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› Optimal Opti 18kw Electric Tankless Water Heater User Manual

Optimal opti18

Optimal Opti 18kw Electric Tankless Water Heater User Manual

Model: Opti 18

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your Optimal Opti 18kw Electric Tankless Water Heater. Please read this manual thoroughly before installation and use, and retain it for future reference.



Figure 1: Front view of the Optimal Opti 18kw Electric Tankless Water Heater, showcasing its compact design and digital display.

The Optimal Opti 18kw Electric Tankless Water Heater is designed to provide continuous hot water on demand, offering energy efficiency and space-saving benefits. It features advanced technology such as patented ultrasonic flow sensing, integrated diagnostics, and various protection mechanisms.

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.

- All electrical and plumbing work must be performed by qualified and licensed professionals in accordance with all national and local codes.
- Do not operate this water heater if any part of it has been submerged in water.
- Ensure proper grounding of the unit.
- Do not block or restrict the flow of water to or from the unit.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

3. PACKAGE CONTENTS

Verify that all components are present before beginning installation:

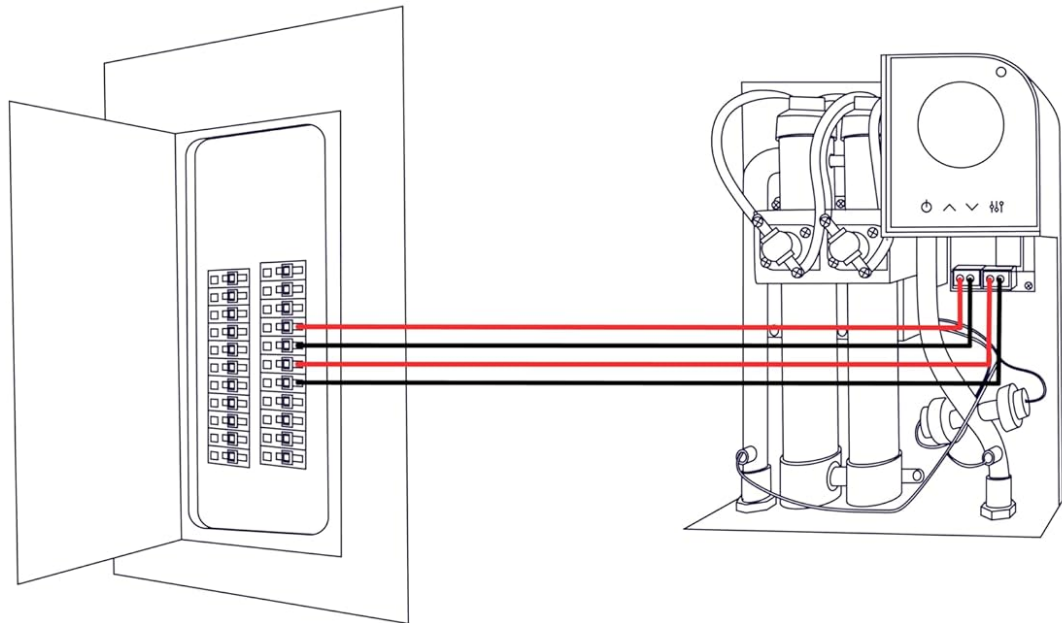
- Optimal Opti 18kw Electric Tankless Water Heater Unit
- Owner's Manual (this document)
- Mounting Template
- Mounting Hardware

4. TECHNICAL SPECIFICATIONS

Feature	Specification
Brand	Optimal
Model Number	Opti 18
Wattage	18000 watts (18 kW)
Voltage	220V - 240V
Maximum Amp Load	75 Amps
Recommended Wire Size	8 AWG + 4
Recommended Breaker	Two 40 Amp Double-Pole
Product Dimensions (W x H)	11.4" x 16.9"
Item Weight	14.02 pounds

Feature	Specification
Maximum Flow Rate	3.5 Gallons Per Minute (GPM)
Maximum Temperature	105 Degrees Fahrenheit
Maximum Operating Pressure	150 PSI
Mounting Type	Wall Mounted
Special Features	Anti-Freezing Protection, Dry Combustion Protection, Integrated Error Code Indicator, Overheat Protection, Self-Modulating, Ultrasonic Flow Sensing

