

# Zip

## Instantaneous Hot Water



### **Electronically controlled instantaneous water heater**

DBX18: 27950 - 50 °C and DBX27: 27960 - 50 °C models

Installation and Operating Instructions

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

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## 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.

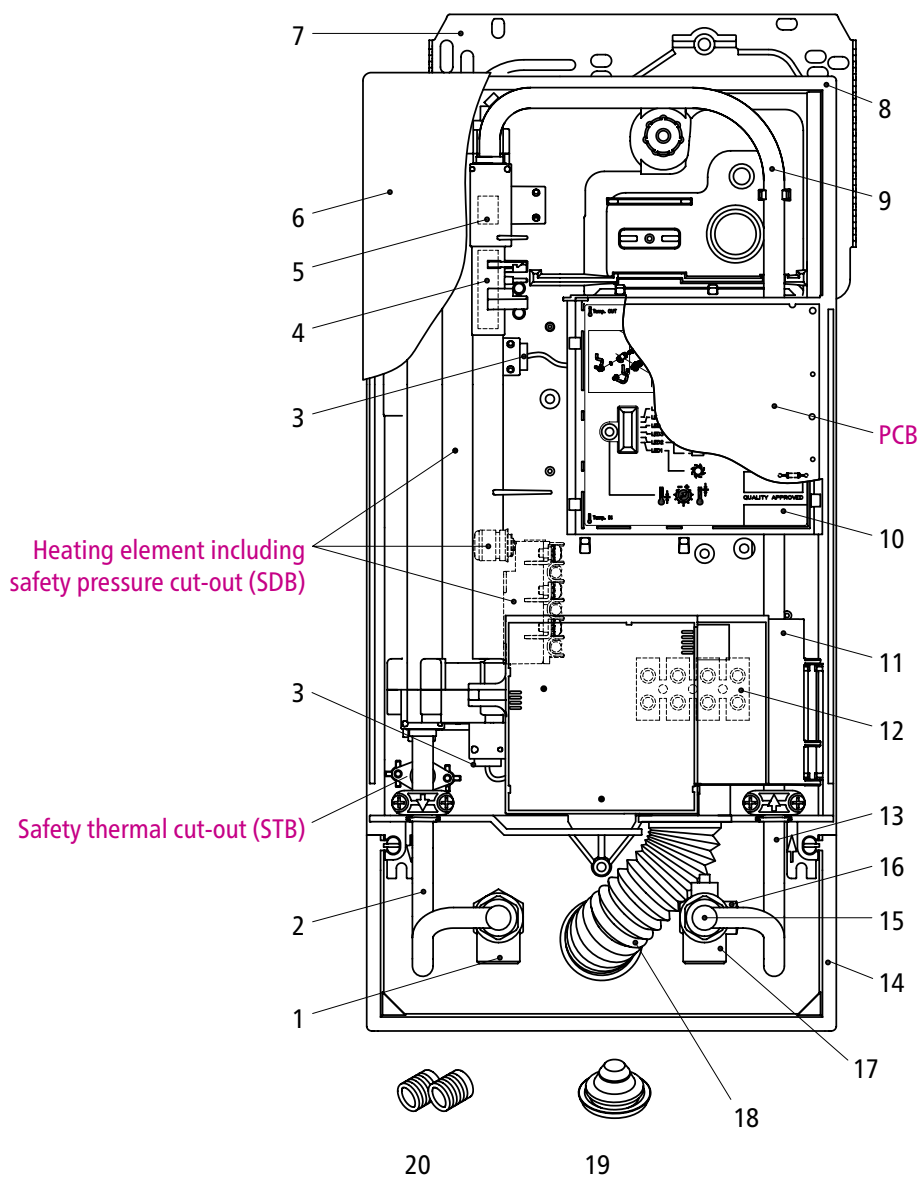
- Do not use the appliance until it has been correctly installed and unless it is in perfect working order.
- Do not remove the front cover under any circumstances before switching off the mains electrical supply to the unit.
- Never make technical modifications, either to the appliance itself or the 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 damage 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  $\geq 3$  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
1	<b>99381</b>	<b>Hot water connection</b>
2		Outlet pipe
3	<b>99382</b>	<b>D series thermal sensor set 2.1</b>
4	<b>99384</b>	<b>Flow sensor</b>
5	<b>99385</b>	<b>Non-return valve</b>
6		DBX hood
7		Wall bracket
8		Bottom part
9		DBX / DEX connecting pipe
10	<b>99386</b>	<b>PCB cover 2.1</b>
11		Control panel support
12		Connecting terminal
13		Inlet pipe

