GEESEN GE1400WS

GEESEN GE1400WS 14kW 240V Tankless Electric Water Heater User Manual

Model: GE1400WS

1. Introduction

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your GEESEN GE1400WS 14kW 240V Tankless Electric Water Heater. Please read all instructions carefully before installation and use. Retain this manual for future reference.

2. Important Safety Information

WARNING: Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.

- **Professional Installation Required:** Due to high electrical demands, installation must be performed by a licensed electrician and qualified plumber in accordance with all national, state, and local electrical and plumbing codes.
- **Electrical Requirements:** This 14kW, 240V unit requires a 120 Amp breaker setup (3 sets of double-pole 40 Amp breakers) and 3 x 8AWG wire gauge. Verify your home's electrical system can support this demand.
- **Water Pressure:** Ensure water pressure is within the recommended range for optimal performance and to prevent damage.
- **Temperature Settings:** Exercise caution when setting water temperature, especially in households with children, elderly, or individuals with reduced physical, sensory, or mental capabilities, to prevent scalding.
- **Anti-Freezing Protection:** The unit includes anti-freezing protection, but proper installation in an environment above freezing temperatures is recommended to prevent damage.

Figure 1: Integrated Safety Features. This diagram highlights the multiple protection mechanisms built into the water heater, such as corrosion-proof components, electrical discharge protection, dry heating prevention, and high-temperature safeguards, ensuring user safety and product longevity.

3. Product Overview

The GEESEN GE1400WS is a compact, energy-efficient tankless electric water heater designed to provide instant, on-demand hot water for residential use. Its advanced technology ensures a consistent temperature and reduces energy waste by heating water only when needed.

Key Features:

- **Instant Hot Water:** Delivers hot water in approximately 3 seconds.
- **High Efficiency:** Heats water on demand, reducing energy consumption compared to traditional tank heaters.
- **Digital Temperature Display:** Allows precise temperature control between 86°F and 140°F (30°C and 55°C).
- **Compact Design:** Space-saving dimensions (13.78"W x 3.86"D x 18.7"H) for flexible installation.
- **Multiple Safety Protections:** Includes anti-freezing, electrical discharge, dry heating, and high-temperature protection.

- **CSA Certified:** Ensures compliance with safety standards.

Figure 2: GEESEN GE1400WS Tankless Electric Water Heater. This image displays the main unit, highlighting its sleek design and digital interface.

Figure 3: Slim Design and Dimensions. This illustration provides the physical measurements of the water heater, emphasizing its compact form factor suitable for various installation locations.

4. Setup and Installation

IMPORTANT: Installation must comply with all national, state, and local electrical and plumbing codes. Only licensed professionals should perform the installation.

4.1 Electrical Requirements

- **Voltage:** 240V
- **Wattage:** 14kW
- **Amperage:** Maximum 112.5 Amps
- **Breaker:** 3 x double-pole 40 Amp breakers (total 120 Amp setup).
- **Wire Gauge:** 3 x 8AWG wire gauge.
- Ensure your electrical panel can accommodate these requirements.

4.2 Plumbing Requirements

- **Water Connections:** 3/4" NPT.
- **Minimum Flow Rate:** The unit requires a minimum flow rate to activate heating.
- Install shut-off valves on both the hot and cold water lines for maintenance.
- Flush the water lines thoroughly before connecting to the unit to remove debris.

4.3 Mounting the Unit

- Select a suitable indoor location, protected from freezing temperatures and direct sunlight.
- Ensure adequate clearance around the unit for ventilation and service access.
- Use the provided hanging plate and screws to securely mount the unit to a sturdy wall surface.

