MRNIU Mrniu18

MRNIU 18Kw 240V Electric Tankless Water Heater User Manual

Model: Mrniu18

1. Introduction

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your MRNIU 18Kw 240V Electric Tankless Water Heater. Please read all instructions carefully before installation and use. Retain this manual for future reference.

1.1. Product Overview

The MRNIU 18Kw 240V Electric Tankless Water Heater is designed to provide instant, on-demand hot water for residential use. Its compact design saves space, and it features an LED temperature display for easy control. This unit is suitable for whole-house applications, including showers, baths, and sinks.



Figure 1.1: Front view of the MRNIU 18Kw 240V Electric Tankless Water Heater.

1.2. Safety Information

Observe all safety warnings and precautions to prevent injury or damage. Installation must be performed by a qualified electrician and plumber in accordance with all local and national codes.

- **Electrical Safety:** Ensure the power supply is disconnected before any installation or maintenance. This appliance requires a dedicated 240V circuit with appropriate amperage and wire gauge.
- **Water Pressure:** Do not operate the unit if water pressure is below the minimum requirement.
- **Temperature Settings:** Exercise caution when setting high temperatures to avoid scalding.
- **Overheat Protection:** The unit is equipped with overheat protection and automatic shut-off features.
- **Dry-Heating Protection:** Prevents damage if water flow is insufficient.
- **Water Flow Detection:** Ensures proper operation based on water flow.
- **IPX4 Waterproof Protection:** Provides protection against splashing water.
- **Anti-Leakage Protection:** Designed to minimize leakage risks.
- **Automatic Fault Detection:** The system can detect and indicate operational faults.



Figure 1.2: Overview of the multiple safety protections integrated into the water heater, including overheat, dry-heating, water flow detection, and temperature monitoring.

2. Setup and Installation

Proper installation is crucial for the safe and efficient operation of your tankless water heater. It is recommended that installation be performed by a licensed professional.

2.1. Installation Requirements

Before installation, confirm that your home's electrical and plumbing systems meet the following requirements:

- **Rated Power:** 18 kW
- **Input Voltage:** 240V
- **Cable Required:** 2x8 AWG
- **Breakers Required:** 2x40 AMP (Double-pole breakers)

- **Water Pressure:** Ensure adequate water pressure for optimal performance.