Pos.	Part.-No.	Description
14		Frame
15	<b>99447</b>	<b>Flow limiter 7 l/min</b>
15	<b>99392</b>	<b>Flow limiter 8 l/min</b>
15	<b>99448</b>	<b>Flow limiter 9 l/min</b>
15	<b>99449</b>	<b>Flow limiter 10 l/min</b>
16	<b>99388</b>	<b>Fine filter</b>
17	<b>99389</b>	<b>Cold water connection</b>
18		Water splash protection sleeve
19		Grommet
20		Screw-in nipples 1/2"
not shown:		
22	<b>99390</b>	<b>Fittings kit</b>

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

### 3. Technical data

Model	DBX 18 .. 27 BASITRONIC®	
	DBX 18	DBX 27
Energy efficiency class	A *)	
Capacity set / current	18 kW (25 A)	27 kW (37.6 A)
Electrical connection	3~ / PE 415 V AC	3~ / PE 415 V AC
Min. required cable size <sup>1)</sup>	see note 1)	
Hot water (l/min) <sup>2)</sup>	max. at $\Delta t = 28 \text{ K}$ max. at $\Delta t = 38 \text{ K}$	13,8 10,2
Rated volume	0,4 l	
Rated pressure	1,0 MPa (10 bar)	
Connecting type	open outlet / closed outlet	
Heating system	Bare wire heating system IES®	
Required specific water resistance @ 15 °C	$\geq 1300 \Omega \text{cm}$	
Specific electrical conductivity	$\leq 90 \text{ mS/m}$	
Inlet temperature	$\leq 30 \text{ °C}$	
Flow rate to switch on – max. flow rate <sup>3)</sup>	2,5 – 7,0 l/min	2,5 – 9,0 l/min
Pressure loss	0,2 bar at 2,5 l/min	1,3 bar at 9,0 l/min <sup>4)</sup>
Temperature range	20 °C – 50 °C	
Water connection	G ½"	
Weight (when filled with water)	3,65 kg	
VDE class of protection	I	
Noise level test certificate	PA-IX 6762/I	
Type of protection / safety	   IP25  	

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

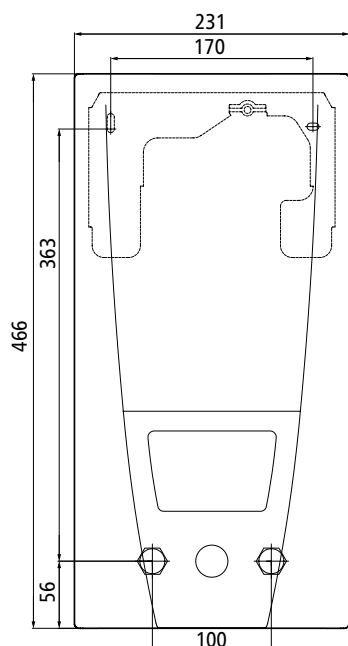
1) The cross sectional area of the connection cable must be in accordance with the power rating of the appliance and the specific requirements of AS/NZS 3000.

2) Mixed water

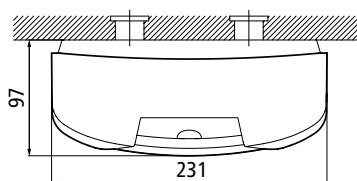
3) Flow rate limited to achieve optimum temperature rise, other flow limiter available.

