

Zip

Instantaneous Hot Water



Electronically controlled instantaneous water heater
CEX9: 27900 - 50°C model
Installation instructions

For 50°C models, the appliance delivers water not exceeding 50°C in accordance with AS3498

Contents

1. Safety instructions.....	3
2. Overview	5
3. Technical data	6
4. Dimensions	6
5. Typical installation.....	7
6. Installation.....	8
Installation site	8
Mounting the appliance	9
Installing the appliance.....	9
7. Electrical connection	10
Wiring diagram	10
Structural prerequisites.....	10
Electrical connection (only by a qualified tradesperson).....	10
Electrical connection with pre-installed power cable.....	10
Electrical installation to a permanent connection	11
8. Initial operation.....	12
Selection of power rating	12
Reinstallation.....	13
Lock level	13
9. Service menu	14
10. Environment and recycling.....	15

The alignment template is located on the pull-out pages in the middle of this manual.

1. Safety instructions



Please read these instructions carefully before installing or using the appliance! Keep the instructions handy with the appliance for future use!

Installation, initial operation and maintenance of this appliance must only be conducted by an authorised professional, who will then be responsible for adherence to applicable standards and installation regulations. We assume no liability for any damages caused by failure to observe these instructions.

- Do not use the appliance until it has been correctly installed and unless it is in perfect working order.
- Do not remove the front cover under any circumstances before switching off the mains electrical supply to the unit.
- Never make technical modifications, either to the appliance itself or the electrical leads and water pipes.
- The appliance must be earthed at all times.
- Pay attention to the fact that water temperatures in excess of approx. 43 °C are perceived as hot, especially by children, and may cause a feeling of burning. Please note that the fittings and taps may be very hot when the appliance has been in use for some time.
- The appliance is only suitable for domestic use and similar applications inside closed rooms, and must only be used to heat incoming water from the mains supply.
- The appliance must never be exposed to frost.
- The values stated on the rating plate must be observed.
- In case of malfunction, disconnect the fuses immediately. In case of leaks, cut off the mains water supply instantly. Repairs must only be carried out by the customer service department or an authorised professional.
- This appliance can be used by children aged 3 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be performed by children without supervision.
- If the appliance is factory equipped with a power supply cable, it must be replaced with an original spare cable from the manufacturer in case of dam-

1. Safety instructions

age by an authorised technician in order to avoid any hazards.

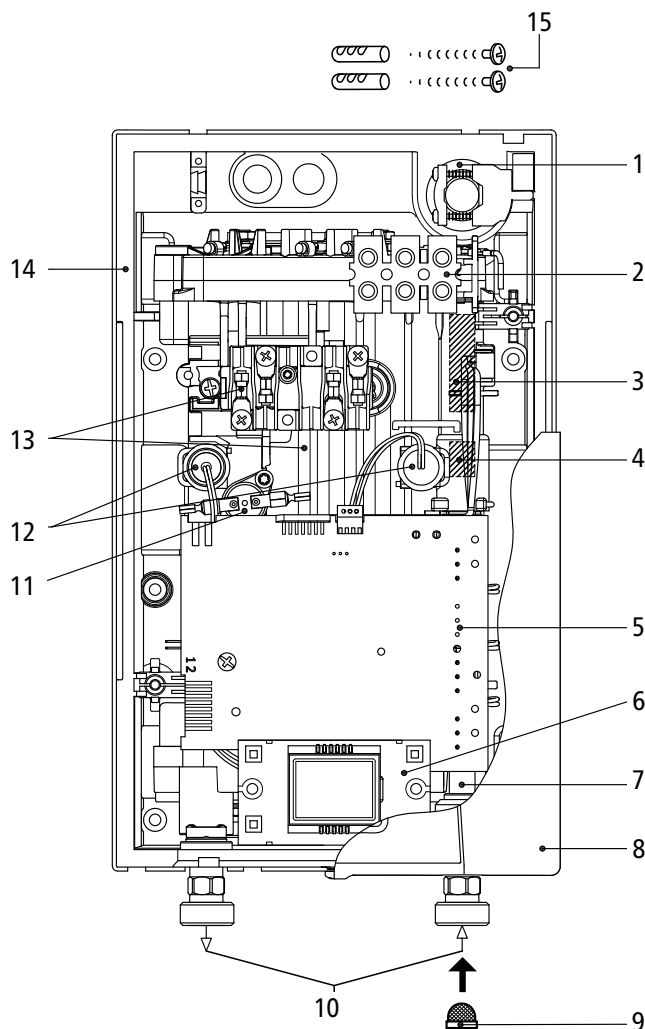
- For appliances with direct connection, an all-pole disconnecting device with a contact opening width of ≥ 3 mm per phase must be provided at the installation end, according to Australian wiring rules AS/NZ3000.
- The wall bracket must be secured with the supplied screws and dowels. The appliance must be secured to the wall bracket. The appliance may only be operated if it has been properly mounted on the wall bracket.
- The prescribed nominal pressure stated on the rating plate may not be exceeded at any time.
- The required water resistance may not fall below the value stated on the rating plate at any time.

To observe additionally for pressureless installation:

- The water outlet behind the devices must not be blocked, and the water flow must not be restricted.
- The water outlet facilities, such as shower head, jet control and other outlet unit, must be decalcified regularly. Deposits must be removed in regular intervals.
- Only the fittings recommended by the manufacturer may be used.
- If the appliance is exclusively connected to a single shower, only the shower heads recommended by the manufacturer may be used. No other fittings or appliances which decrease the water flow to the shower may be installed.

2. Overview





When ordering spare parts, please always specify the appliance model and serial number.



