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> ECOTOUCH 27kW Electric Tankless Water Heater ECO270B User Manual

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Model: ECO270B | Brand: ECOTOUCH

1. INTRODUCTION AND OVERVIEW

The ECOTOUCH 27kW Electric Tankless Water Heater, model ECO270B, is designed to provide instant and continuous hot water for your entire home. This unit eliminates the need for a traditional bulky water tank, offering an energy-efficient solution with self-modulating technology that adjusts power consumption based on water flow and temperature settings. This manual provides essential information for safe installation, operation, maintenance, and troubleshooting.

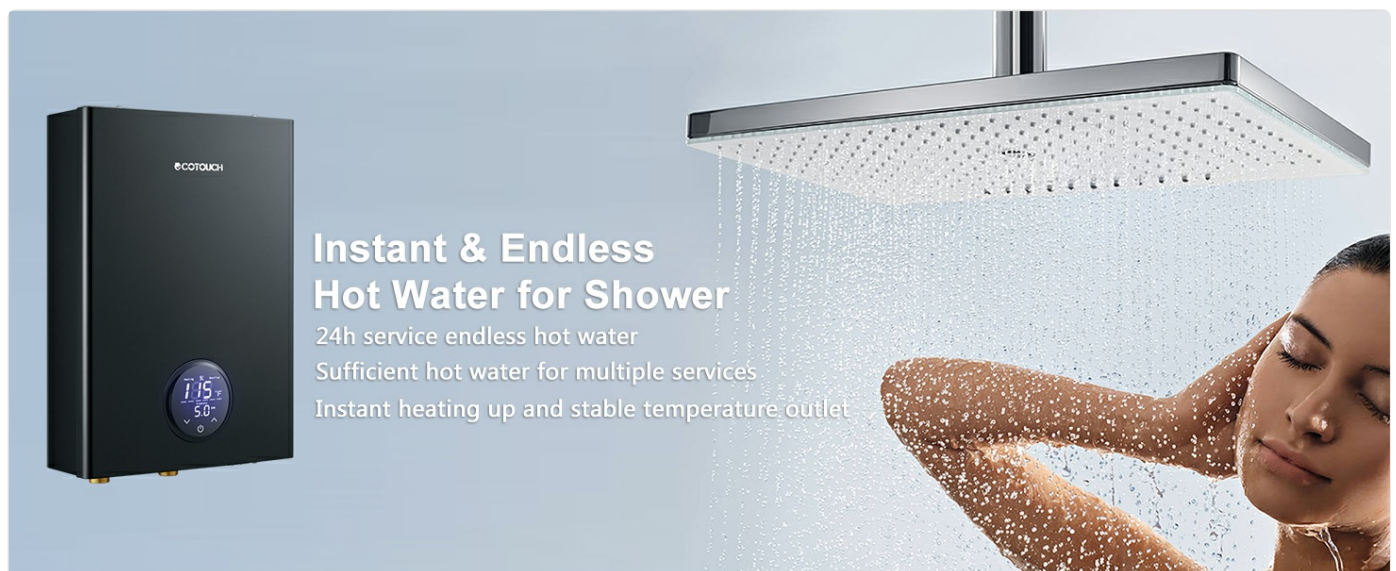


Figure 1.1: ECOTOUCH ECO270B Tankless Water Heater and Key Features

2. SAFETY INFORMATION

Please read all safety instructions carefully before installing or operating this appliance. Failure to follow these instructions may result in property damage, personal injury, or death.

- **Grounding is Mandatory:** Ensure the unit is properly grounded during installation to prevent electrical shock.
- **No Water Spraying:** Do not spray water directly onto the unit. This unit is not designed to withstand direct water exposure.

- **Power Off for Maintenance:** Always disconnect power to the unit before performing any maintenance or service. Maintenance with power on is strictly forbidden.
- **Professional Installation:** Installation must be performed by a qualified electrician and plumber in accordance with all local and national electrical and plumbing codes.
- **Water and Electricity Separation:** The internal design separates water and electricity lines to minimize leakage risk and scale buildup.
- **Multiple Protections:** The unit includes electric leakage protection, high temperature protection, dry heating protection, sensitive leakage protection, dry combustion protection, and high voltage protection. It is ETL listed and IPX4 water-resistant.

