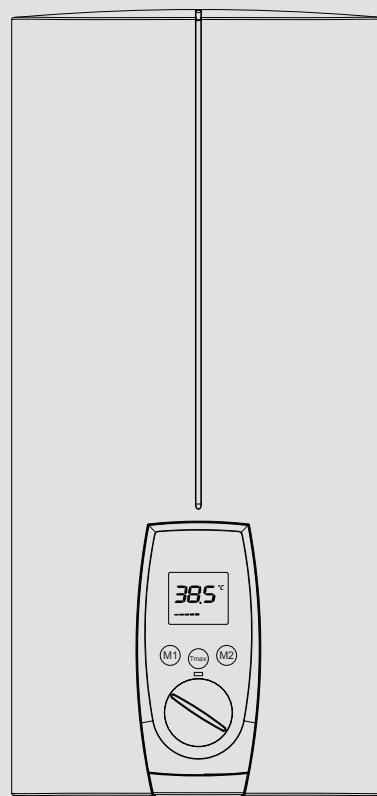


OPERATION AND INSTALLATION

Electronically controlled instantaneous water heater

- » DEL 18 AU
- » DEL 27 AU



STIEBEL ELTRON

SPECIAL INFORMATION

OPERATION

1. General information	3
1.1 Safety instructions	3
1.2 Other symbols in this documentation	3
1.3 Units of measurement	3
2. Safety	4
2.1 Intended use	4
2.2 General safety instructions	4
2.3 CE designation	4
2.4 Test symbols	4
3. Appliance description	4
4. Settings and displays	5
4.1 User interface	5
4.2 Temperature limit (childproofing)	5
4.3 Inlet temperature information	6
4.4 Following an interruption of the water supply	6
5. Cleaning, care and maintenance	6
6. Troubleshooting	6

INSTALLATION

7. Safety	7
7.1 General safety instructions	7
7.2 Instructions, standards and regulations	7
8. Appliance description	7
8.1 Standard delivery	7
9. Preparations	7
9.1 Installation site	8
10. Installation	8
10.1 Standard installation	8
10.2 Completing the installation	10
10.3 Installation options	11
11. Commissioning	13
11.1 Initial start-up	13
11.2 Recommissioning	14
12. Shutting down the system	14
13. Troubleshooting	14
13.1 Service mode	14
13.2 Indicator options for LED diagnostic traffic light	15
13.3 Fault table	15
14. Maintenance	16
15. Specification	16
15.1 Dimensions and connections	16
15.2 Wiring diagram	17
15.3 DHW output	17
15.4 Application areas / conversion table	17
15.5 Pressure drop	17
15.6 Fault conditions	17
15.7 Data table	18

WARRANTY | ENVIRONMENT AND RECYCLING

SPECIAL INFORMATION

- The appliance may be used by children aged 8 and up and persons with reduced physical, sensory or mental capabilities or a lack of experience and know-how, provided that they are supervised or they have been instructed on how to use the appliance safely and have understood the resulting risks. Children must never play with the appliance. Children must never clean the appliance or perform user maintenance unless they are supervised.
- Ensure the appliance can be separated from the power supply by an isolator that disconnects all poles with at least 3 mm contact separation.
- Secure the appliance as described in chapter "Installation / Installation".
- Observe the maximum permissible pressure (see chapter "Specification / Data table").
- Drain the appliance as described in chapter "Installation / Maintenance / Draining the appliance".

OPERATION

1. General information

The chapter "Operation" is intended for appliance users and qualified contractors.

The chapter "Installation" is intended for qualified contractors.



Note
Read these instructions carefully before using the appliance and retain them for future reference.
Pass on the instructions to a new user if required.

1.1 Safety instructions

1.1.1 Structure of safety instructions



KEYWORD Type of risk
Here, possible consequences are listed that may result from failure to observe the safety instructions.
► Steps to prevent the risk are listed.

1.1.2 Symbols, type of risk

Symbol	Type of risk
	Injury
	Electrocution
	Burns or scalding

1.1.3 Keywords

KEYWORD	Meaning
DANGER	Failure to observe this information will result in serious injury or death.
WARNING	Failure to observe this information may result in serious injury or death.
CAUTION	Failure to observe this information may result in non-serious or minor injury.

1.2 Other symbols in this documentation



Note
Notes are bordered by horizontal lines above and below the text. General information is identified by the symbol shown on the left.
► Read these texts carefully.

Symbol	
	Material losses (appliance damage, consequential losses and environmental pollution)
	Appliance disposal

► This symbol indicates that you have to do something. The action you need to take is described step by step.

1.3 Units of measurement



Note
Unless specified otherwise, all dimensions are given in mm.



2. Safety

2.1 Intended use

This appliance is intended for domestic use. It can be used safely by untrained persons. The appliance can also be used in a non-domestic environment, e.g. in a small business, as long as it is used in the same way.

This pressure-tested appliance is suitable for heating domestic hot water or for reheating preheated water. The appliance can supply one or more draw-off points.

Any other use beyond that described shall be deemed inappropriate. Observation of these instructions and of instructions for any accessories used is also part of the correct use of this appliance.

2.2 General safety instructions



CAUTION Burns

During operation, the tap can reach temperatures in excess of 50 °C, e.g. in the case of water that has been preheated by solar energy.

There is a risk of scalding at outlet temperatures in excess of 43 °C.



WARNING Injury

The appliance may be used by children aged 8 and up and persons with reduced physical, sensory or mental capabilities or a lack of experience and know-how, provided that they are supervised or they have been instructed on how to use the appliance safely and have understood the resulting risks. Children must never play with the appliance. Children must never clean the appliance or perform user maintenance unless they are supervised.

Where children or persons with limited physical, sensory or mental abilities are allowed to use this appliance, we recommend a permanent temperature limit. The limit can be set by you or a qualified contractor:

- The temperature limit (childproofing) is user adjustable
- Anti-scalding protection can be enabled by a qualified contractor.



Damage to the appliance and environment

Protect the appliance and its tap against frost.

2.3 CE designation

The CE designation shows that the appliance meets all essential requirements according to the:

- Low Voltage Directive
 - Electromagnetic Compatibility Directive
- The maximum permissible mains impedance is indicated in chapter "Specification".

2.4 Test symbols

See type plate on the appliance

Information for Australia/New Zealand:

Installation complies with standard AS/NZS 3500.4.

3. Appliance description

The electronically controlled instantaneous water heater with automatic output matching maintains a consistent outlet temperature. This is irrespective of the inlet temperature, up to the maximum output of the appliance.

DHW temperature

The DHW outlet temperature can be variably adjusted. The selected temperature is displayed.

Display backlighting

The display has white backlighting. During the draw-off process or a temperature adjustment, backlighting is enabled.

Temperature limit (childproofing) / anti-scalding protection

You can set the temperature limit (childproofing) individually using the Tmax key. The selected temperature then limits the setting range of the DHW outlet temperature.

The qualified contractor can also enable static anti-scalding protection from 43 °C for you (see chapter "Alternative installation options / Anti-scalding protection"). The anti-scalding temperature then functions as the upper limit for the DHW outlet temperature and the temperature limit (childproofing).

Heating system

The heating system is suitable for hard and soft water areas; it has low susceptibility to scale build-up. This system ensures rapid and efficient DHW availability.

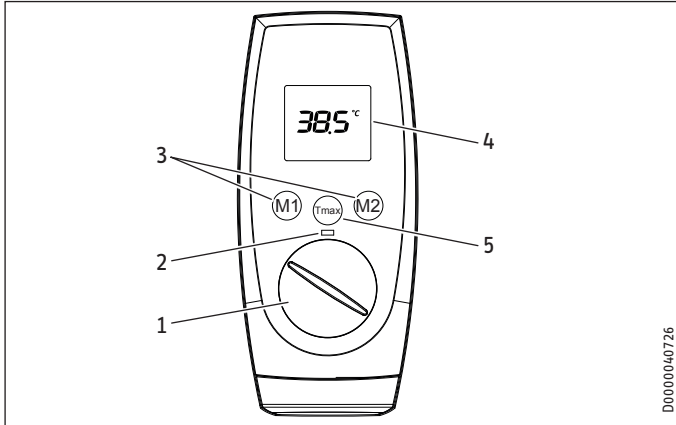


Note

The appliance is equipped with an air detector that largely prevents damage to the heating system. If, during operation, air is drawn into the appliance, heating output is shut down automatically for one minute, thereby protecting the heating system.

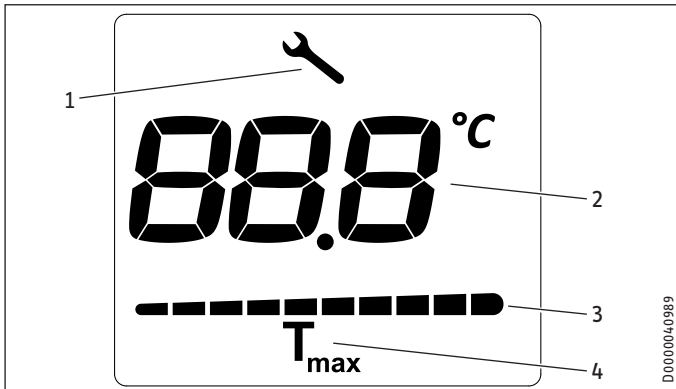
4. Settings and displays

4.1 User interface



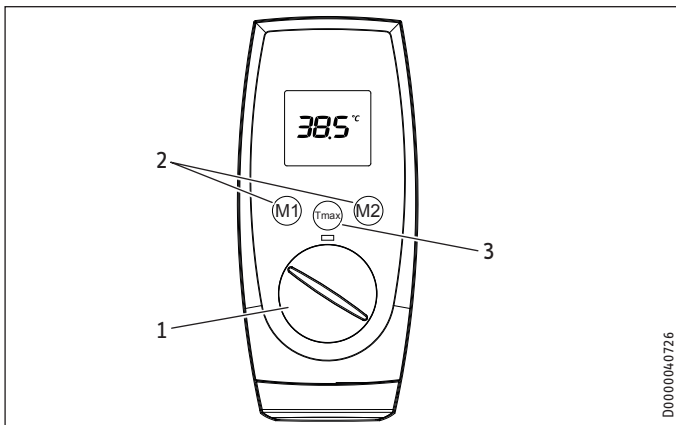
- 1 Temperature selector
- 2 LED scalding risk indicator
- 3 Memory keys M1 and M2
- 4 Display
- 5 Temperature limit T max

Display symbols



- 1 In the event of an appliance fault, a spanner appears
- 2 Segment display for temperature setting with °C
- 3 Performance bar, 10 - 100 %
- 4 Tmax, displayed when temperature limit is enabled

Setting the temperature



- 1 Set temperature setting range 30 - 60 °C (without end-stop) 35 °C ... 43 °C in 0.5 °C increments, other temperature ranges in 1 °C increments
- 2 Call up preferred temperatures
- 3 Set the temperature limit

Memory keys M1 and M2 can each be assigned a preferred temperature.

