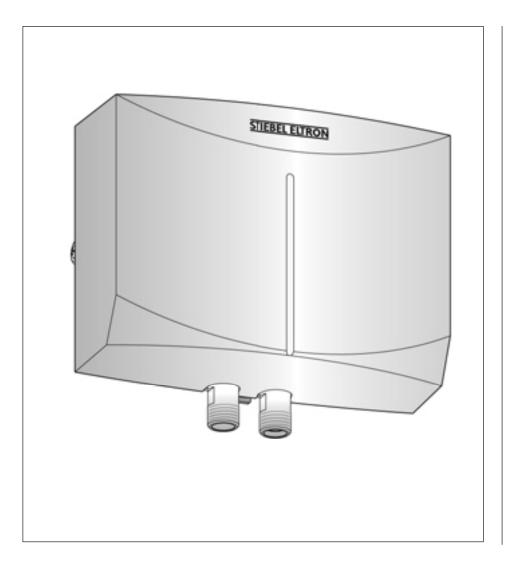


# Mini™ 3, Mini™ 4, Mini™ 6

English

# TANKLESS ELECTRIC WATER HEATERS INSTALLATION INSTRUCTIONS FOR THE LICENSED PLUMBER AND ELECTRICIAN



English	 															2	2-
Warranty	 									•	•	•					

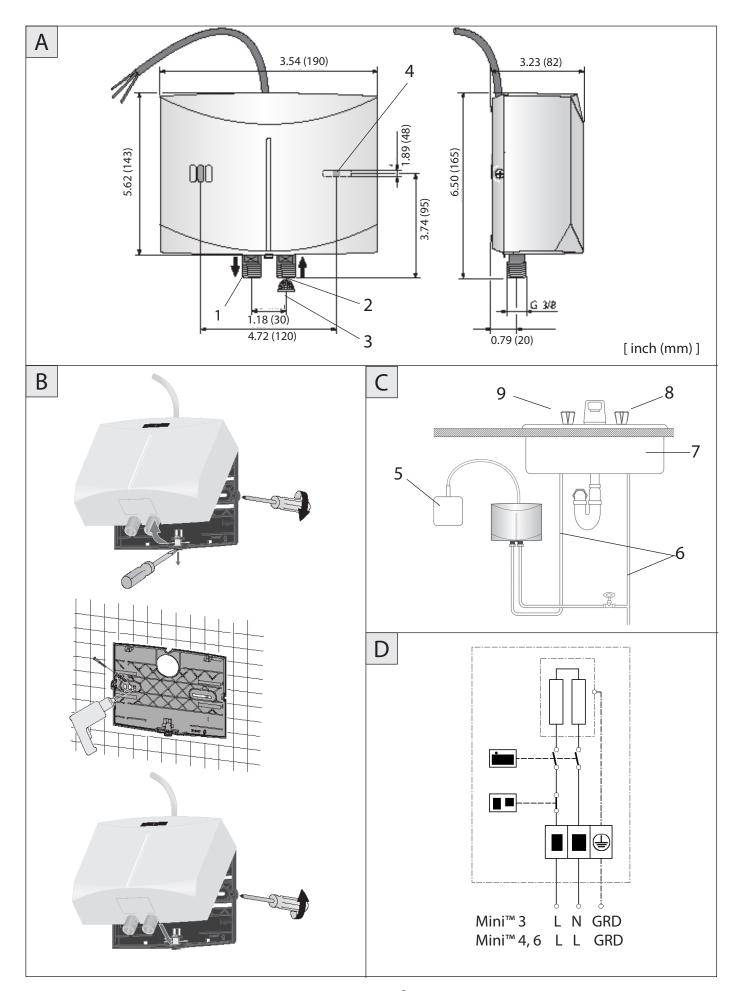
Temperature increase above ambient water temperature.

	[°F]							
Typ / Type	kW	GPM						
		0.5	0.69	0.85	1.06	1.14		
Mini™ 3	3.0	41	30	_	_	_		
Mini™ 4 @ 240V	3.5	45	35	_	_	_		
Mini™ 6 @ 240V	5.7	_	46	46	37	34		
Min. water flow to activate unit.								

	[°C]							
Typ / Type	kW	I / min						
		2.0	2.6	3.2	4.0	4.3		
Mini™ 3	3.0	22	17	_	_	_		
Mini™ 4 @ 240V	3.5	25	19	_	_	_		
Mini™ 6 @ 240V	5.7	_	_	26	20	19		
Min. water flow to activate unit.								

