# Genconnex Conversion Kit Warranty

This conversion system "kit" is designed and manufactured to conform with the applicable requirements of the EPA and California Air Resources Board, is free from defects in materials and workmanship which would cause the this conversion system to fail or to cause damage to any part on the converted generator, is warranted for 2 years from the installation date, is transferable to subsequent purchasers, and covers full repair and replacement costs including the costs of diagnosis, labor and parts (and only in California includes any part on the converted vehicle/engine/equipment that is damaged due to a defect in the alternative fuel conversion system). We reserve the right to deny warranty claims when, in our sole but reasonable determination conclude that the cause of the primary failure was due to misuse and neglect (including but not limited to flood, sand & debris filled, impact with vehicle or heavy object, etc) or failure to perform the basic maintenance called for in this supplement or the original Honda manual.

We disclaim any responsibility for loss of time or use of the product, transportation, commercial loss, or any other incidental or consequential damage. Any implied warranties are limited to the duration of this written warranty. We will either repair or replace with like-kind unit, or issue a refund, within 30 days of receipt of the unit or goods. We will pay shipping costs within the continental 48 states to and back from our repair facility if you call first to get a pre-paid shipping label sent to you by us.

#### **Consumer Service Information**

We offer out-of-warranty repair service for any units we modify or manufacture at our main factory and at additional authorized dealers provided parts are still available from the original OEM. Please call for details, email us at <a href="mailto:support@genconnexdirect.net">support@genconnexdirect.net</a> or go to <a href="mailto:swww.genconnexdirect.net">swww.genconnexdirect.net</a> to locate a service center near you.

sales@genconnesdirect.net

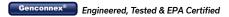
1-800-341-0792
Parts, Service and Support

Factory and Warranty
35 Pond Park Road, Unit 11, Hingham, MA 02043 Genconnex® and Homeconnex™ are trademarks of
New England Gen-Connect LLC, Copyright 2024 All rights reserved.

www.genconnex.net

www.genconnexdirect.net

70-0005r5 02





## Propane & Natural Gas EFI Conversion Kit for Honda EU7000is

by Genconnex

Supplement to Honda EU7000is OEM Owner's Manual



Model number
GXK LPNG-EU7000is-Kit-EC5.0

NEW 5th-Gen features include computerized electronic fuel control, for optimum performance and cleaner emissions.



**Thank you** for purchasing a Genconnex conversion kit. We sincerely hope you are satisfied with your purchase for many years.

Before operating your generator, please take a moment to read this entire manual along with the original Honda Owner's Manual. This manual is intended to be a supplement to the original Honda Owner's Manual with regard to operating from alternate fuels. Where different, this manual supersedes the Honda Owner's Manual unless otherwise noted.

#### **Table of Contents**

1) Safety Information >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	1
2) Tips before starting	2
3) Use & Maintenance  The Proper Fuel Pressure for your Generator How to Set the Generator's Fuel Selection Switch How to Connect your Generator to a Propane tank How to Start and Stop Your Generator	3-4
4) Trouble Shooting	4
4) Technical Information  Propane Tank Run Time Chart Understanding Pressure-Reducing Regulators Specification Changes for Tri-Fuel Conversion High-Altitude Operation	5
6) Warranty & Service Information  Customer Service Information	6

## **Quick Reference Information**

	Propane	Natural Gas	Load
Fuel Usage:	4.00 lbs/hr	84,000 BTU/hr	5500 Watts
	2.22 lbs/hr	46,000 BTU/hr	2750 Watts
	1.58 lbs/hr	32,700 BTU/hr	1375 Watts

Engine Oil: SAE 0W-20 Fully Synthetic (-20deg F to 0deg F)

SAE 5W-30 Fully Synthetic ( 0deg F to 110deg F) SAE 10W-30 Fully Synthetic ( 30deg F to 110deg F)

Spark Plug: NGK 5648 (IFR6Q-G) factory gapped to 0.028"

An alternate plug is the NGK 95609 (IFR6ZG) which also comes pre-gapped at 0.028 from NGK. These are both special Iridium/platinum plugs that are required for this application.

## **Technical Information**

#### How long will a tank run my generator?

EU7000is	<b>20lb</b> /4.7gal (400,000Btu)	<b>30lb</b> /7.0gal (600,000Btu)	<b>60lb</b> /14gal (1,200,000Btu)	<b>100lb</b> /25gal (2,000,000Btu)
5500W average load			11hrs	20hrs
4125W average load		8hrs	15hrs	27hrs
2750W average load (eco on)	5hrs	10hrs	20hrs	36hrs
1375W average load (eco on)	10hrs	15hrs	30hrs	53hrs

RED means only can use tank/average load combination in weather above 32 deg F or tank won't vaporize propane fast enough to keep up with demand. Propane stops vaporizing at -44Deg F.

Based on lower heating value of Propane C<sub>3</sub>H<sub>8</sub> is approx 85,000 Btu/gal @ 90% full tank

Note that tank refill can varying from 75-100% depending on provider.

