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› [Stiebel Eltron](#) /

› [Stiebel Eltron Mini 2-1 \(Model 231045\) Tankless Electric Water Heater Instruction Manual](#)

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Instruction Manual

1. PRODUCT OVERVIEW

The Stiebel Eltron Mini 2-1 (Model 231045) is a compact, tankless electric water heater designed for point-of-use handwashing applications. This unit provides hot water instantaneously as it flows through, eliminating the need for a storage tank and reducing standby energy losses. It is 99% efficient and suitable for various residential and commercial settings such as bathrooms, cabins, offices, and small sinks.

The temperature of the delivered hot water depends on the incoming cold water temperature, the water flow rate through the unit, and the specific model installed. For optimal performance, the unit must be appropriately matched to the application, and professional installation is highly recommended.



Figure 1: Stiebel Eltron Mini 2-1 Tankless Electric Water Heater, front view with electrical wires and water connections.

2. 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:** Installation of this water heater requires electrical and plumbing expertise. It is strongly recommended that installation be performed by a qualified, licensed professional.
- **Electrical Requirements:** This unit operates on 120 Volts and requires a dedicated 20 Amp circuit breaker. Ensure your electrical system can support these requirements.
- **Water Pressure:** Ensure water pressure is within acceptable limits for the unit.
- **Freezing Temperatures:** Protect the unit from freezing temperatures. Freezing can cause internal rupture and water damage. If there is a risk of freezing, disconnect and drain the unit.
- **Proposition 65 Warning:** This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

3. INSTALLATION (SETUP)

The Mini 2-1 water heater is designed for wall mount or under-sink installation. Its compact size allows for flexible placement.

3.1 Mounting

Mount the unit securely to a wall or inside a cabinet under the sink. Ensure there is adequate space for plumbing and electrical connections, and for future maintenance access.



Figure 2: Example installation of a Stiebel Eltron Mini tankless water heater under a sink, demonstrating its compact design.

3.2 Plumbing Connections

Connect the cold water supply to the inlet and the hot water outlet to the fixture. The cold water inlet includes a filter screen that should be checked and cleaned periodically.

- The unit has a minimum flow rate of 0.21 GPM (0.8 l/min) to activate and is internally restricted to 0.32 GPM.
- Ensure all connections are watertight to prevent leaks.

