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## Bradford White RG40T6N

# Bradford White RG40T6N Natural Gas Water Heater Instruction Manual

Model: RG40T6N | Brand: Bradford White

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## 1. PRODUCT OVERVIEW

The Bradford White RG40T6N Natural Gas Water Heater is designed for efficient and reliable hot water supply. This model incorporates advanced features to ensure safety, performance, and ease of use. It is a 40-gallon atmospheric vent water heater.

### Key Features:

- **Bradford White ICON System:** Intelligent gas control with millivolt powered technology and a built-in piezo igniter. This system uses a thermopile to convert pilot flame heat into electrical energy to operate the gas valve and microprocessor, eliminating the need for external electricity.
- **Enhanced Performance:** Proprietary algorithms provide improved First Hour Delivery ratings and tighter temperature differentials for consistent hot water.
- **Advanced Temperature Control System:** A microprocessor continuously monitors and controls burner operation to maintain accurate water temperature.
- **Intelligent Diagnostics:** A green LED light guides installation and provides ten diagnostic codes for troubleshooting.
- **Pilot On Indication:** A flashing green LED confirms the pilot light is active.
- **Separate Immersed Thermowell:** An advanced polymer composite thermowell isolates the electric temperature sensor from the water, allowing gas valve removal without draining the tank.
- **Advanced ScreenLok Technology Flame Arrestor Design:** Prevents ignition of flammable vapors outside the water heater.
- **Resettable Thermal Switch:** A bimetallic switch prevents burner and pilot operation in case of flammable vapor burn inside the combustion chamber or restricted airflow.
- **Maintenance-Free:** Under normal conditions, no regular cleaning of air inlet openings or the flame arrestor is required.
- **Sight Window:** Allows observation of the pilot and burner operation within the combustion chamber.
- **Factory-Installed Hydrojet Total Performance System:** A cold water inlet sediment reducing device that

helps prevent sediment buildup, increases first-hour hot water delivery, and minimizes temperature buildup in the tank.

## 2. SETUP AND INSTALLATION

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Installation of the Bradford White RG40T6N Natural Gas Water Heater should only be performed by a qualified professional in accordance with local codes and the manufacturer's instructions. Improper installation can lead to property damage, personal injury, or death.

### Pre-Installation Checks:

- Verify that the water heater model matches the gas type available (Natural Gas).
- Ensure adequate clearance around the unit for proper ventilation and servicing.
- Confirm that the installation location meets all local and national codes for water heaters, including proper venting and drainage.
- Inspect the unit for any shipping damage before installation.

### Key Installation Steps (Professional Guidance Required):

1. Position the water heater on a level surface, preferably on a water heater pan if required by local codes.
2. Connect the cold water inlet and hot water outlet pipes. Ensure proper shut-off valves are installed.
3. Install the temperature and pressure (T&P) relief valve and route its discharge pipe to an appropriate drain.
4. Connect the gas supply line to the gas control valve, ensuring all connections are leak-free.
5. Install the vent system according to manufacturer specifications and local codes to ensure proper exhaust of combustion gases.
6. Fill the tank with water before lighting the pilot or operating the burner.

*Note: The factory-installed Hydrojet Total Performance System is integrated into the cold water inlet, requiring no additional setup.*

## 3. OPERATING INSTRUCTIONS

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### Lighting the Pilot (ICON System):

1. Ensure the gas supply to the water heater is turned on.
2. Locate the gas control valve on the front of the water heater.
3. Turn the gas control knob to the "PILOT" position.
4. Press and hold the red pilot button. While holding, repeatedly press the piezo igniter button until the pilot flame lights. Observe through the sight window.
5. Continue to hold the pilot button for approximately 60 seconds after the pilot lights to ensure the thermopile is heated.
6. Release the pilot button. If the pilot remains lit, turn the gas control knob to the desired temperature setting. The flashing green LED will indicate the pilot is on.
7. If the pilot does not remain lit, repeat the process. If repeated attempts fail, consult the troubleshooting section or a qualified technician.

### Setting Water Temperature:

The Advanced Temperature Control System allows for precise temperature adjustments. The gas control valve has a temperature dial. Rotate the dial to your desired hot water temperature. For safety and energy efficiency, it is

recommended to set the temperature between 120°F (49°C) and 125°F (52°C) to prevent scalding and reduce energy consumption.