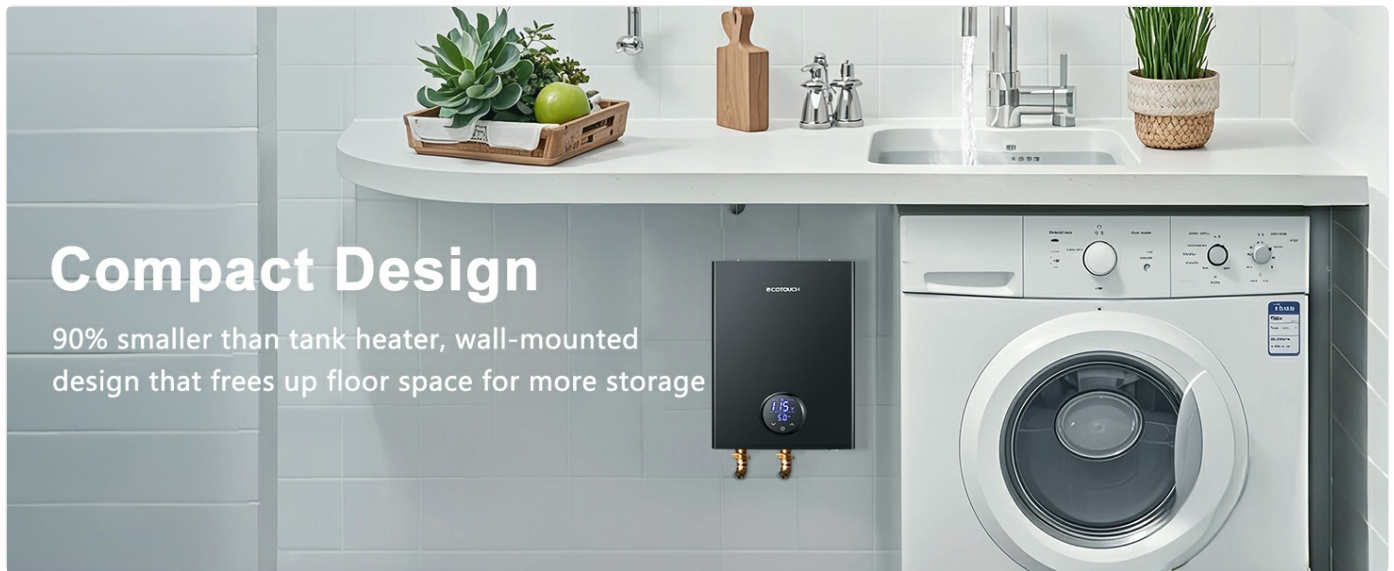


Figure 2.1: Multiple Safety Protections

3. PRODUCT FEATURES

- **Instant & Sufficient Hot Water:** Provides instant and endless hot water at 125°F or higher within seconds, eliminating preheating wait times and temperature fluctuations.
- **High Power System:** Features a 27kW heating system with a flow rate up to 5.5 GPM, suitable for 2-4 usage points in small homes or apartments.
- **Energy Saving Self-Modulation:** Adjusts power input based on current flow rate and desired temperature, consuming less energy when water flow is reduced. This can save up to 50% electric charge compared to typical tank heaters.
- **Convenient Digital Control:** Equipped with a digital display and touch control panel for easy temperature setting and monitoring of working status.
- **Durable & Safe Design:** ETL listed and UL qualified, featuring multiple protections including electric leakage, high temperature, and dry heating. Inner water and electricity lines are separated to prevent leakage and scale buildup.
- **Compact Design:** Approximately 90% smaller than traditional tank heaters, allowing for wall-mounted installation and freeing up floor space.



