

■ Operating and installation instructions

To users/professionals

Operating and installation instructions



EIWH
electronicVED pro series
VED E 9/1-B IN

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1 Safety

1.1 Classification of action-related warnings

The action-related warnings are classified in accordance with the severity of the possible danger using the following warning signs and signal words:

Warning symbols	Signal words	Explanation
	Danger !	Imminent danger to life or risk of severe personal injury
	Danger !	Risk of death from electric shock
	Warning.	Risk of minor personal injury
	Caution.	Risk of material or environmental damage

Table 1.1 Warning symbols and symbol words

1.2 Intended use

Vaillant EIWH electronicVED pro complies with current technology and safety requirements. There is a risk of injury or death to the users or others, or of damage to the product and other property in the event of improper use or use for which it is not intended.

The appliance is not designed to be used by persons limited in physical, sensory or mental capacity (including children) or persons lacking experience and / or knowledge unless there are guardians to explain how to use the equipment to those persons. Children must be taken care of to ensure that they will not play with the appliance.

Vaillant EIWH electronicVED pro is only allowed to heat domestic water. Vaillant EIWH electronicVED pro is only suitable for household use of frost free closed indoor. Vaillant EIWH electronicVED pro is not intended as hot water circulation system.

Any other use that is not specified in these instructions, or use beyond that specified in this document shall be considered improper use. Any direct commercial or industrial use is also deemed to be improper.

The manufacturer/supplier is not responsible for damage caused by improper use. The users also shall bear the risk alone.

Intended use including the following:

- Observance of accompanying operating, installation and maintenance instructions for the product and any other system components
- Compliance with all inspection and maintenance conditions listed in the instructions.

1.3 General safety information

Installation, operating, maintenance and repair

Only persons from professional company who are sufficiently qualified are allowed to conduct installation, commissioning, maintenance and repair of Vaillant EIWH electronicVED pro. It is only allowed to install Vaillant EIWH electronicVED pro according to the instructions.

- ▶ The rated voltage of the water heater is AV 220V, and the rated frequency is 50Hz.
- ▶ The product can provide prevention measures when grounding of water heater is abnormal. When grounding is abnormal, please stop using the water heater immediately, unplug power plug or disconnect electric connection and call service hotline of the company immediately.
- ▶ The water heater drained water (including the water heated by high temperature) is not allowed to be drunk directly.
- ▶ Water heater electrical connection shall use dedicated sub circuit. Check whether the meter, circuit breaker and wire diameter match with the water heater. The power line diameter is no less than 4 mm² (8.8KW). The air-break switch is no less than 40A. Have a qualified electrician to check if necessary.
- ▶ Please don't use damaged wire, or aged, loose, unfixed power socket, otherwise will cause electric shock, short circuit, fire and other accidents

Risk of death from electric shock due to power supply wire and connector

When performing all operations on working appliance, especially on power supply wire and connector, there is risk of death caused by electric shock.

- ▶ Only dealers and technicians that have been authorized by Vaillant may disassemble the appliance
- ▶ If electronicVED pro fails to work normally, please contact the professional company

Risk of death from electric shock due to due to power supply wire and connector

The resistance of domestic water shall be no less than 1300Ω.cm(15 °C) , otherwise the appliance is not allowed to use.

- ▶ Please first confirm the resistance and conductivity of the water with the local water supply company before the authorized professional install the appliance.
- ▶ If you have any doubts about the water quality, please consult the professional.

Risk of scalding caused by hot water

The outlet temperature of hot water could be as high as 60°C.

- ▶ When using electronicVED pro, please pay attention to the scalding risk caused by the high temperature of the outlet.

1 Safety

- ▶ To ensure that there is no risk of scalding, please set the water temperature to the highest 43 °C at electronicVED pro.

Risk of appliance damage caused by unqualified domestic water

Vaillant E1WH electronicVED pro is only used to heat domestic water. The domestic water shall comply with national domestic water quality requirement, otherwise the appliance may rust.

- ▶ If you have any doubts about the water quality, please consult a professional.

Risk of freezing

If E1WH electronic VED pro is kept in non-heating area for a long time, the water inside the appliance and pipe may be frozen in winter.

- ▶ Consult about relevant requirements with a professional
- ▶ Please ensure that electronicVED pro is installed in normally frost free rooms

Risk of damage caused by appliance modification

It is not allowed to make modifications on electronicVED pro.

