

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

# Smart Generators SG7000AA Dual Fuel Generator



## Unpacking

When unpacking the unit, carefully inspect for signs of obvious or concealed freight damage. If damage does exist, file a claim with the transportation company immediately. Be sure that all damaged parts are replaced and that the mechanical and electrical problems are corrected prior to operation of the unit.

## Specifications

Engine.....	Honda GX390
Watts (AC) Rated.....	7 kW (LP) 5.6 kW (NG)
Watts (AC) Max.....	12 kW (LP) 9.6 kW (NG)
Rated Voltage (AC).....	120V/240V
Cont. Amperage.....	48/29 A (LP) 46/23 A (NG)
Max. Amperage.....	100/50 A (LP) 80/40 A (NG)
Frequency.....	60 Hz
Run Time (LP).....	up to 10 hrs at 50% load per 20 pound fuel tank
Weight.....	185 pounds
Dimensions (in).....	42L x 21W x 26H

## General Safety Information

### READ OPERATING INSTRUCTIONS

Always become familiar with all the instructions and warnings before operating any generator

### IMPORTANT SAFETY INSTRUCTIONS

**To reduce the risk of injury, read this operator's manual completely before using. When using this product, the following basic precautions should always be followed:**

1. Read all the instructions before using the product.
2. Do not allow children or untrained persons to operate the generator.
3. Do not operate the generator when fatigued or under the influence of drugs or chemicals. Stay alert. Watch what you are doing.
4. Follow the maintenance instructions specified in this manual.
5. When starting the generator, using recoil starter grip, be sure that nothing

- is in a position to be hit by the operator's hand or arm.
6. Be sure the switch on electric power tools is in the "OFF" position before plugging them into the generator.
7. Keep the immediate area free of all bystanders.
8. Be sure each person who operates this generator is properly instructed in its safe operation.
9. Do not operate the generator or any electrical tool in any area where water or similar materials constitute an electrical hazard to the operator. Do not operate on wet surfaces, in rain or in snow.
10. Always be sure that the generator is on secure footing so that it cannot slide or shift around, endangering workers.
11. Avoid contacting the hot exhaust manifold, muffler or cylinder(s). Keep clear of all rotating parts.
12. Unless the tool or appliance is double insulated, it must be grounded through a properly grounded receptacle. (See Preparing the Generator, Grounding Instructions). Tools and appliances which have 3 prong plugs must be plugged into extension cords and electrical receptacles with 3 holes.
13. Beware of using this equipment in confined spaces. Confined spaces, without sufficient fresh air ventilation, can contain dangerous gases. Running engines in such environments can lead to deadly explosions and/or asphyxiation.

14. If your generator comes equipped with a transport dolly, make sure this unit is secure during operation and when transporting to prevent unexpected movement or rolling.

15. Use extreme caution when lifting this generator. This generator is heavy so proper lifting techniques should be used.

### SAVE THESE INSTRUCTIONS CARBON MONOXIDE-POISONOUS

**GAS** Use generator outdoors, away from open windows, vents, or doors. Generator exhaust contains carbon monoxide - a poisonous gas that can kill you. You CAN NOT smell or see this gas. Never use a generator in enclosed or partially-enclosed spaces. Generators can produce high levels of carbon monoxide very quickly.

When you use a portable generator, remember that you cannot smell or see carbon monoxide.

Even if you can't smell exhaust fumes, you may still be exposed to carbon monoxide. If you start to feel sick, dizzy, or weak while using a generator, get to fresh air RIGHT AWAY. DO NOT DELAY. The carbon monoxide from generators can rapidly lead to full incapacitation and death.

If you experience serious symptoms, get medical attention immediately.

Inform medical staff that carbon monoxide poisoning is suspected. If you experienced symptoms while indoors, have someone call the fire department to determine when it is safe to re-enter the building.

Never operate the generator in an explosive atmosphere, near combustible materials or where ventilation is not sufficient to carry away exhaust fumes.

Exhaust fumes can cause serious injury or death.

NEVER use a generator indoors,

including in homes, garages, basements, crawl spaces, and other enclosed or partially-enclosed areas, even with ventilation. Opening doors and windows or using fans will not prevent carbon monoxide build-up in the home.

Follow the instructions that come with your generator. Locate the unit outdoors and away from doors, windows, and vents that could allow the carbon monoxide gas to come indoors.

ONLY run generator outdoors and away from air intakes.