4) Without flow regulator

### 4. Dimensions



Dimensions in mm



## 5. 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

### Installation site

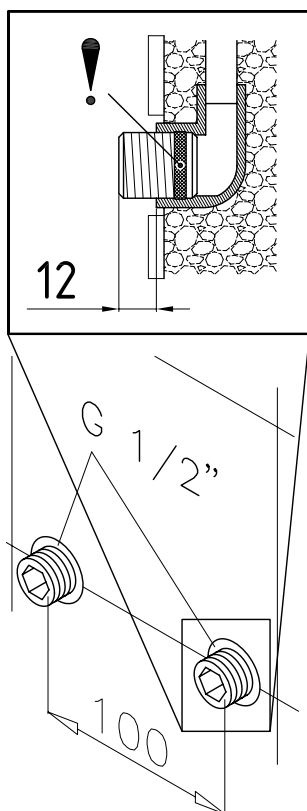
- Appliance must only be installed in frost-free rooms. Never expose appliance to frost.
- The Appliance must be wall mounted and has to be installed with water connectors downward.
- The appliance complies with protection type IP25.
- To avoid thermal losses and dead legs, the distance between the instantaneous 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 1300  $\Omega$ cm at 15 °C. The specific resistance can be asked for with your water distribution company.
- For 50 °C models, the appliance delivers water not exceeding 50 °C in accordance with AS3498.

## 5. Installation

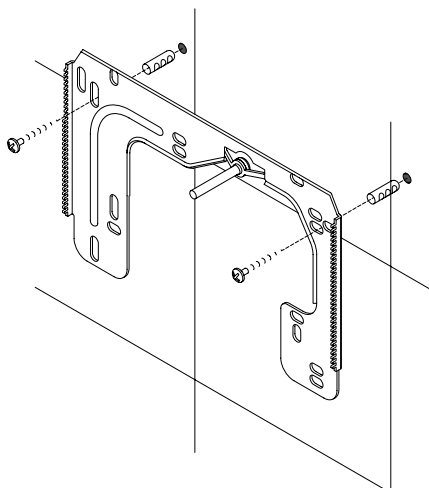
### Installing the wall bracket

**Note:** If you install this instantaneous water heater in exchange for a conventional instantaneous water heater, there is generally no need to drill holes for the wall bracket, in this case step 2 would not be necessary.

**Thoroughly rinse the water supply pipes before installation to remove soiling from the pipes.**



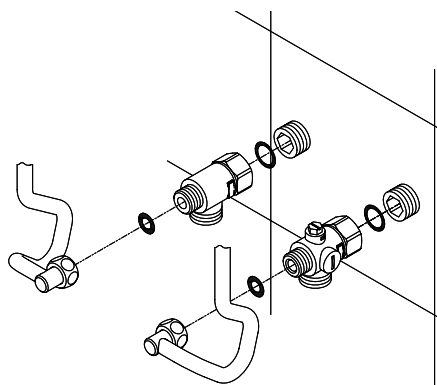
1. Using a 12 mm hexagon socket screw key, screw the screw-in nipples into the wall connections. The seals must be fully screwed into the thread. After tightening, the double nipples must protrude by at least 12 mm.
2. Hold the included mounting template on the wall and align it so that the holes in the template fit over the connections. Mark the drill holes according to the template and drill them using a 6 mm drill. Insert the included dowels.
3. Screw in the wall bracket. Offset tiling or uneven surfaces can be compensated by up to 30 mm with the aid of the spacers supplied. The spacers are fitted between the wall and the wall bracket.



### Installing connection pieces

**Note:** Fasten the screw nuts with caution, to avoid damage to the valves or the piping system.

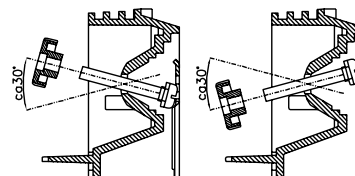
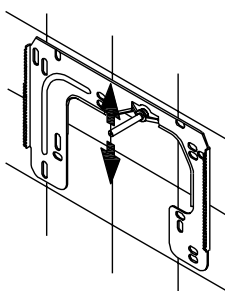
1. As shown in the illustration, screw the cold water connection piece with the union nut and the 1/2 inch seal onto the cold water connection.
2. Screw the hot water connection piece with the union nut and the 1/2 inch seal onto the hot water connection.