If there are failures

- ▶ If electronicVED pro fails to produce hot water or there are any other failures, please contact a professional company
- ▶ Any failure occurs, please contact a professional company
- ▶ Except a professional, others are not allowed to repair the appliance
- ▶ Except a professional, others are not allowed to open the panel of the appliance.

2 Notes on the documentation

The following description is a general guide covering the entire document.

Other information must be used in conjunction with this operation and installation instructions.

We do not undertake any liability for damage caused by non-compliance with these instructions.

Reference

When operating the water heater, be sure to notice all the operating instructions attached to the other components of the appliance.

These instructions are attached to the corresponding appliance components.

2.1 Information storage

- ▶ Transfer necessary auxiliary tools to the appliance users.
- ▶ Users are responsible for keeping them in order to use instructions and auxiliary tools as required.

2.2 Scope of the instructions

This instructions are only applicable to appliance with the following types:

Appliance type
VED E 9/1-B IN

Table 2.1 Appliance and type name

The types of the appliance please refer to the nameplates.

2.3 Appliance type

The type of appliance to install can be determined according to technical data of the installation instructions.

3 Product features and use

The water heater includes low water resistance protection, high temperature protection, dry burning protection, and safety earth protection functions.

When the appliance is switched on, the inlet water resistance will be detected. When the water resistance does not meet the requirements, the appliance will be stopped, and will display E7.



Caution.
Kindly remind.

- ▶ Water inside water heater is forbidden to be drunken.

4 Appliance structure and technical parameters

4.1 Appliance structure

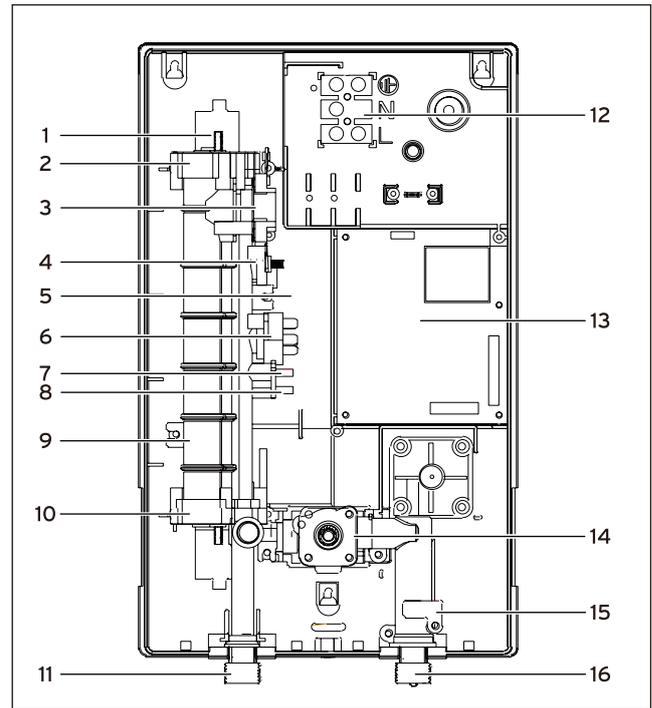


Fig.4.1 Appliance structure

Remark

- | | |
|-----------------------------------|------------------------------|
| 1 Heater strip | 9 Heater |
| 2 Heater upper cover | 10 Heater low cover |
| 3 Temperature controller | 11 Outlet pipe |
| 4 Water resistance detection | 12 Wiring board |
| 5 Lower casing | 13 Circuit board |
| 6 Housed controlled silicon | 14 Water adjust valve module |
| 7 Outlet water temperature sensor | 15 Flow sensor |
| 8 Inlet water temperature sensor | 16 Inlet pipe |

4.2 Electrical schematic diagram

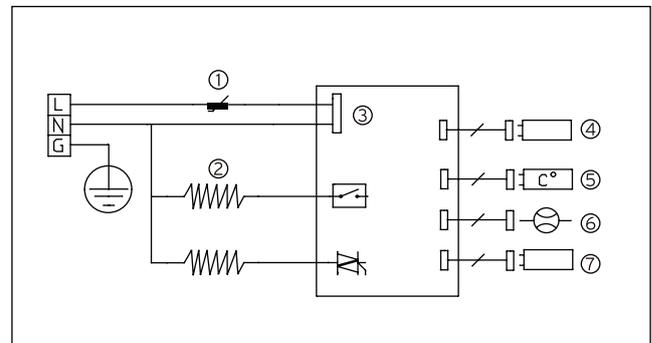


Fig.4.2 electrical schematic diagram

Remark

- | | |
|--------------------------|------------------------------|
| 1 Temperature controller | 5 Temperature sensor |
| 2 Heating body | 6 Flow sensor |
| 3 Control panel | 7 Water resistance detection |
| 4 Display board | |