Pos.	Part.-No.	Description	Pos.	Part.-No.	Description
1		Grommet	9		Inlet filter
2		Connecting terminal	10		Connection piece 1/2"
3	99394	Flow sensor	11		Safety thermal cut-out
4	99385	Non-return valve	12	99400	Thermal sensor set
5	99398	PCB CEX9	13		Heating element incl. SDB
6	99418	CEX control panel	14		Bottom part
7		Inlet pipe	15	99397	Screws and dowels
8		CEX cover			

Parts in **Bold Type** are available as **Spare Parts**. Other parts are available on request

3. Technical data

Model	CEX9	
Part no.	27900 - 50 °C model	
Energy efficiency class	A *)	
Rated capacity (Rated current)	6.0 / 9.6 kW (27.3 / 40 A)	
Chosen capacity (Chosen current)	6.6 kW (28.7 A)	8.8 kW (38.3 A)
Electrical connection	1/N/PE 220..240 V AC	
Min. required cable size	see note 1)	
Hot water (l/min) max. at $\Delta t = 25$ K	3.8	5.0
Rated volume	0.3 l	
Rated pressure	1.0 MPa (10 bar)	
Connecting type	pressure resistant / pressureless	
Heating system	Bare wire heating system IES®	
Required spec. water resistance @ 15 °C	$\geq 1100 \Omega \text{cm}$	
Spec. electrical conductivity	$\leq 90.9 \text{ mS/m}$	
Inlet temperature	≤ 60 °C	
Flow rate to switch on – max. flow rate	2.0 – 5.0 l/min ²⁾	
Pressure loss	0.2 bar at 2.5 l/min 1.3 bar at 9.0 l/min ³⁾	
Temperature choice	20 °C – 50 °C	
Water connection	G 1/2"	
Weight (when filled w. water)	2.7 kg	
VDE class of protection	I	
Type of protection / safety	   IP25 CE 	

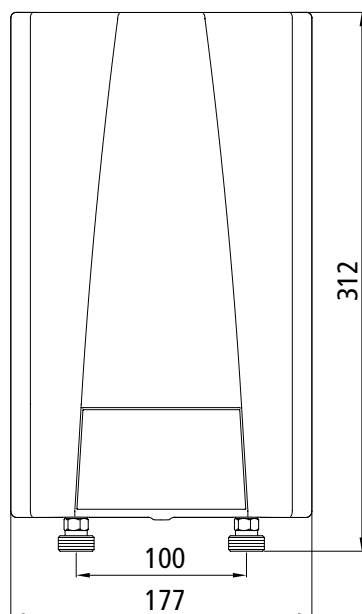
*) The declaration complies with the EU regulation No 812/2013

1) The cross sectional area of the connection cable must be in accordance with the power rating of the appliance and the specific requirements of AS/NZS 3000

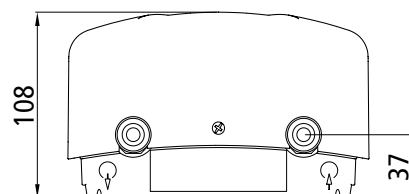
2) Flow rate limited to achieve optimum temperature rise

