Zip

Instantaneous Hot Water

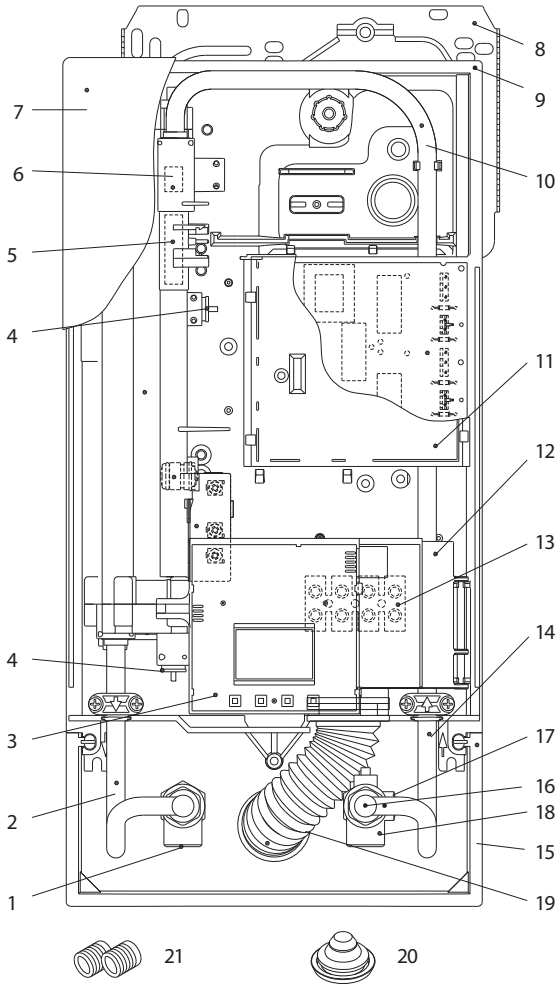
Electronically controlled instantaneous water heater

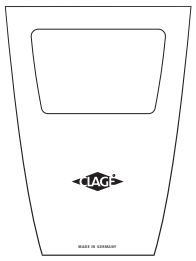
DEX: 27931 - 60 °C models

Instructions for the user

1. Overview

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





Pos.	Part.-No.	Description
1	**801097**	**Hot water connection**
2		Outlet pipe
3	**801107**	**DEX control panel**
4	**801098**	**DSX / DEX thermal sensor set 2.1**
5	**801100**	**Flow sensor**
6	**801101**	**Non-return valve**
7		DEX hood
8		Wall bracket
9		Bottom part
10		DBX / DEX connecting pipe
11	**801102**	**PCB cover 2.1**
12		Control panel support
13		Connecting terminal
14		Inlet pipe

Pos.	Part.-No.	Description
15		Frame
16	**801108**	**Flow limiter 8 l/min**
17	**801104**	**Fine filter**
18	**801105**	**Cold water connection**
19		Water splash protection sleeve
20		Grommet
21		Screw-in nipples 1/2”
22	**801109**	**Faceplate**
not shown:		
23	**801106**	**Set of small spare parts**
24		Operating foil

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

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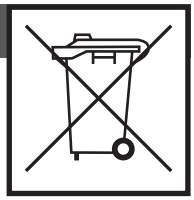
2. Environment and recycling



This symbol on the products and / or accompanying documents means that used electrical and electronic products should not be mixed with general household waste. For proper treatment, recovery and recycling, please take these products to designated collection points. Alternatively, in some countries you may be able to return your products to your local retailer upon the purchase of an equivalent new product. Disposing of this product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point. Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation. If you are a business user and you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information. This symbol is only valid in the European Union.

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3. Safety instructions

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.
- The appliance is suitable but not limited to domestic use and similar applications inside closed, frost-free rooms, and must only be used to heat potable water from mains supply.
- The appliance must never be exposed to frost.
- The appliance must be earthed at all times.
- The minimal specific water resistance must not fall below the value stated on the label.
- The maximum water pressure must not exceed the value on the label.