- ▶ Select a preferred temperature.
- ▶ Press one of the M keys for 3 seconds to save the preferred temperature. The temperature is confirmed with 1x flashing.



Note

If the outlet temperature is not sufficiently high when the draw-off valve is fully open and the temperature selector is set to maximum, then more water is flowing through the appliance than can be heated by the heating system (working at maximum output).

- ▶ Reduce the water volume at the draw-off valve until the preferred temperature delivery is achieved.

4.2 Temperature limit (childproofing)



The temperature limit can be individually set between 30 °C and 50 °C.

Enabling the temperature limit (childproofing)

- ▶ Press and hold the Tmax key for > 6 seconds. The set value display flashes and the current temperature limit is shown.
- ▶ The value for the temperature limit can be changed while the display is flashing. If no key is pressed for 10 seconds, the display stops flashing and the value is stored. The display then shows the set value and the Tmax symbol.

Disabling the temperature limit (childproofing)

- ▶ Press and hold the Tmax key for > 6 seconds.
- ▶ The Tmax symbol on the display is no longer shown.

Cleaning, care and maintenance

4.3 Inlet temperature information

If the inlet temperature is higher than the preferred temperature, e.g. if water has been preheated by solar energy, the display alternates between showing "hot" and the measured inlet temperature. The LED scalding risk indicator also flashes.

Recommended setting for operation with a thermostatic valve and water preheated by solar energy

- ▶ Set the temperature at the appliance to the max. temperature.

4.4 Following an interruption of the water supply

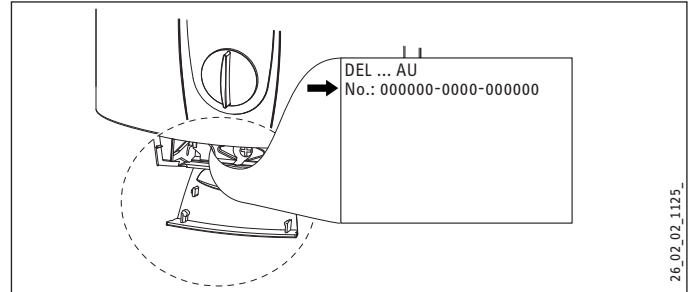


Material losses

Following an interruption of the water supply the appliance must be recommissioned by carrying out the following steps, in order to prevent the destruction of the bare wire heating system.

- ▶ Disconnect the appliance from the power supply by removing the fuses/tripping the MCBs.
- ▶ Open the tap for one minute until the appliance and its upstream cold water inlet line are free of air.
- ▶ Switch the mains power back ON again.

If you cannot remedy the fault, notify your qualified contractor. To facilitate and speed up your enquiry, please provide the serial number from the type plate (000000-0000-000000):



26_02_02_1125

5. Cleaning, care and maintenance

- ▶ Never use abrasive or corrosive cleaning agents. A damp cloth is sufficient for cleaning the appliance.
- ▶ Check the taps regularly. Limescale deposits at the spouts can be removed using commercially available descaling agents.

6. Troubleshooting

Fault	Cause	Remedy
The appliance will not start despite the DHW valve being fully open.	There is no voltage in the appliance.	Check the fuses/MCBs in your fuse box/distribution panel.
	The aerator in the tap or the shower head is scaled up or contaminated.	Clean and/or descale the aerator or shower head.
	The water supply has been interrupted.	Vent the appliance and the cold water inlet line (see chapter "Settings / Following an interruption to the water supply").
Cold water flows briefly while hot water is being drawn.	The air sensor detects air in the water and the appliance's heating output is briefly switched off.	The appliance restarts automatically after 1 minute.
The temperature at the appliance cannot be set to > 43 °C.	The Tmax childproofing is enabled.	Disable the childproofing (see chapter "Appliance description")
	The anti-scalding protection in the appliance is enabled.	Your qualified contractor can disable the anti-scalding protection for you.

INSTALLATION

7. Safety

Only a qualified contractor should carry out installation, commissioning, maintenance and repair of the appliance.

7.1 General safety instructions

We guarantee trouble-free function and operational reliability only if original accessories and spare parts intended for the appliance are used.

Flow pressure

If the flow rate is not sufficient to switch on the appliance even when the tap is open, remove the flow limiter and replace it with the plastic profile washer supplied.

If required, the pressure in the water installation can also be raised.



Note

For the thermostatic valve to function correctly, the flow limiter for this valve must not be replaced with the plastic profile washer.



Material losses

Observe the maximum inlet temperature. Higher temperatures may damage the appliance. You can limit the maximum inlet temperature by installing a central thermostatic valve.

7.2 Instructions, standards and regulations



Note

Observe all applicable national and regional regulations and instructions.

- The protection rating IP 25 (hoseproof) can only be ensured with a correctly fitted cable grommet.
- The specific electrical resistance of the water must not fall below that stated on the type plate. In a linked water network, factor in the lowest electrical resistance of the water (see chapter "Specification / Application areas"). Your water supply utility will advise you of the specific electrical water resistance or conductivity.

8. Appliance description

8.1 Standard delivery

The following are delivered with the appliance:

- Wall mounting bracket
- Installation template
- 2 plugs
- 2 extensions
- 2 caps
- 2 tees
- 8 flat gaskets
- Strainer
- 2 flow limiters
- Plastic profile washer
- Plastic connection pieces / installation aid
- Cover and back panel guides

9. Preparations

- ▶ Flush the water line thoroughly.

Taps/valves

- ▶ Use appropriate pressure-tested taps. Open taps are not permitted.

A safety valve is not required.

Permissible water pipe materials

- Cold water inlet pipe:
Galvanised steel pipe, stainless steel pipe, copper pipe or plastic pipe
- DHW outlet pipe:
Stainless steel pipe, copper pipe or plastic pipe



Material losses

If plastic pipework systems are used, take into account the maximum inlet temperature and the maximum pressure (see chapter "Specification / Data table").

Flow rate

- ▶ Ensure that the flow rate (see chapter "Specification / Data table", On) is sufficient for switching on the appliance.
- ▶ Increase the mains water pressure if the required flow rate is not sufficient with an open draw-off valve.

Flexible water connection lines

- ▶ If the appliance is installed with flexible water connection lines, ensure that the pipe bends do not become twisted. Pipe bends have a bayonet fitting and are installed inside the appliance.
- ▶ Secure the back panel with an additional screw at the bottom.

INSTALLATION

Installation

9.1 Installation site



Material losses

Only install the appliance in rooms free from the risk of frost.

- ▶ Always install the appliance vertically near the draw-off point.

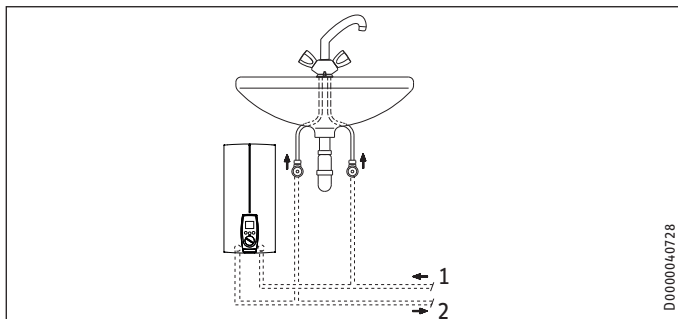
The appliance is suitable for undersink and oversink installations.



Note

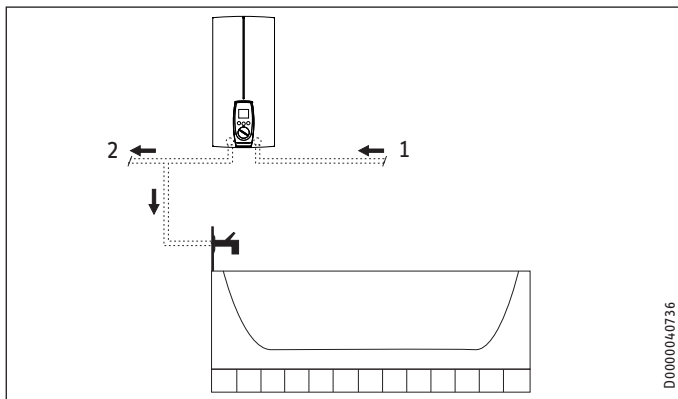
Mount the appliance on a sufficiently load-bearing wall.