3) Without flow regulator

4. Dimensions

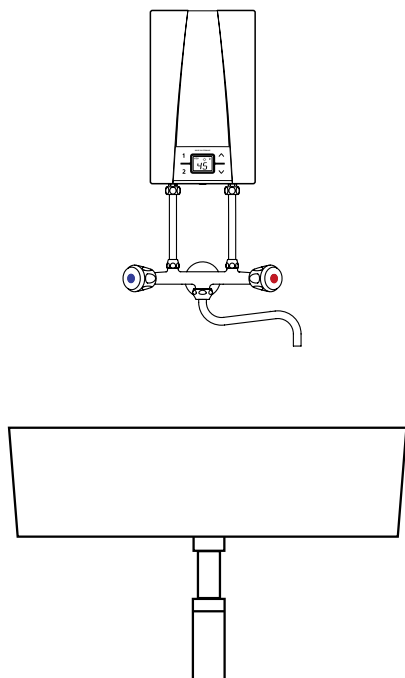


Dimensions in mm

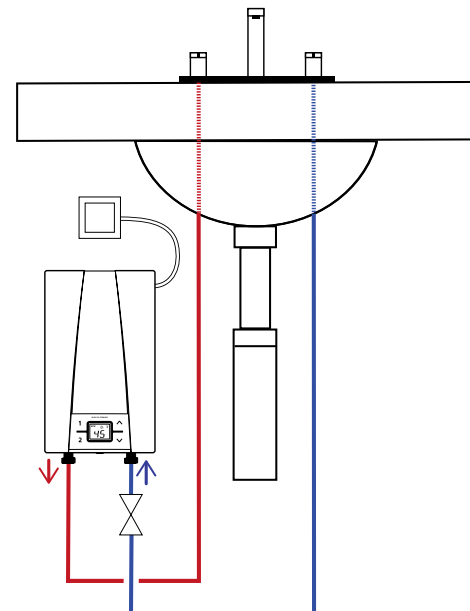


5. Typical installation

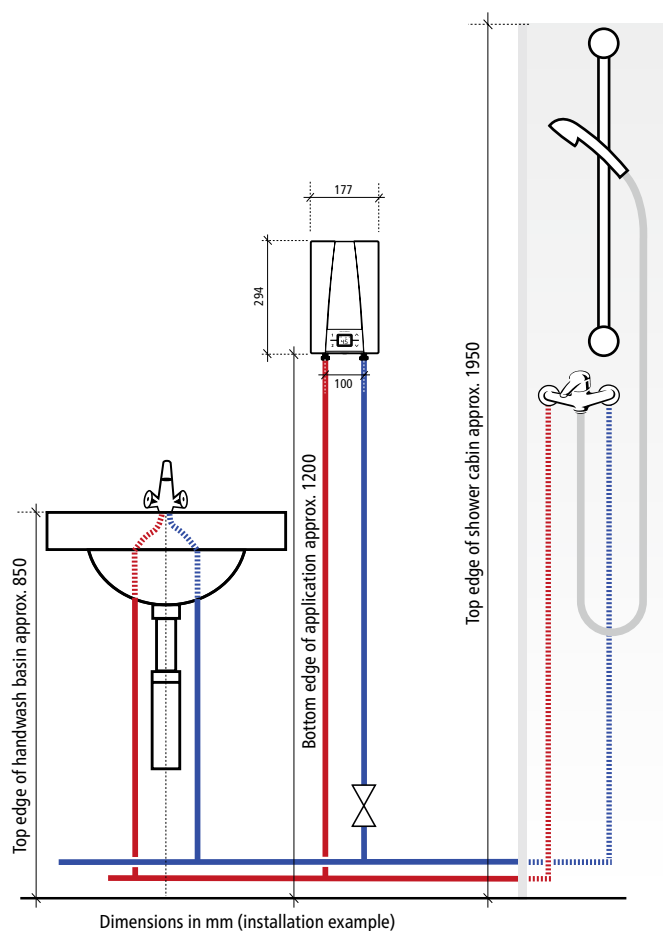
Wall mounted mixer: Supply for one sink



Direct connection: Supply for one outlet



Direct connection: Supply for multiple outlets



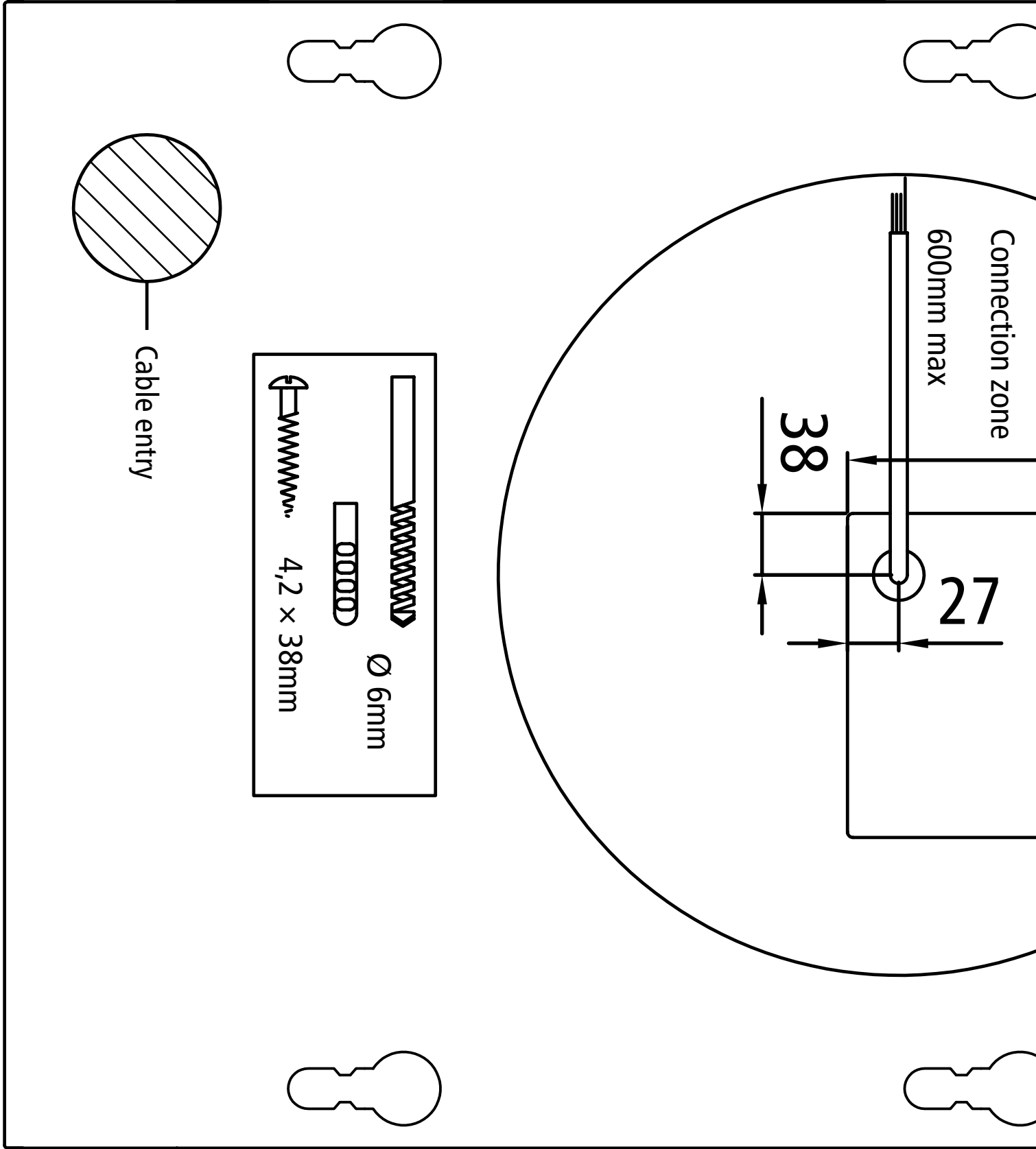
6. Installation

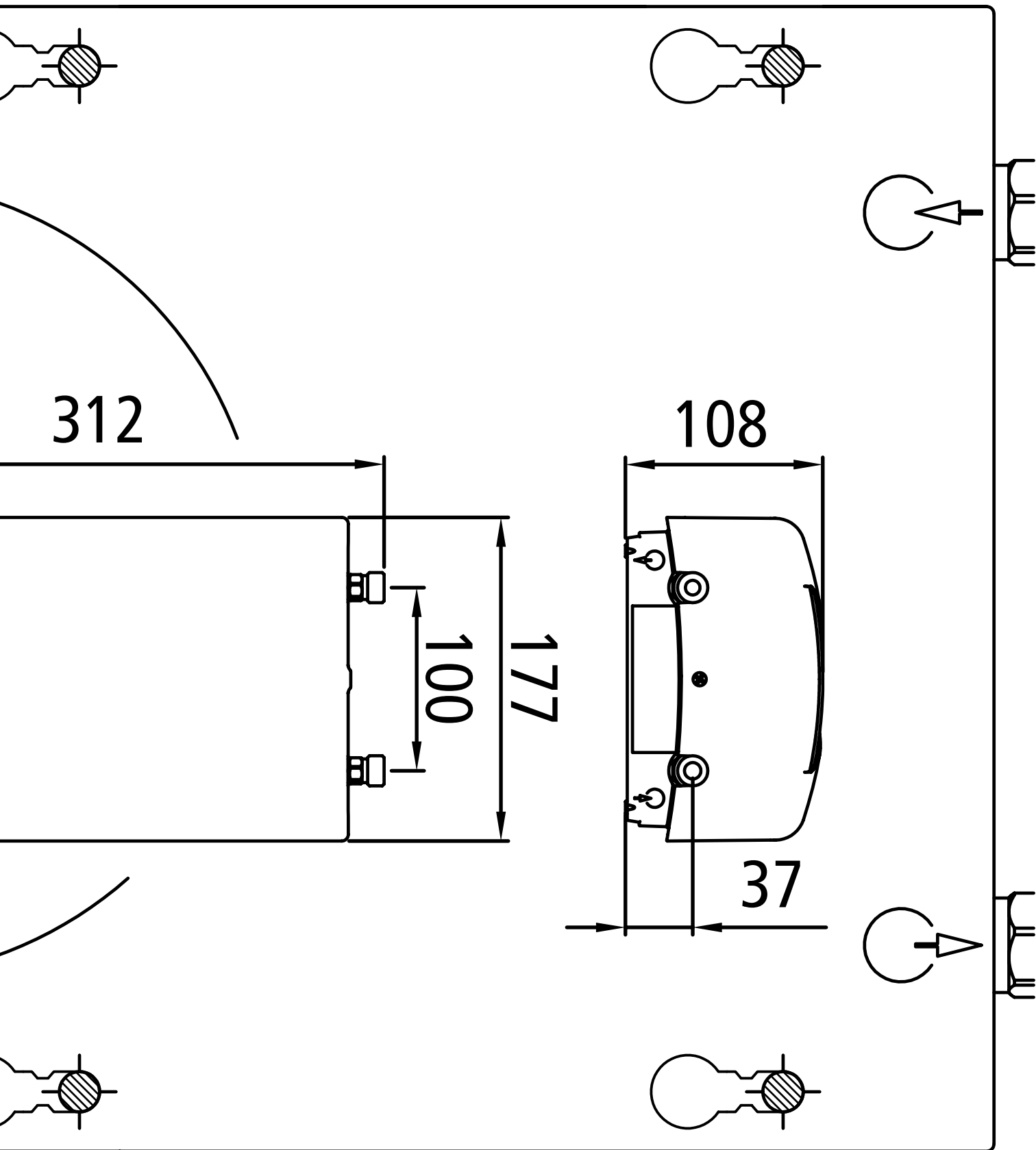
The following regulations must be observed:

- Installation must comply with all statutory regulations, as well as those of the local electricity and water supply companies.
- The rating plate and technical specifications
- Only intact and appropriate tools must be used
- Installation must comply with all statutory regulations, AS/NZS 3000, AS/NZS 3500, as well as those of the local electricity and water supply companies
- These instructions must be read and fully understood before commencing the installation. If in doubt, or in need of further guidance please ring Zip on 1800 638 633
- This appliance must only be installed in accordance with the acceptable plumbing configurations specified in these instructions. Failure to do so may result in conditions where delivery temperature control is inadequate.

Installation site

- Appliance must only be installed in frost-free rooms. Never expose appliance to frost.
- The Appliance must be wall mounted and has to be installed with water connectors downward.
- The appliance complies with protection type IP25.
- To avoid thermal losses and dead legs, the distance between the instantaneous water heater and the furthest outlet should be kept as short as possible (<6 meters). In addition all hot water pipe work should be insulated in accordance with AS/NZS 3500.
- For maintenance work, a shut-off valve should be installed in the supplyline. The appliance must be accessible for maintenance work.
- The specific resistance of the water must be at least 1100 Ω cm at 15 °C. The specific resistance can be asked for with your water distribution company.
- The water pipes must not exert any mechanical force on the water connections of the instantaneous water heater during installation and operation. If this cannot be guaranteed due to the installation conditions, we recommend the use of flexible connections.
- **For 50 °C models:** The appliance delivers water not exceeding 50 °C in accordance with AS3498.





