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› [BLACK+DECKER 24kW 240V Tankless Electric Water Heater \(Model BD-24-DWH\) User Manual](#)

BLACK+DECKER BD-24-DWH

BLACK+DECKER 24kW 240V Tankless Electric Water Heater (Model BD-24-DWH) User Manual

INTRODUCTION

This manual provides essential information for the safe and efficient operation of your BLACK+DECKER 24kW 240 Volt Tankless Electric Water Heater, Model BD-24-DWH. This self-modulating unit is designed to provide continuous hot water on demand for whole-house applications, offering energy savings and a compact design.

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.

- Ensure all electrical connections are performed by a qualified electrician in accordance with local and national electrical codes.
- Ensure all plumbing connections are performed by a qualified plumber in accordance with local and national plumbing codes.
- Do not operate the unit if it is damaged or malfunctioning.
- Always disconnect power before performing any service or maintenance.
- This unit is designed for indoor installation only.

PRODUCT OVERVIEW

The BLACK+DECKER 24kW Tankless Electric Water Heater is a compact, wall-mounted unit designed for efficiency and convenience. It features a digital temperature display and self-modulating technology to provide hot water only when needed, reducing energy waste.



Figure 1: Main view of the BLACK+DECKER 24kW Tankless Electric Water Heater.

Key Features:

- **Hot Water on Demand:** Powerful 24kW heating system provides endless hot water with automatic water flow sensors.
- **Self-Modulating:** Unit adjusts power consumption based on hot water demand, maintaining desired temperature.
- **Digital Temperature Display:** Easy-to-use and read digital display for precise temperature control (1°F increments).
- **Multi-Use Application:** Suitable for entire home or up to 5 simultaneous applications in warm to hot climates (showers, sinks, bathrooms, washing machines, kitchens).
- **Space-Saving Design:** Compact, wall-mounting design eliminates the need for a bulky hot water tank.
- **Durable Construction:** Features stainless steel, non-corrosive internal canisters and piping for increased efficiency and longevity. Lead-free components ensure safety.

SETUP AND INSTALLATION

Proper installation is crucial for the safe and efficient operation of your tankless water heater. Refer to the detailed installation guide included with your product for complete instructions. Below are key requirements:

Electrical Requirements:

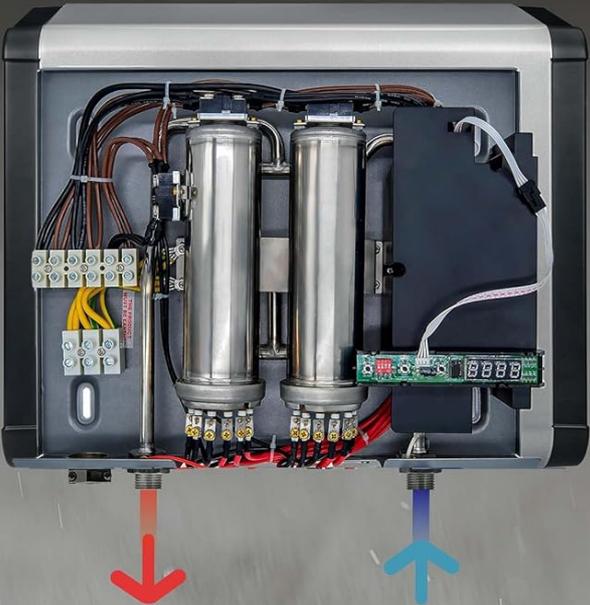
- Requires 3 x 40 amp single-phase double-pole breakers.
- Requires 3 x 8/2 AWG wire size.

- Operates on 240V.

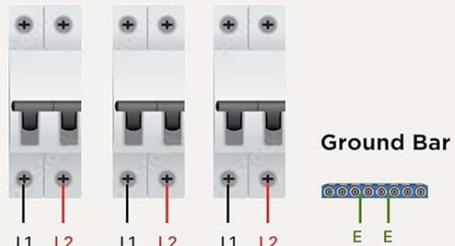
Plumbing Requirements:

- Standard 3/4 inch NPT (straight thread) fittings.
- Unit does not require gas lines or venting, offering flexible installation locations.