## Legend to figures

- 1 Hot water connection
- 2 Cold water connection with filter screen
- 3 Filter Screen
- 4 Mounting holes
- 5 Electrical junction box
- 6 Water supply line for faucet installation
- 7 Sink
- 8 Cold valve (right)
- 9 Hot valve (left)



THIS MANUAL MUST BE READ CAREFULLY BEFORE ATTEMPTING TO INSTALL THE Mini™ WATER HEATER. IF YOU DO NOT FOLLOW THE SAFETY RULES OR THE INSTRUCTIONS OUTLINED IN THIS MANUAL, THE UNIT MAY NOT OPERATE PROPERLY AND IT COULD CAUSE PROPERTY DAMAGE, SERIOUS BODILY INJURY AND/OR DEATH. ALL INSTALLATIONS MUST BE CARRIED OUT BY A LICENSED ELECTRICIAN AND LICENSED PLUMBER.

STIEBEL ELTRON, INC. WILL NOT BE LIABLE FOR ANY DAMAGES BECAUSE OF FAILURE TO COMPLY WITH THE INSTALLATION AND OPERATING INSTRUCTIONS OUTLINED IN THIS MANUAL OR BECAUSE OF IMPROPER USE. IMPROPER USE INCLUDES THE USE OF THIS APPLIANCE TO HEAT ANY LIQUID OTHER THAN WATER. FAILURE TO COMPLY WITH THE INSTALLATION AND OPERATING INSTRUCTIONS OR IMPROPER USE VOIDS WARRANTY. NEVER REMOVE THE UNIT'S PLASTIC COVER UNLESS THE ELECTRICITY IS TURNED OFF.

IF YOU HAVE ANY QUESTIONS REGARDING THE INSTALLATION OR OPERATION OF THIS WATER HEATER, OR IF YOU NEED AN ADDITIONAL INSTALLATION MANUALS, PLEASE CALL OUR TECHNICAL SERVICE LINE AT 800-582-8423 (USA AND CANADA ONLY). IF YOU ARE CALLING FROM OUTSIDE THE U.S. AND CANADA, PLEASE CALL USA 413-247-3380 AND WE WILL REFER YOU TO A OUALIFIED STIEBEL ELTRON SERVICE REPRESENTATIVE IN YOUR AREA.

### General

The Mini™ tankless water heater differs from conventional storage type water heaters. It does not store hot water. Instead, water is heated instantaneously as it flows through the unit. The powerful heating elements are activated by a flow switch as water is drawn from a hot water faucet connected to the Mini™. Due to the absence of standby losses, the Mini™ has greater energy efficiency than storage type water heaters. Also, the unit will continuously supply hot water as long as the faucet is open.

The temperature of the hot water delivered by the Mini™ depends on the wattage of the heating element, the temperature of the incoming cold water, and the water flow rate through the unit. In order for the Mini™ to operate properly, it must be carefully matched to the application. In case you have questions regarding the way you plan to use the Mini™, please call our technical service line at 800-582-8423 (USA and Canada). For service outside the U.S. and Canada, please call us at USA 413-247-3380. You can also e-mail us at info@stiebel-eltron-usa.com or fax us at 413-247-3369.

The Mini™ can be used for hand washing type applications in the U.S. and Canada:

- Restroom sinks in commercial/industrial facilities and homes
- Kitchen areas in commercial /industrial facilities and homes

 Special uses in photo developing shops, laboratories etc.

The Mini<sup>™</sup> can also be used for whole apartments and homes in warm climate zones such as the Caribbean region, Central America and Mexico due to the higher ambient water temperatures.

### Mounting the unit

UNIT MUST BE INSTALLED WITH THE PLUMBING CONNECTIONS POINTING DOWNWARD OR UPWARD. DO NOT INSTALL UNIT WHERE IT WOULD ROUTINELY BE SPLASHED WITH WATER. ELECTRIC SHOCK MAY RESULT.

- Install Mini™ as close as possible to the hot water draw-off point, for example, directly underneath the sink or next to the shower stall.
- Install Mini<sup>™</sup> in a frost free area. If frost may occur, remove unit before freezing temperatures set in.
- 3. Leave a minimum of 5" of clearance on all sides for servicing.
- 4. Remove screws left and right and remove plastic backplate by pulling on the tab with a screwdriver B.
- Mount backplate securely to wall by putting two screws through mounting holes
   A B.
- 6. Snap unit back into the backplate and reinstall the two screws.