Undersink installation



- 1 Cold water inlet
- 2 DHW outlet

Oversink installation



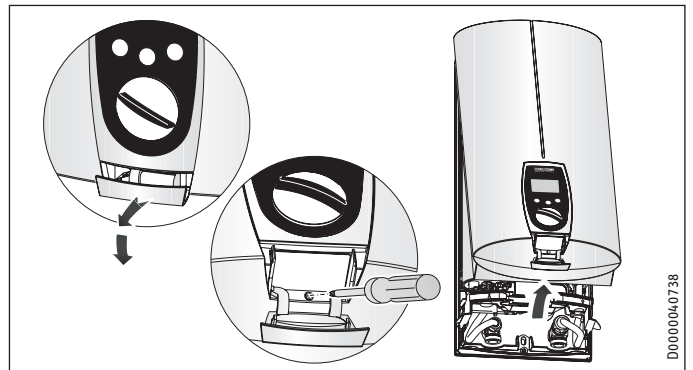
- 1 Cold water inlet pipe
- 2 DHW outlet pipe

10. Installation

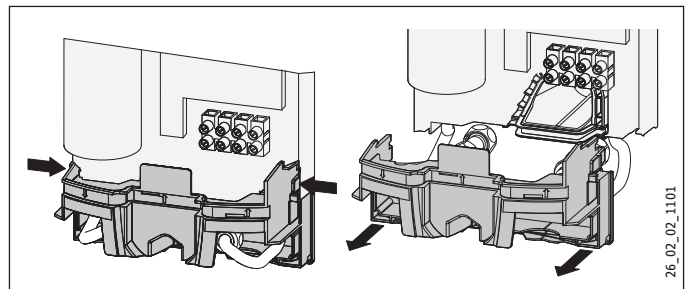
10.1 Standard installation

- Electrical connection in the lower section of the appliance for installation on unfinished walls
- Water connection for installation on finished walls
- For the appliance with adjustable connected load, the middle load is preset.

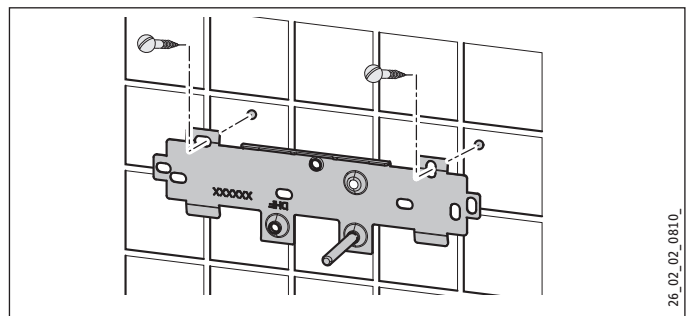
For further installation options, see chapter "Installation options".



- ▶ Open the appliance.



- ▶ Remove the back panel by pressing the two locking hooks and pulling the lower part of the back panel forwards.



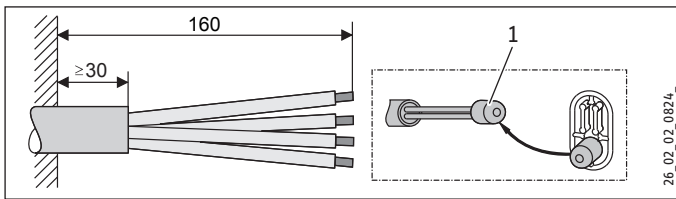
- ▶ Mount the wall mounting bracket.

Align the installation template based on the existing electrical connection when marking out the drill holes (wall mounting and lower back panel).

If you want to adapt the existing water connections, take the dimensions from the drawing when marking out the drill holes; see chapter "Specification/ Dimensions and connections". In this case, check beforehand that the electrical connection lies within one of the areas marked on the installation template.

INSTALLATION

Installation



1 Installation aid

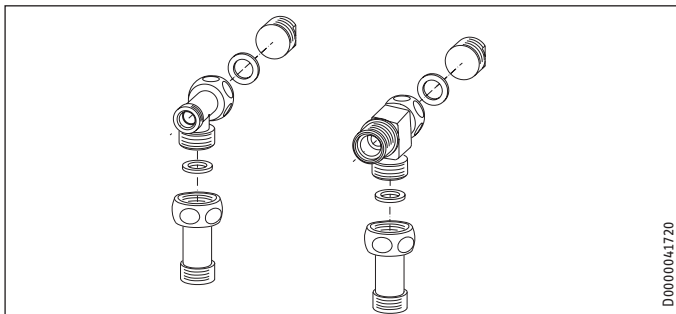
- ▶ Prepare the power cable.

Preparing the water connection

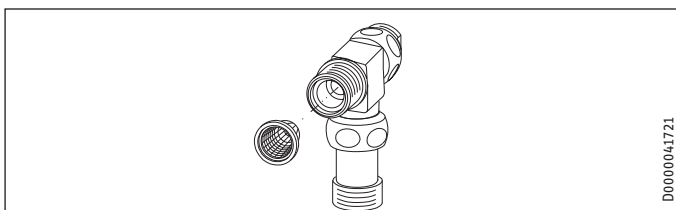


Material losses

Carry out all water connection and installation work in accordance with regulations.



- ▶ Remove the caps from the tees.
- ▶ Fit the plugs and the extensions with gaskets.



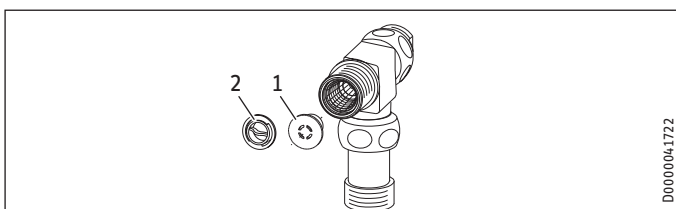
- ▶ Fit the strainer in the tee for the cold water inlet.



Damage to the appliance and environment

The strainer must be fitted for the appliance to function.

- ▶ When replacing the appliance, check that the strainer is present.



1 Flow limiter

2 Plastic profile washer

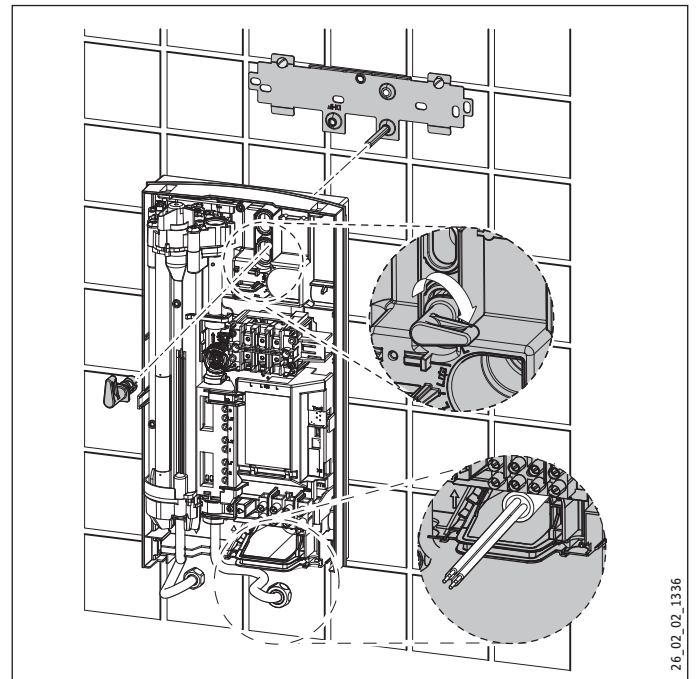
- ▶ Fit the flow limiter or the plastic profile washer.



Note

- ▶ Install the blue flow limiter (7.5 l/min) as standard.
- ▶ Use the brown flow limiter (12 l/min) in the following instances:
 - With an increased cold water inlet temperature, e.g. in the case of water preheated by solar energy.
 - When using the appliance for showering.
- ▶ With low water pressure. The pressure drop can be reduced by replacing the flow limiter with the plastic profile washer provided.

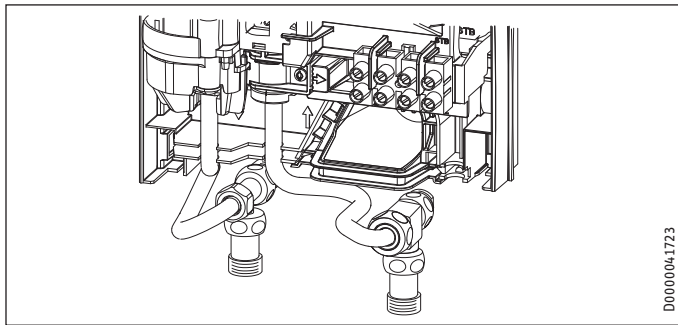
Installing the appliance



- ▶ For easy installation, push the cable grommet of the upper electrical connection into the back panel from behind.
- ▶ Remove the transport plugs from the water connections.
- ▶ Remove the fixing toggle from the upper part of the back panel.
- ▶ Route the power cable through the cable grommet from behind, until the power cable rests against the cable sheath. Align the power cable. If the cross-section is $> 6 \text{ mm}^2$, enlarge the hole in the cable grommet.
- ▶ Press the appliance over the threaded stud of the wall mounting bracket. When doing so, push through the soft seal in the back panel of the appliance. If necessary, use a screwdriver.
- ▶ Push the fixing toggle on to the threaded stud of the wall mounting bracket.
- ▶ Push the back panel of the appliance on to the wall. Turn the fixing toggle 90° clockwise to lock the appliance in place.

INSTALLATION

Installation



- ▶ Screw the pre-assembled parts with flat gaskets to the cold water and DHW pipes of the appliance.
- ▶ Fit the cold water inlet pipe and the DHW outlet pipe from the pipework with flat gaskets to the extensions from the appliance.