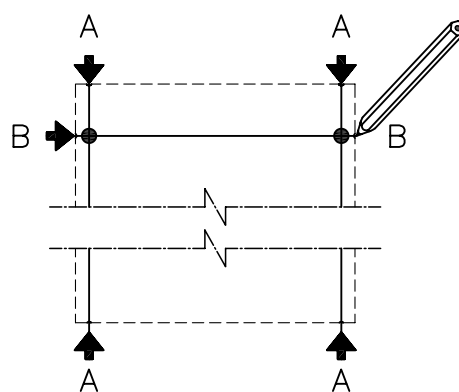
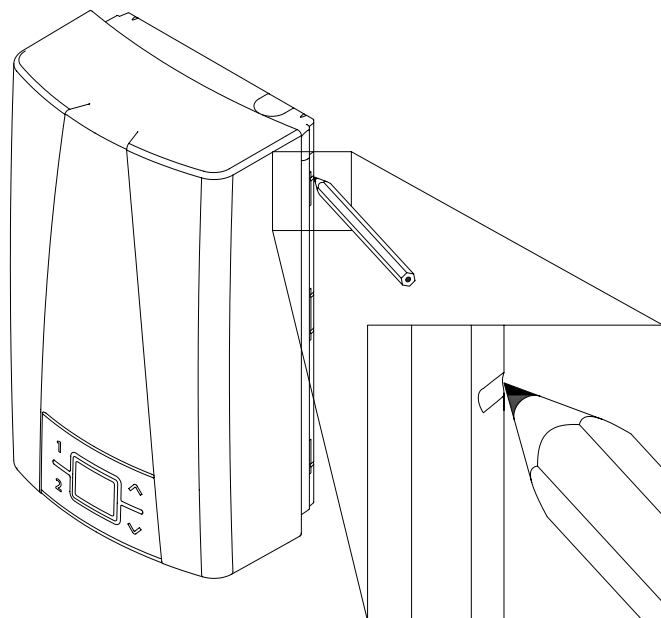
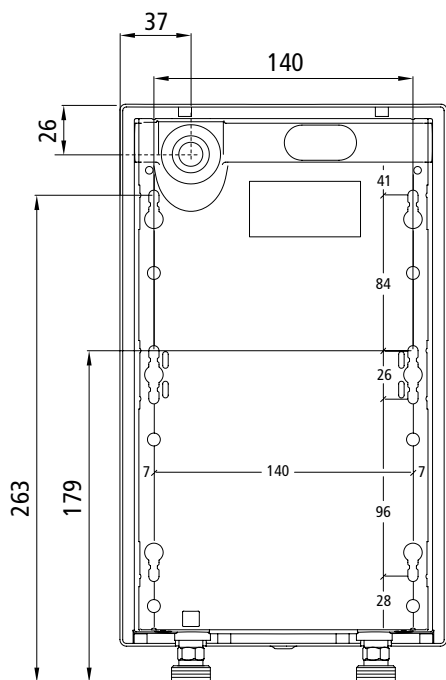
6. Installation

Mounting the appliance

1. Thoroughly rinse the water supply pipes before installation to remove soiling from the pipes.
2. Hold the appliance on the wall, and mark the drill lines at top and bottom, right and left, corresponding to the small notches at the edge of the appliance hood (see bottom figure). The alignment template (located on the pull-out pages in the middle of this manual) may be used for this purpose alternatively.
3. Connect the top and bottom marks vertically with each other (A–A).
4. Connect the right and left marks horizontally with each other (B–B).
5. The intersections of these lines are the drill points.
6. Drill the holes using a 6 mm drill. Insert the included dowels and screws. The screws have to protrude 5 mm.
7. Hang up the appliance into the rear hanging openings until it clicks into place.

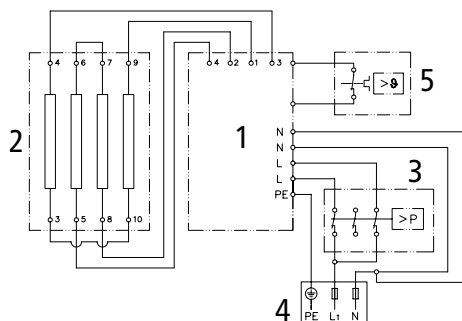
Installing the appliance

1. Attach the water connection pipes with to the appliance's water connection. Use the $\frac{3}{8}$ inch seals.
2. Open and close the hot water tap until no more air emerges from the pipe and all air has been eliminated from the water heater.



7. Electrical connection

Wiring diagram



1. Electronic circuitry
2. Heating element
3. Safety pressure cut-out
4. Connecting terminal
5. Safety thermal cut-out

Only by a specialist!

Please observe:

- The installation must comply with current IEC and national local regulations or any particular regulations, specified by the local electricity supply company
- The rating plate and technical specifications
- The appliance must be earthed!

Structural prerequisites

- The cross sectional area of the connection cable must be in accordance with the power rating of the appliance and the specific requirements of AS/NZS 3000. A maximum cable size must be observed: 10 mm².
- The appliance must be permanently connected to the electrical supply through an isolation switch as per AS/NZS 3000.
- The electric wiring should not be damaged. After mounting, the wiring must not be direct accessible.
- An all-pole disconnecting device (e.g. via fuses) with a contact opening width of at least 3 mm per pole should be provided at the installation end.
- To protect the appliance, a fuse element must be fitted with a tripping current commensurate with the nominal current of the appliance.



Electrical connection (only by a qualified tradesperson)

Check that the power supply is switched off prior to electrical connection!

Electrical connection with pre-installed power cable

The appliance is to be connected with the pre-installed power cable to a terminal box. If necessary, use one of the three predetermined breaking points for the cable entry (at the right, left or top).