### Water connections

IF SOLDERING NEAR THE UNIT IS NECESSARY, PLEASE DIRECT THE FLAME AWAY FROM THE HOUSING OF THE UNIT IN ORDER TO AVOID DAMAGE. ALL PLUMBING WORK MUST COMPLY WITH NATIONAL AND APPLICABLE STATE AND LOCAL PLUMBING CODES. NOTE: EXCES SIVE HEAT FROM SOLDERING ON COP PER PIPES NEAR THE Mini™ MAY CAUSE DAMAGE.

- 1. A pressure reducing valve must be installed if the cold water supply pressure exceeds 150 PSI (10 bar).
- Make certain that the cold water supply line has been flushed to remove any scale and dirt.
- Install an isolating valve in cold water line as shown in illustration C. This allows the unit to be isolated for maintenance purposes.
- 4. When the plumbing connections are facing downward the cold water connection (inlet) is on the right side of the unit, hot water connection (outlet) is on the left side of unit.
- 5. Tankless water heaters such as the Mini™ are not required to be equipped with a Pressure and Temperature Relief Valve. If the local inspector will not pass the installation without a relief valve, it should be installed on the hot water outlet side of the unit.

- 6. The Mini™ is designed for installation using two (2), 3/8" OD Tube Outlet.
- When all plumbing work is completed, check for leaks and take corrective action before proceeding.

### Electrical connection

WARNING: BEFORE BEGINNING ANY WORK ON THE ELECTRIC INSTALLATION, BE SURE THAT THE MAIN BREAKER PANEL SWITCH IS "OFF" TO AVOID ANY DANGER OF ELECTRIC SHOCK. ALL MOUNTING AND PLUMBING OF THE UNIT MUST BE COMPLETED BEFORE PROCEEDING WITH ELECTRICAL HOOK-UP. WHERE REQUIRED BY LOCAL, STATE OR NATIONAL ELECTRICAL CODES THE CIRCUIT SHOULD BE EQUIPPED WITH A GROUND FAULT INTERRUPTER. AS WITH ANY ELECTRIC APPLIANCE, FAILURE TO ELECTRICALLY GROUND UNIT MAY RESULT IN SERIOUS INJURY OR DEATH.

Voltage

Mini<sup>™</sup> 3: 110 - 120V Mini<sup>™</sup> 4: 208, 220 - 240V Mini<sup>™</sup> 6: 208, 220 - 240V

WARNING: INSTALLING A MINI™ 3 ON A 208V OR 220 - 240V CIRCUIT WILL DESTROY THE HEATING ELEMENT. THIS IS NOT COVERED UNDER WARRANTY.

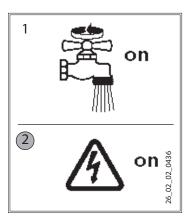
- All electrical work must comply with national and applicable state and local electrical codes.
- The Mini<sup>™</sup> should be connected to a properly grounded dedicated branch circuit of proper voltage rating. In installations with several Mini<sup>™</sup> units, each unit requires an independent circuit. Please refer to the technical data table for the correct wire and circuit breaker size.
- 3. The "pigtail" must be fed into the electrical junction box. Then feed wires through strain relief clamp and tighten clamp down on wire. Connect the live wires L/L or N/L to the black and brown wire on the units "pigtail". Connect the ground wire to the green/yellow wire on the "pigtail".
- The unit may also be installed using an outlet and plug with the correct voltage and amperage rating.

# Putting the water heater into operation

WARNING: OPEN HOT WATER
FAUCET FOR A FEW MINUTES UNTIL
WATER FLOW IS CONTINUOUS AND ALL AIR
IS PURGED FROM WATER PIPES. THE UNIT'S
PLASTIC COVER MUST BE INSTALLED BEFORE
THE CIRCUIT BREAKER IS TURNED ON.

Air in the cold water pipe may destroy the bare-wire heating system of the Mini™. If the water supply to the Mini™ has been interrupted, for example due to the risk of frost or work on the water pipes, the following steps must be carried out before the system is used again:

- 1. Turn off circuit breaker or unplug unit if unit was installed with a plug.
- Open a hot water tap downstream of the device for as long as is necessary for the device and the cold water pipe to be freed of air.
- 3. Turn on circuit breaker or plug unit back in.