- Before commissioning for the first time and each time the appliance is emptied (e.g. due to work on the plumbing system, if there is a risk of freezing or in case of maintenance), the appliance must be vented correctly in accordance with the instructions in this manual.
- 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.
- 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.
- Water inlet temperature must not exceed 70 °C.
- In case of malfunction, disconnect the fuses immediately. In case of leaks, cut off the cold water supply instantly. Repairs must only be carried out by the customer service department or an authorised professional.
- This appliance must not be used by any person (including children) with limited physical, sensorial or mental abilities or failing experience and/or knowledge unless they are supervised by a person responsible for their safety or received instructions about how to use the appliance. Children should be supervised in order to make sure that they do not play with the appliance.

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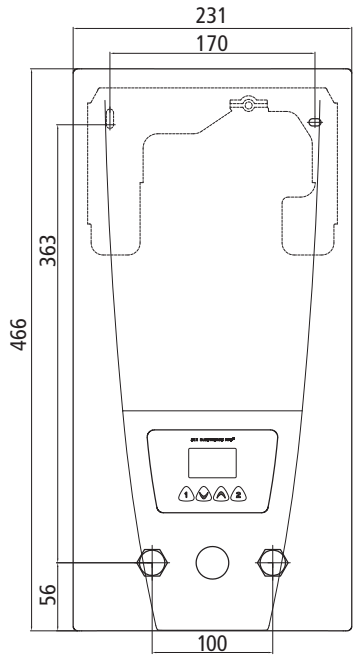
4. Technical specifications

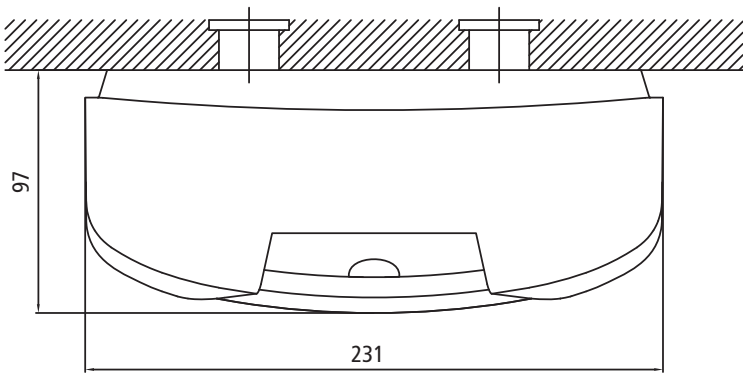
Model	DEX ELECTRONIC MPS®			
Part no.	27931 - 60 °C models			
Rated capacity / rated current	18 kW..27 kW (26 A..39 A)			
Chosen capacity / current	18 kW (26 A)	21 kW (30 A)	24 kW (35 A)	27 kW (39 A)
Electrical connection	3/PE 380..415 V AC			3/PE 400 V AC
Min. required cable size	See note 1)			
Hot water (l/min) max. at Δt = 28 K max. at Δt = 38 K	9,2 [2] 6,8	10,7 [2] 7,9	12,3 [2] 9,0 [2]	13,8 [2] 10,2 [2]
Rated volume	0,4 l			
Type	Pressure type 1 MPa (10 bar)			
Heating system	Bare wire heating system IES®			
Required spec. water resistance @ 15 °C Spec. electrical conductivity	≥ 1100 Ωcm ≤ 90 mS/m			
Inlet temperature	≤ 70 °C			
Flow rate to switch on – max. flow rate	2,5 – 8,0 l/min [3]			
Pressure loss	20kPa at 2,5 l/min 130kPa at 9,0 l/min [4]			
Temperature choice	20 °C – 60 °C			
Water connection	G ½“			
Weight (when filled with water)	3,70 kg			
VDE class of protection	I			
Noise level test certificate	PA-IX 6762/I			
Type of protection / safety	IP25			