*Warning: Higher temperatures increase the risk of scalding. Consult the warning labels on the unit for more information.*

## 4. MAINTENANCE

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The Bradford White RG40T6N water heater is designed for minimal maintenance under normal operating conditions. However, regular checks and professional servicing are recommended to ensure longevity and optimal performance.

### Routine Checks:

- **Annual Inspection:** Have a qualified service technician inspect the water heater annually. This includes checking the anode rod, T&P relief valve, and overall system integrity.
- **T&P Valve Test:** Manually operate the temperature and pressure relief valve at least once a year to ensure it is not obstructed. Follow manufacturer guidelines for this procedure to avoid injury.
- **Drain and Flush:** Periodically drain and flush the tank to remove sediment buildup. The factory-installed Hydrojet Total Performance System helps reduce sediment, but flushing is still beneficial, especially in areas with hard water.
- **Vent System Inspection:** Ensure the vent system is clear of obstructions and properly connected.

### Special Features for Maintenance:

- **Maintenance-Free Flame Arrestor:** The Advanced ScreenLok Technology Flame Arrestor does not require regular cleaning of air inlet openings under normal conditions.
- **Resettable Thermal Switch:** This safety feature automatically resets after addressing the cause of overheating or restricted airflow, simplifying recovery from certain fault conditions.
- **Separate Immersed Thermowell:** This design allows for removal of the gas valve without needing to drain the entire tank, simplifying potential service.

## 5. TROUBLESHOOTING

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The Intelligent Diagnostics system provides ten different diagnostic codes via the green LED light to assist in troubleshooting. Refer to the detailed diagnostic chart in your full product manual for specific code interpretations and solutions. Below are common issues and general guidance.

### Common Issues:

- **No Hot Water or Insufficient Hot Water:**
  - Check if the pilot light is lit (flashing green LED). If not, attempt to relight it.
  - Verify the gas supply is on.
  - Ensure the temperature setting is appropriate.
  - Check for tripped resettable thermal switch (if applicable, follow manual instructions for reset).
  - Sediment buildup can reduce efficiency; consider draining and flushing the tank.
- **Pilot Light Goes Out Frequently:**
  - Could indicate a problem with the thermopile, gas control valve, or a blocked air intake.
  - Check for proper ventilation and ensure the flame arrestor is not obstructed (though designed to be maintenance-free, severe conditions can impact it).

- The resettable thermal switch may be activating due to flammable vapors or restricted airflow.

- **Water Heater Leaking:**

- Identify the source of the leak. Leaks from the T&P valve may indicate excessive pressure or temperature.
- Leaks from the tank itself usually require replacement.

- **Unusual Noises (e.g., rumbling, popping):**

- Often caused by sediment buildup at the bottom of the tank. Draining and flushing may resolve this.

For any issues beyond basic checks, it is strongly recommended to contact a qualified service technician. Do not attempt repairs if you are not qualified.

## 6. PRODUCT SPECIFICATIONS

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<b>Brand</b>	Bradford White
<b>Model Number</b>	RG40T6N
<b>Capacity</b>	40 Gallons
<b>Product Dimensions (W x H)</b>	20"W x 60.5"H
<b>Item Weight</b>	134 pounds
<b>Power Source</b>	Natural Gas (Atmospheric Vent)
<b>Installation Type</b>	Indoor, Floor Mount
<b>Special Features</b>	Bradford White ICON System, Advanced ScreenLok Technology Flame Arrestor Design, Resettable Thermal Switch, Factory-Installed Hydrojet Total Performance System
<b>UPC</b>	662578831617

## 7. PRODUCT MEDIA

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### Product Image



Figure 1: Front view of the Bradford White RG40T6N Natural Gas Water Heater, showing the 'Defender Safety System' label and gas control valve at the bottom.

Note: No official product videos from the seller were available for embedding based on the provided data.

## 8. WARRANTY AND SUPPORT

For detailed warranty information, please refer to the warranty certificate included with your water heater or visit the official Bradford White website. Warranty terms and conditions may vary.

For technical support, service, or to locate a qualified service professional, please contact Bradford White customer service or an authorized dealer. Always provide your model number (RG40T6N) and serial number when seeking support.

**Important:** Do not attempt to repair the water heater yourself. Always rely on qualified and authorized service personnel for any repairs or complex maintenance procedures.

