

Rheem RTGH-RH10DVLN

Rheem Prestige RTGH-RH10DVLN Tankless Gas Water Heater User Manual

Model: RTGH-RH10DVLN

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Rheem Prestige RTGH-RH10DVLN Condensing Tankless Gas Water Heater. Please read all instructions carefully before proceeding with installation or use. Proper installation and maintenance are crucial for optimal performance and to ensure warranty validity.

2. SAFETY INFORMATION

WARNING: Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death. Refer to this manual. For assistance or additional information, consult a qualified installer, service agency, or the gas supplier.

This appliance must be installed by a qualified professional in accordance with all local codes and regulations. Failure to do so will void the warranty and may result in hazardous conditions.

- **Gas Supply:** Ensure the gas supply is turned off before any service or installation. Verify proper gas line sizing as specified in the installation instructions.
- **Venting:** Proper venting is critical to prevent carbon monoxide poisoning. Use only approved venting materials and configurations as outlined in the installation guide.
- **Water Connections:** Ensure all water connections are secure and leak-free.
- **Electrical Connections:** This unit requires an electrical power supply. All electrical work must comply with local codes.
- **Leak Detection:** The unit is equipped with gas and water leak detectors. Do not bypass or disable these safety features.
- **Overheat Protection:** An overheat cut-off switch is integrated for safety.

3. PRODUCT OVERVIEW

The Rheem Prestige RTGH-RH10DVLN is a high-efficiency condensing indoor natural gas tankless water heater designed to provide continuous hot water. It features a built-in recirculation pump with auto-learning programming for enhanced convenience and efficiency.

Key Features:

- **Continuous Hot Water:** Provides hot water on demand, eliminating the need for a storage tank.
- **High Efficiency:** Achieves a .94 UEF (.96 EF Canada) for reduced energy consumption.
- **Built-in Recirculation Pump:** Features auto-learning programming to provide hot water when needed, reducing wait times and water waste.
- **Low Flow Activation:** Activates at a minimum flow rate of 0.50 GPM.
- **Ultra Low NOx Burner:** Meets SCAQMD rule requirements for low emissions.
- **Advanced Safety Features:** Includes flame sensor, overheat cut-off switch, gas and water leak detectors, and exhaust and water temperature sensors.
- **Compact Design:** Space-saving unit suitable for indoor installation.

Product Dimensions:





Figure 3.1: Front view of the Rheem RTGH-RH10DVLN with key dimensions (17.3"W x 28.7"H x 14.75"D).

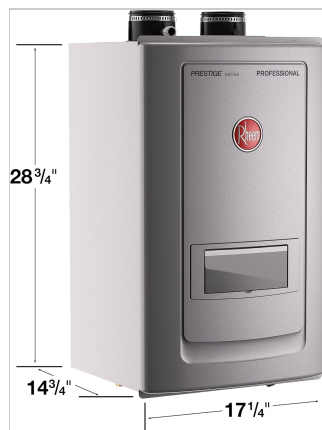


Figure 3.2: Side view of the unit.



Figure 3.3: Back view with mounting points.



Figure 3.4: Bottom connections for water and gas.



Figure 3.5: Top connections for venting.

4. SETUP AND INSTALLATION

Installation of the Rheem RTGH-RH10DVLN tankless water heater requires specialized knowledge and must be performed by a qualified, licensed professional. Failure to comply with this requirement will void the product warranty and may lead to unsafe operating conditions.

Installation Considerations:

- **Location:** This is an indoor unit. Ensure adequate clearance around the unit for ventilation and service access.
- **Gas Line Sizing:** A 3/4-inch natural gas line is recommended for optimal performance. Consult a professional to ensure your existing gas line can support the unit's BTU requirements (180,000 BTU).
- **Venting:** The unit requires specific venting. It can be vented up to 100 feet with 3-inch PVC pipe or up to 50 feet with 2-inch PVC pipe. Do not use existing tank-type water heater venting.
- **Electrical Power:** An electrical power supply (120 Volts) is necessary for the unit's operation.
- **Water Piping:** Inlet and outlet piping may require alterations to connect to the tankless gas water heater.



Figure 4.1: Example installation in a garage setting.



Figure 4.2: Example installation in a laundry room, highlighting space savings.

Pre-Installation Checklist:



Figure 4.3: Important considerations before purchasing and installing a tankless gas water heater.

Replacing a Tank-Type Water Heater:



Figure 4.4: Key differences and requirements when replacing a traditional tank water heater with a tankless unit.