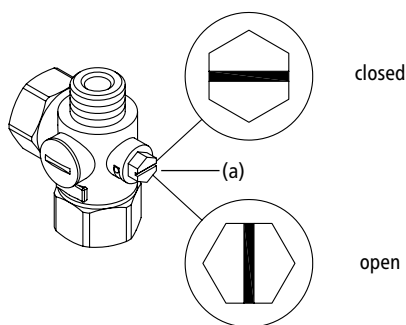
## 5. Installation

### Installing the appliance

1. To open the appliance hood, take off the faceplate and unscrew the main hood screw.
- When replacing an appliance, the electrical power supply cable may be connected in the upper part. Only in such case, follow the instructions "Electrical connection from above".
2. Place the appliance on the heater bracket so that the threaded rod of the wall bracket fits in the provided hole of the appliance. If necessary, slight corrections are possible by carefully bending the threaded rod of the wall bracket. However, it must be possible to screw on the water connection pipes of the appliance without applying force.

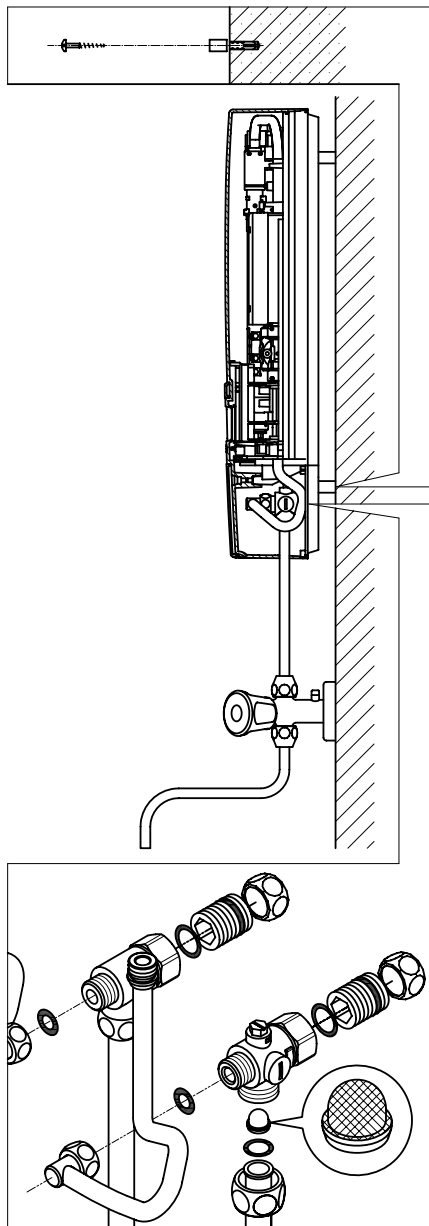


3. Screw the two  $\frac{3}{8}$  inch union nuts of the appliance's water connection pipes, each with the  $\frac{3}{8}$  inch seal, onto the fittings.
4. Screw the plastic knurled nut onto the threaded rod of the wall bracket.
5. Open the water supply line to the unit and slowly open (position "open") the shut-off valve (a) in the cold water connection piece. Check all connections for leaks.
6. Next, open and close the hot water tap valve several times until no more air emerges from the line and all air has been eliminated from the instantaneous water heater.





## 5. Installation



### Surface mounted installation

**Note:** Fasten the screw nuts with caution, to avoid damage to the valves or the piping system.

For direct connection, the two  $\frac{1}{2}$  inch screw-in nipples and the  $\frac{1}{2}$  inch seals must be screwed into the  $\frac{1}{2}$  inch union nuts of the hot-water and cold-water connectors. The two  $\frac{1}{2}$  inch caps of the side outlets of the hot-water and cold-water connectors must be removed and screwed onto the open end of the screw-in nipples. The hot-water and cold-water connectors must then be screwed into the  $\frac{3}{8}$  inch union nut of the appliance and delivery pipe, together with the  $\frac{3}{8}$  inch seals.

