

GRS JN

GRS 13KW 240V Electric Tankless Water Heater User Manual

Model: JN | Brand: GRS

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1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your GRS 13KW 240V Electric Tankless Water Heater. This tankless system is designed to provide instant hot water for various household needs, including showers, kitchens, and laundry. Its compact design and energy-efficient operation make it a practical choice for modern homes.

Video 1: Tankless Electric Water Heaters Overview. This video provides a general overview of GRS tankless water heaters, highlighting their benefits and different models.

2. SAFETY INFORMATION

Your GRS Tankless Water Heater is built with durable ABS housing and incorporates several key safety features to ensure reliable operation:

- **Overheat Protection:** Automatically shuts off the unit if water temperature exceeds safe limits.
- **Dry Heating Protection:** Prevents damage to the heating elements if there is no water flow.
- **Grounding:** Essential for electrical safety, ensuring proper earthing of the appliance.
- **Child Lock Function:** Prevents accidental temperature changes by children.
- **Water and Electricity Separation:** Designed to prevent limescale buildup and corrosion, enhancing safety and longevity.

Always ensure the unit is properly grounded and installed by a qualified professional to prevent electrical hazards. Do not attempt to service the unit yourself if you are not qualified.



*Certified by Intertek in 2023.

Figure 1: Rear view of the GRS Tankless Water Heater. This image displays the back of the unit, highlighting its ETL and ISO certifications, indicating compliance with safety and quality standards.

3. SETUP AND INSTALLATION

Installation of the GRS Tankless Water Heater should be performed by a qualified electrician and plumber to ensure compliance with local codes and safety standards. Refer to the detailed installation guide included with your product for specific instructions.

3.1 Tools Required

- Screwdriver
- Measuring tape
- Drill
- Hammer
- Wrench
- Plumbing tape

3.2 Mounting the Unit

The unit is designed for wall mounting. Use the provided template (typically the last page of the manual) to mark the drilling points.

Ensure the mounting surface is sturdy and capable of supporting the unit's weight. The distance between the two main mounting holes is 89mm. Insert expansion screws into the wall and secure the unit with self-tapping screws.

3.3 Electrical Connection

Before connecting, ensure the main power supply is turned off. Remove the front cover of the water heater. Route the power cord through the power cord clamp inside the unit. Connect the electrical cables to the terminal blocks, observing the guidance logos. For the 13KW model (CP-13US), it requires connection to two circuit breakers. Secure all connections and reattach the front cover.

3.4 Water Connection

Connect the water pipes to the water inlet (cold water, typically blue) and water outlet (hot water, typically red) connections. Ensure rubber seal rings are properly installed to prevent leaks. Use appropriate plumbing tape for a secure, watertight seal.

Video 2: GRS Tankless Water Heater Electric Installation. This video demonstrates the step-by-step installation process for the GRS tankless water heater, including mounting and connections.

4. OPERATION

Your GRS Tankless Water Heater features a digital display and touch screen sensor controls for easy operation.

4.1 Powering On/Off

Press the power button on the touch screen to turn the unit on or off. The digital display will show the current temperature setting.

4.2 Adjusting Temperature

Use the up and down arrows on the touch screen to adjust the desired water temperature. The temperature setting range for the 13KW model is 86-131°F (30-55°C). The unit also allows for conversion between Celsius and Fahrenheit degrees via the control panel.

4.3 Understanding Flow Rate and Capacity

The performance of your tankless water heater depends on the incoming water temperature and the desired flow rate (Gallons Per Minute - GPM). The 13KW model (CP-13US) is suitable for small apartments or point-of-use applications, supporting one sink, one dishwasher, one shower, and a laundry room simultaneously, delivering up to 4.3 GPM. For larger demands or colder climates, consider higher wattage models like the 18KW (CP-18US) or 27KW (CP-27US).