5 Installation

4.3 Technical parameters

Product type	VED E 9/1-B IN
Rated voltage (V) Rated frequency (Hz)	220~/50
Rated power (kW)	8.8
Electrical current (A)	40
Temperature setting range (°C)	30~60
Rated pressure (Mpa)	0.75
Water resistance (Ω.cm)(15°C)	≥1300
Mini. start flow(L/min)	2.0
Waterproof type	IP24
Net weight(Kg)	2.0
Dimension (mm) L*W*H	230×90×384
Water pipe connecting size	G1/2"

Table 4.1 Technical parameters

4.4 Dimention

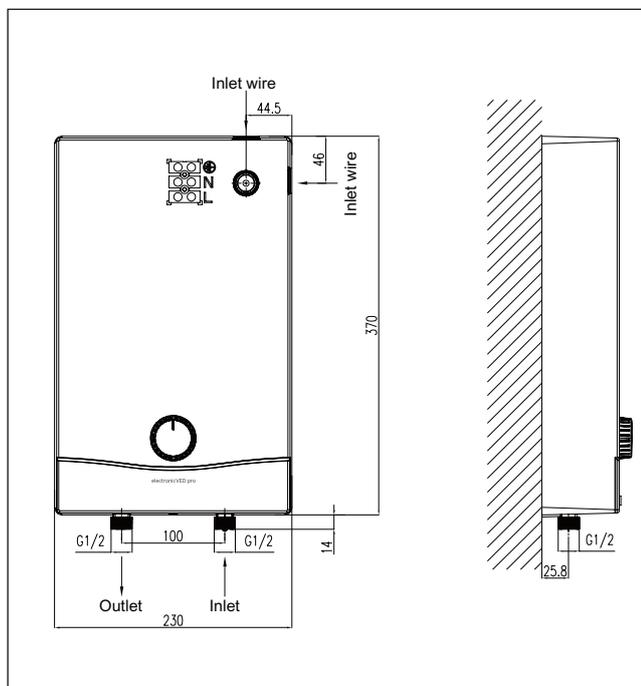


Fig 4.3 Dimension drawing

5 Installation

5.1 Packing list

EIWH	1 set
Manual	1 EA
Sealing washer	4 pieces
Screw	3 pieces
Expansion pipe	3 pieces
Filter	1 piece

5.2 Special points related to installation

Install power supply and water piping according to the requirements.

- ▶ Clean the pipe with water before installation to prevent residual sediment from clogging the appliance
- ▶ The water heater shall be placed near power supply, floor drain and water use point
- ▶ Water heater installation position shall be prevented from any possible damage to articles caused by appliance or pipe joint water leakage at adjacent areas or lower floor. Don't install the appliance outdoor or places easily frozen. If the appliance is frozen, the container or pipe will break, which lead to scalding accidents or water leakage.
- ▶ If water flow stops suddenly during working of water heater, please turn off power to wait for smooth water flow.



Warning.

- ▶ Water heater requires separate power distribution, and electric meter capacity shall be more than 80A.
- ▶ Power line path shall be no less than 4mm² (8.8KW). The air-break switch shall be no less than 40A.
- ▶ Good grounding
- ▶ Don't install the water heater where directly splashed by water
- ▶ Don't install outdoor
- ▶ The water heater shall be installed strictly in accordance with the drawing