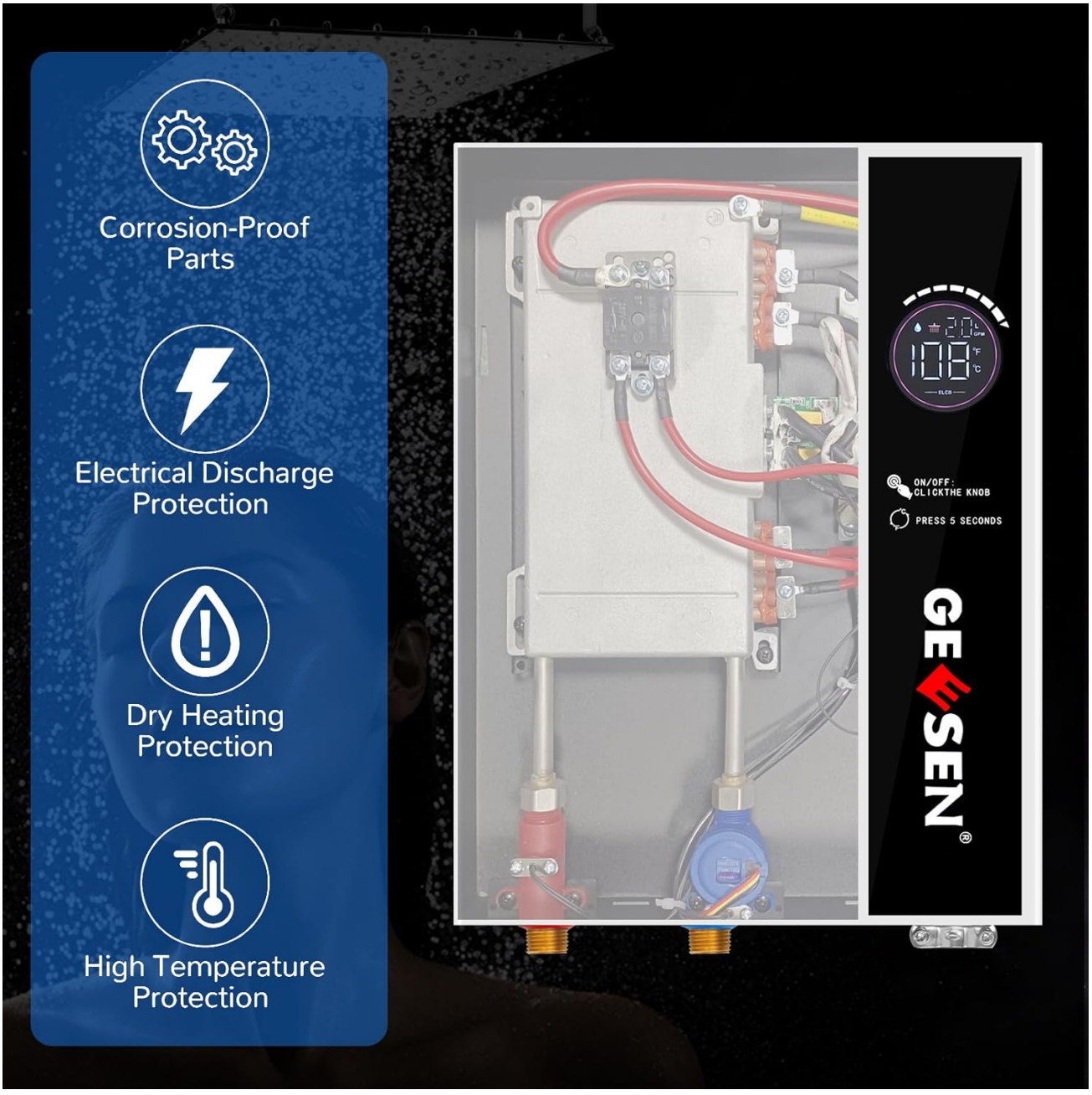

Figure 4: Installation Requirements and Accessories. This table details the electrical specifications (wire and breaker) for the 14kW model and illustrates the components supplied for installation.

Figure 5: Integrated Safety Heating Element. This diagram illustrates how the water path is isolated from the electrical components, enhancing safety and efficiency.

4.4 Ground Water Temperature Considerations

The performance of a tankless water heater is influenced by the inlet water temperature. Colder inlet water will result in a lower maximum flow rate at a desired output temperature. Refer to the U.S. Ground Water Temp Map and usage guide to understand expected performance in your region.