24 KW SPECIFICATION GUIDE



**Circuit Breaker Panel
40A DP/240V**



Each Breaker Must Be Grounded

Circuit Requirements

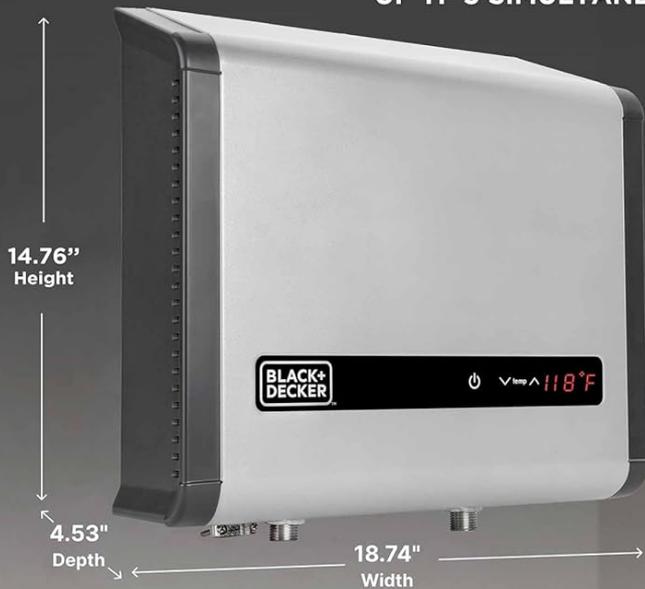
Wattage	Voltage	Cable Gauge Required	Water Connection Size	Required Breaker Size
24,000	240V	3 x 8/2 AWG with Ground	3/4 in.	3 x 40A Double Pole

Figure 2: Circuit and water connection requirements for the 24kW unit.

BLACK+DECKER

24 KW IDEAL FOR 2 BEDROOM HOME

UP TO 5 SIMULTANEOUS APPLICATIONS



Lead Free



Efficient Self Modulating



cETL Certified



Temp Range
86-122 F



99% Energy Efficient



Stainless Steel
Durable
Non-Corrosive

TECHNICAL GUIDE

Important Electrical Requirements for this Water Heater

KW

24

Volts

240

Apms

100A

Serves

Up to **5** simultaneous applications in warm to hot climates.

Required Breaker Size

3 x 40A Double Pole

Required Breaker Gauge

3 x 8/2 AWG with Ground

Weight

12.17 lbs.



Before purchasing, please review the electrical requirements, and be sure your electrical panel has sufficient space for this unit.

Figure 3: Technical guide illustrating dimensions, electrical, and capacity details.

The compact design allows for installation in various locations such as cabinets, closets, garages, or basements, freeing up valuable space.

ENDLESS HOT WATER ON DEMAND

Compact design allows you to install
where you need it most.

Install in a garage,
utility room, or even
in a closet!



tankless electric
water heaters



Figure 4: Illustration of the tankless water heater's compact design allowing installation in various home locations.

OPERATING INSTRUCTIONS

Your BLACK+DECKER tankless water heater is designed for simple operation. The digital control panel allows you to easily set and maintain your desired hot water temperature.

Setting Temperature:

- Use the digital controls to adjust the temperature in 1°F increments.
- The self-modulating technology will automatically regulate energy usage to reach and maintain the set temperature.



Figure 5: Digital display and controls for easy temperature adjustment.

Performance Guide:

The performance of your water heater, specifically the maximum flow rate (GPM), can vary based on the inlet water temperature. Refer to the performance guide below to understand expected flow rates for different inlet temperatures.