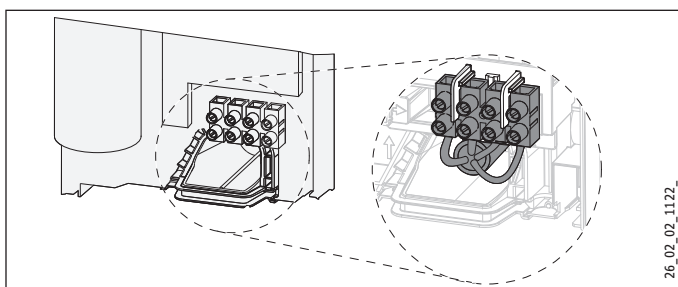
Making the electrical connection

⚡ WARNING Electrocutation
Carry out all electrical connection and installation work in accordance with relevant regulations.

⚡ WARNING Electrocutation
Connection to the power supply is only permissible in the form of a permanent connection in conjunction with the removable cable grommet. Ensure the appliance can be separated from the power supply by an isolator that disconnects all poles with at least 3 mm contact separation.

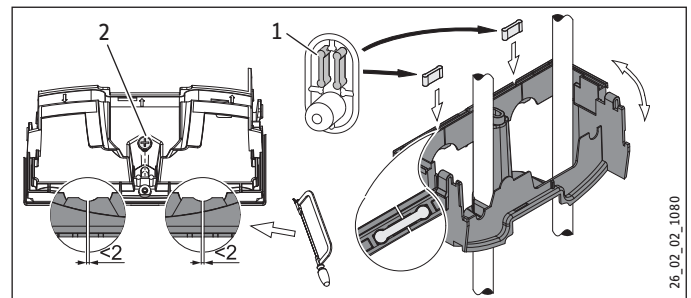
⚡ WARNING Electrocutation
Ensure that the appliance is earthed.

! Damage to the appliance and environment
Observe the type plate. The specified voltage must match the mains voltage.



- ▶ Connect the power cable to the mains terminal (see chapter "Specification / Wiring diagram"). The specified voltage must match the mains voltage.

Lower back panel installation

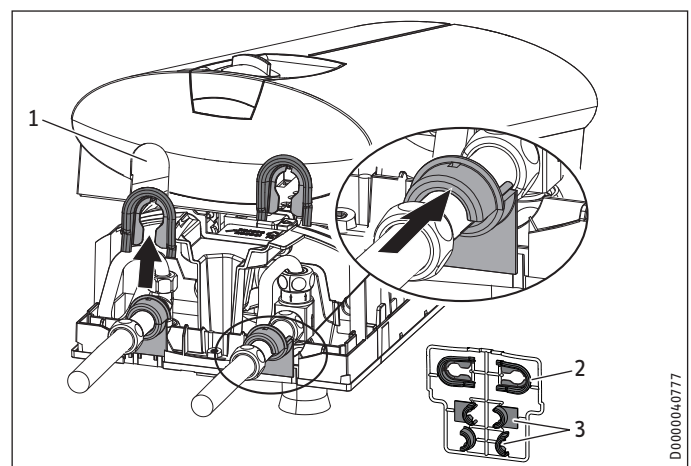


- 1 Connection pieces delivered in the pack
 - 2 Screw
- ▶ Cut open the lower part of the back panel (see illustration).
 - ▶ Fit the lower back panel by bending it out at the sides and guiding it over the pipes.
 - ▶ Insert the connection pieces into the lower back panel from behind.
 - ▶ Click the lower back panel into place.
 - ▶ Align the mounted appliance by loosening the fixing toggle, aligning the power supply and back panel, and then re-tightening the fixing toggle.
 - ▶ Secure the lower back panel with a screw.

10.2 Completing the installation

- ▶ Open the shut-off valve in the cold water inlet line.

Fitting the sealing elements for the appliance cover



- 1 Pipe aperture
- 2 Cover guides
- 3 Back panel guides

! Material losses
If you cut open the wrong knock-out in the appliance cover by mistake, you must use a new appliance cover.

- ▶ Cleanly cut or break out the knock-out openings in the appliance cover. If necessary, use a file.

Note
You can compensate for a slight connection pipe offset using the tabs on the cover guides. If the connection pipes are offset, do not fit any back panel guides.

INSTALLATION

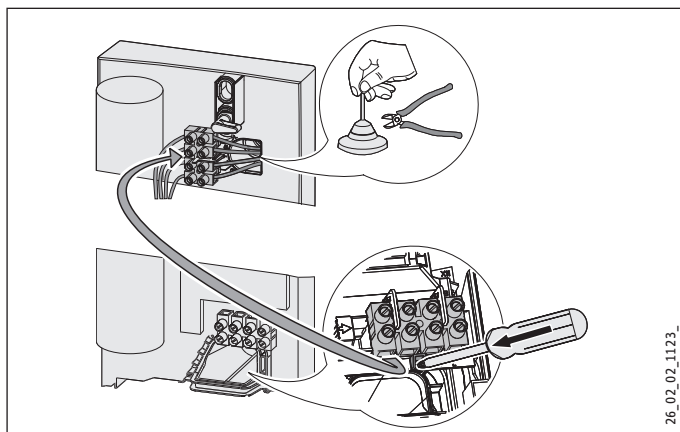
Installation

- ▶ When installing connection pipes that are not offset, break off the tabs on the cover guides.
- ▶ Click the cover guides into place in the pipe apertures.
- ▶ Position the back panel guides on the extensions. Push them together. Then push the guides until they are resting against the back panel.

10.3 Installation options

- Electrical connection from above on unfinished walls
- Electrical connection for finished walls
- Large cross-section for electrical connection from below
- Water installation on unfinished walls
- Wall mounting bracket when replacing an appliance
- Installation with offset tiles
- Pivoting appliance cover
- Operation with preheated water
- Anti-scalding protection / temperature limit

Electrical connection from above on unfinished walls



- ▶ Cut open the cable grommet for the power cable.
- ▶ Push down the locking hook to secure the mains terminal. Pull out the mains terminal.
- ▶ Reposition the mains terminal in the appliance from the bottom to the top and secure the mains terminal by sliding it under the locking hook.
- ▶ Lay the control wires below the wire guide.

Power cable for finished walls



Material losses

If you cut open the wrong knock-out in the appliance cover by mistake, you must use a new appliance cover.

- ▶ Cut or break out the required entries in the back panel and appliance cover cleanly (for positions, see chapter "Specification / Dimensions and connections"). If necessary, use a file.
- ▶ Route the power cable through the cable grommet. Connect the power cable to the mains terminal.



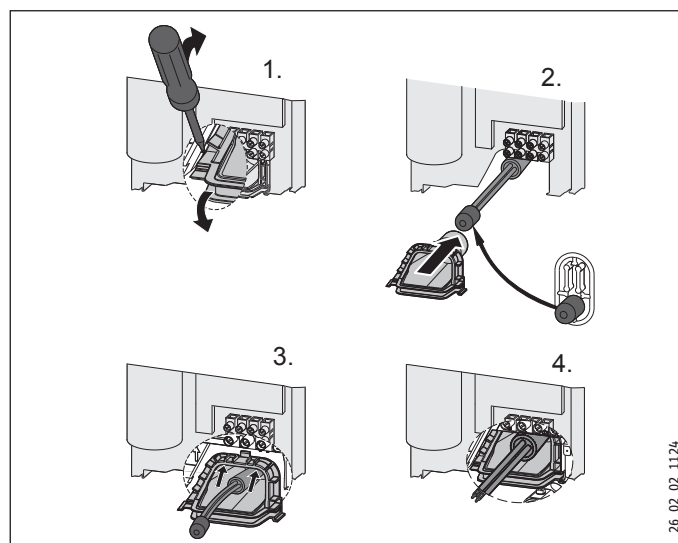
Note

This type of connection changes the protection rating of the appliance.

- ▶ Change the type plate. Cross out "IP 25" and mark the box "IP 24". Please use a ballpoint pen to do this.

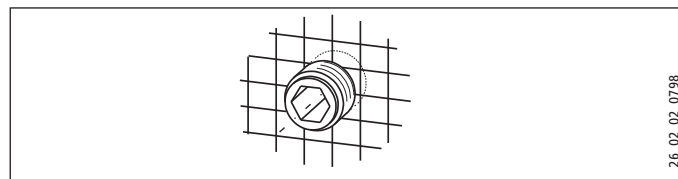
Large cross-section for electrical connection from below

If you use cables with a large cross-section, you can fit the cable grommet after the appliance has been installed.

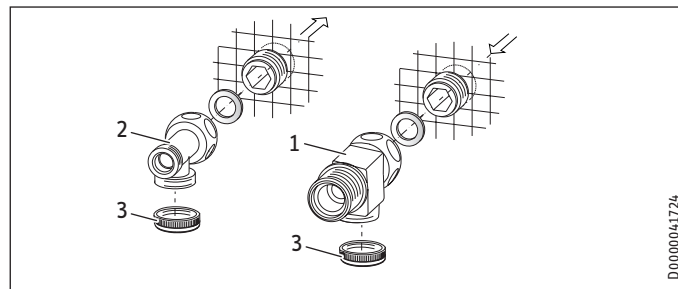


- ▶ Before installing the appliance, use a screwdriver to push out the cable grommet.
- ▶ Slide the cable grommet over the power cable. For this, use the installation aid. If the cross-section is $> 6 \text{ mm}^2$, enlarge the hole in the cable grommet.
- ▶ Push the cable grommet into the back panel.

Water installation on unfinished walls



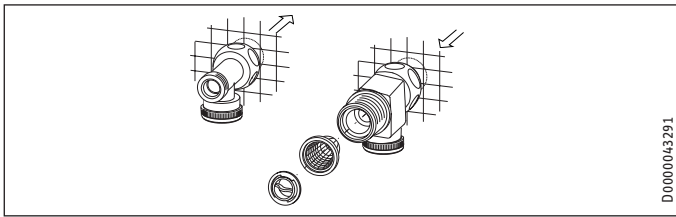
- ▶ Seal and screw in the twin connectors (not included in standard delivery).