#### **Understanding pressure-reducing regulators**

	Pressure	
Inside Tank	60psi to 120psi+	(too high!)
Red Regulator reduces to:	10-15 psi / 277-330"w.c. (too high!)	
Silver regulator reduces to:	1/2 psi / 7-11"w.c. (correct)	

(psi = pounds per square inch) (w.c. = inches Water Column)

#### Specifications changes for Bi-Fuel conversion

Max Output on Natural Gas  Max Output on Propane	5.8kW (DO NOT LET LOAD EXCEED THIS) 7.0kW
Spark Plug	IFR6Q-G by NGK (#5648)
Propane & Nat. Gas Pressure	7-13" water column (approx. 1/2psi)
Fuel Options	Propane, Natural Gas
Engine Oil	Fully synthetic SAE 0W, 5W or 10W-30

#### **High Altitude Operation**

This generator comes with computer controlled electronic fuel induction for natural gas and propane operation and computer controlled electronic fuel injection for gasoline operation. This, along with the built in absolute ambient air pressure the onboard computer will automatically correct for altitude between sea level and approximately 10,000ft. Note that engines in general will lose between 2.5% to 3% of engine power for every 1000ft above sea level. At 10,000ft the maximum power on propane, for instance, will be approx 4,900Watts vs 7,000Watts at sea level

### How to start your generator and STOP your generator

To START your generator from propane BBQ tanks, connect the supplied regulator hose to both the propane tank and generator. Slowly turn on the propane tank. If you hear a "ting" sound as you turn on the BBQ valve you may have actuated the tank's excess flow valve. If this happens, either wait a moment for it to automatically reset or you will have to turn off tank valve and repeat this step slower. To connect to larger propane tanks with regulators already on them or natural gas connect the straight-through hose to both the generator and supply line quick disconnects.

Note that your generator has a secondary propane & natural gas fuel lock-off solenoid inside. Because of this, you must jump start this generator with a car battery or equivalent if needed.

Also, note that it may take several successive attempts to start your generator by any means based on your fuel hose length. This is because there will be air trapped in the hose when first connected that will have to work through before the generator receives pure fuel.

To STOP your generator, we recommend that you turn off what you are powering (generator load), then turn off the gas supply, then turn off the key. This is a best practice when possible to minimize potential accidents and removes the smell of fuel from your hose when disconnecting it.

## **Troubleshooting**

#### Generator won't start

- 1. Make sure the generator's fuel selection switch matches the fuel you are using
- 2. Check that your battery is charged. If the display turns off or you hear just a "clunk" sound but it does not turn over, your battery is either bad or not charged enough. If needed, you can either jump start the battery or use a battery charger to charge it.
- 3. Check that propane tank hose connection is fully screwed onto tank tightly.
- 4. Turn your propane tank off then back on slowly to check/reset tank excess flow valve.
- 5. Check that your air cleaner element is not flooded with oil. This can happen if your generator tips over. If it is, squeeze filter between paper towels, then properly dispose of oily paper towels. (oily rags can spontaneously combust in garbage or in pile - hang until dry, then soak with water and detergent before discarding)
- 6. Check that your tank isn't empty, or near empty or has tipped over. If your propane tank tipped over, the tank valve may freeze up. Return tank to upright position and let it sit for a while without use to let valve thaw and/or drain.
- 7. Check the status lights on Genconnex EFI control box located at the bottom of the oil fill side door. The green power light should be on when the start button is pressed. There are two lights to show which fuel the EFI controller senses you have selected, a light that lights if the O2 sensor signal is poor or too low, and a light that lights up if the altitude sensor is above 10,000 feet or damaged.

#### Generator runs rough

- 1. Make sure both side doors are latched close.
- 2. Make sure the battery door is installed and screwed close. Note there is a cutout in the top of the door for remotes and external battery leads.
- 3. Do not start your generator in ECO mode. Let it warm up 2 minutes first.

## **Safety Information**

#### NOTICE:

This section is intended to augment safety information in the original Honda OEM manual. Read the Honda Owner's Manual before operating this generator.

#### **DANGER:**

Failure to follow instructions may result in explosion or fire causing property damage, serious injury or death.

**DO NOT** attempt to use damaged (including but not limited to kinked, cut, chewed or plugged) equipment and hoses. See your local LP or Natural Gas dealer for repairs.

**DO NOT** operate a generator inside your home, garage, or place of business. It must be used outdoors at all times with all nearby doors and windows closed. The National Fire Code requires the generator be a minimum of 5 feet from any structure and highly recommends a minimum distance of 10 feet to any openings including windows and doors.

DO NOT attempt to make repairs yourself

**DO NOT** connect to non-approved tanks or systems

DO NOT use an open flame to check for gas leaks

DO NOT perform your own gas pipe installation or repair without a proper license

**DO NOT** let fuel hose/regulator or tank come in direct contact with exhaust pipe

DO NOT make any alterations or modifications to any natural gas or propane supply. You must use a licensed gas fitter/plumber and follow all state and local codes.

