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› ThermoMate 4.5kW 120V Electric Mini Tankless Water Heater Instruction Manual

ThermoMate ET045

ThermoMate 4.5kW 120V Electric Mini Tankless Water Heater

MODEL: ET045

Introduction

This manual provides essential instructions for the safe and efficient installation, operation, and maintenance of your ThermoMate 4.5kW 120V Electric Mini Tankless Water Heater, Model ET045. This point-of-use water heater is designed to provide on-demand hot water, offering an energy-efficient solution by heating water only when needed.

Please read this manual thoroughly before installation and use. Keep it for future reference.

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.

- This appliance must be hardwired. It requires a 10AWG or larger wire size.
- A dedicated 40A Double Pole Circuit Breaker is required for safe operation.
- All electrical and plumbing work must be performed by qualified and licensed professionals in accordance with all local and national codes.
- Do not operate the water heater if it is damaged or malfunctioning.
- Ensure the unit is properly grounded.
- This unit is CSA Approved, indicating compliance with North American safety standards.

Product Overview

The ThermoMate ET045 is a compact and efficient electric tankless water heater designed for single-faucet point-of-use applications. Its advanced design ensures reliable performance and energy savings.



Figure 1: Front view of the ThermoMate ET045 Mini Tankless Water Heater.

Key Features:

- **On-Demand Heating:** Provides hot water instantly, eliminating standby heat loss.
- **Compact Size:** Small footprint (10.95" x 7.4" x 2.52") allows installation in tight spaces like under cabinets or sinks.
- **Durable Construction:** Features a cast aluminum heating element separated from the water line, significantly reducing scale, corrosion, and mineral buildup. Includes a SUS 304 stainless steel water tube for longevity.
- **User-Friendly Controls:** Touch control panel with a digital temperature display for precise temperature adjustments in 1°F increments.

- **Waterproof Design:** IP25 waterproof rating for enhanced durability.



Figure 2: Product dimensions of the ThermoMate ET045.



Figure 3: Internal design highlighting the corrosion-resistant die-casting aluminum shell and single stainless steel water line, reducing mineral buildup.

Setup

1. Location and Mounting:

Choose a suitable location near the point of use to minimize heat loss and ensure quick hot water delivery. The unit is designed for wall mounting and includes a mounting kit. Ensure the mounting surface is sturdy

enough to support the unit's weight when filled with water.



Figure 4: The included mounting kit and water heater unit.

2. Plumbing Connections:

- Connect the cold water supply to the inlet port (typically blue or marked 'INLET').
- Connect the hot water outlet to your faucet or fixture (typically red or marked 'OUTLET').
- Use standard 1/2" NPT water connections.
- Ensure all connections are secure and leak-free.
- Before connecting to power, flush the system with water to remove any air and ensure proper water flow.

3. Electrical Connections:

- This unit requires a dedicated 120V electrical supply.
- It must be hardwired using 10AWG or larger wire.
- Install a dedicated 40A Double Pole Circuit Breaker in your electrical panel.
- Follow the wiring diagram provided in the full instruction manual for correct connections (red, black, and ground wires).
- Consult a licensed electrician for proper installation to ensure safety and compliance with electrical codes.

Operating Instructions

1. Power On:

Once plumbing and electrical connections are complete and verified, turn on the dedicated circuit breaker to supply power to the unit.

2. Setting Temperature:

- The unit features a touch control panel and a digital display.
- Use the up and down arrows or the rotary knob (depending on model variation) to adjust the desired water temperature.
- Temperature can be set in 1°F increments, typically ranging from 80°F to 140°F. The maximum temperature for this 4.5kW model is 125°F.

User Friendly

Digital temperature display easy to adjust it by a single degree from 80°F to 140°F using the knob. Easy to install. Auto stop heating when there's no



Figure 5: Close-up of the digital display and touch controls for temperature adjustment.

3. On-Demand Hot Water:

When you open the hot water faucet, the unit will detect water flow and automatically activate the heating element to provide hot water at your set temperature. The heating will stop automatically when water flow ceases.



Figure 6: The water heater in operation, displaying the set temperature and flow rate.

Maintenance

The ThermoMate ET045 is designed for low maintenance due to its innovative heating element design. However, regular checks can prolong its lifespan and ensure optimal performance.

- **Scale Prevention:** The cast aluminum heating element separated from the water line significantly reduces scale and mineral buildup. In areas with hard water, periodic flushing of the system may be beneficial.
- **Cleaning:** Wipe the exterior of the unit with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Inspect Connections:** Periodically check plumbing and electrical connections for any signs of leaks or loose wiring.
- For detailed maintenance procedures, refer to the complete instruction manual.

Troubleshooting

If you encounter issues with your ThermoMate water heater, refer to the following basic troubleshooting steps. For more complex problems, consult a qualified technician or the full manual.

- **No Hot Water:** Check if the circuit breaker is tripped. Ensure water flow is sufficient to activate the unit. Verify the temperature setting.
- **Insufficient Hot Water:** Confirm the inlet water temperature is within the unit's operational range (refer to the GPM chart in the full manual). Ensure the flow rate is not exceeding the maximum capacity (0.85 GPM for this model).
- **Error Codes:** If an error code appears on the digital display, consult the troubleshooting section of the complete manual for specific code meanings and solutions.
- **Leaks:** Immediately turn off the water supply and electrical power. Inspect all plumbing connections for tightness.

Specifications

Feature	Specification
Brand	ThermoMate
Model Number	ET045
Product Dimensions (H x W x D)	10.95" x 7.4" x 2.52"
Wattage	4500 watts (4.5kW)
Voltage	120 Volts
Amperage	37.5A at 120V
Required Circuit Breaker	40A Double Pole
Required Wire Size	10AWG or above
Maximum Flow Rate	0.85 Gallons Per Minute (GPM)
Maximum Temperature	125 Degrees Fahrenheit

Feature	Specification
Efficiency	99.8% efficient
Special Features	120V Hardwired, CSA Certified, Leak proof heating chamber
Mounting Type	Wall
Item Weight	5.72 pounds
UPC	850066581049

Warranty and Support

For warranty information, technical support, or service inquiries, please refer to the documentation included with your product or visit the official ThermoMate website. You can also visit the [ThermoMate Brand Store](#) for additional product information and contact options.