- 1 Tee for cold water
 - 2 Tee for domestic hot water
 - 3 Cover
- ▶ Fit the water connections.

INSTALLATION

Installation



D0000043291

- ▶ Fit the strainer and the plastic profile washer in the tee for the cold water inlet.

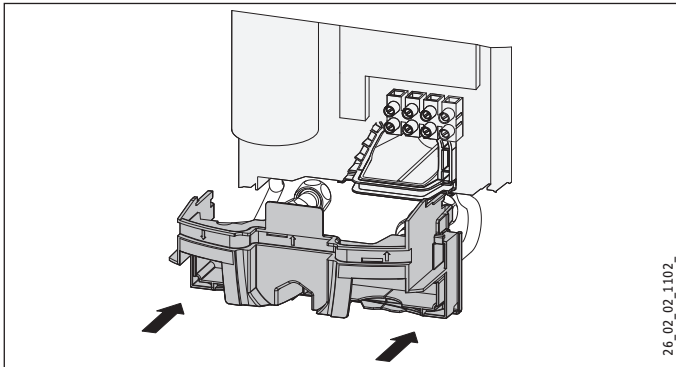


Damage to the appliance and environment

The strainer must be fitted for the appliance to function.

- ▶ When replacing the appliance, check that the strainer is present.

- ▶ Screw the connection pipes from the appliance with flat gaskets to the tee.
- ▶ Open the shut-off valve in the cold water inlet line.



26_02_02_1102_

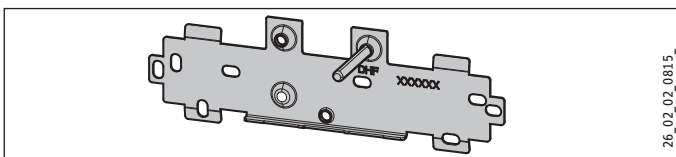
- ▶ Fit the lower part of the back panel. Ensure that it clicks into place.
- ▶ Align the mounted appliance by loosening the fixing toggle, aligning the power supply and back panel, and then re-tightening the fixing toggle. If the back panel of the appliance is not flush, the appliance can be secured at the bottom with an additional screw.

Wall mounting bracket when replacing an appliance

When replacing an appliance, you can use an existing wall mounting bracket of a Stiebel Eltron appliance (except for a DHF instantaneous water heater).

- ▶ Press the appliance over the threaded stud of the existing wall mounting bracket. When doing so, push through the soft seal in the back panel of the appliance. If necessary, use a screwdriver.

DHF replacement

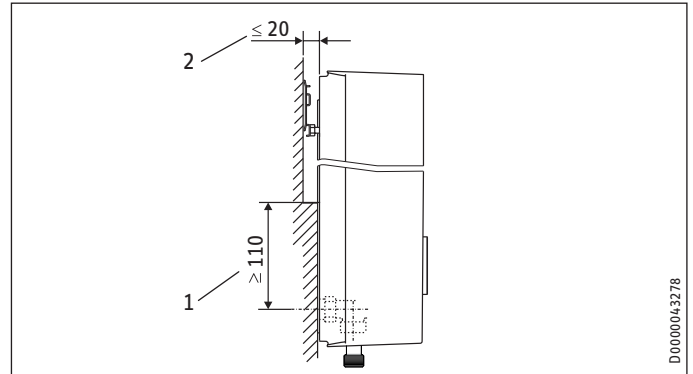


26_02_02_0815_

- ▶ Remove the DHF wall mounting bracket.
- ▶ Take the new wall mounting bracket and move the threaded stud to the position marked with DHF (the stud has a self-tapping thread).

- ▶ Rotate the wall mounting bracket 180° and mount it on the wall. Use the existing drill holes.

Installation with offset tiles



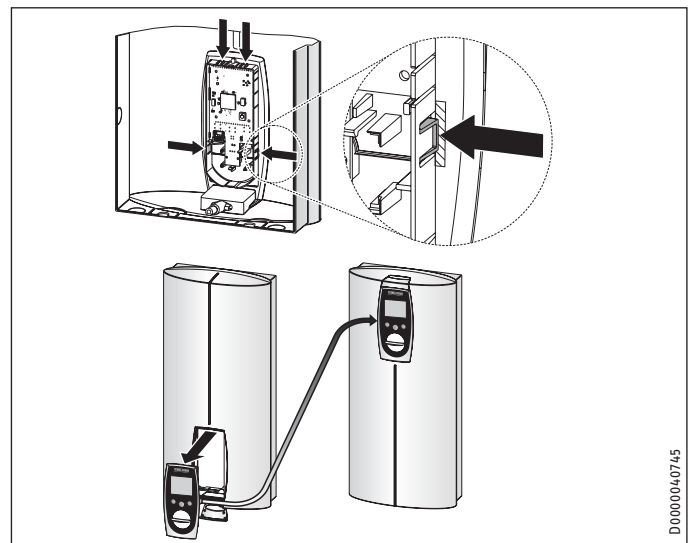
D0000043278

- 1 Minimum contact area of the appliance
- 2 Maximum tile offset

- ▶ Adjust the wall clearance. Lock the back panel with the fixing toggle by turning it 90° clockwise.

Pivoting appliance cover

You can rotate the appliance cover for undersink installation.



D0000040745

- ▶ Remove the programming unit from the appliance cover by pressing the locking hooks and taking out the programming unit.
- ▶ Turn the appliance cover (not the appliance) and refit the programming unit, ensuring that all locking hooks click into place. When clicking the locking hooks into place, make sure you press against the inner side of the appliance cover (shaded area).
- ▶ Plug the set value transducer cable into the PCB (see chapter "Commissioning / Initial start-up").
- ▶ Hook the appliance cover in at the bottom. Pivot it up to the back panel.
- ▶ Ensure the all-round seal of the back panel is firmly seated by pushing the cover gently forwards and back.
- ▶ Secure the appliance cover.

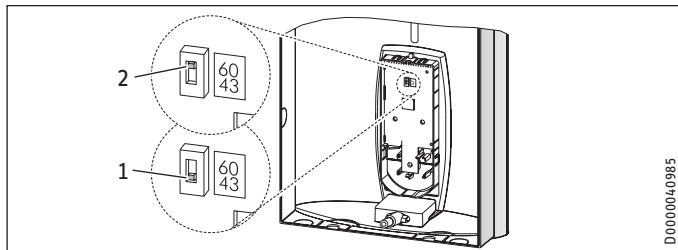
INSTALLATION

Commissioning

Operation with preheated water

You can limit the maximum inlet temperature by installing a central thermostatic valve.

Anti-scalding protection / temperature limit



- 1 Position 43: Maximum temperature setting 43 °C
- 2 Position 60: No temperature limit, for temperature setting range, see chapter "Specification / Data table".

- ▶ Remove the appliance cover.
- ▶ Slide the switch to the required position.
- ▶ Fit the appliance cover.

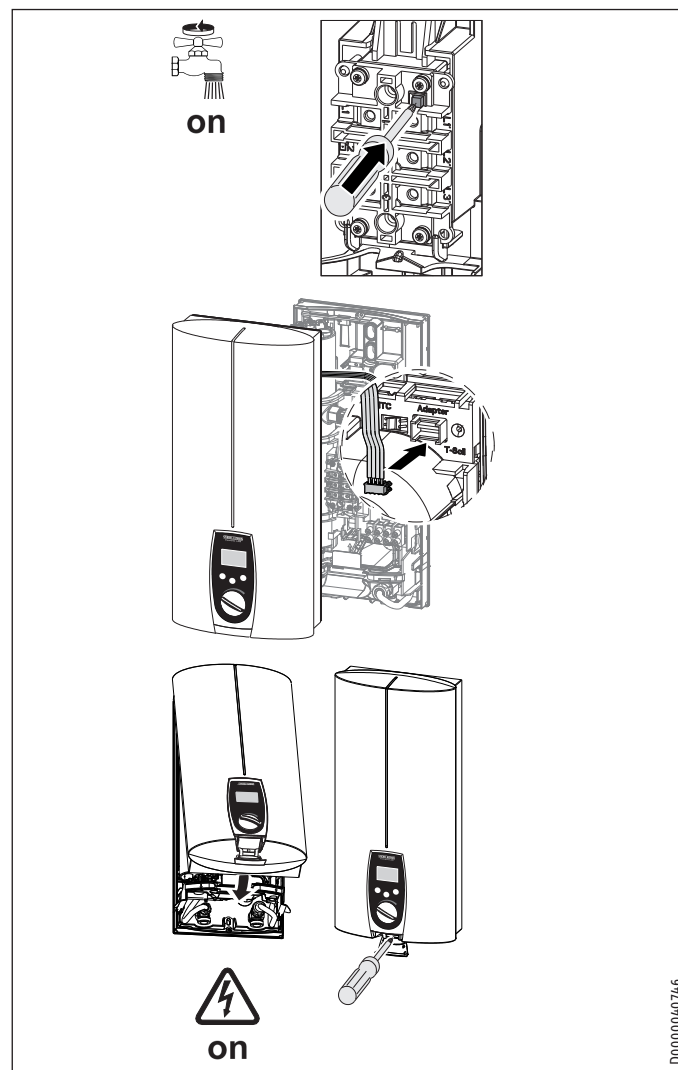
11. Commissioning



WARNING Electrocutation

Commissioning may only be carried out by a qualified contractor in accordance with safety regulations.

11.1 Initial start-up



- ▶ Open and close all connected draw-off valves several times, until all air has been vented from the pipework and the appliance.
- ▶ Check for leaks in the appliance screw joints.
- ▶ Activate the safety pressure limiter for flow pressure by firmly pressing in the reset button (the appliance is delivered with the safety pressure limiter disabled).
- ▶ Push the temperature selector plug into the "set temperature" PCB.
- ▶ Fit the appliance cover and secure with a screw.
- ▶ Switch the mains power ON.
- ▶ Check the function of the appliance.
- ▶ Remove the protective foil from the control fascia.