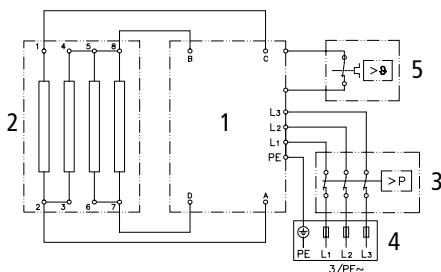
For direct connection, it is advisable to mount the appliance at a distance as illustrated alongside, using the spacer sleeves supplied. It should therefore be noted that the two fixing holes near the lower pipe connections are also used.

The flared end of the pipes must be screwed into the  $\frac{1}{2}$  inch side outlets of the hot-water and cold-water connectors with  $\frac{1}{2}$  inch union nuts and  $\frac{1}{2}$  inch seals. The holes required for the pipes must then be broken out of the housing with the aid of a blunt implement.

**In case of direct connection please note: Put the strainer into the cold water connection!**

## 6. Electrical connection

### Wiring diagram



1. Electronic circuitry
2. Heating element
3. Safety pressure cut-out
4. Terminal strip
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

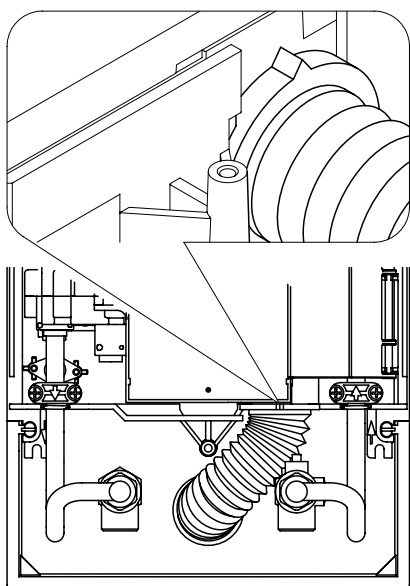
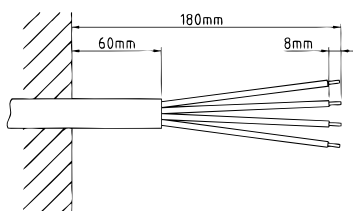
- The cross sectional area of the connection cable must be in accordance with the power rating of the appliance and the specific requirements of AS/NZS 3000.
- The appliance must be permanently connected to the electrical supply through an isolation switch as per AS/NZS 3000.
- The electric wiring should 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 from below

**Note:** If necessary, the connecting terminal can be displaced to the upper part of the appliance. If you want to do so, please follow the instructions in the next chapter.

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

1. Dismantle approximately 6 cm off the connecting cable above the wall outlet. With the smaller opening ahead, slide the water splash protection sleeve over the connecting cable so that the sleeve is flush with the wall. This prevents any leaking water from coming into contact with the electrical leads. It must not become damaged! The protection sleeve must be used!
2. Open the control panel rightwards.
3. Strip the cables and plug them in the connecting terminals according to the wiring diagram. The appliance must be earthed.
4. Pull the protective sleeve over the connecting cables until the sleeve fits perfectly in the recess of the intermediate panel. Adjust the water splash protection sleeve as illustrated. Reinsert the control panel and lock it on the heating element.
5. Place the hood on the appliance and screw in the fastening screw. After that you can reinsert the faceplate.