optimal° opti18 electrical requirements



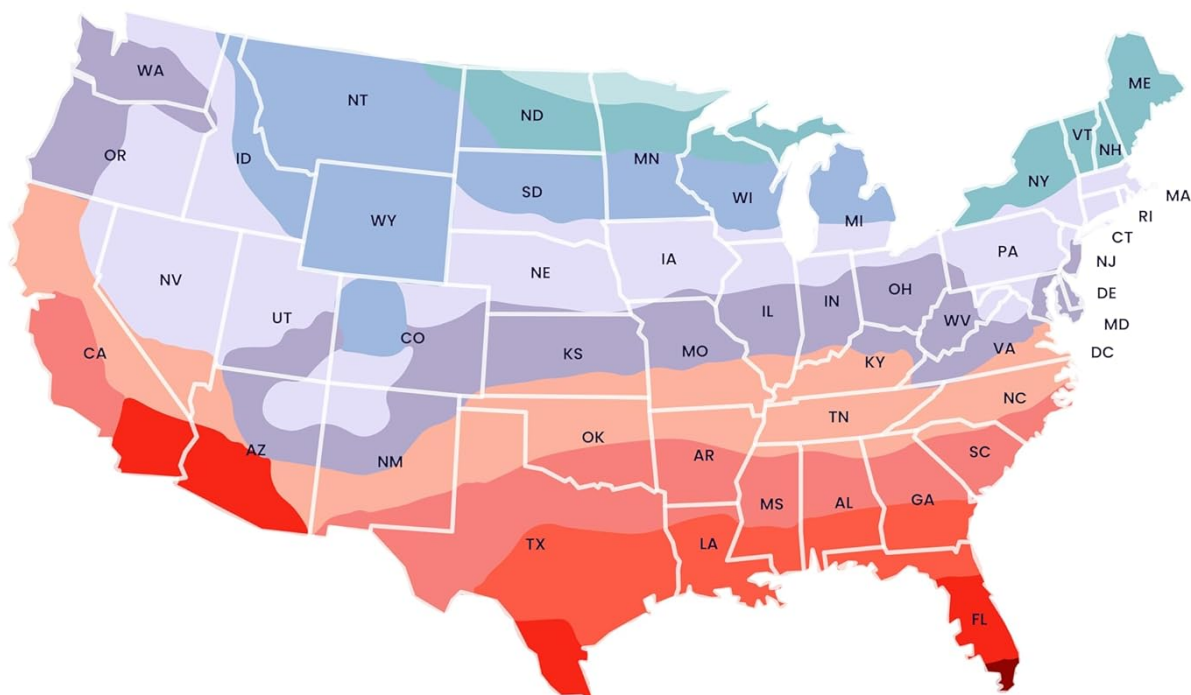
150 amp recommended service panel

18kw | 220v - 240v

max amp load	75 amp
wire size + quantities	8 awg + 4
breaker	two 40 amp double-pole

Figure 2: Electrical connection diagram showing the water heater connected to a service panel with recommended specifications.

optimal^oopti18 sizing chart



max. flow rate 4.4 gpm 3.7 gpm 3.2 gpm 2.8 gpm 2.6 gpm 2.3 gpm 2.1 gpm 1.9 gpm 1.9 gpm

average flow rate 0.5 gpm 1.5 gpm 1 gpm

*max. flow rate based on your area's inlet water temperature (°F) and 105 °F set temp.

Figure 3: Sizing chart illustrating maximum flow rates based on inlet water temperature across different regions.

5. INSTALLATION (SETUP)

The Optimal Opti 18kw Electric Tankless Water Heater is designed for wall-mounted installation. Due to the electrical and plumbing requirements, professional installation by licensed technicians is strongly recommended to ensure safety and compliance with local codes.

5.1 Site Selection

- Select a location that is protected from freezing temperatures.
- Ensure adequate clearance around the unit for maintenance and airflow.
- The compact design allows for installation in smaller spaces, such as closets, freeing up valuable storage.

easy installation



Figure 4: Illustration of the water heater being installed, highlighting the ease of mounting.

save space



Figure 5: Visual comparison demonstrating the space-saving advantage of the tankless water heater over a traditional tank unit.

5.2 Electrical Connections

Refer to the electrical specifications in Section 4 and Figure 2. The unit requires a dedicated electrical circuit. Ensure the correct wire gauge and breaker size are used.

5.3 Plumbing Connections

Connect the cold water inlet and hot water outlet to the appropriate plumbing lines. Ensure all connections are secure and leak-free. Follow local plumbing codes.

6. OPERATING INSTRUCTIONS

The Opti 18 provides continuous hot water for multiple applications simultaneously, such as two showers and two sinks (based on typical usage in warmer climates).

optimal°



- wifi upgradeable
- 25 year residential warranty
- advanced power modulation
- ultrasonic flow sensing
- built in diagnostics

Figure 6: Internal components of the water heater, illustrating advanced power modulation and built-in diagnostics.