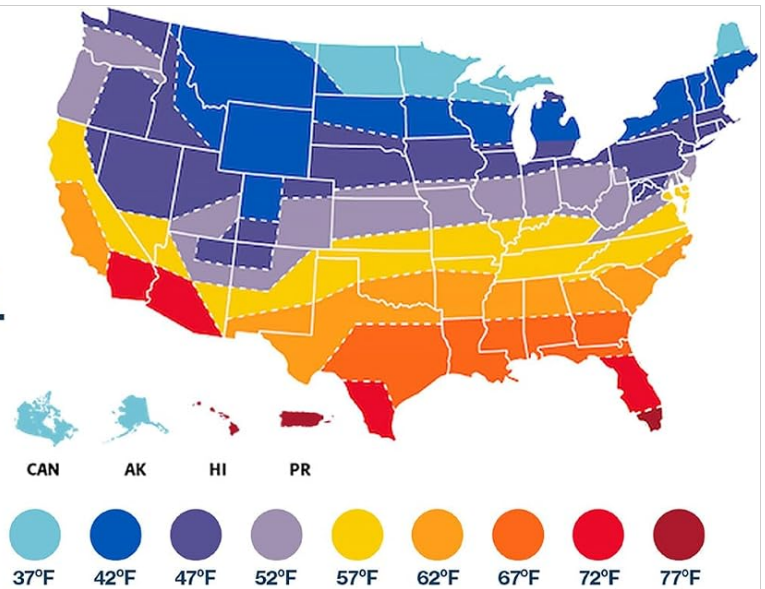
1

Use your location on the map to correlate with the legend for average groundwater temperature in the USA.

Average inlet water temperature.

Results based on outlet temperature of 105°F.

Actual inlet temperature may be affected by local variations and seasonal changes.



2

Calculate your desired GPM and find the best model for you



1.5 GPM
Water-Saver
Shower Head



2.0 GPM
Standard
Shower Head



0.5 GPM
Standard
Hand Sink



1-2 GPM
Kitchen Sink



>4 GPM
Bathtub



1-2 GPM
Dishwasher



1-1.5 GPM
Laundry

	37°F	42°F	47°F	52°F	57°F	62°F	67°F	72°F	77°F
CP-13US Water flow	1.3 GPM	1.4 GPM	1.5 GPM	1.7 GPM	1.8 GPM	2.0 GPM	2.3 GPM	2.7 GPM	3.1 GPM
CP-18US Water flow	1.8 GPM	1.9 GPM	2.1 GPM	2.3 GPM	2.5 GPM	2.8 GPM	3.2 GPM	3.7 GPM	4.3 GPM
CP-27US Water flow	2.7 GPM	2.9 GPM	3.1 GPM	3.4 GPM	3.8 GPM	4.2 GPM	4.8 GPM	5.5 GPM	6.5 GPM

*Average Gallons per Minute (GPM) basing on 2010 Plumbing Standards.

Figure 2: Water Heater Selection Guide. This guide helps you choose the appropriate GRS model based on your location's average groundwater temperature and desired GPM for various applications (e.g., shower, sink, dishwasher, laundry).



CP-13US



Voltage
240V - 60Hz



Wire Size
Recommended 6#AWG



Wattage
13.8 kW



Minimum Activating Water Flow
0.53 GPM - 2.0 L/min



Amperage
58A



Water Pressure Range
0-87 PSI - 0-0.6MPa



Minimum Required Circuit Breaker
70A



Temperature Setting Range
86-131°F - 30-55°C

Max Temp. Rise °F@Flow Rate (GPM)
Temp. Rise = Outlet temp.- Inlet temp.

