviewing all the facts involved, you will be advised of what action can be taken. Please bear in mind that your problem will likely be resolved at the dealership, using the dealer's facilities, equipment, and personnel, so it is very important that your initial contact be with the dealer.

Your purchase of a Honda product is greatly appreciated by both your dealer and American Honda Motor Co., Inc. We want to assist you in every way possible to assure your complete satisfaction with your purchase.

MEMO