Appliance handover

- ▶ Explain the appliance function to users and familiarise them with its operation.
- ▶ Make users aware of potential dangers, especially the risk of scalding.
- ▶ Hand over these instructions.

Shutting down the system

11.2 Recommissioning

See chapter "Settings and displays / Following an interruption to the water supply"

12. Shutting down the system

- ▶ Isolate all poles of the appliance from the power supply.
- ▶ Drain the appliance (see chapter "Maintenance").

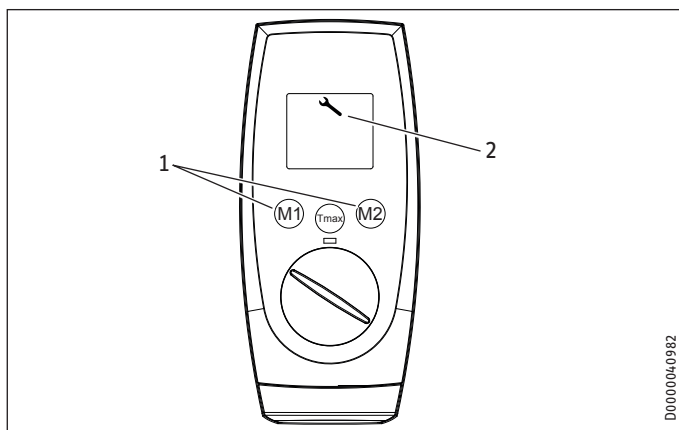
13. Troubleshooting



WARNING Electrocutation

In order to check the appliance it must be connected to the power supply.

13.1 Service mode



- 1 Memory keys M1 and M2
- 2 Spanner symbol

The spanner symbol is displayed in the event of a fault.

- ▶ Activate customer service mode by pressing and holding down both memory keys M1 and M2 for > 6 seconds.
- ▶ Disable customer service mode by briefly pressing one of the three keys. Service mode is automatically terminated after 30 seconds of inactivity.

Fault displays

- No display, there is no fault
- ntc Outlet sensor malfunction
- ELE Faulty PCB

INSTALLATION

Troubleshooting

13.2 Indicator options for LED diagnostic traffic light

Indicator options

●	Red	Illuminates in the event of a fault
●	Yellow	Illuminates during heating mode
○	Green	Flashing: Appliance is supplied with mains power

13.3 Fault table

LED diagnostic traffic light	Fault	Cause	Remedy
No display	No hot water.	The fuse/MCB in the fuse box has blown/responded.	Check the fuses/MCBs in your fuse box/distribution panel.
		The safety pressure limiter has responded.	Remove the cause of the fault (e.g. faulty pressure washer). Protect the heating system against overheating by opening a draw-off valve downstream of the appliance for one minute. This depressurises and cools down the heating system.
		The PCB is faulty.	Activate the safety pressure limiter at flow pressure by pressing the reset button; see also chapter "Commissioning / Initial start-up". Check the PCB, replace if required.
Flashing green light	The appliance does not start.	Inadequate flow rate.	Descale / clean the connected aerator / shower head.
		Inadequate flow rate.	Clean the strainer in the water inlet.
		The flow sensor (DFE) plug has not been inserted.	Plug the flow sensor plug back in.
Flashing green light and steady yellow light	No hot water at flow rate > 3 l/min.	The flow sensor (DFE) is faulty.	Check the flow sensor and replace if required.
		The high limit safety cut-out has responded or its lead is broken.	Check the appliance and the high limit safety cut-out.
	The set temperature is not achieved.	One phase down.	Check the fuses/MCBs in your fuse box/distribution panel.
		The heating system is faulty.	Measure the resistance of the heating system and replace if required.
		The outlet temperature sensor is faulty.	Check the outlet temperature sensor and replace if required.
	The appliance is at its output limit.	Reduce the flow rate or install the flow limiter.	
The outlet temperature is approx. 45 °C, irrespective of the set value transducer	The set value transducer or connecting cable is faulty, or the connecting cable is not attached.	Attach the connecting cable; replace the set value transducer if required.	
A set temperature of > 43 °C is not achieved.	The temperature limit (childproofing) / anti-scalding protection is enabled.	Disable the temperature limit (childproofing) / anti-scalding protection.	
Flashing green light and steady red light	No hot water.	The outlet temperature sensor is faulty.	Check the outlet temperature sensor and replace if required.
		The cold water sensor is faulty.	Check the PCB, replace if required.
		The air sensor detects the presence of air in the water and briefly interrupts the heating output.	The appliance restarts after one minute.
		The flow rate is > 25 l/min.	Reduce the flow rate or install the flow limiter.
	Selected temperatures above 45 °C are not achieved.	The cold water inlet temperature is above 45 °C (e.g. in the case of water preheated by solar energy).	Reduce the cold water inlet temperature to the appliance.

14. Maintenance



WARNING Electrocution
Before any work on the appliance, disconnect all poles from the power supply.

Draining the appliance

You can drain the appliance for maintenance work or to protect it from frost.

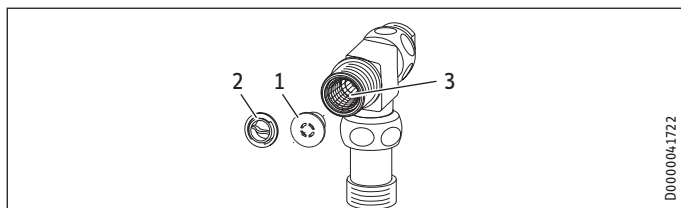


CAUTION Scalding
Hot water may escape when draining the appliance.

- ▶ Close the shut-off valve in the cold water inlet line.
- ▶ Open all draw-off valves.
- ▶ Undo the water connections on the appliance.
- ▶ Store the dismantled appliance in a room free from the risk of frost, as water residues remaining inside the appliance can freeze and cause damage.

Cleaning the strainer

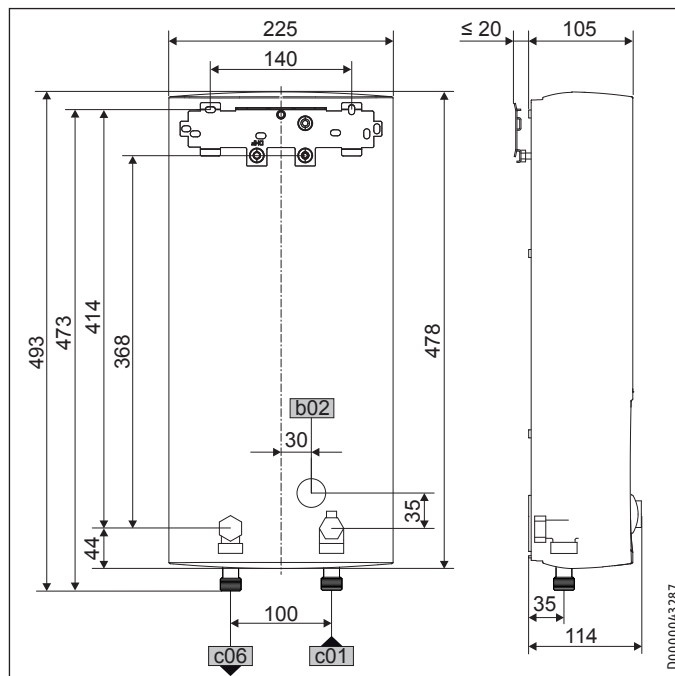
A strainer is located in the tee from the cold water inlet pipe. In case of contamination, you can remove this strainer and clean it.



- 1 Flow limiter or
 - 2 Plastic profile washer
 - 3 Strainer
- ▶ Remove the flow limiter or plastic profile washer (selected during installation).
 - ▶ Remove the strainer and clean the components.
 - ▶ Fit the strainer and the plastic profile washer or flow limiter.

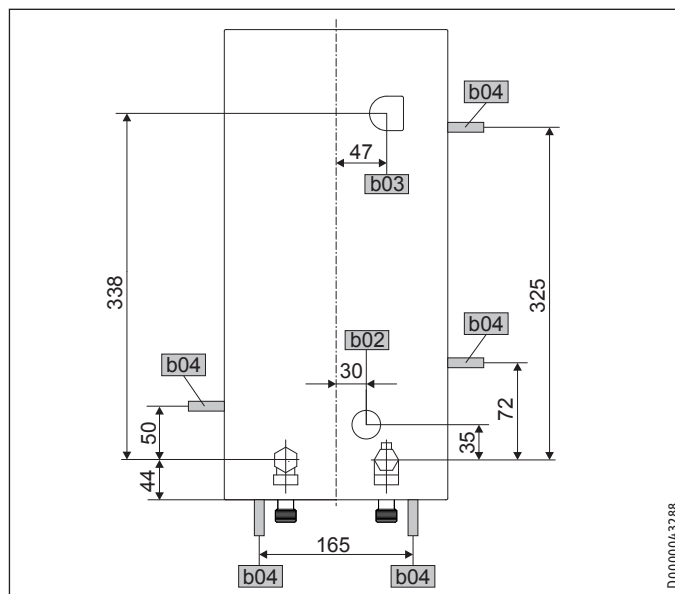
15. Specification

15.1 Dimensions and connections



b02	Entry electrical cables I		
c01	Cold water inlet	Male thread	G 1/2 A
c06	DHW outlet	Male thread	G 1/2 A

Alternative connection options

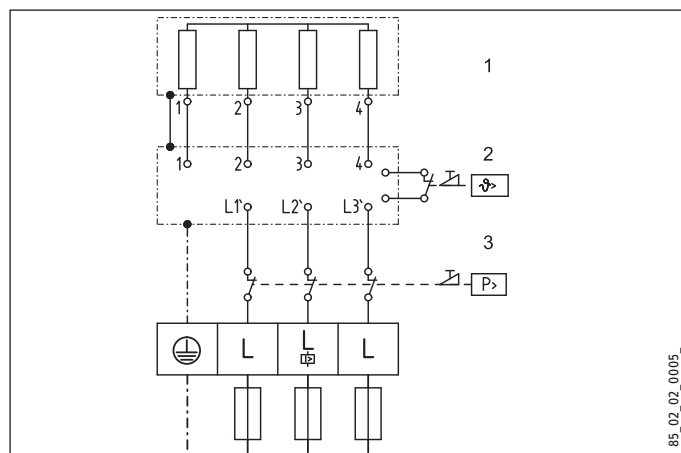


b02	Entry electrical cables I		
b03	Entry electrical cables II		
b04	Entry electrical cables III		

INSTALLATION Specification

15.2 Wiring diagram

3/PE ~ 380-415 V



- 1 Heater
- 2 High limit safety cut-out
- 3 Safety pressure limiter

15.3 DHW output

DHW output is subject to the mains voltage, the appliance's connected load and the cold water inlet temperature. The rated voltage and rated output can be found on the type plate (see chapter "Troubleshooting").