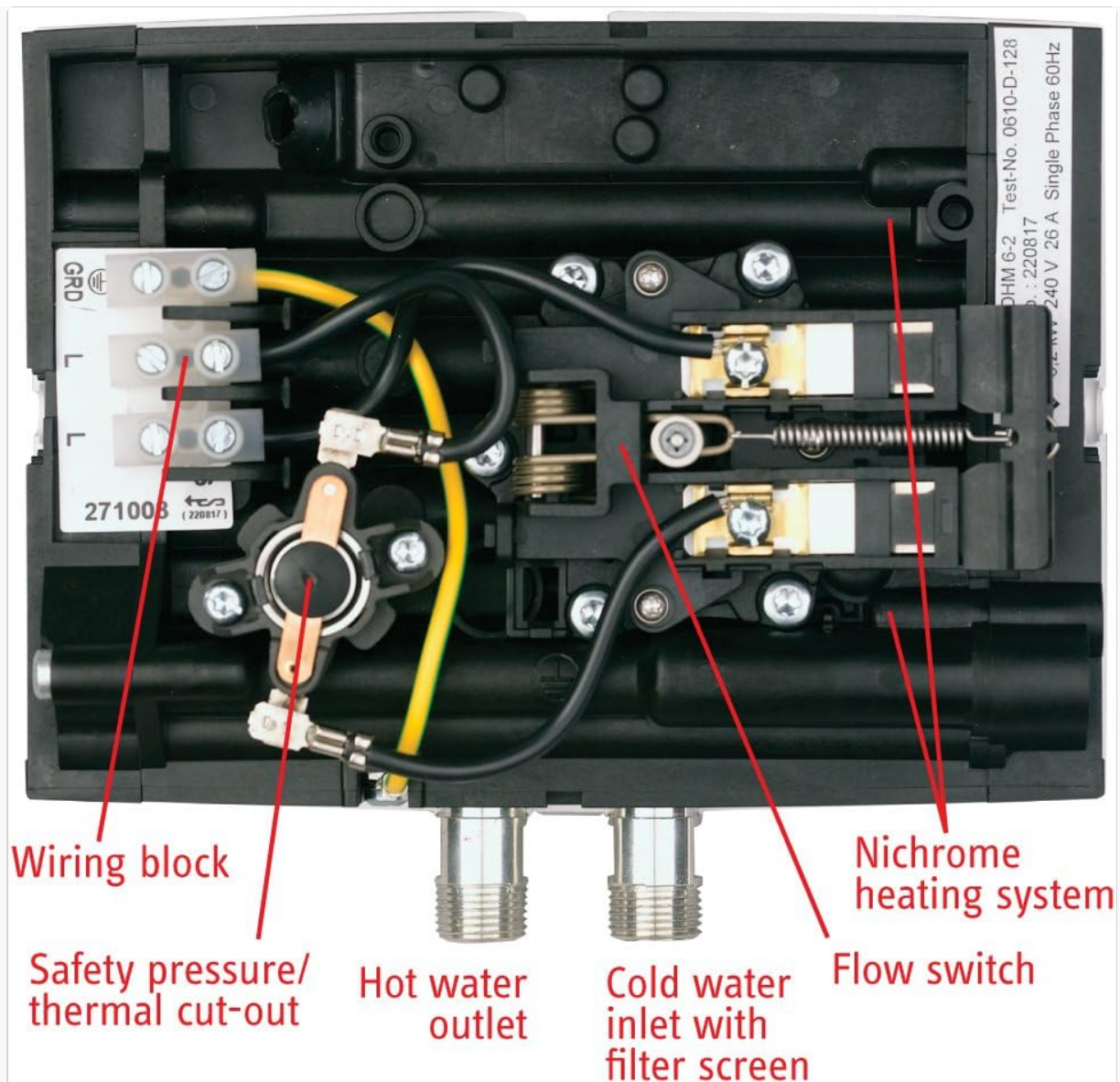


Figure 3: Internal view of the water heater showing key components such as the wiring block, safety pressure/thermal cut-out, hot water outlet, cold water inlet with filter screen, nichrome heating system, and flow switch.

3.3 Electrical Connection

This unit requires a hard-wired connection to a dedicated 120V, 20A circuit. Consult a licensed electrician for proper wiring to ensure safety and compliance with local codes.

- Refer to the wiring block shown in Figure 3 for connection points.
- Ensure the power supply is turned off at the circuit breaker before making any electrical connections.

4. OPERATION

Once properly installed and connected, the Stiebel Eltron Mini 2-1 operates automatically. When a hot water faucet is opened, water flows through the unit, activating the flow switch and initiating the heating process. The nichrome heating system rapidly heats the water as it passes through.

- **Activation:** The unit activates when the water flow reaches a minimum of 0.21 GPM.
- **Temperature Output:** The final hot water temperature is influenced by the incoming cold water temperature and the flow rate. The unit is designed to provide a constant temperature rise.
- **Sizing Guide:** For optimal performance, ensure the unit's capacity matches your specific application's flow rate and desired temperature rise. Refer to the sizing guide below for general

recommendations.

Mini™ Tankless Electric Water Heater Sizing Guide

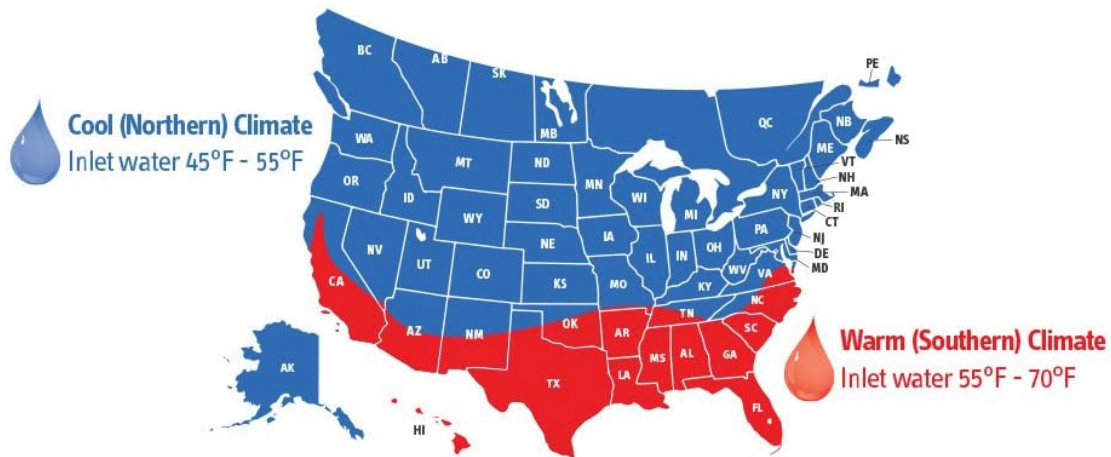
Flow Rate at Sink	GPM	MINI™ MODEL					
		Mini™ 2-1*	Mini™ 2.5-1	Mini™ 3-1	Mini™ 3.5-1	Mini™ 4-2	Mini™ 6-2
Ultra-Low	0.32	●●					
Standard	0.50		●●	●●			
Standard	0.66				●●	●●	
High	1.0						●●

