Residential Atmospheric Vent
Programmable Efficiency Gas Water Heater

The Programmable Efficiency FVIR Defender Safety System® Models Feature:

- **Bradford White ICON System™** — Intelligent gas control with spark to pilot ignition system eliminates the constant burning pilot. This results in savings of pilot gas during stand by periods (120 V.A.C.).
  - **Enhanced Performance** — Proprietary algorithms provide enhanced First Hour Delivery ratings and tighter temperature differentials.
  - **Advanced Temperature Control System** — Microprocessor constantly monitors and controls burner operation to maintain consistent and accurate water temperature levels.
  - **Intelligent Diagnostics** — An exclusive green LED light prompts the installer during start-up and provides 10 diagnostic codes to assist in troubleshooting.
  - **Separate Immersed Thermowell** — High strength advanced polymer composite thermowell provides isolation between electric temperature sensor and surrounding water. No need to drain the tank when removing gas valve.

- **Fully Programmable LCD Digital Control** — Provides full 7-day, 4 period/day (wake, leave, return, sleep) control of the water heater saving up to 36% on energy usage. Can also be programmed to comply with Sabbath requirements*.
  - **Capacity Bar Indicator** — A digitally displayed six indicator bar graph provides approximate gallons in tank of programmed set point temperature. As hot water is drawn, the indicator bars are reduced.
  - **Set Point Temperature Readout** — Digitally displayed to provide approximate readout of programmed set point temperature (not actual temperature in tank).

- **Accessory Module** — Power source for programmable control that incorporates a multi-color LED status indicator for diagnostics of system.

- **Compatible With Optional Accessory Packages** — Protection Package and Inlet Shut-Off Valve.

- **Advanced ScreenLok® Technology Flame Arrestor Design** — Flame arrestor is designed to prevent ignition of flammable vapor outside of the water heater.

- **Flammable Vapor Sensor** — Electronic sensor prevents burner operation if flammable vapors are detected.

- **Resettable Thermal Switch** — Proven and reliable bimetallic switch prevents burner and pilot operation in case of ongoing flammable vapor burn inside of the combustion chamber or restricted air flow.

- **Maintenance Free** — No regular cleaning of air inlet openings or flame arrestor is required under normal conditions.

- **Sight Window** — Offers a view into the combustion chamber to observe the operation of the pilot and burner.

- **Factory installed Hydrojet® Total Performance System** — Cold water inlet sediment reducing device helps prevent sediment build up in tank. This increases first hour delivery, while minimizing temperature build up at top of tank.

- **Vitraglas® Lining** — Bradford White tanks are lined with an exclusively engineered enamel formula that provides superior tank protection from the highly corrosive effects of hot water. This formula (Vitraglas®) is fused to the steel surface by firing at a temperature of over 1600°F (871°C).

- **2" Non-CFC Foam Insulation** — Covers the sides and top of tank, reducing the amount of heat loss.

- **Pedestal Base.**

- **Water Connections** — 3/4" NPT factory installed true dielectric fittings.

- **Factory Installed Heat Traps** — Design incorporates a flexible disk that reduces heat loss in piping and eliminates the potential for noise generation.

- **Protective Magnesium Anode Rod.**

- **3x4 "Snap Lock" Draft Diverter** — Allows either 3" or 4" vent connections with inputs of 40,000 BTU/Hr or less. Over 40,000 BTU/Hr. has the 4" "Snap Lock" Draft Diverter.

- **T&P Relief Valve** — Included.

- **Low Restriction Brass Drain Valve** — Durable tamper proof design.

*Please consult your local Rabbi for recommended water temperatures and appropriate times for the Sabbath.
Residential Atmospheric Vent Gas Water Heater

Programmable Efficiency Energy Saver Models

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed

80% Recovery Efficiency

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Capacity</th>
<th>Recovery 90°F Rise*</th>
<th>A Floor to Flue Conn.</th>
<th>B Jacket Dia.</th>
<th>C Vent Size</th>
<th>D Floor to T&amp;P Conn.</th>
<th>E Floor to Gas Conn.</th>
<th>F Floor to Top of Heater</th>
<th>G Floor to Water Conn.</th>
<th>H Depth</th>
<th>Approx. Shipping Weight</th>
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<tbody>
<tr>
<td>PE-4-403S6FBN</td>
<td>40</td>
<td>33</td>
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<td>40</td>
<td>33</td>
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<td>42</td>
<td>34</td>
<td>38</td>
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<td>60</td>
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<td>54</td>
<td>10</td>
<td>7/8</td>
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</table>

Propane models feature a Titanium Stainless Steel propane burner. For Propane (LP) models change suffix “BN” to “SX”.

For 10 year models, change suffix from “6” to “10”.

*Based on manufacturers rated recovery efficiency.

PE-2-XR504 has 3/4" NPT side connections.

Requires two 120VAC outlets. One outlet is for the 24VAC plug-in transformer and the other is the line cord that powers the water heater.

Meets NAECA Requirements

General

All gas water heaters are certified at 300 PSI test pressure (2068 kPa) and 150 PSI working pressure (1034 kPa). All water connections are 3/4” NPT (19mm) on B (200mm) centers. All gas connections are ¼” (13mm).

All models design certified by CSA International (formerly AGA/CGA), ANSI standard Z-21.10.1 and peak performance rated.

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.

Suitable for Water (Potable) Heating and Space Heating.

Toxic chemicals, such as those used for boiler treatment, shall NEVER be introduced into this system. This unit may NEVER be connected to any existing heating system or component(s) previously used with a non-potable water heating appliance.