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
4) Without flow regulator

5. Dimensions

Dimensions in mm





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6. Typical installations

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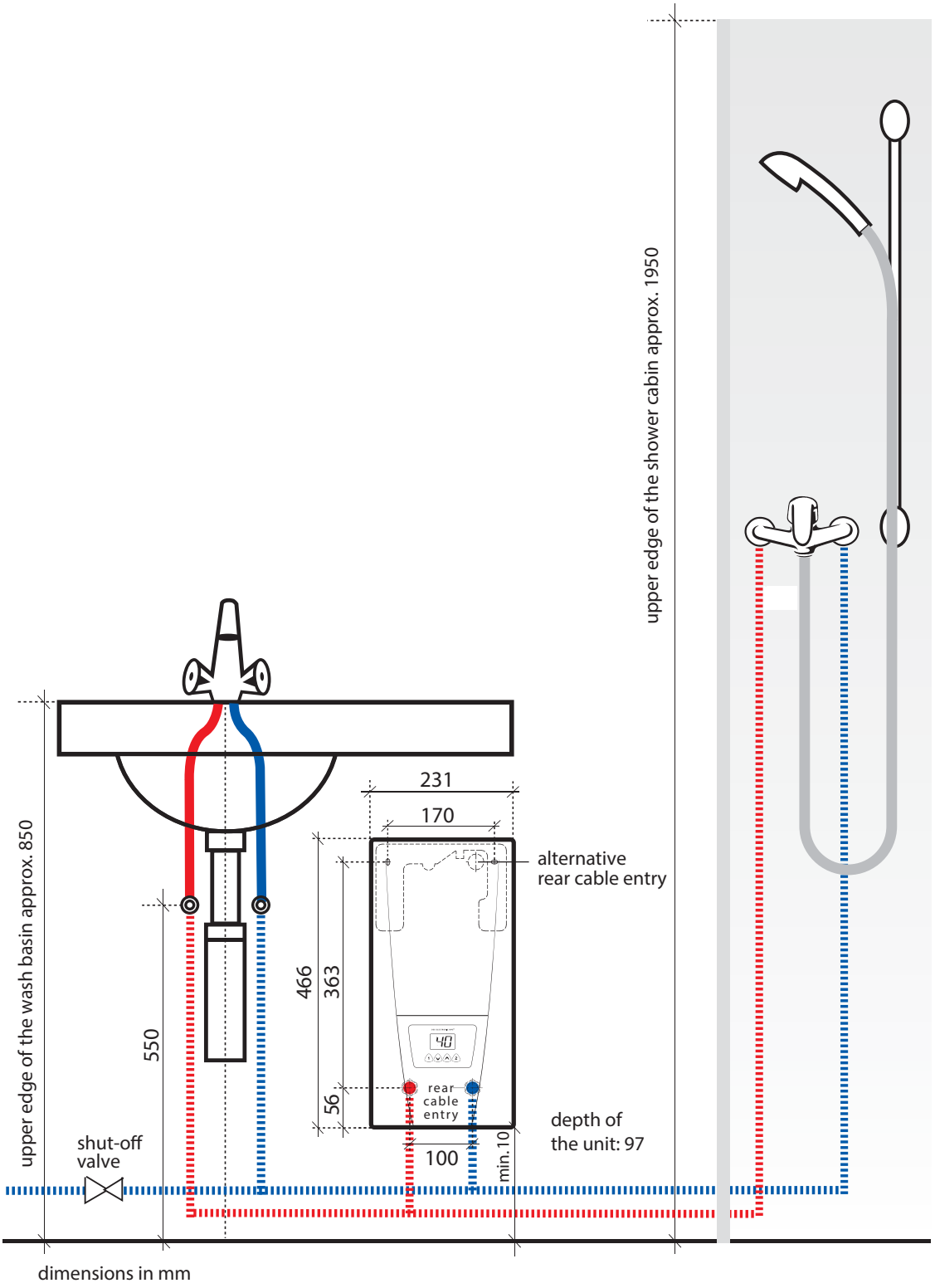


7. Description of applicance

The instantaneous water heater DEX is a microprocessor-controlled, pressure-resistant water heater for a decentralised water supply to one or more tap connections.