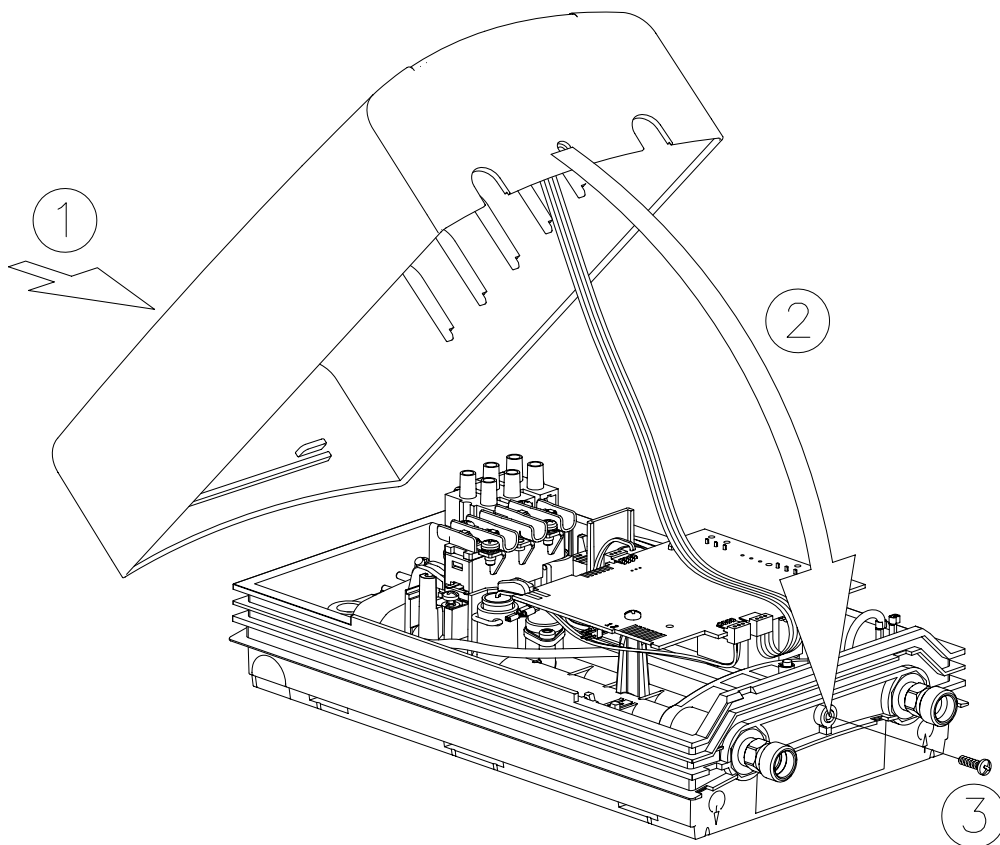
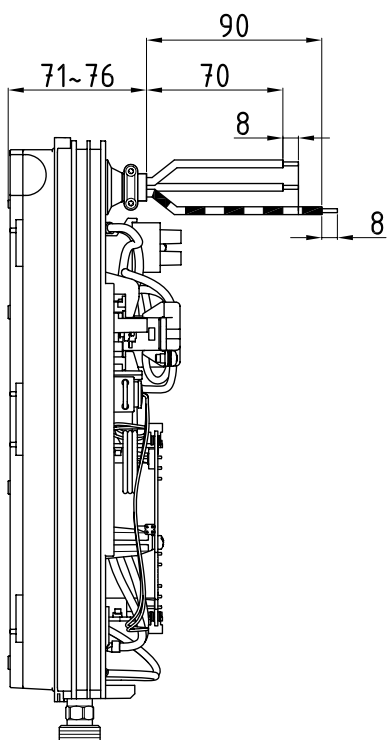
7. Electrical connection

Alternative:

Electrical installation to a permanent connection

If, in case of particular local circumstances, connecting to a permanent connection is the only possibility, continue as follows.

1. Disassemble the pre-installed power cable.
2. Dismantle off the power cable so that you can insert the cable with the cladding through the water splash protection sleeve up to the cord grip into the appliance.
3. Lead the cable through the water splash protection sleeve into the appliance so that one can securely fix the cladding of the cable with the cord grip. If necessary, use one of the three predetermined breaking points for the cable entry (at the right, left or bottom). The protective sleeve prevents water from entering the appliance alongside the connection line. The protection sleeve has to be used!
4. Mount the cord grip. The cord grip must be used!
5. Strip the cables and plug them in the connecting terminals according to the wiring diagram. The appliance must be earthed.
6. After successful electrical connection, fit the hood of the unit. Make sure not to jam any cables between the appliance hood and the base part of the appliance.



8. Initial operation

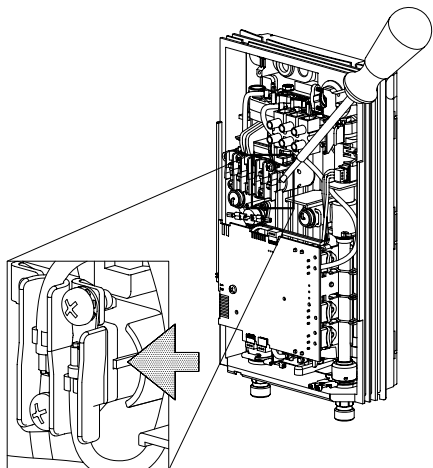


Before making the electrical connection, fill the mains and the appliance with water by carefully opening and closing the hot water tap in order to vent completely.

To ensure a maximum flow, remove any existing aerator from the faucet. Flush the warm and cold water pipes each at least for one minute.

After every draining (e.g. after work on the plumbing system or following repairs to the appliance), the heater must be re-vented in this way before starting it up again.

If the water heater cannot be put into operation, the temperature cut-out or the pressure cut-out may have tripped during transport. If necessary, reset the cut-out.






Selection of power rating

Only by authorised specialist, otherwise lapse of guarantee!