Figure 3.1: Advanced Heating Control and Efficiency

Figure 3.2: Compact Design for Space Saving

4. SETUP AND INSTALLATION

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

4.1 Electrical Requirements

- **Amperage:** The ECO270B draws up to 113A.
- **Circuit Breaker Panel:** Requires a Home Circuit Breaker Panel of at least 200A.
- **Circuit Breakers:** 3 pieces of 40A double pole circuit breakers are needed.
- **Wiring:** 3 runs of 8 AWG/2 wire with grounding are required.

Consult a professional electrician to ensure your electrical system can support these requirements and that you have enough space on your circuit breaker panel before purchase and installation.



Figure 4.1: Electrical Connection Diagram

4.2 Water Connections

The unit uses 3/4" NPT pipe fittings for water inlet and outlet. Ensure all connections are secure and leak-free.

4.3 Mounting

The ECO270B is designed for wall mounting. Use the provided mounting bracket, wall anchors, and screws to secure the unit firmly to a suitable wall surface.

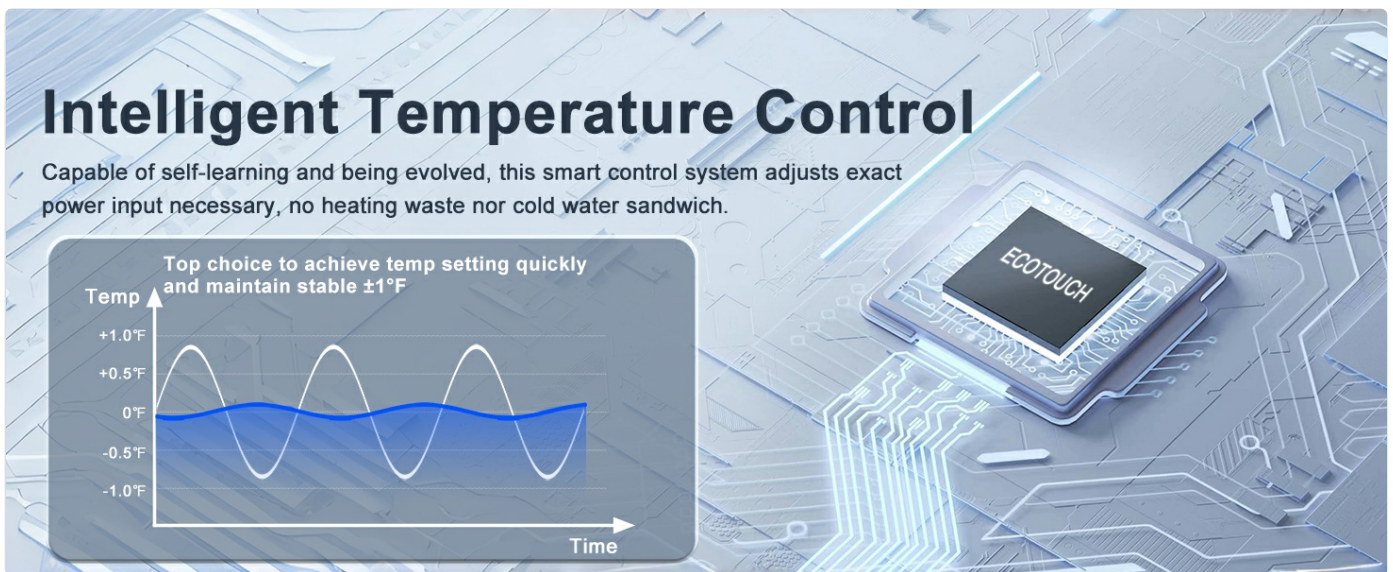


Figure 4.2: Application Guidelines and Flow Rate Chart

ECO270B Installation Guide

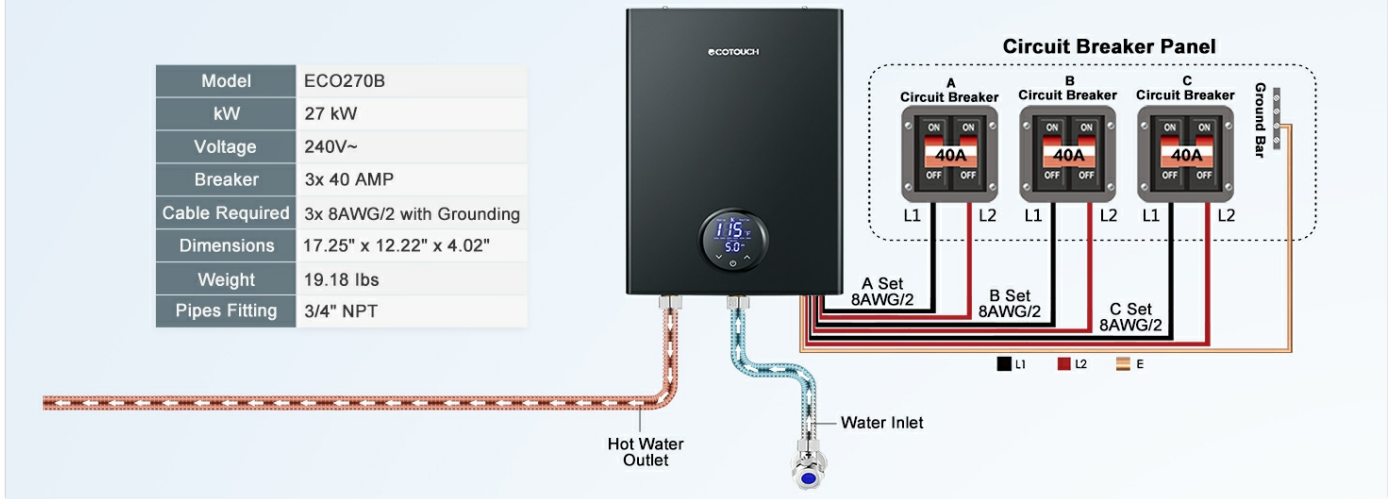


Figure 4.3: ECO270B Installation Guide

5. OPERATING INSTRUCTIONS

The ECO270B features a user-friendly digital display and touch control panel for easy operation.

5.1 Control Panel Functions

- **Power On/Off:** Press the power button to turn the unit on or off.
- **Increase/Decrease Temperature:** Use the up and down arrows to adjust the desired water temperature. The unit maintains stable temperature within $\pm 1^\circ\text{F}$.
- **Digital Display:** Shows current temperature, flow rate, and working status (e.g., 'Heating').

Once the desired temperature is set, simply open a hot water faucet, and the unit will automatically activate to provide hot water.