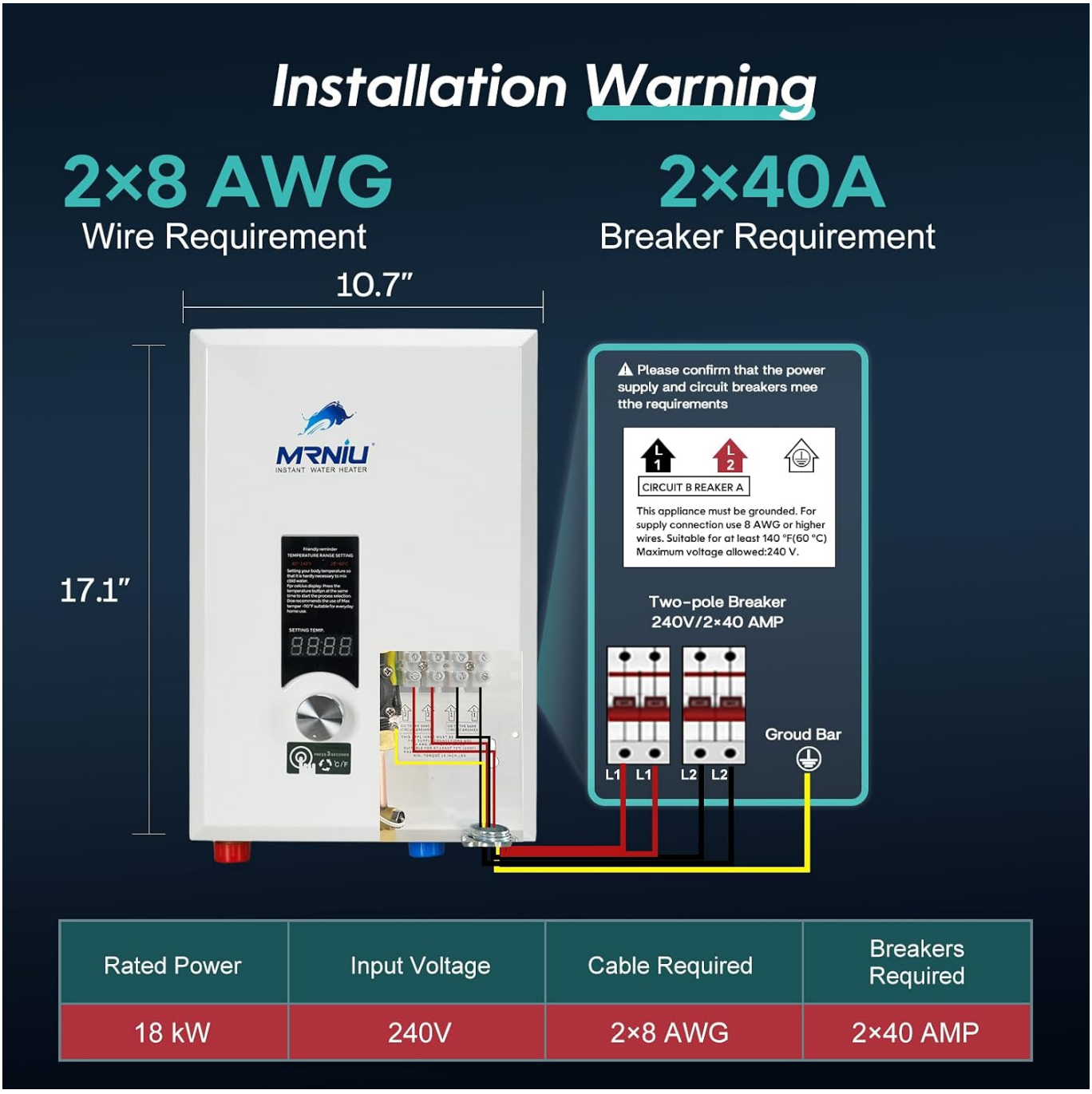


Figure 2.1: This diagram illustrates the electrical requirements for the 18Kw unit, specifying 2x8 AWG wire and 2x40 AMP double-pole breakers. It also shows the physical dimensions of the unit (10.7"W x 17.1"H).

2.2. Mounting the Unit

Select a suitable wall location for mounting, ensuring it is protected from freezing temperatures and easily accessible for maintenance. Use the provided mounting bracket and hardware to securely fasten the unit to the wall.

2.3. Electrical Connection

Before making any electrical connections, ensure the main power supply is turned off at the circuit breaker. Connect the appropriate gauge wiring from your dedicated 240V circuit to the terminal block inside the water heater, following the wiring diagram provided in Figure 2.1 and any local electrical codes. Ensure proper grounding.

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Video 2.1: This video demonstrates the process of securing the electrical conduit connector and connecting the wiring to the terminal block inside the

MRNIU 18Kw tankless water heater, illustrating key steps for electrical installation.

2.4. Plumbing Connection

Connect the cold water inlet to the designated inlet port (typically blue) and the hot water outlet to the outlet port (typically red) on the unit. Use appropriate plumbing fittings and ensure all connections are watertight. Flush the system thoroughly before turning on the power to remove any air or debris.

3. Operating Instructions

3.1. Initial Startup

After installation and plumbing connections are complete and checked for leaks, ensure the unit is filled with water before restoring electrical power. Turn on the main power supply to the unit. The LED display will illuminate.

3.2. Temperature Adjustment

The water heater features a digital temperature control with a range of 80°F to 140°F (26°C to 60°C). Use the control knob or buttons on the front panel to set your desired water temperature. The LED display will show the current temperature setting.



Figure 3.1: The control panel allows for digital temperature adjustment. To switch between Fahrenheit (°F) and Celsius (°C), press and hold the designated button for 6 seconds. The temperature range is 80-140°F / 26-60°C.

3.3. Flow Rate and Performance

The actual hot water flow rate (GPM) depends on the inlet water temperature and the desired outlet temperature. Colder inlet water will result in a lower maximum flow rate for a given temperature rise. Refer to the sizing chart for estimated performance based on your region's average inlet water temperature.