5.3 Installation schematic diagram

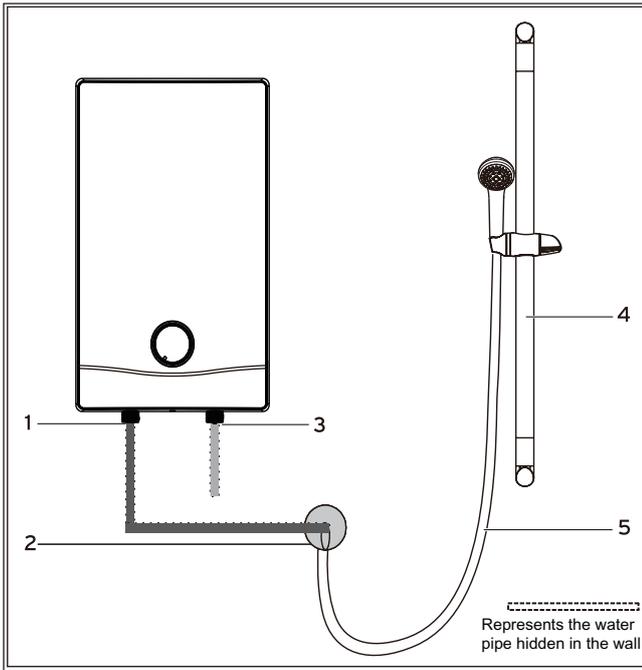


Fig. 5.1 waterway design for only bath

Remark

- | | | | |
|---|-----------------------------------|---|------------------|
| 1 | Outlet hot water | 3 | Inlet cold water |
| 2 | Angle valve or water mixing valve | 4 | Slider |
| | | 5 | Flexible pipe |

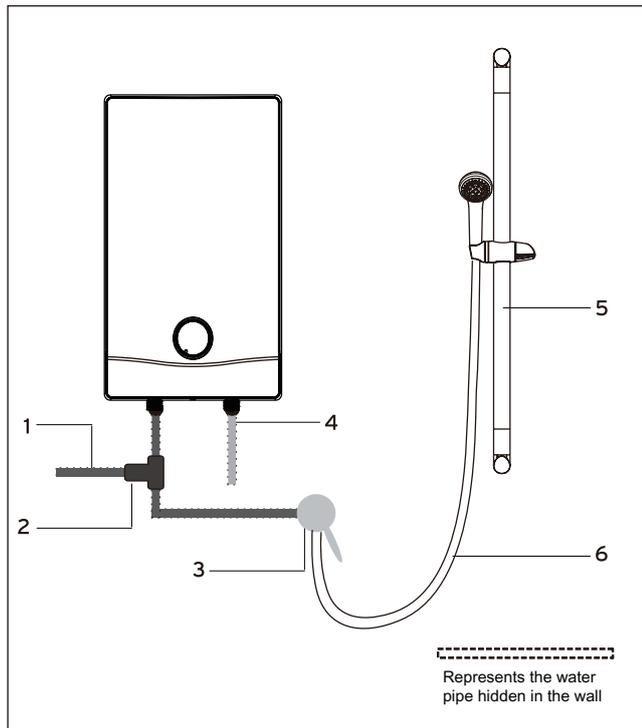


Fig 5.2 multiple waterway design

Remark

- | | | | |
|---|-----------------------------------|---|------------------|
| 1 | Hot water to basin | 4 | Inlet cold water |
| 2 | T-cock | 5 | Slider |
| 3 | Angle valve or water mixing valve | 6 | Flexible pipe |

5.4 Installation

Reserve positions for an inlet and an outlet with a distance of 10cm.

There should be a copper core line connecting the power control box and bathroom reserved junction.

Reserve a copper core line junction at the position 4cm away from the right side of water inlet and 6cm away from the bottom of water inlet.



Warning.

- ▶ Electric water heater must have stable grounding. Earth wire is forbidden to connect to the neutral wire or water pipe.
- ▶ Water heater is forbidden to connect to nonstandard tap or junction.
- ▶ It is strictly prohibited to place or use inflammable materials such as kerosene, gasoline, volatile oil, etc. around the water heater.
- ▶ Children are strictly forbidden to play with hot water heaters.
- ▶ For product use safety, do not alter its installation position or block its exit. If the appliance needs to be installed or moved, contact a professional.

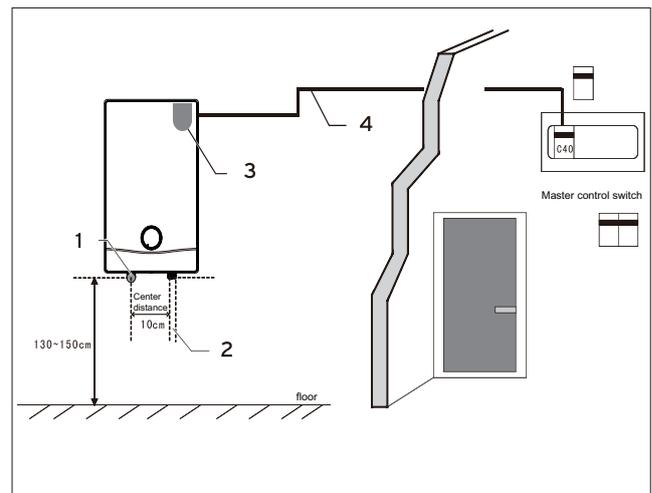


Fig.5.3 Pipeline layout of undecorated bathroom

Remark

- | | | | |
|---|------------------|---|-------------------------------|
| 1 | Outlet hot water | 3 | Reserved power line exit area |
| 2 | Inlet cold water | 4 | Power line |

5 Installation

According to the reserved best installation position, please refer to the below points for installation.