Its electronic control regulates the power consumption depending on the selected outlet temperature, the respective inlet temperature and the flow rate, thus reaching the set temperature exactly to the degree and keeping it constant in case of pressure fluctuations. The required outlet temperature can be entered between 20 °C and 60 °C and is indicated on the digital display.

This appliance may be able to be used with a Thermostatic Mixing valve or where serving a fixture that does not require temperature limitation such as a commercial Kitchen sink or Cleaners sink. Refer to AS/NZS 3500.4.

8. Operation

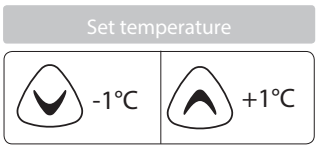
Temperature setting

The required hot water temperature can be increased or decreased in increments of 1°C by briefly pressing the up arrow and down arrow function keys.

Depressing the function key for a longer time changes the temperature continuously.

The temperature can be adjusted between 20°C and 60°C.

Note. Reducing the temperature below 20°C displays '- -' and the heating function will not operate.



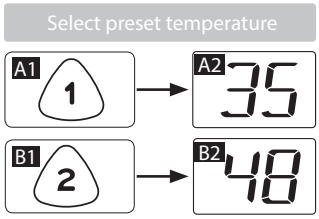
Program buttons

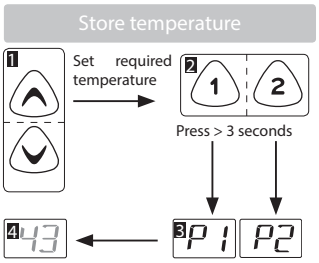
The two program keys allow a preset temperature to be selected quickly.

The factory setting is 35°C for program 1 and 48°C for program 2.

The preset temperature can be changed to the current temperature setting by prolonged pressing of the program key.

The display changes from 'P1' or 'P2' to the new temperature value which becomes available each time the corresponding program key is pressed.





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9. Additional features

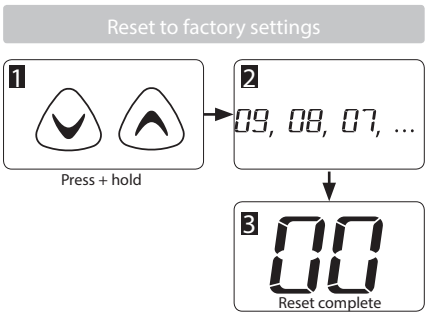
Reset to factory settings

To reset to factory settings press the up arrow and down arrow function keys simultaneously.

The display will count backwards from ‘10’ to ‘00’ in one second intervals.

The appliance is reset when the counter reaches ‘00’.

Releasing the function keys earlier will cancel the process.



Energy saving

Set the required hot water temperature on the appliance.

If the water is too hot reduce the temperature on the appliance instead of mixing with cold water.

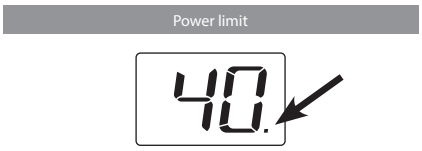
Adding cold water wastes valuable energy that has been used producing excessively hot water.

Also, any cold water added is not controlled by the electronic circuitry meaning that precise temperature control can no longer be guaranteed when supplying more than one outlet.

Power limit

If the maximum power available from the DEX heater is insufficient to heat the volume of hot water being drawn off to the required temperature, this will be indicated by the LCD decimal point on the display.

Reducing the flow rate will enable the required temperature to be delivered indicated by the decimal point remaining solid.



