

Tankless Electric Water Heater

Installation and Instructions Manual



Model No.:

EHS-4

EHS-5

EHS-7

Keep this instructions manual in a safe place once your unit is installed. You may need to refer to it for general instructions or future maintenance.

Thank you for purchasing a quality Mini electric water heater manufactured in China. To enjoy your hot water life at its best,

please take time to read this manual thoroughly and having done so; keep it handy for future reference.

CONTENTS

Important Safety Instructions ----- page 3

Product Features ----- page 4

Electrical Diagram ----- page 5

Technical Data ----- page 5

Product Structure-----page 6

Installation Guideline----- page 7

Installation Method ----- page 8

Water connections ----- page 10

Electrical connection----- page 11

Operation Instructions ----- page 11

Trouble-shooting-----page 13

Normal Maintenance-----page 14

■ Important Safety Instructions

When using electrical appliances, base safety precautions should always be followed including the following:

1. The installation must be in compliance with the National Electrical Code, your local electrical and plumbing codes.
2. This appliance must be **EARTHED**.
3. Install or locate this water heater only in accordance with the provided installation instructions.
4. Use this water heater only for its intended use as described in this manual.
5. Contact a qualified electrician to have unit properly installed.
6. This appliance is not intended for use by persons (include children) with reduced physical sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
7. This appliance **MUST** be permanently connected to the fixed circuit breaker and it must be installed vertically .**DO NOT** install this appliance near to tinder or strong magnetic field place.
8. This appliance is forbidden to be switch on if you think it may be frozen, as this could result in serious damage to the unit. Wait until you are sure that it has completely thawed out before you switch it on.
9. Please feel the outlet hot water temperature with hand to make sure it is suitable for showering before taking shower to avoid getting scalded.
10. Before connecting pipes to the water heater hoses, it is extremely important to **FLUSH** the pipes to wash away all plumbing paste or residue in the pipes.
11. If there is damage to the wire, you must contact qualified electrician to replace it with dedicated wire from our authorized dealers.

12. CONNECTED ONLY TO A CIRCUIT THAT IS PROTECTED BY A RECOGNIZED GROUND-FAULT CIRCUIT INTERRUPTER(GFCI).

13. CAUTION: FOR HOUSEHOLD AND INDOOR USE ONLY.

SAVE THIS INSTRUCTION

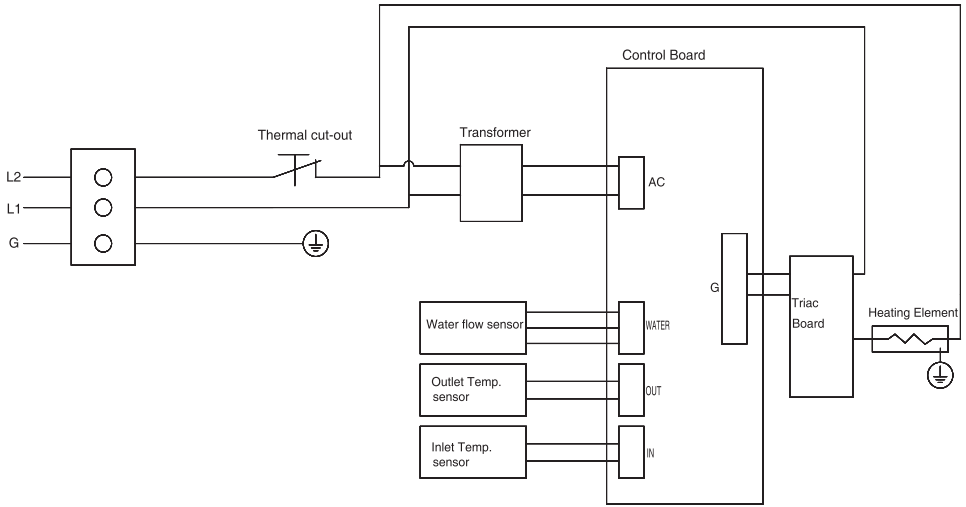
■ Product Features

This Mini tankless electric water heater differs from conventional storage type mini water heaters. It doesn't store hot water. Instead, water is heated instantaneously as it flows through the unit. The powerful heating elements are activated by a flow switch as water is drawn from a hot water faucet connected to the appliance. Due to the absence of stand-by loss, the mini heater has greater energy efficiency than storage type water heaters. The unit is incorporated with multi-safety devices and will continuously supply hot water as long as the faucet is open.

Besides, the unit has the following features.