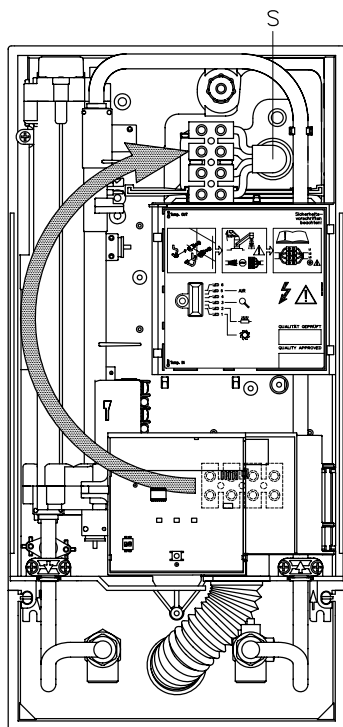


## 6. Electrical connection



### Electrical connection from above

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



1. Open the prepared breaking point (S) in the upper part of the appliance by pressing with a blunt implement (e.g. screwdriver).
2. Slit the grommet to match the cable size. The opening in the grommet should be slightly smaller than the cross-section of the cable in order to ensure optimum protection against water. Fit the grommet into the opening. The protection grommet must be used!
3. Dismantle the cable roughly 6 cm above the point where it emerges from the wall. Hold the prepared appliance so that you can route the cable into the grommet with the other hand.
4. Place the appliance on the heater bracket so that the threaded rod of the wall bracket fits in the provided hole of the appliance.
5. Open the control panel rightwards.
6. Unscrew the fastening screw of the connecting terminal. Displace the connecting terminal to the upper foot. Affix the connecting terminal again.
7. Strip the cables and plug them in the connecting terminals according to the wiring diagram. The appliance must be earthed.
8. Reinsert the control panel and lock it on the heating element.
9. Place the hood on the appliance and screw in the fastening screw. After that you can reinsert the faceplate.

## 7. Initial operation



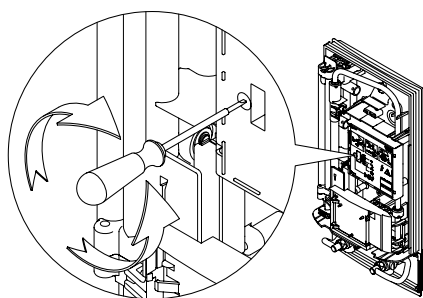
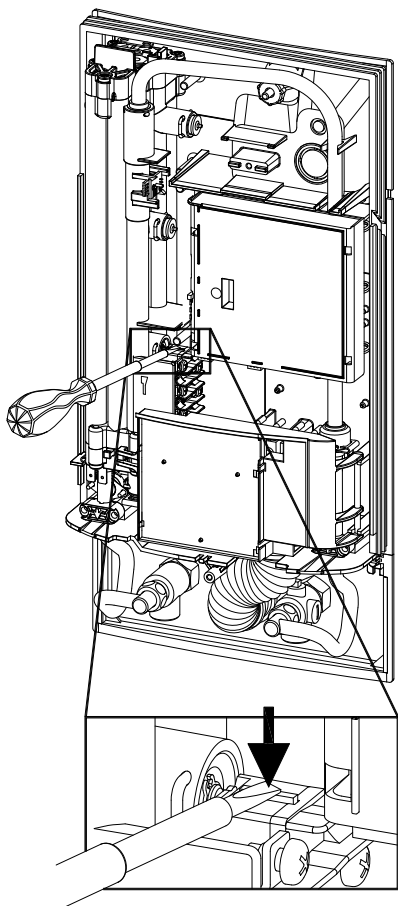
Before making the electrical connection, fill the mains and the appliance with water by carefully opening and closing the hot water tap in order to vent completely.

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.

1. Switch on the power supply to the appliance.
2. Open the hot water tap. Check the function of the appliance. The heating element will be activated after approx. 10 - 30 seconds of continuous water flow.
3. Explain the user how the instantaneous water heater works and hand over the operating instructions.
4. Fill out the guarantee registration card and send it to the Zip Customer service or register on line at: [www.zipwater.com](http://www.zipwater.com).



### Modification of factory preset outlet temperature

The factory set hot water outlet temperature is 50 °C.

This factory setting can be modified within the range of approx. 20 °C to 50 °C by turning the readout potentiometer with a slotted screwdriver (width approx. 2 mm).

The hot water outlet temperature will be decreased by clockwise rotation and increased by counterclockwise rotation.