### **Instruct User**

Explain the function of the unit to the user and familiarize him or her with its use.

Important instructions:

- Draw the user's attention to possible hazards (scalding, electrical shock).
- Hand over these instructions for future reference
- In order to obtain proper temperature control at a single spout mixer-type faucet, restrict cold water flow to faucet by partially closing the cold water shut-off valve under the sink until cold water and hot water flow rates are approximately the same.

### Normal maintenance

STIEBEL ELTRON Mini™ tankless heaters are designed for a very long service life. Actual life expectancy will vary with water quality and use. The unit itself does not require any regular maintenance. However, in order to ensure consistent water flow rate, it is recommended to periodically remove scale and dirt that may build up at the aerator of the faucet

or in the shower head. Also, the Mini™ has a built in filter screen that should be cleaned from time to time. In order to do this, turn off the cold water supply at the isolating valve. Unscrew the cold water connection, clean screen and put the screen, back into their original position. A

WARNING: OTHER THAN THE FILTER SCREEN, THE MINI™ DOES NOT CONTAIN ANY PARTS SERVICEABLE BY THE LAY PERSON. IN CASE OF MALFUNCTION PLEASE CONTACT A LICENSED PLUMBER OR ELECTRICIAN.

### **Technical Data**

Model	Mini™ 3	Min	i™ 4	Mini™ 6					
Phase	1		1	1					
Voltage	V	110-120	208	220-240	208	220-240			
Wattage	kW	3.0	2.6	3.5	4.3	5.7			
Amperage	А	25	12.6	15.2	20	24.7			
Min. required circuit breaker size	А	30	20	20	30	30			
Recommended wire size	AWG copper	10	12	12	10	10			
Recommended inlet temperature									
Min. water flow to activate unit	0.5 / 2.0	0.5 / 2.0 0.5 / 2.0							
Nominal water volume	0.1 / 0.026								
Working pressure	150 / 10								
Tested to pressure	300 / 20								
Weight	3.44 / 1.56								
Dimensions height	6.5 / 16.5								
width	7.5 / 19.0								
depth	3.25 / 8.2								
Water connections		for 3/8" O.D. flex connector							
Heating system		bare wire							

<sup>-</sup> Tankless water heaters are considered a non-continuous load

# Troubleshooting

Symptom	Possible cause	Solution
No hot water despite fully opened hot water faucet. With audible "click" from unit when you turn the hot water on or off.	No electrical power.	Check the circuit breaker, check for correct voltage at the units wiring block.
No hot water and no "click".	The turn on flow rate needed to switch on the heating element has not been reached.	Clean the faucet aerator and inlet filter screen.

<sup>-</sup> Conductors should be sized to maintain a voltage drop of less then 3% under load

### WARRANTY

RESIDENTIAL & COMMERCIAL WARRANTY: STIEBEL ELTRON WARRANTS TO THE ORIGINAL OWNER THAT THE Mini™ TANK-LESS ELECTRIC WATER HEATER WILL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF THREE YEARS FROM THE DATE OF PURCHASE. SHOULD THE PART(S) PROVE TO BE DEFECTIVE UNDER NORMAL USE DURING THIS PERIOD, STIEBEL ELTRON, INC. WILL BE RESPONSIBLE FOR REPLACEMENT OF THE DETECTIVE PART(S) ONLY. STIEBEL ELTRON, INC. IS NOT RESPONSIBLE FOR LABOR CHARGES TO REMOVE AND/OR REPLACE THE DEFECTIVE PART(S), OR ANY INCIDENTIAL OR CONSEQUENTIAL EXPENSES.

SHOULD THE OWNER WISH TO RETURN THE TANKLESS ELECTRIC WATER HEATER FOR REPAIR, THE OWNER MUST FIRST SECURE WRITTEN AUTHORIZATION FROM STIEBEL ELTRON, INC. THE OWNER SHALL BE REQUIRED TO SHOW PROOF OF PURCHASE DATE, AND TO PAY ALL TRANSPORTATION COSTS TO RETURN THE DEFECTIVE PART(S) OR TANKLESS ELECTRIC WATER HEATER FOR REPAIR OR REPLACEMENT. WARRANTY IS VOID IF WATER HEATER HAS BEEN INSTALLED OR USED IMPROPERLY OR IF DESIGN HAS BEEN ALTERED IN ANY WAY.

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