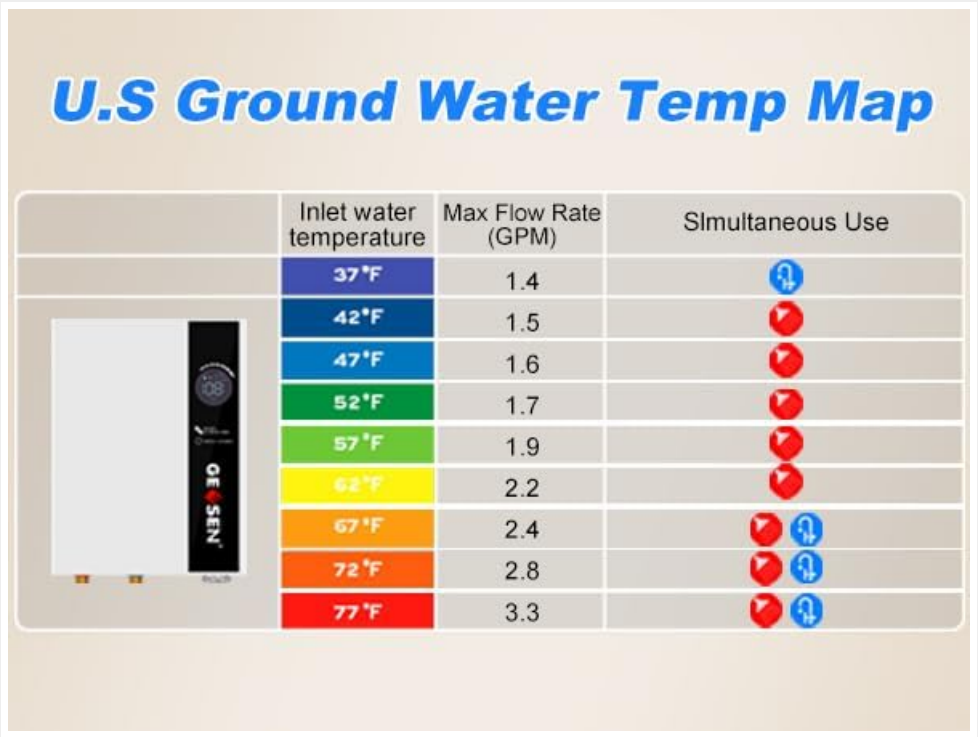

Figure 6: U.S. Ground Water Temperature Map and Usage Guide. This map and accompanying table help determine the expected performance (maximum flow rate and simultaneous use) of the water heater based on regional inlet water temperatures.

5. Operating Instructions

5.1 Initial Startup

1. After installation, ensure all water connections are secure and leak-free.
2. Open a hot water faucet in your home to allow water to flow through the unit and purge any air from the system. Let water run for a few minutes.
3. Turn on the electrical breakers for the water heater.
4. The digital display will illuminate.

5.2 Temperature Adjustment

- The unit features a digital temperature display and control knob.
- To adjust the temperature, rotate the knob to your desired setting. The temperature range is typically 86°F to 140°F (30°C to 55°C).
- The display will show the set temperature, inlet temperature, outlet temperature, and flow rate.
- Press and hold the knob for 5 seconds to switch between Fahrenheit and Celsius.

Figure 7: Precision Temperature Control. This image illustrates the user experience with consistent hot water and highlights the unit's precise temperature adjustment capabilities and high heating efficiency.

6. Maintenance

Regular maintenance ensures optimal performance and extends the lifespan of your water heater. Always turn off the power supply to the unit before performing any maintenance.

- **Cleaning:** Wipe the exterior of the unit with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Inlet Filter:** Periodically check and clean the inlet water filter to prevent sediment buildup.
- **Descaling:** In areas with hard water, mineral buildup (scale) can affect performance. Consult a qualified plumber for periodic descaling procedures. The frequency depends on water hardness and usage.
- **Leak Inspection:** Regularly inspect all water connections for any signs of leaks.

7. Troubleshooting

Before contacting customer support, review the following common issues and solutions:

Problem	Possible Cause	Solution
No hot water / Unit not heating	No power supply Water flow too low Breaker tripped Inlet filter clogged	Check electrical connections and breakers. Increase water flow. Reset the breaker. Clean the inlet filter.
Water not hot enough	Temperature setting too low Inlet water too cold Flow rate too high for conditions Scale buildup	Increase temperature setting. Reduce flow rate to allow more heating time. Consult a plumber for descaling.
Error code on display (e.g., ED)	Overheat protection activated Sensor malfunction	Turn off water, then turn on again after a few minutes to allow cooling. If persistent, contact support. Contact customer support.

8. Specifications

Feature	Detail
Brand	GEESEN
Model Number	GE1400WS
Power Rating	14 kW
Voltage	240 Volts
Amperage (Max)	112.5 Amps
Breaker Requirements	3 x double-pole 40 Amp breakers
Wire Gauge	3 x 8 AWG
Product Dimensions (W x D x H)	13.78" x 3.86" x 18.7" (35cm x 9.8cm x 47.5cm)
Water Connections	3/4" NPT
Maximum Temperature	140°F (75°C)
Efficiency	High Efficiency (up to 98%)
Mounting Type	Wall-mounted
Special Features	Anti-Freezing Protection, Digital Temperature Display
Certifications	CSA Certified
Included Components	Hose, Valve, hanging plate, manual, screws

9. Warranty and Support

GEESEN provides a one-year return and exchange service for this product. For any issues with installation, operation, or product defects, please contact our customer support team.

Customer Support Email: support@geesentech.com

Please have your model number (GE1400WS) and purchase date available when contacting support.