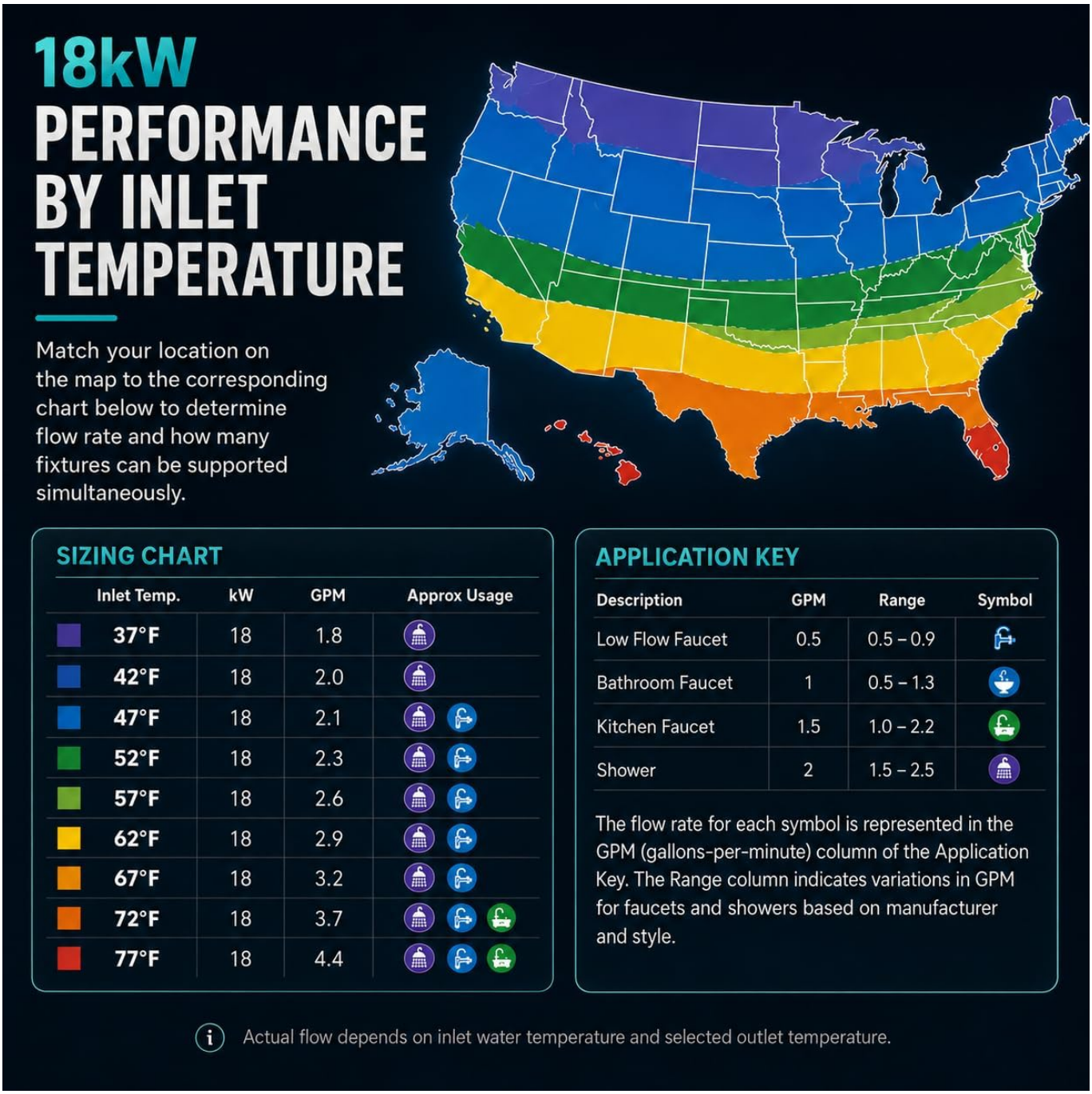


Figure 3.2: This chart and map help determine the expected flow rate (GPM) based on the inlet water temperature in different regions of the United States. It also provides an application key for various fixtures.

4. Maintenance

Regular maintenance ensures the longevity and efficiency of your tankless water heater.

4.1. General Maintenance

- **Descaling:** Depending on your water quality, periodic descaling may be necessary to remove mineral buildup from the heating elements. Consult a professional plumber for descaling procedures.
- **Cleaning:** Keep the exterior of the unit clean with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Inspect Connections:** Periodically check water and electrical connections for any signs of leaks or loose wiring.
- **Winterization:** If the unit is installed in an area prone to freezing and will not be used for an extended period, drain the unit completely to prevent freeze damage.

5. Troubleshooting

This section addresses common issues you might encounter. For problems not listed here, contact customer support.

Problem	Possible Cause	Solution
No hot water or insufficient hot water	Power supply off, low water flow, incorrect temperature setting, air in system, mineral buildup.	Check circuit breaker, ensure adequate water flow, adjust temperature, flush system, consider descaling.
Water temperature fluctuates	Inconsistent water flow, multiple hot water demands, low inlet temperature.	Ensure stable water flow, reduce simultaneous hot water usage, adjust temperature setting.
Unit not turning on	No power, circuit breaker tripped, unit not filled with water.	Check power supply and breaker, ensure unit is fully primed with water.
Leakage	Loose plumbing connections, damaged seals.	Tighten connections, inspect and replace seals if necessary. Contact a professional.

6. Specifications

Detailed technical specifications for the MRNIU 18Kw 240V Electric Tankless Water Heater.

Feature	Specification
Brand	MRNIU
Model Number	Mrniu18
Power Source	Electric
Wattage	18000 watts (18 kW)
Voltage	240 volts
Flow Rate	Up to 4.31 gpm
Maximum Temperature	140 °F (60 °C)
Product Dimensions (W x H x D)	10.7"W x 17.1"H x 3.2"D
Item Weight	14 pounds
Material Type	Copper (heating elements)
Mount Type	Wall
Special Features	Overheat Protection, LED Temperature Display
Included Components	Mounting bracket, electric tankless water heater



Figure 6.1: Dimensions of the MRNIU 18Kw tankless water heater, measuring 17.1 inches in height, 10.7 inches in width, and 3.2 inches in depth.

7. Warranty and Support

7.1. Warranty Information

The MRNIU 18Kw 240V Electric Tankless Water Heater comes with a **2-Year Complete Unit Service** warranty. Please retain your proof of purchase for warranty claims. For specific terms and conditions, refer to the warranty card included with your product or contact customer support.

7.2. Customer Support

For technical assistance, troubleshooting, or warranty inquiries, please contact MRNIU customer support. Support services include 24/7 phone support and 24-hour email assistance. A 30-day hassle-free refund policy is also available.

Contact details can typically be found on the manufacturer's website or on the packaging materials.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question