Upon first connection of the appliance to the supply voltage, select the maximum power rating. Only after having set the power rating, the heater provides its standard operation mode.

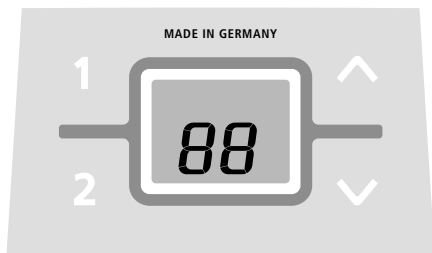
The maximum allowable power rating at installation site depends on the local situation. It is imperative to observe all data shown in the table "Technical specifications", in particular the required cable size and fuse protection for the electrical connection. Moreover, the electrical installation must comply with the statutory regulations of the respective country and those of the local electricity supply company (Germany: DIN VDE 0100).

1. Switch on the power supply to the appliance. The digital display on the appliance must light up.
2. When switching on the supply voltage for the first time, the value "88" flashes in the display. If not, please carefully read the note "Reinstallation".
3. Select the maximum allowable power rating depending on the local situation via the up  and down  arrow keys: 6.6 or 8.8 kW.
4. Press key  to confirm the setting. The appliance starts operating.
5. Mark the set power rating on the rating plate.
6. Open the hot water tap. Check the function of the appliance.
7. After having set the maximum allowable power rating, the heating element will be activated after approx. 10 - 30 seconds of water flow.
8. Explain the user how the instantaneous water heater works and hand over the operating instructions.
9. Fill in the guarantee registration card and send it to the after-sales service or use the online registration.

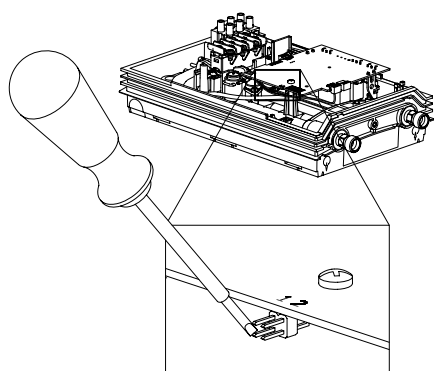


Multiple Power System:

The rated capacity (max. power consumption) is 8.8 kW / 230 V and can be reduced to 6.6 kW.



8. Initial operation



Reinstallation

In case the appliance will be commissioned again under different installation conditions than during its initial operation, it may be necessary to adapt the maximum power rating. A temporary short-circuit of the two pins (see figure), will reset all heater parameters to works setting and lock the heating.

Value "88" flashes in the display until the maximum power rating has been selected. This condition will maintain when activating and deactivating the supply voltage.

Lock level

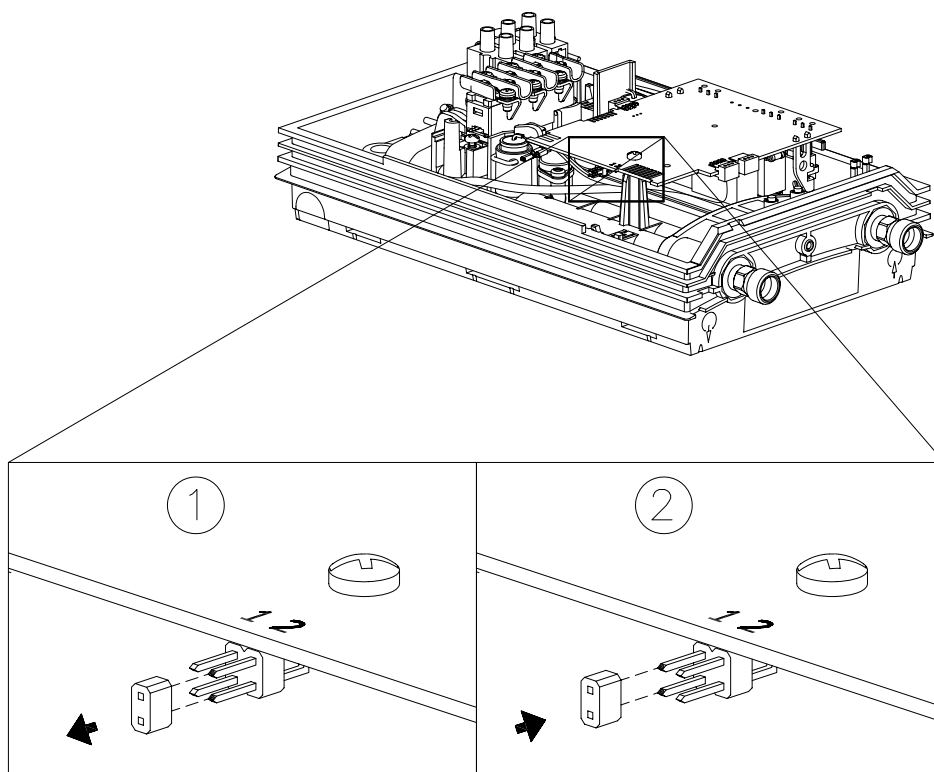
The operating mode of the appliance can be restricted. The service menu can be used to configure the appliance.