5. OPERATING INSTRUCTIONS

Once properly installed, your Rheem RTGH-RH10DVLN water heater is designed for user-friendly operation.

Temperature Setting:

The default temperature setting for the water heater is 120°F (49°C). This can be adjusted by a qualified professional to a higher temperature, such as 130°F (54°C), if desired. Refer to the unit's control panel and the full installation manual for specific adjustment procedures.

Recirculation Function:

The built-in recirculation pump features auto-learning programming. This system tracks your hot water usage patterns over time and automatically programs itself to meet your hot water needs during peak times, providing instant hot water without manual intervention.

Water Flow Activation:

The unit will activate and begin heating water when a minimum flow rate of 0.50 GPM (Gallons Per Minute) is detected.

Determining Appropriate Model for Your Region:

The performance of tankless water heaters can vary based on the incoming cold water temperature. Use the provided map and chart to understand the approximate hot water usage for your region and ensure the model meets your household's demands.



Figure 5.1: US Temperature Zone Map and Approximate Hot Water Usage Chart. This helps determine the appropriate BTU level based on your location's inlet water temperature and household hot water demands.

6. MAINTENANCE

Regular maintenance is essential to ensure the longevity and efficient operation of your tankless water heater. While specific procedures should be detailed in the comprehensive installation and service manual, general maintenance typically includes:

- **Annual Flushing:** Tankless water heaters should be flushed annually to remove mineral buildup (scale) that can reduce efficiency and damage components. This process usually involves isolating the unit, connecting a pump, and circulating a descaling solution.
- **Vent Inspection:** Periodically inspect the exhaust and air intake vents for obstructions, damage, or leaks.
- **Water Filter Cleaning:** If your unit has an inline water filter, clean or replace it as recommended by the manufacturer.
- **Leak Checks:** Regularly inspect all water and gas connections for any signs of leaks.
- **Professional Inspection:** It is highly recommended to have a qualified technician perform an annual inspection and service to ensure all components are functioning correctly and safely.

7. TROUBLESHOOTING

If you experience issues with your Rheem RTGH-RH10DVLN water heater, refer to the following general troubleshooting steps. For complex problems or error codes, contact a qualified service technician.

Common Issues and Solutions:

- **No Hot Water:**

- Check if the gas supply is on.
- Verify the electrical power supply to the unit.
- Ensure water flow is above the minimum activation rate (0.50 GPM).
- Check for error codes on the unit's display.

- **Inconsistent Hot Water (Cold Water Sandwiches):**

- Ensure the recirculation pump is functioning correctly.
- Check for sufficient water pressure and flow.
- Mineral buildup can affect performance; consider descaling.

- **Error Codes (e.g., E11):**

- Specific error codes indicate particular issues (e.g., E11 often relates to ignition or flame failure). Consult the full service manual or contact a qualified technician for diagnosis and repair.

- **Low Hot Water Temperature:**

- Verify the temperature setting on the unit.
- Ensure the incoming cold water temperature is within expected ranges for your region.
- Check for proper gas pressure and supply.

Always consult a qualified service technician for any issues that cannot be resolved with basic troubleshooting, especially those involving gas or electrical components.

8. SPECIFICATIONS

Below are the technical specifications for the Rheem Prestige RTGH-RH10DVLN Tankless Gas Water Heater:

Specification	Value
Brand	Rheem
Model Number	RTGH-RH10DVLN
Power Source	Natural Gas
Heat Output	180,000 British Thermal Units (BTU)
Flow Rate	10 Gallons Per Minute (GPM)
Efficiency (UEF)	0.94 UEF (0.96 EF Canada)
Voltage	120 Volts
Product Dimensions (W x H)	17.3"W x 28.7"H
Item Weight	85 Pounds
Maximum Pressure	150 Pound per Square Inch (PSI)
Mount Type	Wall mount (Indoor)
Material Type	Stainless Steel
Included Components	Professional Condensing Tankless Gas Water Heater

9. WARRANTY INFORMATION

The Rheem Prestige RTGH-RH10DVLN water heater comes with the following warranty coverage:

- **Heat Exchanger:** 12 years
- **Parts:** 5 years
- **Labor:** 1 year

Important: Professional installation is required for the warranty to be valid. Any installation not performed by a qualified professional will void the warranty.

10. SUPPORT

For technical assistance, warranty claims, or to locate a qualified service professional, please contact Rheem customer support. Have your model number (RTGH-RH10DVLN) and serial number ready when contacting support. You may also find additional resources, FAQs, and detailed installation guides on the official Rheem website.