**DO NOT** store propane tanks in your home or garage etc.

**INSPECT** all hoses and connections prior to use

#### PROPANE TANK SIZING GUIDELINES

Propane tanks vaporize the fuel inside at a rate based on the rate of heat absorbed from the tanks steel shell. The colder the temperature the slower the propane vaporizes until at some point the generator is requiring more vapor per minute than the tank can produce. This will cause the generator to turn off or run very poorly.

## per generator output rating

(assuming 1/2-3/4 average rated load)

> 10 Deg F 10 to -10 Deg F -10 to -20 Deg F 2kW 20lb tank, 2kW 30lb tank 2kW 40lb tank 3IW 60lb tank 3kW 30lb tank. 3kW 40lb tank 7kW 60lbtank 7kW 100lb tank 7kW 100lb tanks

## Tips before starting

- DO NOT START YOUR GENERATOR IN ECO 'ON'! Leave ECO switch off before every start for first 2 minutes. We also recommend ECO mode only if your load will not be fluctuating greatly or running motors. This prevents a brown-out and possible damage to your equipment as the generator tries to quickly increase RPM's to handle the sudden changes.
- 2. Make sure your generator's battery is fully charged. This generator requires a charged battery to open the internal fuel lock-off solenoid to start. The pull starter can only be used if a 12Vdc-1Amp minimum power source is applied to the solenoid. We suggest leaving your generator's battery plugged into a smart-charger/trickle charger when not in use so it remains in a fully charged state, or to start it and run it for a few hours every 2-3 months.
- 3. Side doors and battery compartment door must be latched shut. The EU7000is engine draws in a combination of air for combustion through the battery compartment door vents and from the pressurized enclosure based on the battery door's design. If the battery door is removed or one or both side doors are open the generator will not operate correctly or cool correctly and the turbulent air inside the enclosure may lead to EFI over-control, especially in ECO mode. Note in Honda Manual where a cutout is, in the top of the door, for remote control and battery extension cable access to enable the door to stay closed.
- 4. Do not attempt to cold start loads greater than 75% of full load de-rated for altitude. You can damage the engine and or load. Let the generator warm up for 5 minutes before applying full load on any fuel.
- Do not replace your generator's battery with a different brand or rating. Lesser batteries have been found to have a much lower cold cranking ability.
- 6. You may need to add a secondary battery in parallel with the Honda battery for cold starting below 15Deg F. The OEM battery may not have enough cold cranking amps to turn over a cold soaked engine below approx. 15degF. Store the generator indoors where its warmer or we recommend our "GXA EU7000is Battery Extend Kit" that enables you to connect an additional car battery for starting. 0W-30 fully synthetic motor oil must be used for extreme low temperatures along with Honda's cold weather breather tube kit.
- 7. This is a fully EFI controlled generator that learns and adapts to start correctly. If your generator starts too rich the first few starts in a row it will keep track and correct this on all subsequent starts. To erase the memory move the fuel switch quickly through all 3 fuels while its running. The generator will erase what it's learned while shutting down.
- 8. When possible, turn the generator off by turning off the propane tank or natural gas supply valve. This is a best practice for being safe with all propane/natural gas outdoor appliances.
- We recommend that you always put the caps back over the quick-disconnects immediately after use to prevent contamination or water from entering the unit.

#### **Use & Maintenance**

## The proper fuel pressure for your generator

Your generator comes pre-set from the factory to run from low pressure natural gas and propane at 7-11" w.c. equivalent to max 1/2psi (also referred to as standard household pressure). DO NOT connect your generator directly to a propane tank without the proper regulator or to an intermediate 10-15psi regulator often found on large tanks.

## How to set the generator's fuel selector switch



Your generator has a simple 3 position rocker switch located on the top of the generator Always turn off the generator before changing fuel selection! Note Natural gas is selected in picture.

#### **Switch Position**

- I Natural Gas
- 0 Off
- II Propane

## How to connect your generator to a propane tank

- 1) Set up your generator outdoors on a hard level surface such as a driveway or concrete patio at least 5' from any opening in a dwelling (window, door vent etc) but preferably 10 feet.
- 2) Take your propane tank and place it next to the generator making sure it is secured from tipping over and close enough for the hose/regulator to reach with a slight slack in the hose (not pulling on fittings). A milk crate is ideal for 20 and 30lb tanks, but taller tanks will need additional securing.
- 3) Close the valve on the propane tank then attach the regulator with integral hose onto the tank. Connection should be snug but do not tighten with a wrench.
- 4) Attach the other end of hose with the female quick-disconnect onto the male quick-disconnect found on top of generator. To do this, fully pull back on the safety shroud of the female quick-disconnect to expose the ring of bearings, insert fully over male fitting on generator, then release the shroud to lock in place. See "Safety Information" section of this supplement for more details.







2