- ▶ Water pipe connection
 - Remove the water heater front casing, confirm the position of the water heater and fix the water heater to the wall with screw on the basis of reserved water inlet and outlet positions.
 - Connect water heater and water inlet with double external thread inner joint.
 - After confirming good sealing of water heater waterway by water test, install weak current board connecting line and front casing.
- ▶ Circuit installation
 - According to the reserved connecting cable, crimp the live wire and null wire to the corresponding binding post. Crimp the earth wire to the earth wire binding post.



Caution.

- ▶ The electrical connection has to be made after the water connection is finished
- ▶ Before the water supply is connected to the water heater, the water should be released for about 20s, in order to evacuate the debris from the pipeline and to avoid blocking the water heater.
- ▶ All newly installed or long time unused water heaters should be checked by water before they are put into use. Only after the water flow smoothly the water heater can be power on.
- ▶ The water heater shall be connected directly to the dedicated line. The water heater must not be connected to a socket using an ordinary plug.
- ▶ Water heater shall permanently be connected to the fixed wiring which can be fully disconnected.
- ▶ Water heater shall permanently be connected to the fixed wiring which can be fully disconnected.

5.5 Function introduction

- ▶ ON/OFF function: turn on and off the water heater
- ▶ Water flow detection function: Water flow through the water heater is measured by a water flow sensor. if the water flow is higher than 2.0L/ min the water will be heated.
- ▶ Constant temperature function: temperature control accuracy is $\pm 1\text{ }^{\circ}\text{C}$, the overshoot is lower than 8%.
- ▶ Memory function: press the "M" button to access the stored temperature setting.
- ▶ Water flow adjust function: adjust the outlet water flow by adjusting water flow adjust knob.
- ▶ Over temperature protection function: if the overheating temperature sensor detects that the temperature is over 80°C , heating will be stopped to enter the over temperature protection mode. Power off is necessary to reset the appliance.

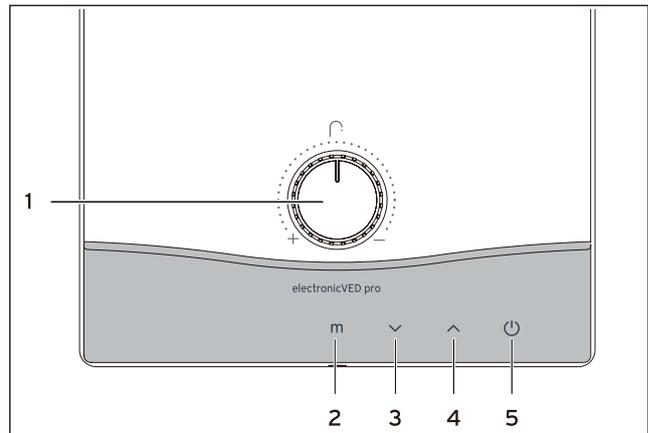


Fig. 5.4 Panel structure

Remark

- 1 Water flow adjust knob
- 2 Memory button
- 3 Temperature minus button
- 4 Temperature plus button
- 5 Power supply on & off button

6 Water heater use and maintenance

6.1 Water heater use

▶ Connect to water

After the water heater is installed, the water heater must first be drained and debris discharged.

When the outlet has continuous water flow, and there is no leakage at each joint, the appliance can be powered on.

▶ Power on

Close the air switch (for the first time use only after installation) and connect the main power. Press on/off button, the water heater display is bright and water heater is ready to start.

Note: the water heater can only heat when the flow rate is larger than 2.0L/ min and the tap water pressure exceeds 0.1MPa.

▶ Temperature selection

The outlet water temperature is constant, and the starting default temperature is 38°C.

Press temperature minus button, the temperature is decreased by 1°C.

The adjustable lowest temperature is 30°C.

Press temperature plus button, the temperature is increased by 1°C. The adjustable highest temperature is 60°C.

If there is no interruption of power supply, the temperature selected will show after power on/off.