Connected Load in kW			38 °C DHW output in L/min.			
Rated voltage			Cold water inlet temperature			
380 V	400 V	415 V	5 °C	10 °C	15 °C	20 °C
10.1			4.4	5.2	6.3	8.0
	11.0		4.8	5.6	6.8	8.7
12.0			5.2	6.1	7.5	9.5
12.2			5.3	6.2	7.6	9.7
	13.2		5.7	6.7	8.2	10.5
	13.5		5.8	6.9	8.4	10.7
13.6			5.9	6.9	8.4	10.8
		14.2	6.1	7.2	8.8	11.3
		14.5	6.3	7.4	9.0	11.5
	15.0		6.5	7.7	9.3	11.9
16.2		16.2	7.0	8.3	10.1	12.9
16.3			7.1	8.3	10.1	12.9
	18.0		7.8	9.2	11.2	14.3
19.0			8.2	9.7	11.8	15.1
		19.4	8.4	9.9	12.0	15.4
	21.0		9.1	10.7	13.0	16.7
21.7			9.4	11.1	13.5	17.2
		22.6	9.8	11.5	14.0	17.9
23.5			10.2	12.0	14.6	18.7
	24.0		10.4	12.2	14.9	19.0
24.4			10.6	12.4	15.2	19.4
		25.8	11.2	13.2	16.0	20.5
	26.0		11.3	13.3	16.1	20.6
	27.0		11.7	13.8	16.8	21.4
		28.0	12.1	14.3	17.4	22.2
		29.1	12.6	14.8	18.1	23.1

Connected load in kW			50 °C DHW output in L/min.			
Rated voltage			Cold water inlet temperature			
380 V	400 V	415 V	5 °C	10 °C	15 °C	20 °C
10.1			3.2	3.6	4.1	4.8
	11.0		3.5	3.9	4.5	5.2
12.0			3.8	4.3	4.9	5.7
12.2			3.9	4.4	5.0	5.8
	13.2		4.2	4.7	5.4	6.3
	13.5		4.3	4.8	5.5	6.4
13.6			4.3	4.9	5.6	6.5
		14.2	4.5	5.1	5.8	6.8
		14.5	4.6	5.2	5.9	6.9
	15.0		4.8	5.4	6.1	7.1
16.2		16.2	5.1	5.8	6.6	7.7
16.3			5.2	5.8	6.7	7.8
	18.0		5.7	6.4	7.3	8.6
19.0			6.0	6.8	7.8	9.0
		19.4	6.2	6.9	7.9	9.2
	21.0		6.7	7.5	8.6	10.0
21.7			6.9	7.8	8.9	10.3
		22.6	7.2	8.1	9.2	10.8
23.5			7.5	8.4	9.6	11.2
	24.0		7.6	8.6	9.8	11.4
24.4			7.7	8.7	10.0	11.6
		25.8	8.2	9.2	10.5	12.3
	26.0		8.3	9.3	10.6	12.4
	27.0		8.6	9.6	11.0	12.9
		28.0	8.9	10.0	11.4	13.3
		29.1	9.2	10.4	11.9	13.9

15.4 Application areas / conversion table

Specific electrical resistance and specific electrical conductivity (see chapter "Data table").

Standard specification at 15 °C			20 °C			25 °C		
Resistance ρ	Conductivity σ		Resistance ρ	Conductivity σ		Resistance ρ	Conductivity σ	
Ωcm	mS/m	μS/cm	Ωcm	mS/m	μS/cm	Ωcm	mS/m	μS/cm
900	111	1111	800	125	1250	735	136	1361
1000	100	1000	890	112	1124	815	123	1227
1100	91	909	970	103	1031	895	112	1117
1200	83	833	1070	93	935	985	102	1015
1300	77	769	1175	85	851	1072	93	933

15.5 Pressure drop

Taps/valves

Pressure drop at taps at flow rate of 10 L/min

Mono lever mixer tap, approx.	MPa	0.04 - 0.08
Thermostatic valve, approx.	MPa	0.03 - 0.05
Hand shower, approx.	MPa	0.03 - 0.15

Sizing the pipework

To calculate pipework sizing, apply a pressure drop of 0.1 MPa to the appliance.

15.6 Fault conditions

In case of faults, loads up to 80 °C at a pressure of 1.2 MPa can occur temporarily in the installation.

INSTALLATION Specification

15.7 Data table

		DEL 18 AU			DEL 27 AU		
		233741			233742		
Electrical data							
Rated voltage	V	380	400	415	380	400	415
Rated output	kW	16.2	18	19.4	23.5	26	28
Rated current	A	24.7	26	27	35.6	37.7	38.9
Fuse/MCB rating	A	25	25	32	35	40	40
Phases				3/PE			3/PE
Frequency	Hz	50/60	50/60	50/-	50/-	50/-	50/-
Specific resistance $\rho_{15} \geq$ (at $\vartheta_{\text{cold}} \leq 25^\circ\text{C}$)	$\Omega \text{ cm}$	900	900	1000	900	900	1000
Specific conductivity $\sigma_{15} \leq$ (at $\vartheta_{\text{cold}} \leq 25^\circ\text{C}$)	$\mu\text{S/cm}$	1111	1111	1000	1111	1111	1000
Specific resistance $\rho_{15} \geq$ (at $\vartheta_{\text{cold}} \leq 45^\circ\text{C}$)	$\Omega \text{ cm}$	1200	1200	1300	1200	1200	1300
Specific conductivity $\sigma_{15} \leq$ (at $\vartheta_{\text{cold}} \leq 45^\circ\text{C}$)	$\mu\text{S/cm}$	833	833	770	833	833	770
Max. mains impedance at 50Hz	Ω	0.474	0.450	0.433	0.316	0.3	0.289
Max. mains impedance at 380V / 60Hz	Ω			0.392			
Max. mains impedance at 400V / 60Hz	Ω			0.372			
Connections							
Water connection				G 1/2 A			G 1/2 A
Application limits							
Max. permissible pressure	MPa			1.0			1.0
Max. inlet temperature for reheating	$^\circ\text{C}$			45			45
Values							
Max. permissible inlet temperature	$^\circ\text{C}$			65			65
On	l/min			>2.5			>2.5
Flow rate for pressure drop	l/min			5.2			7.7
Pressure drop at flow rate	MPa			0.08 (0.06 without DMB)			0.16 (0.12 without DMB)
Flow rate limit at	l/min			12 (7.5)			12 (7.5)
DHW delivery	l/min			9.9 at 415 V			14.3 bei 415 V
$\Delta\vartheta$ on delivery	K			28			28
Hydraulic data							
Nominal capacity	l			0.4			0.4
Versions							
Connected load options				-			-
Temperature setting	$^\circ\text{C}$			30-50			30-50
Safety category				1			1
Insulating block				Plastic			Plastic
Heating system				Bare wire			Bare wire
Cover and back panel				Plastic			Plastic
Colour				white			white
IP rating				IP25			IP25
Dimensions							
Height	mm			478			478
Width	mm			225			225
Depth	mm			105			105
Weights							
Weight	kg			3.6			3.6

Warranty

The warranty conditions of our German companies do not apply to appliances acquired outside of Germany. In countries where our subsidiaries sell our products, it is increasingly the case that warranties can only be issued by those subsidiaries. Such warranties are only granted if the subsidiary has issued its own terms of warranty. No other warranty will be granted.

We shall not provide any warranty for appliances acquired in countries where we have no subsidiary to sell our products. This will not affect warranties issued by any importers.

Environment and recycling

We would ask you to help protect the environment. After use, dispose of the various materials in accordance with national regulations.

Stiebel Eltron Warranty for Water Heaters – Models DEL AU

Who gives the warranty

- The warranty is given by Stiebel Eltron (Aust) Pty Ltd (A.B.N. 82 066 271 083) of Unit 4/8 Rocklea Drive, Port Melbourne, Victoria, 3207 ("we", "us" or "our").

The warranty

- This warranty applies to Stiebel Eltron Water Heaters – Models DEL 18 AU and DEL 27 AU (the "unit") manufactured after 1 March 2014.
- Subject to the warranty exclusions we will repair or replace, at our absolute discretion, a faulty component in your unit free of charge if it fails to operate in accordance with its specifications during the warranty period.
- If we repair or replace a faulty component to your unit under this warranty, the warranty period is not extended from the time of the repair or replacement.
- The warranty period commences on the date of completion of the installation of the unit. Where the date of completion of installation is not known, then the warranty period will commence 2 months after the date of manufacture.
- The warranty period for a unit used for domestic purposes is shown in the table below. Domestic purposes means that the unit is used in a domestic dwelling.