*Mini™ 2-1 is internally restricted to 0.32 GPM.

Mini™ 2-1, 2.5-1, 3-1 ship with a 0.5 GPM pressure compensating flow reducer/aerator that must be installed.

Mini™ 3.5-1, 4-2 ship with a 0.66 GPM pressure compensating flow reducer/aerator that must be installed.

Mini™ 6-2 ships with a 1.0 GPM pressure compensating flow reducer/aerator that must be installed.



Recommendations for 240 V units are correct if installed with 240 V service.

Increase one model size if unit will be installed with 208 V service.

Call Stiebel Eltron at 800.582.8423 if you have any sizing questions, or if you have any out-of-the-ordinary situations. Stiebel Eltron service representatives can make recommendations on sizing, or provide assistance with our water heaters, to both homeowners and professional installers.

Figure 4: Sizing guide for Stiebel Eltron Mini tankless electric water heaters, illustrating recommended models based on flow rate at the sink and climate (cool/northern vs. warm/southern) for incoming water temperatures.

5. MAINTENANCE

Regular maintenance helps ensure the longevity and efficient operation of your water heater.

- **Filter Screen:** Periodically inspect and clean the filter screen located at the cold water inlet (refer to Figure 3). This prevents sediment buildup that can affect performance.
- **External Cleaning:** Clean the exterior of the unit with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Winterization (if applicable):** If the unit is in an unheated area subject to freezing, it must be disconnected and drained completely to prevent damage.

6. TROUBLESHOOTING

If you experience issues with your Stiebel Eltron Mini 2-1, consider the following common troubleshooting steps:

- **No Hot Water:**

- Check the circuit breaker: Ensure the dedicated 20A circuit breaker is not tripped.
- Verify water flow: Confirm that the water flow rate is above the minimum activation threshold (0.21 GPM).
- Inspect filter screen: A clogged inlet filter screen can restrict water flow. Clean if necessary.

- **Insufficient Hot Water Temperature:**

- Reduce flow rate: Slightly reduce the water flow at the faucet to allow more time for heating.
- Consider incoming water temperature: In colder climates, the incoming water temperature may be very low, affecting the maximum achievable output temperature.
- Ensure proper sizing: Verify that the unit is appropriately sized for your application's demands.

- **Low Water Flow:**

- Check inlet filter screen for clogs.
- Verify water supply pressure to the unit.

For persistent issues or complex problems, contact a qualified technician or Stiebel Eltron customer support.

7. SPECIFICATIONS

Feature	Detail
Brand	Stiebel Eltron
Model	Mini 2-1 (231045)
Product Dimensions	7.5"W x 6.5"H x 6.5"D (approximate, based on 6.5" item depth)
Color	White
Wattage	1800 watts
Voltage	120 Volts
Amperage Capacity	16 Amps
Circuit Breaker Requirement	Dedicated 20A circuit
Minimum Flow to Activate	0.21 GPM (0.8 l/min)
Internally Restricted Flow	0.32 GPM
Maximum Flow Rate	2 Gallons Per Minute (<i>Note: This is likely the maximum flow the unit can handle, not its operating flow rate for heating</i>)
Efficiency	99%
Mounting Type	Wall mount or under-sink mount
Item Weight	3.44 pounds

8. WARRANTY AND SUPPORT

Stiebel Eltron provides a limited warranty for this product:

- **7 years against leakage**
- **3 years against defects in workmanship & materials**

For complete warranty details, please refer to the official documentation provided with your product or contact Stiebel Eltron directly. For technical support or service inquiries, please visit the official Stiebel Eltron website or contact their customer service department.