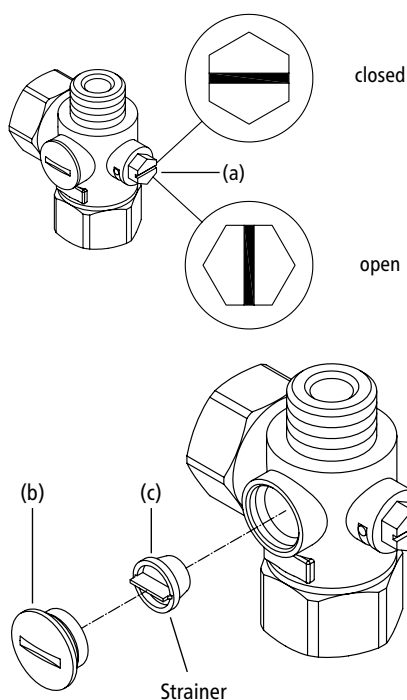
**THIS APPLIANCE DELIVERS WATER NOT EXCEEDING 50 °C IN ACCORDANCE WITH AS3498.**

## 8. Maintenance work

**Maintenance work must only be conducted by an authorised professional.**

### Cleaning and replacing the filter strainer

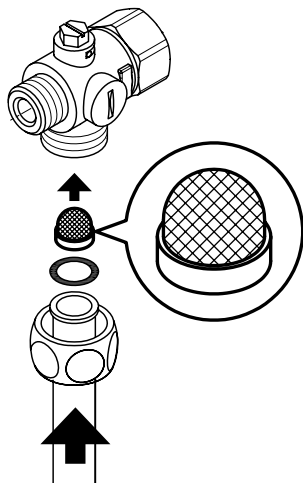
The cold water connection of this instantaneous water heater is equipped with an integrated shut-off valve and a strainer. Soiling of the strainer may reduce the warm water output. Clean or replace the strainer as follows:



1. De-energize the instantaneous water heater (e.g. via deactivating the fuses) and prevent inadvertent reactivation of them.
2. To open the hood, take off the small face plate, loose the screw behind this cover and detach the hood.
3. Close the shut-off valve (a) in the cold water connection piece (position "closed").
4. Unscrew the screw plug (b) from the cold water connection piece and take out the strainer (c).
5. The strainer can now be cleaned or replaced.
6. After fitting of the clean strainer tighten the screw plug.
7. Slowly reopen the shut-off valve in the cold water connection piece (position "open").
8. Vent the unit by carefully opening and closing the affiliated warm water tap valve several times until air no longer emerges from the pipe.
9. Fit the hood of the unit. Then switch on the power again (e.g. via activating the fuses).

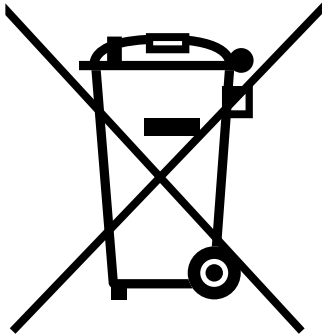
### Cleaning and replacing the filter strainer if direct connected

The cold water connection of this instantaneous water heater is equipped with a strainer. Soiling of the strainer may reduce the warm water output. Clean or replace the strainer as follows:



1. De-energize the instantaneous water heater (e.g. via deactivating the fuses) and prevent inadvertent reactivation of them.
2. Close the shut-off valve in the mains water supply of the instantaneous water heater.
3. To open the hood, take off the small face plate, loose the screw behind this cover and detach the hood.
4. Unscrew mains water inlet from connection piece and take out the strainer.
5. The strainer can now be cleaned or replaced.
6. After refitting the clean strainer reconnect the mains water inlet to the connection piece.
7. Slowly reopen the shut-off valve in the mains water supply.
8. Vent the unit by carefully opening and closing the affiliated warm water tap valve several times until air no longer emerges from the pipe.
9. Fit the hood of the unit. Then switch on the power again (e.g. via activating the fuses).