▶ Memory setting

While heating the water, press "M" button to use stored temperature setting.

Storage data: press "M" button during 3seconds. When temperature blinks on the display, the temperature can be adjusted by pressing temperature plus or minus button. After adjusting temperature, directly press "M" button to complete temperature setting. The buzzer will sound for every successful data storage.

▶ Outlet water flow adjustment

Adjust outlet water flow by water flow adjustment knob. Clockwise rotation will reduce the water flow and anti-clockwise will increase the water flow.

▶ Power off

Press on/off button to turn off the appliance.

▶ Maintenance

When detecting outlet water temperature sensor short circuit or open circuit, the display blinks and shows "E1". The water heater stops working and needs maintenance.

When detecting inlet water temperature sensor short circuit or open circuit, the display blinks and shows "E2". The water heater stops working and needs maintenance.



Caution.

- ▶ When the water heater is installed for the first time or reused again after reset, the users should turn off the power and open the tap first. The water heater can be powered on after the water flows smoothly without bubble or leakage. The default temperature is 38 °C.
- ▶ The water heater is heated only when the water flows and the flow rate is larger than 2L/ Min.
- ▶ When water heater is frozen or prone to be frozen, the water heater is forbidden to connect to the power. The water heater can be only used after it thaws.

6.2 Water heater maintenance

- ▶ The water heater is only allowed to be repaired or maintained by qualified professionals. Improper operation will cause accidents or property loss.
- ▶ Please cut off power before turning on water heater or doing maintenance of water heater.
- ▶ Before maintenance, please refer to fault checklist for troubleshooting.
- ▶ Keep the water heater clean before using.
- ▶ The power supply must be cut off before cleaning the water heater. Use a damp cloth to dip a small amount of neutral detergent and gently wipe the water heater, please do not use gasoline or other solutions. Dry the water heater with a dry cloth and keep the water heater dry.
- ▶ Take measures to prevent water heater from frozen if water heater does not work for a long time or the water heater is used in winter.
- ▶ Water inlet filter needs regular cleaning.

7 Troubleshooting

7 Troubleshooting

Cut off the power before checking the internal faults of water heater

If the users fail to complete troubleshooting, please contact maintenance personnel timely.

Fault phenomenon	Possible reasons	Troubleshooting measures
The water is too hot	Water flow through the water heater is small; tap water temperature rises; select to heat tap water .	Increase the inlet water volume; lower heating power to the suitable water temperature.
The water is too cold	Excessive water flow or low temperature of tap water.	Decrease the inlet water volume or Increase the powe.
	When the water flow is too low, the water heater does not start.	If the water volume is inadequate, close the other water sources or add booster pump.
	Voltage is instable or lower than the required product voltage.	Check the voltage by the professionals.
The screen display is dark	The water heater is off.	Press on/off button to turn on the appliance.
	Power supply problem.	Check power switch and circuit.
	The water heater not start when the water flow is too low.	Check whether the water volume is adequate, if additional water pressure is needed, close the other water sources or add a booster pump to increase the water pressure.
	Internal components do not work or are damaged.	Check by the professionals.
Water flows ; Power off	Air-break switch trips or circuit not connected.	Check air-break switch.
No water at tapping point	No water supply. Tap clogged. Water heater is clogged.	Check water supply. Clean shower head water outlet holes. Contact a professional.
E1	Outlet water temperature sensors short circuit or open circuit.	Check outlet water temperature sensor by a professional.
E2	Inlet water temperature sensor short circuit or open circuit.	Check the inlet water temperature sensor by a professional.
E5	Overheating sensor short circuit or open circuit.	Check by a professional.
E7	Medium detection short circuit or open circuit. Water resistance too high.	Contact a professional to check appliance and installation.

Table 7.1 Common fault analysis and troubleshooting

8 Recycling and disposal

- ▶ The competent person who installed your product is re-sponsible for the disposal of the packaging.



If the product is identified with this symbol:

- ▶ In this case, do not dispose of the product with the household waste.
- ▶ Instead, hand in the product to a collection centre for old electrical or electronic appliances.



If the product contains batteries that are marked with this symbol, these batteries may contain substances that are hazardous to human health and the environment.

- ▶ In this case, dispose of the batteries at a collection point for batteries.

9 Guarantee and customer service

9.1 Guarantee

For information on the manufacturer's guarantee, you can write to the contact address that is provided on the back page.

9.2 Customer service

For information on the manufacturer's guarantee, you can write to the contact address that is provided on the back page.

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