Operation with solar systems

Type DEX are suitable for use with solar heating systems providing appropriate controls are in place to ensure that the temperature of the water entering the unit does not exceed 70°C.

If the inlet temperature exceeds the set point, the flashing decimal point on the display indicates that the heating power is switched off.

10. Maintenance

N.B. Maintenance work must only be carried out by a qualified tradesperson familiar with instantaneous water heaters.

Plastic surfaces and sanitary fittings should only be wiped with a damp cloth.

Never use abrasive or chloric cleaning agents or solvents.

Outlet fittings (tap nozzles and shower heads) should be unscrewed and cleaned at regular intervals.

The electrical and plumbing components should be inspected regularly by a competent person to ensure proper functioning and operational safety. Water quality should be considered when determining the frequency of inspection.

Each time the appliance is emptied (e.g. due to work on the plumbing system, if there is a risk of freezing or in case of maintenance), the appliance must be vented by opening and closing the hot water tap until all air has been eliminated from the water heater and no more air emerges before re-connecting to the electrical supply.

Cleaning and replacing the filter strainer

The cold water connection of the appliance is fitted with an integral shut-off valve and filter strainer. Soiling of the strainer may reduce hot water output from the unit.

The strainer should be cleaned or replaced as follows:

1. Isolate the electrical supply to the unit.
2. Remove the appliance cover and close the shut-off valve (see Fig 12) in the cold water connection piece to position II.
3. Unscrew the screw plug (A) from the cold water connection piece and take out the strainer (B) (see Fig 13).
4. The strainer can now be cleaned or replaced.
5. After re-fitting the strainer tighten the screw plug.
6. Slowly open the shut-off valve in the cold water connection piece to position 1.
7. Vent the unit by carefully opening and closing the hot water tap several times until all air has been eliminated from the water heater and no more air emerges.
8. Re-fit the appliance cover and restore power to the unit.

Fig 12

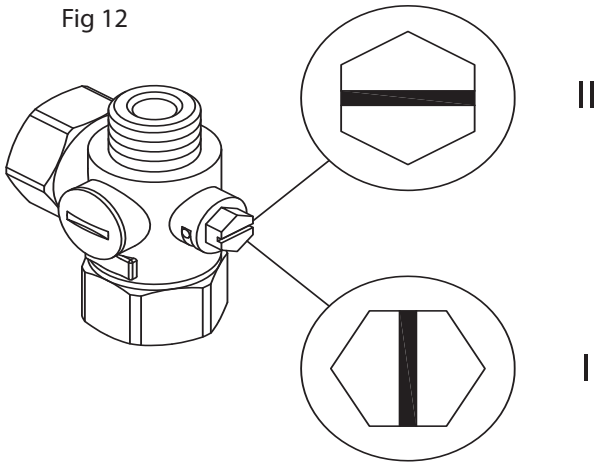
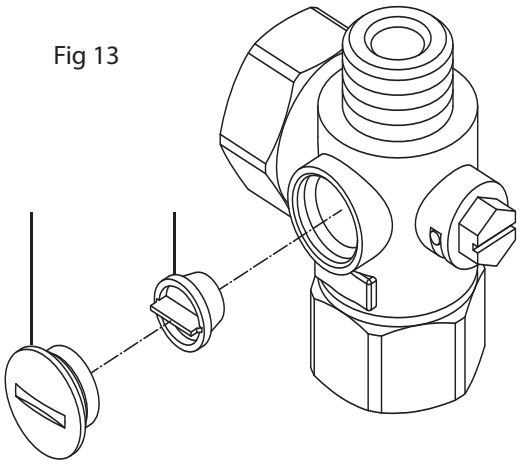


Fig 13



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11. Fault finding

Repairs should only be carried out by qualified tradespersons familiar with electric instantaneous water heaters.

All service work should be performed by an authorized Zip service technician – for details of the full range of services available call Zip Service on 1800 460 222.