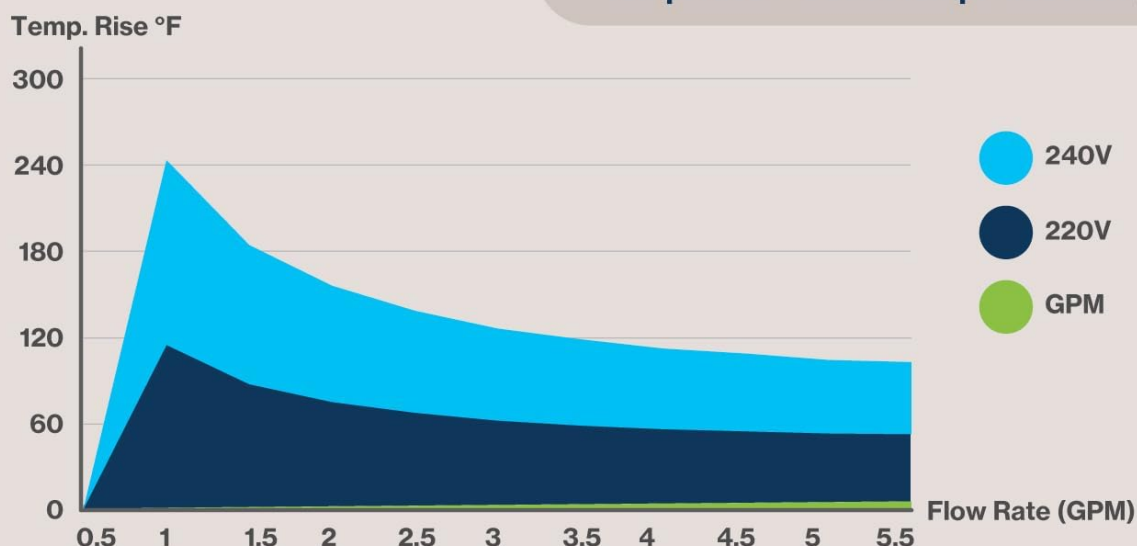


Figure 3: CP-13US Performance Data. This image details the specifications for the CP-13US model and includes a graph illustrating the temperature rise at different flow rates, crucial for understanding its capacity.

5. MAINTENANCE

Regular maintenance ensures the longevity and efficient operation of your GRS Tankless Water Heater. The unit features corrosion-resistant components and multi-layers of composite nano insulation to reduce mineral deposits and prevent hard water buildup.

- **Annual Inspection:** It is recommended to have a qualified technician inspect the unit annually.
- **Cleaning:** Periodically clean the exterior of the unit with a soft, damp cloth. Do not use abrasive cleaners.
- **Descaling:** In areas with hard water, periodic descaling may be necessary to maintain efficiency. Consult a professional for descaling procedures.
- **Check Connections:** Ensure all water and electrical connections remain secure and free from leaks or corrosion.

6. TROUBLESHOOTING

If you experience issues with your GRS Tankless Water Heater, refer to the following common troubleshooting tips. For detailed error codes and solutions, consult the full product manual.

- **No Hot Water:** Check power supply, circuit breakers, and ensure water flow is sufficient to activate the unit.
- **Inconsistent Temperature:** Verify the temperature setting. Ensure incoming water pressure and flow rate are stable and within recommended limits.
- **Error Codes on Display:** Refer to the specific error code in your manual for diagnostic steps. The unit has automatic fault detection.
- **Leaks:** Immediately turn off water and power supply. Inspect all connections for tightness and proper sealing. Contact a professional if the leak persists.

7. SPECIFICATIONS

Below are the technical specifications for the GRS Tankless Water Heater models, with a focus on the 13KW unit (CP-13US).



Figure 4: Technical Data for GRS Tankless Water Heater Models. This table provides detailed specifications for the CP-13US, CP-18US, and CP-27US models, including rated voltage, power, current, wire size, circuit breaker requirements, and dimensions.

GRS 13KW Electric Tankless Water Heater (Model JN)

Feature	Specification
Brand	GRS
Model Number	JN
Wattage	13 KW
Voltage	240 Volts
Rated Power	13.8kW
Rated Current	57.5A
Connecting Wires	6 AWG
Minimum Required Circuit Breaker	70A
Minimum Activating Water Flow	0.53 GPM (2.0 L/min)
Water Pressure Range	0-67 PSI (0-0.6MPa)
Temperature Setting Range	86-131°F (30-55°C)
Product Dimensions (W x H x D)	9.68"W x 14.09"H x 3.94"D
Item Weight	4.65 Kilograms
Material Type	Aluminum (heating elements), ABS (housing)
Special Features	Overheat Protection, Digital Display, Touch Screen Control
GTIN	07406377004598

8. WARRANTY & SUPPORT

Your GRS Tankless Water Heater comes with a **5-year warranty**, ensuring peace of mind regarding its quality and performance. For warranty claims, technical support, or any inquiries, please refer to the contact information provided in your product packaging or visit the official GRS website.

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