6.1 Initial Startup

1. Ensure all plumbing connections are tight and water supply is open.
2. Bleed air from the system by opening hot water faucets throughout the house until water flows smoothly.
3. Turn on the electrical power to the unit at the breaker.
4. The unit will perform a self-diagnostic check.

6.2 Setting Water Temperature

Use the controls on the front panel to adjust the desired hot water temperature. The digital display will show the set temperature (e.g., 105°F). The unit's self-modulating feature adjusts power consumption to maintain the set temperature efficiently.

6.3 Smart Features (if Wi-Fi enabled)

For models with Wi-Fi connectivity (note: this Opti 18 model does not include Wi-Fi unless specified as "18Kw + Wifi"), download the Optimal app to monitor and control your water heater remotely. Features may include real-time inlet/outlet temperature, flow rate, and energy usage.

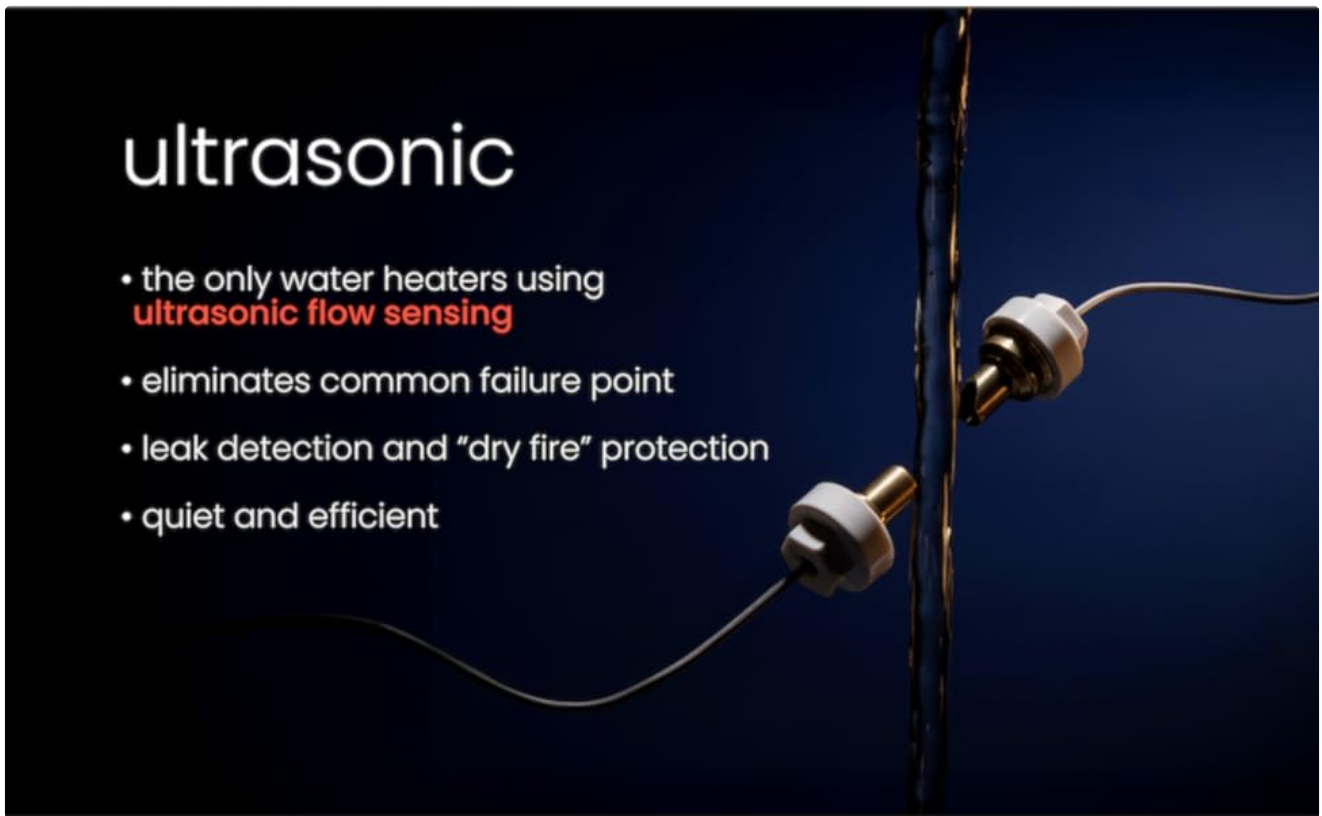


Figure 7: Explanation of the patented ultrasonic flow sensing, which eliminates common failure points and provides leak detection.

7. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your water heater.

- **Periodic Inspection:** Annually inspect the unit for any signs of leaks, corrosion, or damage.
- **Water Quality:** In areas with hard water, periodic descaling may be necessary to prevent mineral buildup. Consult a professional for descaling procedures.
- **Freeze Protection:** The unit includes built-in anti-freezing protection. However, in extremely cold conditions or during extended power outages, additional measures may be required.
- **Leak Detection:** The ultrasonic flow sensing technology provides leak detection capabilities. Address any detected leaks promptly.
- **Vacation Mode:** Utilize the vacation mode feature (if available) when away for extended periods to conserve energy and protect the unit.

8. TROUBLESHOOTING

The Opti 18 is equipped with an integrated error code indicator to assist in diagnosing issues. If an error code appears on the display, refer to the following general guidelines. For specific error code definitions and solutions, consult the full technical manual or contact customer support.

Symptom/Error Code	Possible Cause	Action
No hot water / Unit not heating	No power, low water flow, heating element issue, thermostat issue.	Check circuit breaker. Ensure adequate water pressure. Verify unit is powered on. If problem persists, contact support.

Symptom/Error Code	Possible Cause	Action
Error Code E016	Indicates insufficient wattage or electrical supply issue.	Verify electrical connections and breaker size. Consult a licensed electrician to check voltage and amperage at the unit.
Water not hot enough	Inlet water temperature too low, flow rate too high, temperature setting too low.	Adjust temperature setting. Reduce hot water demand. Refer to sizing chart (Figure 3) for flow rate limitations based on inlet temperature.
Leak detected	Loose connection, damaged component.	Immediately shut off water supply and power. Inspect connections. Contact a plumber or customer support.

Note: For complex issues or if you are unsure about any troubleshooting step, always contact qualified service personnel or Optimal customer support.

9. WARRANTY AND SUPPORT

The Optimal Opti 18kw Electric Tankless Water Heater comes with a **25-year limited residential warranty**, reflecting the manufacturer's commitment to quality and durability. This warranty is among the most comprehensive in the industry.

25 year residential warranty

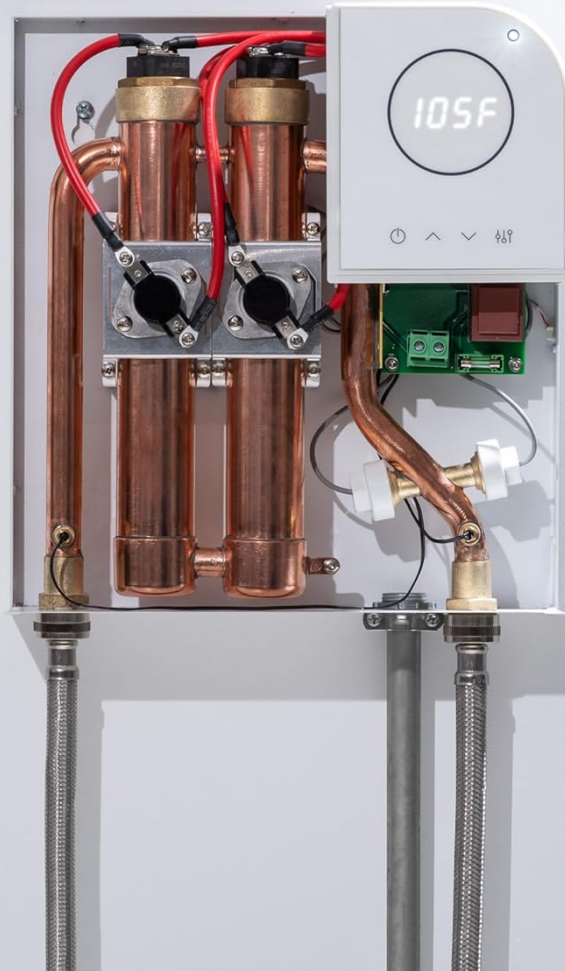


Figure 8: Internal view of the water heater, emphasizing the 25-year residential warranty.

9.1 Customer Support

For technical assistance, warranty claims, or any questions regarding your Optimal product, please contact Optimal customer service.

- **Online Resources:** Visit the [Optimal Brand Store](#) for additional product information and support.
- **Contact Information:** Refer to the contact details provided with your product packaging or on the official Optimal website.

10. PRODUCT VIDEOS

No official product videos from the seller were available in the provided data to embed in this manual. Please refer to the Optimal Brand Store or official website for any available video resources.

