# Genconnex<sup>®</sup> Conversion System 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 both warranty and out-of-warranty repair service for all kits and generators we modify or manufacture at our main factory and at additional authorized dealers as listed on our website. Please go to www.genconnexdirect.net to find 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 2018 All rights reserved.

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Engineered to the next level

70-0020r2.00



# Propane & Natural Gas conversion kit for Honda EU2200i

by Genconnex®

Supplement to your Honda EU2200i OEM Owner's Manual



Model number GXK LPNG-EU2200i-Kit-EC



### Engineered to the next level

Genconnex is a trademark of New England Gen-Connect LLC Honda is a registered trademark of Honda Motor Co., Ltd.

### Dear Customer,

Thank you for purchasing a Genconnex<sup>®</sup> 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	page
Safety Information >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	1
Tips before starting	2
Use & Maintenance Emission Control System Information Connecting your generator to a propane tank Starting & Stopping your generator How to change from propane to natural gas orifice Troubleshooting	3-4
Technical Information Propane Tank Sizing Specifications	5
Consumer Information Genconnex® Dealer Locations Customer Service Information	6

# **Quick Reference Information**

Fuel Usage:	0.92 lbs/hr at	<b>Natural Gas</b> 32,700 BTU/hr 18,800 BTU/hr	Load 1600 Watts 800 Watts	
	0.70 lbs/hr at	14,300 BTU/hr	400 Watts	
Engine Oil:	SAE 5W-30 <u>Ful</u>	ly Synthetic (appro	x. 1/2 qt)	
Spark Plug:	NGK CR5HSB ga	apped to .024028	inches	
NOTE: Maximum	n power output whe	n operation on natural	gas is 1.8 kWatts	

# **Technical Information**

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

EU2200i	<b>20lb</b> /4.7gal (400,000Btu)	<b>30lb</b> /7.0gal (600,000Btu)	<b>2-30lb</b> /14gal (1,200,000Btu)	<b>100lb</b> /25gal (2,000,000Btu)
1600W average load	14hrs	22hrs	44hrs	80hrs
1200W average load	19hrs	30hrs	60hrs	106hrs
800W average load (eco on)	21hrs	33hrs	67hrs	120hrs
400W average load (eco on)	28hrs	44hrs	88hrs	160hrs

**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  $C_3H_8$  is approx 85,000 Btu/gal @ 90% full tank Note that tank refill can varying from 75-100% depending on provider.

#### Understanding pressure 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

Engine Oil	Fully synthetic SAE 10W-30
Fuel Options	Propane, Natural Gas
Propane & Nat. Gas Pressure	7-11" water column (approx. 1/2psi)
Spark Plug	CR5HSB (NGK) gap to 0.024-0.028"
Max Output on Natural Gas	1.8 kW (DO NOT LET LOAD EXCEED THIS)

NOTE: Propane & Natural gas do not require a choke so this has been removed

#### **Modification for High Altitude Operation**

Please contact your authorized Genconnex<sup>®</sup> servicing dealer for the correct high altitude fuel orifice kit for operation of your generator at altitudes above 5,000 feet (1,500 meters). This includes propane or natural gas When installed, this kit will enable your generator to meet emission standards throughout its useful life at the specified altitude. When not operating above 5,000 feet, please make sure to have your generator converted back to prevent overheating and serious engine damage.

# Use & Maintenance (cont.)

# How to start your generator and STOP your generator

**TO START YOUR GENERATOR**, first connect the regulator hose supplied to the propane tank and generator. If you hear a "ting" sound as you turn on the valve then 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.

Next you may need to purge the air out of your just connected propane or natural gas hose and prime your fuel system for rapid start (if it hasn't just been running) by pulling up on the black ball on top the generator's fuel inlet for a full 3 seconds. you should hear a slight "hiss" sound meaning fuel is properly flowing. Your fuel system is now ready to operate. Refer now to your OEM manual for further detailed start instructions.

**TO STOP YOUR GENERATOR**, we recommend that you disconnect the load first then turn off the gas supply then turn off the key. This is a best practice so your Propane or Natural gas line does not stay under pressure to minimize potential accidents.

### How to configure your generator for the proper fuel



This conversion system comes factory configured for propane but may be changed to operate from natural gas by way of a removable setscrew orifice installed in the end of the carburetor injector module. To change, first disconnect from any fuel source to prevent accidental turn-on. Remove side cover and locate the internal fuel hose connected to the injector module. pull off fuel tube by pulling down then use the supplied alan wrench to remove the installed fuel orifce from the brass tube. Screw back in the correct orifice, push back on fuel tube and close up side panel.

