

## Residential Ultra Low NOx Direct Vent Gas Water Heater



Photo is of  
URG2DV50H6N

**FEATURING:**



**The Direct Vent FVIR Eco-Defender Safety System<sup>®</sup> Models Feature:**

- **Bradford White ICON System<sup>™</sup>**—Intelligent gas control with proven millivolt powered technology and built-in piezo igniter. A standard, off-the-shelf thermopile converts heat energy from the pilot flame into electrical energy to operate the gas valve and microprocessor. No need for external electricity.
  - **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 ten different diagnostic codes to assist in troubleshooting.
  - **Pilot On Indication**—Flashing green LED provides positive indication that pilot is on.
  - **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.
- **Ultra Low NOx Burner with Primary and Secondary Air Distribution Devices**—Ensures proper air to gas ratio for reduction of NOx generated by the combustion process.
- **Closed Combustion**—All air for combustion is taken directly from the outside. The co-axial vent pipe (pipe inside a pipe) draws combustion air in through the outer pipe and exhausts the products of combustion through the inner pipe. The co-axial vent pipe at the top of the unit can be rotated for venting flexibility.
- **Reinforced Seals**—Seals surround the closed combustion chamber and the FVIR inner door, preventing the ignition of Flammable Vapors outside of the water heater.
- **Maintenance-Free**—The vent piping and the closed combustion chamber with reinforced seals does not require regular cleaning under normal operating conditions.
- **Sight Window**—Offers a view into the combustion chamber to observe the operation of the pilot and burner.
- **Factory-Installed Hydrojet<sup>®</sup> Total Performance System**—Cold water inlet sediment reducing device helps prevent sediment build-up in tank. Increases first hour delivery of hot water while minimizing temperature build-up in tank.
- **Vitraglas<sup>®</sup> 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<sup>®</sup>) is fused to the steel surface by firing at a temperature of over 1600°F (871°C).
- **Cast Aluminum Air Intake Boot**—A cast molded air intake boot provides exceptional installation durability.
- **Telescoping Solid Vent Kits**—Multiple kits (see reverse side) allow up to 8ft. vertical and 8ft. horizontal vent lengths (horizontal termination only).
- **Flexible Vent Kit**—The maximum vent length (horizontal and vertical) can be flexed to 100" (horizontal termination only).
- **Side Connections**—3/4" NPT tappings allow easy connections for space heating applications (Potable water only), (URG2DV50H6N only).
- **2" Non-CFC Foam Insulation**—Covers the sides and top of tank, reducing the amount of heat loss. This results in less energy consumption, improved operation efficiencies, and jacket rigidity.
- **Pedestal Base.**
- **Water Connections**—3/4" NPT factory-installed true dielectric fittings.
- **Factory-Installed Heat Traps.**
- **Protective Magnesium Anode Rod.**
- **T&P Relief Valve**—Installed.
- **Low Restriction Brass Drain Valve**—Durable tamper-proof design.
- **Design Certified by CSA International (formerly AGA and CGA).**
- **Complies with the latest Ultra Low NOx requirement (10 ng/J NOx limit).**

**6 or 10-Year Limited Tank Warranties / 6 or 10-Year Limited Warranty on Component Parts.**

For more information on warranty, please visit [www.bradfordwhite.com](http://www.bradfordwhite.com)

For products installed in USA, Canada and Puerto Rico. Some states do not allow limitations on warranties. See complete copy of the warranty included with the heater.

# Residential Direct Vent Water Heater

## Direct Vent Models

NATURAL GAS

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed  
78% Recovery Efficiency

Model Number	Capacity		Nat. BTU/Hr. Input	1st Hour Rating (Gal.)	Energy Factor	Recovery at 90°F Rise*		Model Number	Capacity		Nat. kW Input	1st Hour Rating (Liters)	Energy Factor	Recovery at 50°C Rise*	
	U.S. Gal.	Imp. Gal.				Nat. U.S. GPH	Nat. Imp. GPH		Liters	Imp. Gallons				Nat. Liters/Hour	Imp. Gallons
URG2DV40S6N	40	33	38,000	73	0.62	41	34	URG2DV40S6N	151	11.1	276	0.62	155		
URG2DV50S6N	50	42	38,000	84	0.60	41	34	URG2DV50S6N	189	11.1	318	0.60	155		
URG2DV50H6N	48	40	45,000	88	0.60	46	38	URG2DV50H6N	182	13.2	333	0.60	174		

Model Number	A Floor to C/L of Vent in.		B Jacket Dia. in.	C Vent Size in. I.D. O.D.		D Floor to T&P Conn. in.	E Floor to Gas Conn. in.	F Floor to Top of Heater in.	H C/L of Water Conn. in.	J Floor to Water Conn. in.	K Depth in.	L Floor to Space Heating Inlet in.	M Floor to Space Heating Outlet in.	Approx. Shipping Weight lbs.
URG2DV40S6N	63 1/2 min.		22	3	5	43 3/8	15	50 1/4	8	51 1/2	31 1/8	—	—	198
URG2DV50S6N	72 1/2 min.		22	3	5	52 1/4	15	59 1/4	8	60 1/2	31 1/8	—	—	221
URG2DV50H6N	75 7/8 min.		22	4	6	52 1/4	15	59 1/4	11	60 1/8	30 3/4	15 3/4	52 1/4	240