Activation of the lock level

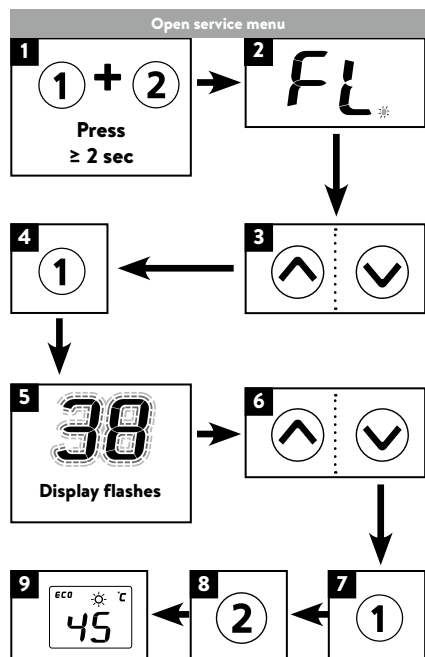
1. Set required lock level in the service menu (refer to chapter "Service menu" in this installing instructions).
2. Disconnect the appliance from the power supply (e.g. by switching off the fuses).
3. Move the jumper on the power electronics from pin 2 to pin 1 (see figure).
4. Put the appliance into operation again.

Deactivation of the lock level

1. Disconnect the appliance from the power supply (e.g. by switching off the fuses).
2. Move jumper from pin 1 to pin 2.
3. Put the appliance into operation again



9. Service menu



Menu item order of "Service menu":

FL	Flow
Po	Power
t1	Temp in
t2	Temp out
CA	Control value
PL	Power limit
Er	Diagnostics
LL	Lock level
rv	Software version
ch	Radio channel
rs	Received strength
bl	Backlight
tl	Temperature limit
ic	Signal

The service menu offers an overview of system parameters and is used for diagnostics.

Press key ① and key ② simultaneously for at least 2 seconds to call up the service menu, the display confirms by "FL" and by a flashing point. Using the arrow keys \uparrow and \downarrow , you can switch between the individual menu items.

Press key ① to see the value of the currently selected menu. The value flashes in the display. (The values of some menus can be switched over by using the arrow keys \uparrow and \downarrow .) You will get back to the drop-down-menu when pressing key ① again. With key ② you will get back to the standard display (nominal value). After two minutes without any key stroke the system automatically switches back to the standard display.

Individual menu items as follows:

"FL": Flow

Indication of current flow rate given in l/min.

"Po": Power

Indication of current power consumption (kW).

"t1": Temp in

Indication of inlet temperature (°C).

"t2": Temp out

Indication of outlet temperature (°C).

"CA": Control value

Indication of calibration value of the control system. Regular range: 40 – 60.

"PL": Power limit

Indication of the current maximum power rating (kW) of the appliance.

"Er": Diagnostics

Indication of the last ten diagnostic messages.

The error code is indicated by the first displayed value after pressing key ① (refer to "Abstract for Trouble-Shooting & Diagnostics" in the hood). By using the arrow keys \uparrow and \downarrow the last 10 error codes are displayed chronologically. Thereby the display indicates in turns the error numbers from "0" to "9" and the corresponding error. The last error will be recorded at position "0" and the former ones each shifted 1 position backwards.

"LL": Lock level

The operating mode of the appliance can be restricted.

Setting Options:

"0" no restriction (factory setting)

"1" factory reset via key (countdown) not possible, parameters can be seen, but not be modified in setup menu

"2" same as "1", additionally the setup menu cannot be opened

"3" same as "2" additionally nominal value memory 1 and 2 not changeable

"4" same as "3", additionally nominal value not changeable

Note: When the setting 1, 2, 3 or 4 was chosen, the system parameters can no longer be modified in the service menu.

In order to modify these system parameters, it is necessary to remove the jumper on the power electronics, as specified in the chapter "Deactivation of the lock

9. Service menu

Menu item order of "Service menu":

↑	FL	Flow
	PO	Power
	t1	Temp in
	t2	Temp out
	CR	Control value
⏮	PL	Power limit
	Er	Diagnostics
	LL	Lock level
⏭	nr	Software version
	Ch	Radio channel
	rS	Received strength
	BL	Backlight
	tL	Temperature limit
↓	IIC	Signal

level".

"nr": Software version

Information about installed software version.

"Ch": Radio channel

(with wireless module only)

Information about the current radio channel of the water heater and its remote control.

"rS": Received strength

(with wireless module only)

Information about the current signal quality of the remote control as percentage.

Depending on the distance between remote control and water heater the value varies between 10 % and 100 %.

"tL": Temperature limit

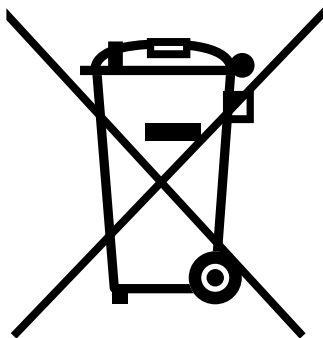
The maximum setable temperature can be reduced to any value within the temperature limit.

The Lock Level must be activated by placing the jumper to enable the limitation.

"IIC": Signal

Information about the quality of the radio contact when a diagnostic display is connected.

10. Environment and recycling



Disposal of old products: Your product was manufactured from high-quality, reusable materials and components. Products marked with the crossed-out wheeled bin symbol must be disposed of separately from household waste at the end of their service life. Therefore, take this product to us as the manufacturer or to one of the municipal collection points that recycle used electronic devices. This proper disposal serves to protect the environment and prevents possible harmful effects on humans and the environment that could result from improper handling of the products at the end of their service life. For more detailed information on disposal, please contact your nearest collection point or recycling centre or your local council.

Business customers: If you wish to discard equipment, please contact your dealer or supplier for further information.

Head Office

Zip Water (Aust) Pty. Ltd
ABN: 46 000 578 727
67-77 Allingham Street
Condell Park NSW 2200
Postal: Locked Bag 80
Bankstown 1885 Australia

Website: www.zipwater.com
Telephone: (02) 9796 3100
Free Call: 1 800 638 633

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Quick reference guide