# Troubleshooting

#### Generator won't start

- 1. Make sure the generator's run switch is set to on.
- 2. Check that quick disconnect from hose to unit is fully seated and locked.
- 3. Check that propane tank hose connection is fully screwed on and tight.
- 4. Turn your propane tank off then back on slowly to check/reset tank internal valve.
- Check that your air cleaner element is not flooded with oil. <u>This can happen if</u> <u>your generator tips over.</u> 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.
- 7. 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.
- 8. Listen for slight "hissing" sound before starting when pulling up on round ball on top of inlet (to let you know fuel is flowing through tank and regulator)
- 9. Check oil level. This generator has automatic low oil shutoff.

# **Safety Information**

### NOTICE:

This section is intended to augment safety information in the original Honda OEM manual and not supersede it.

### You must read the Honda Owner's Manual

### WARNING:

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 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

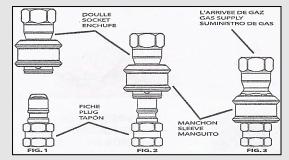
DO NOT let fuel hose/regulator or tank come in direct contact with exhaust pipe

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.

### **PROPANE & NATURAL GAS QUICK-DISCONNECT FITTINGS**

## CAUTION

Quick-disconnect devices are to be installed by a gas service technician only. Install according to local codes or NFPA 54 (ANSI Z223.1) National Fuel Gas Code.



ANSI Z21.41 Quick-Disconnect Devices Installation & Operation Instructions

Push back sleeve of socket (fig. 1), insert plug (fig. 2), and release sleeve.
Push plug until sleeve snaps forward locking plug in socket (fig. 3) (This turns on the gas automatically if valve is is on and tank is connected)
Leak test with leak test solution

### TANK SIZING GUIDELINES

#### per generator output rating

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

> 10 Deg F10 to -10 Deg F2kW 20lb tank,2kW 30lb tank3kW 30lb tank,3lW 40lb tank7kW 60lb-100lb tank7kW 100lb tankor dual 30lbor dual 40lb tank

10 to -10 Deg F-10 to -20 Deg F2kW 30lb tank2kW 40lb tank3lW 40lb tank3lW 60lb tank7kW 100lb tank7kW Dual 60 to100lb tanksor dual 40lb tanks7kW Dual 60 to100lb tanks

# **Tips before starting**

- 1. Always check the oil level before each use.
- 2. The "Choke" has been deleted and is not needed for vapor fuels.
- 3. Do not store propane tanks in your home or garage.
- 4. Turn the generator off by turning off the propane tank or supply valve. This is a best practice for being safe with all propane/natural gas outdoor appliances.
- 5. 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.
- 6. We recommend ECO mode only if your load will not be fluctuating greatly. This prevents a brown-out and possible damage to your equipment as the generator tries to guickly increase RPM's to handle the sudden change.
- 7. Do not operate any 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.
- 8. For best results starting your generator, first pull the ball knob on top of the generator up for 3 second. This will remove the air from any newly connected fuel supply hose as well as prime the fuel system.
- 9. To shut off your generator we recommend that you always turn off the fuel at the tank or fuel supply valve to prevent accidents.

### The proper fuel pressure for your generator

Your generator comes pre-set from the factory to run from low pressure 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.

# **Use & Maintenance**

### **Emission Control System information**

Pursuant with the EPA regulation in CFR 40 Part 1054.645 we have re-certified these generators as the manufacturer under this rule to operate on the fuels listed in this supplement.

"A certificate of conformity is no longer valid for an engine if the engine is modified such that it is not in a configuration covered by the certificate. This section applies if such modifications are done to convert the engine to run on a different fuel type. Such engines may need to be recertified as specified in this section if the certificate is no longer valid for that engine.

(a) Converting a certified new engine to run on a different fuel type violates 40 CFR 1068.101(a)(1) if the modified engine is not covered by a certificate of conformity

(d) The original engine manufacturer is not responsible for operation of modified engines in configurations resulting from modifications performed by others. In cases where the modification allows an engine to be operated in either its original configuration or a modified configuration, the original engine manufacturer remains responsible for operation of the modified engine in its original configuration.

(e) Entities producing conversion kits may obtain certificates of conformity for the converted engines. Such entities are engine manufacturers for purposes of this part."

Please refer to your Honda OEM manual for further emissions control system information.

### 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) Place your propane tank 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 quickdisconnect 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 over male on generator, then release the shroud to seal. See "Safety Information" section of this supplement for more details.