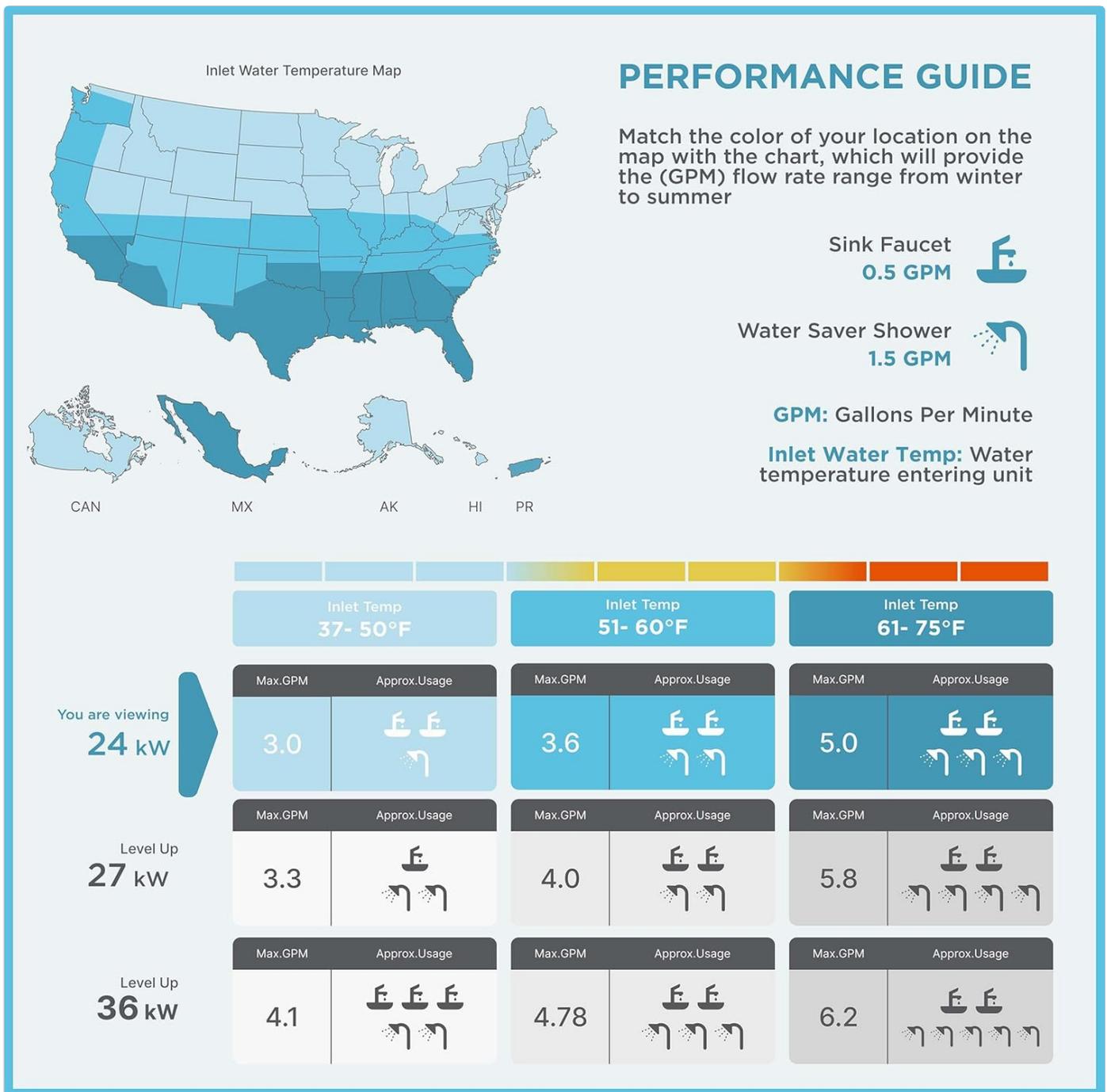


Figure 6: Performance chart indicating maximum GPM and approximate usage based on inlet water temperature.

MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your tankless water heater. The unit's internal components are made of high-grade stainless steel, which is non-corrosive and lead-free, contributing to a longer lifespan.

- Periodically inspect the unit for any visible leaks or damage.
- It is recommended to flush the unit annually to remove mineral buildup, especially in areas with hard water. Consult a qualified plumber for this procedure.
- Keep the area around the water heater clear of obstructions to ensure proper airflow.

Your browser does not support the video tag.

Video 1: This video provides an overview of the BLACK+DECKER Multi-Application Tankless Water Heater, highlighting its features and benefits.

Your browser does not support the video tag.

Video 2: This video explains how tankless water heaters save energy and money by eliminating standby heat loss.

TROUBLESHOOTING

If you experience issues with your tankless water heater, refer to the following general troubleshooting steps. For complex problems, contact customer support or a qualified technician.

- **No Hot Water:** Check the power supply and circuit breakers. Ensure the water flow rate is sufficient to activate the heater.
- **Inconsistent Temperature:** Verify the set temperature on the digital display. Ensure there are no sudden changes in water pressure or flow.
- **Error Codes:** Consult the full user manual for a list of specific error codes and their corresponding solutions.

SPECIFICATIONS

Feature	Detail
Brand	BLACK+DECKER
Model Number	BD-24-DWH
Wattage	24 KW
Voltage	240 Volts
Maximum Flow Rate	4.68 Gallons Per Minute
Heat Output	24 Kilowatts
Efficiency	High (Uniform Energy Factor 1.00)
Mounting Type	Wall
Product Dimensions	17.25"W x 8"H
Item Weight	18.16 pounds
UPC	852580008682
Included Components	Quick Connect Fixtures

WARRANTY

Your BLACK+DECKER Tankless Electric Water Heater comes with a comprehensive warranty:

- **7-Year Leak-Free Limited Warranty**
- **2-Year Parts Limited Warranty**

This warranty reflects the high quality and durability of the stainless steel, non-corrosive, and lead-free internal assembly.



**SUPERIOR
LIMITED
WARRANTY**



7

YEARS

LEAKAGE FREE

2

YEARS

PARTS ONLY

Have questions regarding your shipment, installation or usage?

Contact our customer service team 24/7



Figure 7: Warranty information for the BLACK+DECKER Tankless Water Heater.

SUPPORT AND CONTACT INFORMATION

For further assistance, questions regarding shipment, installation, usage, or to speak with a product expert, please contact our customer service team:

- **Phone:** 1-844-746-6688
- **Email:** INFO@BDWATERHEATERS.COM

