# **PRODUCT ADDENDUM - CONVERSION INSTRUCTIONS**

# NATURAL GAS TO PROPANE GAS CONVERSION AT SEA LEVEL (0-2,000 ft)

# FOR 2 SECTION THRU 9 SECTION - GAS-FIRED, HOT WATER & STEAM BOILERS



# **WARNING**

Failure to follow these instructions could result in fire or explosion resulting in property damage, personal injury, or loss of life.

Conversion kit applies to gas fired boilers produced on or after April 19, 1999. Conversion kit parts shall be installed by qualified installer or service agency, in accordance with manufacturer's instructions, all codes and requirements of authority having jurisdiction.

COMPONENTS	
Models	Description
XEB, FSB at sea level (0-2000 ft)	Four (4) 1/8" #51 drill size orifices for 3-5 section boilers, use as required, one (1) for each main burner.
	Eight (8) 1/4" #51 drill size orifices for 6-9 section boilers, use as required, one (1) for each main burner.
	One (1) 1/8" #49 drill size main burner orifice, to be used instead of 1/8" #51 drill size, on 2 section induced draft boilers only.
PWB, 15 Series & PWX	Four (4) 1/8" #52 drill size main orifices for 2-5 section boilers.
Boilers at sea level (0-2000 ft)	Eight (8) 1/4" #52 drill size main orifices for 6-9 section boilers.
Ultra Water & Steam Boilers	Note: propane gas input rate varies from natural gas input rate, specific kits per steam boiler size are made with appropriate #51 drill size main burner orifices.
at sea level (0-2000 ft) PSB, 16 Series, WPSB, 18 Series	PSB, 16 series, WPSB & 18 series boilers: four (4) 1/8" #51 drill size main orifices for 2-5 section boilers & eight (8) 1/4" #51 drill size main burner orifices for 6-9 section boilers.
Included all Models	One LP gas regulator spring (Honeywell #393691) to be used to convert the natural gas valve to operate with propane gas pressures.
	One BDR-12 insert type pilot for Q314A and Q3451B pilot burner
	One 5/8" brass compression fitting, to be used as a new pilot tube to pilot burner fitting should tubing break during gas conversion.
	One conversion kit data plate.



## **INSTALLATION INSTRUCTIONS**



#### **CAUTION**

Verify gas supply and electrical power to boiler are OFF before beginning to install conversion kit.

- 1. Remove all main burners, do not disturb insulation on inside of combustion chamber or damage pilot burner assembly.
- 2. Determine pilot burner type (stamped on pilot burner bracket) either Q314A or Q3451B. Replace natural gas pilot orifice with correct propane gas pilot orifice. **See Figure 1**.
- 3. Replace all natural gas main burner orifices with enclosed propane gas main burner orifices. Water boiler conversion kits include orifices for 9 section boiler, and smaller; there will be extra orifices.
- 4. Reinstall all burners. Verify burner mounting tabs sit squarely in burner support bracket.
- 5. Replace natural gas regulator on gas valve with enclosed propane gas regulator. Verify tapered spring on gas valve is inserted correctly. **See Figure 2**.
- **6.** Adhere conversion kit data plate to right side jacket panel, adjacent to boiler's rating plate.
- 7. Test all gas piping for leaks using soap solution.
- 8. Follow lighting instructions. Place boiler in operation. Confirm gas inlet supply pressure to gas valve is within specified range as shown on conversion kit data plate. Regulator spring #393691 requires adjustment at installation. Adjust manifold pressure to 10.0 inches water column.



## **WARNING**

Never test for leaks with an open flame!

Figure 1 - Q314A or Q3451B

Figure 2 - VR8200, VR8204, VR8300 & VR8304 GAS VALVES