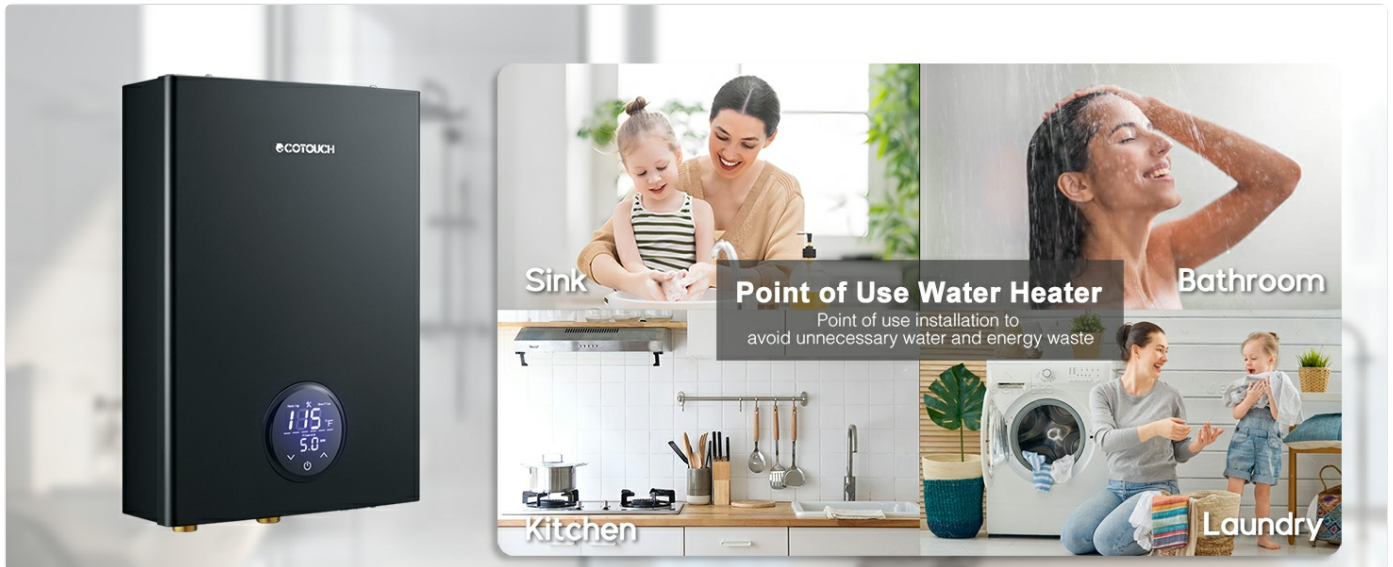


Figure 5.1: Smart & Simple Operation Control Panel

6. MAINTENANCE

The ECOTOUCH ECO270B tankless water heater is designed for minimal maintenance.

- **Heating Element:** Features a maintenance-free heating element.
- **Scale Buildup:** The separated water and electricity lines design helps minimize scale buildup.

- **Regular Inspection:** Periodically inspect the unit for any visible signs of leaks or damage. If any issues are observed, contact a qualified technician.
- **Cleaning:** Clean the exterior of the unit with a soft, damp cloth. Do not use abrasive cleaners or solvents.

7. TROUBLESHOOTING

If you encounter issues with your ECOTOUCH tankless water heater, refer to the following common error codes and solutions:

Error Code	Description	Possible Solution
E1	Leakage of Electricity	Immediately turn off power at the circuit breaker. Contact a qualified electrician for inspection and repair.
E2	Temperature Exceed 149°F / 65°C	Check water flow and inlet temperature. Reduce desired temperature setting. If issue persists, contact support.
E3	Inlet Temperature Sensor Failure	Turn off power and restart the unit. If the error persists, professional maintenance is needed.
E4	Outlet Temperature Sensor Failure	Turn off power and restart the unit. If the error persists, professional maintenance is needed.
EF	Water Flow Sensor Got Stuck	Check water pressure and ensure no blockages in the water lines. Turn off power and restart. If the error persists, professional maintenance is needed.

For any issues not listed or if solutions do not resolve the problem, contact ECOTOUCH customer support or a qualified professional.

8. SPECIFICATIONS

Detailed technical specifications for the ECOTOUCH 27kW Electric Tankless Water Heater ECO270B:

Feature	Specification
Brand	ECOTOUCH
Model Number	ECO270B
Wattage	27 KW
Voltage	240 Volts
Maximum Amperage	113A
Circuit Breakers Required	3 x 40A Double Pole
Cable Required	3 x 8AWG/2 with Grounding
Efficiency	98%
Maximum Temperature	131 Degrees Fahrenheit
Product Dimensions	4.8"W x 6.79"H (Unit dimensions are 17.25"H x 12.22"W x 4.02"D)
Item Weight	19.18 pounds

Feature	Specification
Mounting Type	Wall
Pipe Fittings	3/4" NPT
Certifications	ETL Listed, UL Qualified

9. WARRANTY AND SUPPORT

ECOTOUCH is committed to providing reliable products and excellent customer service.

- **Warranty:** The product comes with 3-Year Protection. Refer to the warranty card included with your purchase for specific terms and conditions.
- **Professional After-sales Service:** ECOTOUCH offers professional after-sales support to assist with any product-related inquiries or issues.
- **Installation Guidance:** Detailed installation guidance is available to ensure proper setup.
- **Quick Consultation:** Access quick-acting consultation services for immediate assistance.

For support, please refer to the contact information provided in your product packaging or visit the official ECOTOUCH website.