When calling for service, please always specify the appliance model and serial number.

The following table will be helpful in determining the causes of some common problems and their solutions.

Problem	Cause	Solution
Water stays cold Digital display does not light up	Circuit breaker tripped	Reset circuit breaker
	STCO tripped	Contact Zip Service to reset STCO
Display flashes error message 'ER'	Control system has switched off	Switch power supply off and on. If 'ER' still flashes contact Zip Service
Poor hot water flow rate	Outlet fitting dirty or calcified	Clean shower head or tap nozzle
	Fine filter dirty or calcified	Contact Zip Service to clean fine filter
Selected temperature not achieved Decimal point flashes	Excessive water flow rate	Reduce water flow rate at the outlet
Selected temperature not achieved Decimal point does not flash	Cold water has been added at the outlet	Set for required temperature and tap hot water only
Decimal point flashes	Inlet temperature exceeding set point	Reduce inlet temperature
No response to key press	Appliance cover not fitted correctly	Contact Zip Service

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Head Office

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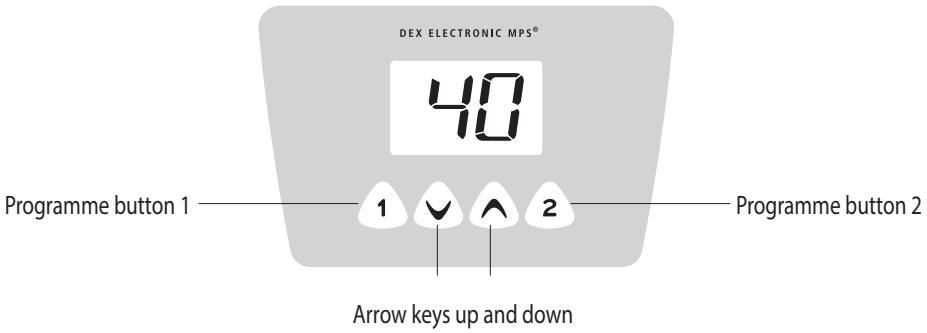
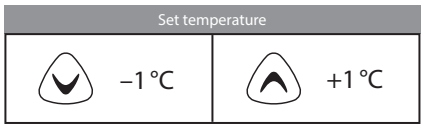
As Zip policy is one of continuous product improvement, changes to specifications may be made without prior notice. Images in this booklet have been modified and may not be true representations of the finished goods.

…the innovative hot water solution.

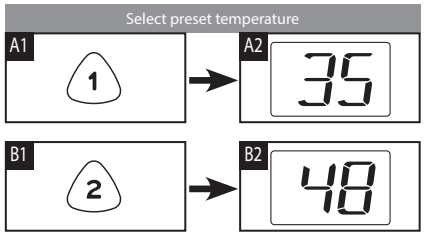
Quick reference guide



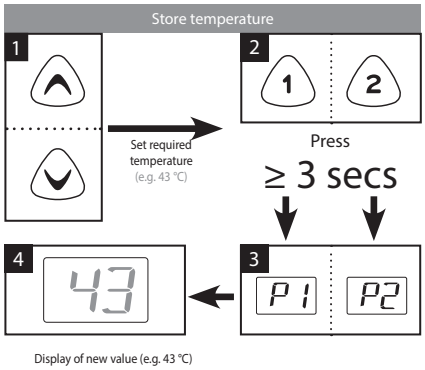
Set temperature



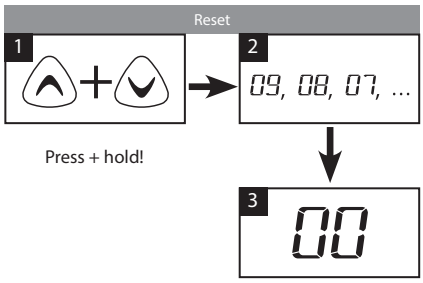
Select preset temperature



Store temperature



Reset



Power limit

Unit provides no output

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