1. Tankless, instantaneous heating for on demand hot water, No pre-heating. No stand-by heating loss. Energy-saving.
2. Easy installation, heater can be installed above or under sink. Easy operation, the heater provides hot water with constant temperature.
3. Micro-computer control, adopting patent heating technology. Water is completely separated from electricity by multi-layers of composite nano insulation material.
4. Over temperature protection: when the outlet water temp. reaches over 167°F/75°C, the electricity will be cut off to avoid getting scalded and the screen displays E1. the appliance will start to work automatically while temp. drop to the set temperature.
5. Malfunction of sensor- when there is malfunction with the outlet temperature sensor, the heater stops working and displays E4.
6. Conversion between degree Fahrenheit and degree Celsius.

■ Electrical Diagram



■ Technical Data

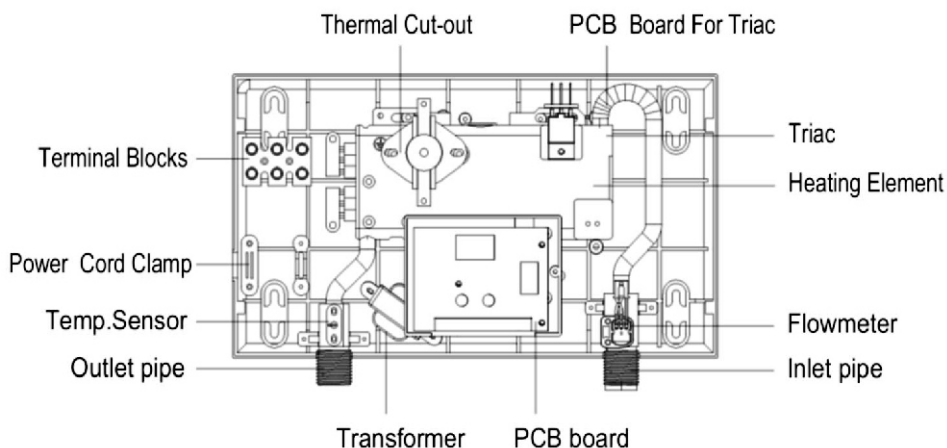
Model	EHS-4	EHS-5	EHS-7
Voltage	120V	120V	240V
Wattage	3500W	4400W	7000W
Rated Current	29.2A	36.7A	29.2A
Min. required circuit breaker	30A	40A	30A
Min. wire size	10 AWG	10AWG	10AWG
Min. water flow to activate unit	0.32GPM	0.32GPM	0.32GPM
Working pressure	0.02-0.6MPa		
Temp. setting range	30°C-60°C/86°F-140°F		
Product Dimensions	182x290x83mm		
Water connections	1/2" NPT		

Note: For supply connections, use conductors sized on the basis of Ampacity but rated minimum 75°C.

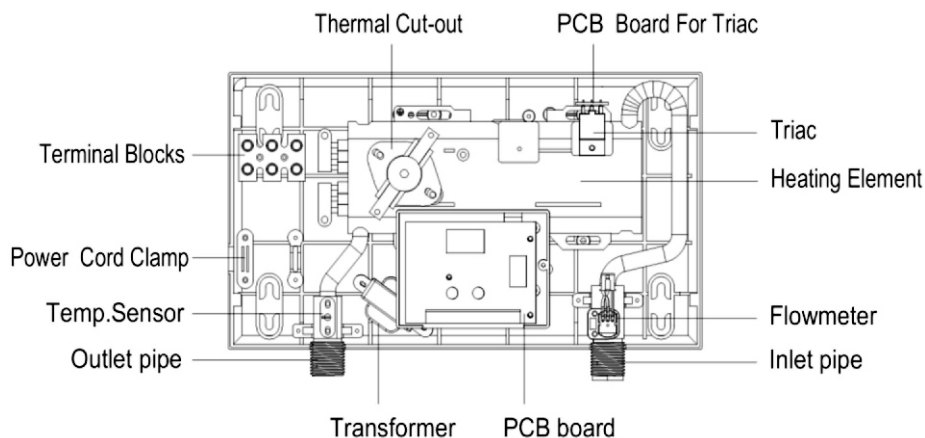
Suitable recognized strain relief means shall be provided when the product installed;
Connected only to a circuit that is protected by recognized ground-fault circuit interrupter (GFCI).

■ Product Inner Structure

EHS-4/ EHS-5



EHS-7



■ Installation Guideline

The installation must be in compliance with the National Electrical Code, your local electrical and plumbing codes.