Model Number	A Floor to C/L of Vent mm.		B Jacket Dia. mm.	C Vent Size mm. I.D. O.D.		D Floor to T&P Conn. mm.	E Floor to Gas Conn. mm.	F Floor to Top of Heater mm.	H C/L of Water Conn. mm.	J Floor to Water Conn. mm.	K Depth mm.	L Floor to Space Heating Inlet mm.	M Floor to Space Heating Outlet mm.	Approx. Shipping Weight kg.
URG2DV40S6N	1613 min.		559	76	127	1102	381	1276	203	1308	791	—	—	90
URG2DV50S6N	1842 min.		559	76	127	1327	381	1505	203	1537	791	—	—	100
URG2DV50H6N	1927 min.		559	102	152	1327	381	1505	279	1527	778	400	1327	109

Available in Natural Gas only. For 10 year models, change suffix from "6" to "10". \*Based on manufacturer's rated recovery efficiency. Energy Factor and First Hour Rating is based on the latest AHRI directory listings.

**URG2DV40S6N / URG2DV50S6N Solid Vent Kit:** Part No. 239-51283-00. **URG2DV40S6N / URG2DV50S6N Flexible Vent Kit:** Part No. 239-51284-00. **URG2DV50H6N Solid Vent Kit:** Part No. 239-51286-00. **URG2DV50H6N Flexible Vent Kit:** Part No. 239-51287-00.

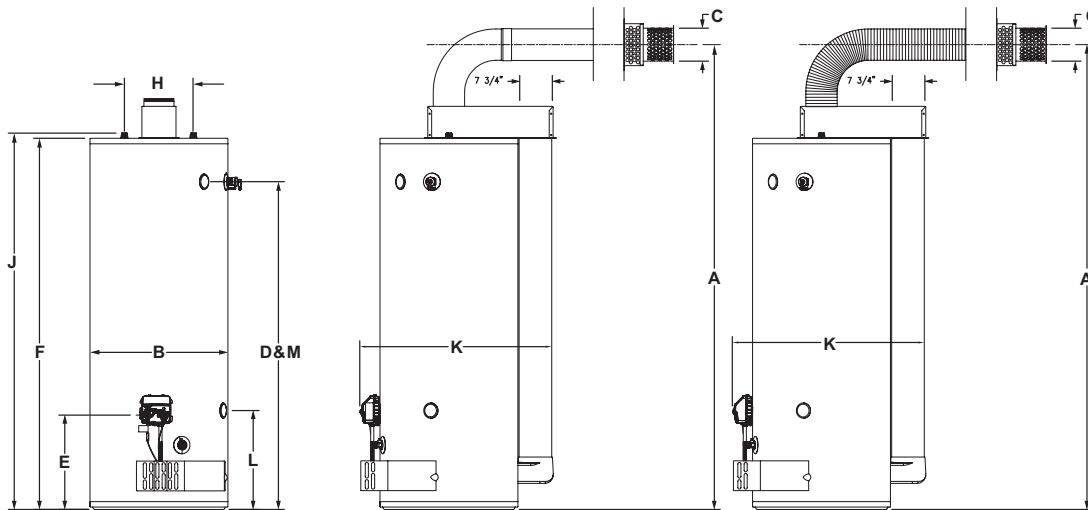
Kits can be ordered and shipped with water heater, or ordered and shipped separately. For vent kit components and venting instructions, refer to Installation and Operation Manual.

### URG2DV40S6N / URG2DV50S6N Optional Telescoping Solid Vent Kits:

- Kit "A"** Telescopes from 4 3/4" to 5 1/16" Part No. 239-41260-00
- Kit "B"** Telescopes from 6 1/2" to 9 9/16" Part No. 239-41331-00
- Kit "C"** Telescopes from 13 3/4" to 23 1/16" Part No. 239-41029-00
- Kit "D"** Telescopes from 49 13/16" to 95 13/16" Part No. 239-41424-00

### URG2DV50H6N Optional Telescoping Solid Vent Kits:

- Kit "F"** Telescopes from 4 3/4" to 5 1/16" Part No. 239-42516-00
- Kit "G"** Telescopes from 6 1/2" to 9 9/16" Part No. 239-42517-00
- Kit "H"** Telescopes from 13 3/4" to 23 1/16" Part No. 239-42514-00
- Kit "I"** Telescopes from 49 13/16" to 95 13/16" Part No. 239-42512-00



Telescoping Solid Vent Kit (Side View)

Flexible Vent Kit (Side View)

**General:** All gas water heaters are certified at 300 PSI test pressure (2068 kPa) and 150 PSI working pressure (1034 kPa). All potable water connections are 3/4" NPT (19mm). All gas connections 1/2" (13mm).

All models design-certified by CSA International (formerly AGA/CGA), ANSI 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.



For U.S. and Canada field service, contact your professional installer or local Bradford White sales representative.  
Sales 800-523-2931 • Fax 215-641-1670 / Technical Support 800-334-3393 • Fax 269-795-1089 • Warranty 800-531-2111 • Fax 269-795-1089  
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