NEVER run generator inside homes, garages, sheds, or other semi-enclosed spaces. These spaces can trap poisonous gases EVEN IF you run a fan or open doors and windows.

If you start to feel sick, dizzy, or weak while using the generator, shut it off and get fresh air RIGHT AWAY. See a doctor. You may have carbon monoxide poisoning.

Install battery-operated carbon monoxide alarms or plug-in carbon monoxide alarms with battery back-up in your home, according to the manufacturer's installation instructions.

The carbon monoxide alarms should be certified to the requirements of the latest safety standards for carbon monoxide alarms. (UL 2034, IAS 6-96, or CSA 6.19.01).

Test your carbon monoxide alarm frequently and replace dead batteries.

### GROUNDING INSTRUCTIONS

This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock.

*Improper connection of the equipment-grounding conductor can result in a risk*

*of electrocution. Check with a qualified electrician or service person if you are in doubt as to whether the unit is properly grounded.*

The ground path should be made with #8 size wire. Connect the other end of the wire securely to a suitable ground source.

The National Electric Code contains several practical ways in which to establish a good ground source. Examples given below illustrate a few of the ways in which a good ground source may be established.

A metal underground water pipe in direct contact with the earth for at least 10 feet can be used as a grounding source. If an pipe is unavailable, an 8 foot length of pipe or rod may be used as the ground source.

The pipe should be 3/4 inch trade size or larger and the outer surface must be noncorrosive. If a steel or iron rod is used it should be at least 5/8 inch diameter and if a nonferrous rod is used it should be at least 1/2 inch diameter and be listed as material for grounding. Drive the rod or pipe to a depth of 8 feet. If a rock bottom is encountered less than 4 feet down, bury the rod or pipe in a trench. All electrical tools and appliances operated from this generator, must be properly grounded by use of a third wire or be "Double Insulated".

It is recommended to:

1. Use electrical devices with 3 prong power cords.
2. Use an extension cord with a 3 hole receptacle and a 3 prong plug at the opposite ends to ensure continuity of the ground protection from the generator to appliance.

We strongly recommend that all applicable federal, state and local regulations relating to grounding

specifications be checked and followed.

**LINE TRANSFER SWITCH**

If this generator is used for standby service, it must have a transfer switch between the utility power service and the generator. The transfer switch not only prevents the utility power from feeding into the generator, but is also prevents the generator from feeding out into the utility company's lines.

This is intended to protect the serviceman who may be working on a damaged line.

**THIS INSTALLATION MUST BE DONE BY A LICENSED ELECTRICIAN AND ALL LOCAL CODES MUST BE FOLLOWED.**

**ENGINE OIL**

See *HONDA Owner's Manual for more information.*

**Pre-Operation**

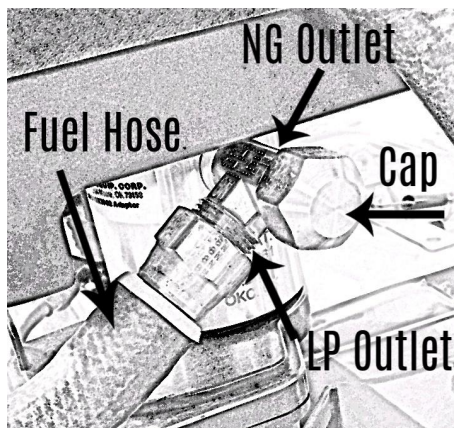
See *HONDA Owner's Manual for more information.*

**Operation**

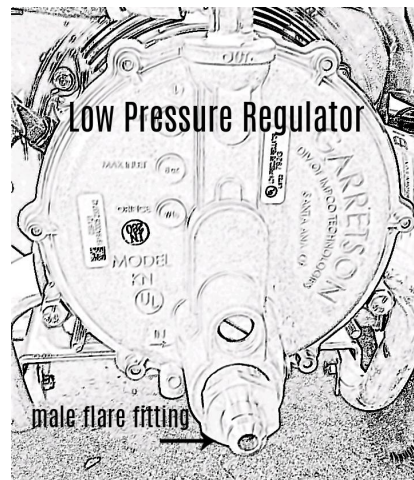
**ELECTRIC START**

**NOTE:** Read *Operator's Manual* carefully before operating this unit. Always make sure the unit is level and properly grounded. Check engine oil before Starting.