## 9. Environment and recycling

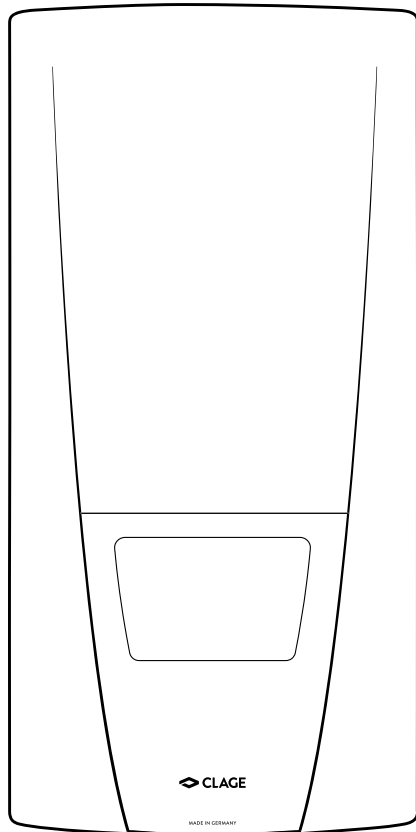


Your product was manufactured from high-quality, reusable materials and components. Please respect in case of discarding that electrical devices should be disposed of separately from household waste at the end of their service life. Therefore, please take this device to a municipal collection point that accepts electronic scrap. Disposing it correctly will support environmental protection and will prevent any potential negative effects on human beings and the environment that could arise from inappropriate handling of these devices at the end of their service life. Please contact your local authority for further details of your nearest designated collection point or recycling site.

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

## Instructions for the user

### 1. Description of appliance



The instantaneous water heater DBX is a electronically controlled, pressure-resistant water heater for a decentralised water supply to one or more taps.

**As soon as you open the hot water tap, the instantaneous water heater switches on automatically. When the tap is closed, the appliance automatically switches off. Its electronic control regulates the power consumption automatically depending on the feed temperature and the flow rate, thus reaching the set outlet temperature up to the appliance's power limit.**

The factory set outlet temperature is 50 °C. This factory setting can be adjusted in the appliance to be in a range of approx. 20 and 50 °C by a specialist only.

In case of a low feed temperature and a high flow rate at the same time, it could happen that the preset outlet temperature is not reached which is due to the fact that the appliance exceeded its capacity. The outlet temperature can be raised by reducing the water flow at the tap.

## 2. How to Use



### Venting after maintenance work

This instantaneous water heater features an automatic air bubble protection to prevent it from inadvertently running dry. Nevertheless, the appliance must be vented before using it for the first time. Each time the appliance is emptied (e.g. after work on the plumbing system, if there is a risk of frost or following repair work), the appliance must be re-vented before it is used again.

1. Disconnect the instantaneous water heater from the mains (e.g. via deactivating the fuses).
2. Unscrew the jet regulator on the outlet fitting and open the cold water tap valve to rinse out the water pipe and avoid contaminating the appliance or the jet regulator.
3. 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.
4. Only then should you re-connect the power supply again (e.g. via activating the fuses) to the instantaneous water heater and screw the jet regulator back in.
5. The appliance activates the heater after approx. 10 seconds of continuous water flow.

### Cleaning and maintenance

- Plastic surfaces and fittings should only be wiped with a damp cloth. Do not use abrasive or chlorine-based cleaning agents or solvents.
- For a good water supply, the outlet fittings (special tap aerators and shower heads) should be unscrewed and cleaned at regular intervals. Every three years, the electrical and plumbing components should be inspected by an authorised professional in order to ensure proper functioning and operational safety at all times.



### 3. Troubleshooting and service



Repairs must only be carried out by authorised professionals.

If a fault in your appliance cannot be rectified with the aid of this table, please contact the service organisation of your importer or the Central Customer Service Department. Please have the details of the typeplate at hand.

This instantaneous water heater was manufactured conscientiously and checked several times before delivery. First attempt to switch the house fuses off and on again in order to reset the electronics. Next, try to remedy the problem with reference to the following table. In doing so, you will avoid unnecessary expense of customer service assistance.

Problem	Cause	Solution
Water stays cold	Master fuse tripped	Renew or activate fuse
Flow rate of hot water too weak	Outlet fitting dirty or calcified	Clean shower head, jet regulator or sieves
	Fine filter dirty or calcified	Clean fine filter
Selected temperature is not reached	Excessive water flow	Reduce water flow rate at the outlet
Selected temperature is perceived to be too cold	Set temperature too low	Increase set temperature by a specialist
Selected temperature is perceived to be too hot	Set temperature too high	Decrease set temperature by a specialist

## Head Office

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Bankstown 1885 Australia

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Telephone: (02) 9796 3100  
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