Component	Warranty period
All components	5 years from the date of completion of the installation of the unit.

- The warranty period for a unit used for commercial purposes is shown in the table below. Commercial purposes means that the unit is used for a non-domestic purpose and includes but is not limited to being used in a motel, hotel, mining camp or nursing home.

Component	Warranty period
All components	1 year from the date of completion of the installation of the unit.

Your entitlement to make a warranty claim

- You are entitled to make a warranty claim if:
 - you own the unit or if you have the owner's consent to represent the owner of the unit;
 - you contact us within a reasonable time of discovering the problem with the unit; How you make a warranty claim
- To make a warranty claim you must provide us with the following information:
 - The model number of the unit;
 - A description of the problem with the unit;
 - The name, address and contact details (such as phone number and e-mail address) of the owner;
 - The address where the unit is installed and the location (e.g. in laundry);
 - The serial number of the unit;
 - The date of purchase of the unit and the name of the seller of the unit;
 - The date of installation of the unit;
 - A copy of the certificate of compliance when the unit was installed.
- The contact details for you to make your warranty claim are:

Name:	Stiebel Eltron (Aust) Pty Ltd
Address:	Unit 4, 8 Rocklea Drive, Port Melbourne, Victoria, 3207
Telephone:	1800 153 351 (8.00 am to 5.00 pm AEST Monday to Friday)
Contact person:	Customer Service Representative
E-mail:	service@stiebel.com.au

Warranty exclusions

- We may reject your warranty claim if:
 - The unit was not installed by registered and qualified tradespeople.
 - The unit was not installed and commissioned:
 - in Australia;
 - in accordance with the Operating and Installation Guide; and
 - in accordance with the relevant statutory and local requirements of the State or Territory in which the unit is installed.



- 12.3. The unit has not been operated or maintained in accordance with the Operating and Installation Guide.
- 12.4. The unit does not bear its original Serial Number or Rating Label.
- 12.5. The unit was damaged by any or any combination of the following:
 - a) normal fair wear and tear;
 - b) connection to an incorrect water supply;
 - c) connection to water from a bore, dam or swimming pool;
 - d) connection to an incorrect power supply;
 - e) connection to faulty equipment, such as damaged valves;
 - f) foreign matter in the water supply, such as sludge or sediment;
 - g) corrosive elements in the water supply;
 - h) accidental damage;
 - i) act of God, including damage by flood, storm, fire, lightning strike and the like;
 - j) excessive water pressure, negative water pressure (partial vacuum) or water pressure pulsation.
- 12.6. The unit was damaged before it was installed e.g. it was damaged in transit.
- 12.7. An unauthorised person has modified, serviced, repaired or attempted to repair the unit without our consent.
- 12.8. Non genuine parts other than those manufactured or approved by us have been used on the unit.
13. We may charge you:
 - 13.1. for any additional transport costs if the unit is installed more than 30 kilometres from our closest authorised service technician.
 - 13.2. for the extra time it takes our authorised service technician to access the unit for inspection and testing if it is not sited in accordance with the Operating and Installation Guide and not readily accessible for inspection.
 - 13.3. for any extra costs of our authorised service technician to make the unit safe for inspection.
14. You must ensure that access to the unit by our authorised service technician is safe and free from obstruction.
15. Our authorised service technician may refuse to inspect and test the unit until you provide safe and free access to it, at your own cost.
16. If we reject your warranty claim in accordance with clause 12, we may charge you for our authorised service technician's labour costs to inspect and test the unit.
17. In order to properly test the unit we may remove it to another location for testing.

Australian Consumer Law

18. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
19. The Stiebel Eltron warranty for the unit is in addition to any rights and remedies you may have under the Australian Consumer Law.

NOTES

NOTES

NOTES

Deutschland

STIEBEL ELTRON GmbH & Co. KG
Dr.-Stiebel-Straße 33 | 37603 Holzminden
Tel. 05531 702-0 | Fax 05531 702-480
info@stiebel-eltron.de
www.stiebel-eltron.de

Verkauf

Tel. 05531 702-110 | Fax 05531 702-95108 | info-center@stiebel-eltron.de

Kundendienst

Tel. 05531 702-111 | Fax 05531 702-95890 | kundendienst@stiebel-eltron.de

Ersatzteilverkauf

Tel. 05531 702-120 | Fax 05531 702-95335 | ersatzteile@stiebel-eltron.de

Australia

STIEBEL ELTRON Australia Pty. Ltd.
6 Prohasky Street | Port Melbourne VIC 3207
Tel. 03 9645-1833 | Fax 03 9645-4366
info@stiebel.com.au
www.stiebel.com.au

Austria

STIEBEL ELTRON Ges.m.b.H.
Eferdinger Str. 73 | 4600 Wels
Tel. 07242 47367-0 | Fax 07242 47367-42
info@stiebel-eltron.at
www.stiebel-eltron.at

Belgium

STIEBEL ELTRON bvba/sprl
't Hofveld 6 - D1 | 1702 Groot-Bijgaarden
Tel. 02 42322-22 | Fax 02 42322-12
info@stiebel-eltron.be
www.stiebel-eltron.be

China

Stiebel Eltron (Guangzhou) Technology
Development Co., Ltd.
Rm 102, F1, Yingbin-Yihao Mansion, No. 1
Yingbin Road
Panyu District | 511431 Guangzhou
Tel. 020 61952996 | Fax 020 61952990
info@stiebel-eltron.cn
www.stiebel-eltron.cn

Czech Republic

STIEBEL ELTRON spol. s r.o.
K Hájiřm 946 | 155 00 Praha 5 - Stodůlky
Tel. 251116-111 | Fax 235512-122
info@stiebel-eltron.cz
www.stiebel-eltron.cz

Denmark

Pettinaroli A/S
Mandal Allé 21 | 5500 Middelfart
Tel. 06341 666-6 | Fax 06341 666-0
info@stiebel-eltron.dk
www.stiebel-eltron.dk

Finland

STIEBEL ELTRON OY
Kapinakuja 1 | 04600 Mäntsälä
Tel. 020 720-9988
info@stiebel-eltron.fi
www.stiebel-eltron.fi

France

STIEBEL ELTRON SAS
7-9, rue des Selliers
B.P 85107 | 57073 Metz-Cédex 3
Tel. 0387 7438-88 | Fax 0387 7468-26
info@stiebel-eltron.fr
www.stiebel-eltron.fr

Hungary

STIEBEL ELTRON Kft.
Gyár u. 2 | 2040 Budaörs
Tel. 01 250-6055 | Fax 01 368-8097
info@stiebel-eltron.hu
www.stiebel-eltron.hu

Japan

NIHON STIEBEL Co. Ltd.
Kowa Kawasaki Nishiguchi Building 8F
66-2 Horikawa-Cho
Saiwai-Ku | 212-0013 Kawasaki
Tel. 044 540-3200 | Fax 044 540-3210
info@nihonstiebel.co.jp
www.nihonstiebel.co.jp

Netherlands

STIEBEL ELTRON Nederland B.V.
Daviottenweg 36 | 5222 BH 's-Hertogenbosch
Tel. 073 623-0000 | Fax 073 623-1141
info@stiebel-eltron.nl
www.stiebel-eltron.nl

Poland

STIEBEL ELTRON Polska Sp. z o.o.
ul. Działkowa 2 | 02-234 Warszawa
Tel. 022 60920-30 | Fax 022 60920-29
stiebel@stiebel-eltron.pl
www.stiebel-eltron.pl

Russia

STIEBEL ELTRON LLC RUSSIA
Urzhumskaya street 4,
building 2 | 129343 Moscow
Tel. 0495 7753889 | Fax 0495 7753887
info@stiebel-eltron.ru
www.stiebel-eltron.ru

Slovakia

TATRAMAT - ohrievače vody, s.r.o.
Hlavná 1 | 058 01 Poprad
Tel. 052 7127-125 | Fax 052 7127-148
info@stiebel-eltron.sk
www.stiebel-eltron.sk

Switzerland

STIEBEL ELTRON AG
Industrie West
Gass 8 | 5242 Lupfig
Tel. 056 4640-500 | Fax 056 4640-501
info@stiebel-eltron.ch
www.stiebel-eltron.ch

Thailand

STIEBEL ELTRON Asia Ltd.
469 Moo 2 Tambol Klong-Jik
Amphur Bangpa-In | 13160 Ayutthaya
Tel. 035 220088 | Fax 035 221188
info@stiebel-eltronasia.com
www.stiebel-eltronasia.com

United Kingdom and Ireland

STIEBEL ELTRON UK Ltd.
Unit 12 Stadium Court
Stadium Road | CH62 3RP Bromborough
Tel. 0151 346-2300 | Fax 0151 334-2913
info@stiebel-eltron.co.uk
www.stiebel-eltron.co.uk

United States of America

STIEBEL ELTRON, Inc.
17 West Street | 01088 West Hatfield MA
Tel. 0413 247-3380 | Fax 0413 247-3369
info@stiebel-eltron-usa.com
www.stiebel-eltron-usa.com

STIEBEL ELTRON



Irrtum und technische Änderungen vorbehalten! | Subject to errors and technical changes! | Sous réserve d'erreurs et de modifications techniques! | Onder voorbehoud van vergissingen en technische wijzigingen! | Salvo error o modificación técnica! | Excepto erro ou alteração técnica | Zastrzeżone zmiany techniczne i ewentualne błędy | Omyly a technické změny jsou vyhrazeny! | A muszaki változtatások és tévedések jogát fenntartjuk! | Отсутствие ошибок не гарантируется. Возможны технические изменения. | Chyby a technické zmeny sú vyhradené! | Stand 8870