1. Fuel selection is performed at the T-joint. Set up the T-joint for its intended gas usage (LP or NG).
2. Connect and tighten the fuel hose fitting to the proper outlet.
3. Install the cap to plug the T-joint outlet that is not used.



**4. Attaching the Propane (LP) or Natural Gas (NG) hose to the generator.** Attach the propane or natural gas hose to the male flare fitting on the front of the low pressure regulator using a wrench. Do not over tighten.



**5. Attaching the Propane (LP) or Natural Gas (NG) hose to the fuel source.** The other end of the hose must be connected to (1) the Propane (LP) tank by inserting the reverse thread POL (located on the regulator end of the hose) into a propane tank using a wrench. Make sure the hose is secure. Or (2) the Natural Gas outlet. The Natural Gas hose comes equipped with a quick connect male located at the end of the hose and female quick connect

coupler. (The female quick connect coupler must be connected to your Natural Gas outlet prior to use. Use a wrench and pipe dope to promote a safe seal.) Insert the male end of the quick connect into the female coupler by pulling back on the outside ring on the female end of the quick connect, inserting the quick connect male end of the hose into it and releasing the ring. (The natural gas hose does not have an additional regulator on it)

6. The choke should always be left in the open position during vapor fuel operation.
7. Open the valve on the propane tank or natural gas outlet.
8. The priming button is located on the backside of the low pressure regulator. Purge the fuel line of air by gently pressing the primer button for a few seconds.
8. The control box is located on the front right side of the engine. Insert the key and turn it to the START position and hold until engine starts. (clockwise)
9. When the engine starts, release key, allowing it to return to the ON position, which is the middle position.

**NOTE:** Do not crank the engine continuously for more than 30 seconds at a time. If the engine does not start, allow for a 3 minute cool down period between starting attempts. Failure to follow these guidelines can damage the starter motor. If the starter does not turn the engine over, shut off the starter immediately. Do not make further attempts to start the engine until the condition is corrected. Do not jump start using another battery.

10. Allow unit to run two (2) minutes to warm-up before plugging in any electrical cords to the generator outlets.

**NOTE:** This engine is equipped with a "Low Oil" shutdown system for engine protection. The engine stops when the oil level gets too low. The engine will not restart without adding oil. Refer to *Preparing the Generator; Engine Fuel Capacity* for instructions on adding oil.

**NOTE:** While the engine is idling, the generator voltage is automatically reduced to reduce generator temperatures. The voltage will return to normal levels immediately upon the application of load.

### SHUTDOWN

1. Remove all load by turning off electrical appliances and unplugging all

electric cords from the generator.

2. Allow engine to run at idle speed to cool for two (2) minutes.

**NOTE:** Failure to allow the engine to cool at idle for two (2) minutes may result in damage to the generator.

3. Turn the starter key to the OFF position. (counter clockwise)

4. Close the valve on the propane tank or natural gas outlet.

## Maintenance

### GENERATOR MAINTENANCE

See *HONDA Owner's Manual* for more information.

### EVAPORATIVE EMISSION COMPONENTS:

The unit you have purchased includes the following components that are in compliance with 2008 California Air Resources Board Evaporative Emission

Standards;

1. Fuel Hose
2. Fuel Hose Fittings

These components should be inspected on a daily basis for cracks, leaks, and abnormal wear. If cracking, leaks or abnormal wear has occurred, the components should be replaced immediately.

### ENGINE:

The engine for this generator is governed to operate at speeds close to 3600 RPM (60Hz) throughout the operating load range. The no load speed (before a load is applied) will be just a bit higher than the load speed and is normally set to 3750 RPM.

**DO NOT TAMPER WITH THE GOVERNOR**

**MECHANISM, CHANGE THE SETTING EXPERIMENTALLY, OR PUSH THE THROTTLE OPEN IN AN ATTEMPT TO GENERATE MORE ELECTRICAL CURRENT; EQUIPMENT DAMAGE OR PERSONAL INJURY MAY RESULT.**

### CHECKING ENGINE OIL:

Check oil level before each operation and ensure that it is maintained per *Preparing the Generator*; See *HONDA Owner's Manual* for more information.

### CHANGING ENGINE OIL:

See *HONDA Owner's Manual* for more information.

### AIR CLEANER:

See *HONDA Owner's Manual* for more information.

### CLEANING AND GAPPING SPARK PLUG:

See *HONDA Owner's Manual* for more information.

### MAINTENANCE SCHEDULE:

See *HONDA Owner's Manual* for more information.

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