1. Make sure the appliance is intact, and the fittings are complete.
2. Please make sure the main power supply, water pressure, grounding condition, ammeter and wire reach the standard of installation requirement.
3. The appliance must be connected to properly grounded dedicated branch circuits of proper voltage rating. Ground must be brought to the “ground” at the circuit breaker panel.
4. This appliance **MUST** be permanently connected to the fixed circuit breaker. If you don't use the heater, please switch off the circuit breaker.
5. **DO NOT** install this appliance near to tinder or strong magnetic field place. The appliance can be installed above or under the sink, and unit must only be mounted in a VERTICAL position near by the water fittings. Please electrify try the machine after getting through waterway.

Installation Method

●General

The Mini tankless electric water heater can be used for hand washing, kitchen and it can be installed above or under the sink.

●Mounting the unit

Locate an appropriate place on a section of wall as above mentioned.

Fig 1 → Front and back of the appliance.

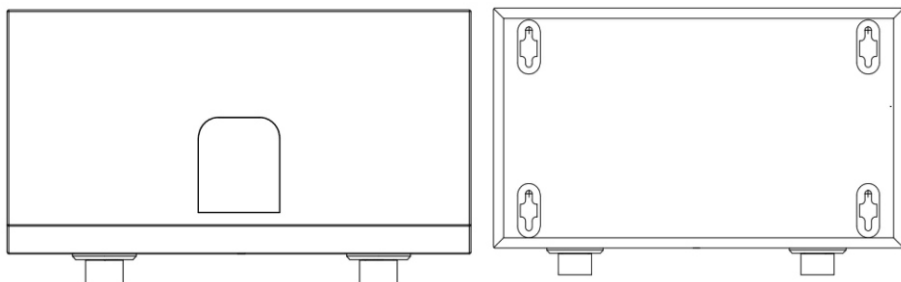


Fig 2 → Use the cardboard to make 4 marks for punching, drill four holes of 6.00mm diameter: if you install the heater upright above the sink, the distance between every two holes is 111.5mm; if you install the heater upside down under the sink, the distance between every two holes is 111.5mm. Put plastic anchor in the holes.

Fig2-A: Upward Installation

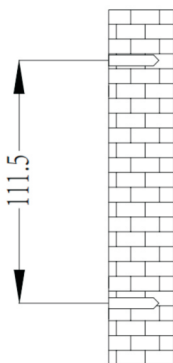


Fig2-B: Downward Installation

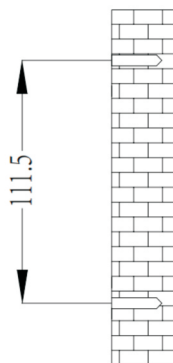


Fig 3 → For Upright Installation, nail in the floor in upper hole (Fig2-A). For Downward Installation, nail in the floor in under hole (Fig2-B), fix the appliance on the wall with the below nail.

Fig 3-A: Upward Install

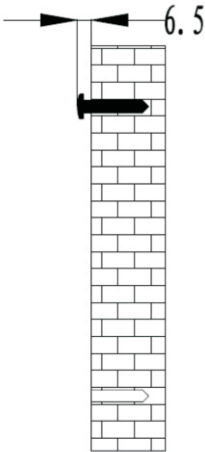


Fig 3-B: Downward Installation

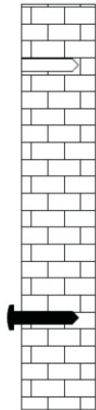


Fig 4 → Fix the appliance on the wall, to make sure the whole appliance is installed on firm.

Fig4-A: Upward Installation

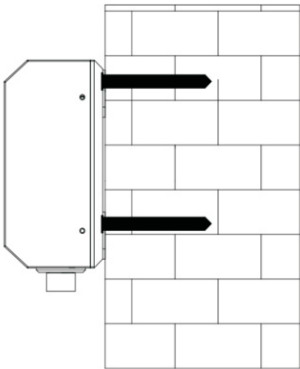


Fig4-B: Upside down Installation

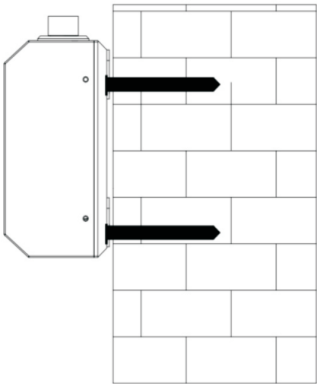


Fig5 —————→ Connect the water pipe to the water inlet and water outlet connections, please remember to install the rubber seal ring.

Fig 5-A: Upward Installation

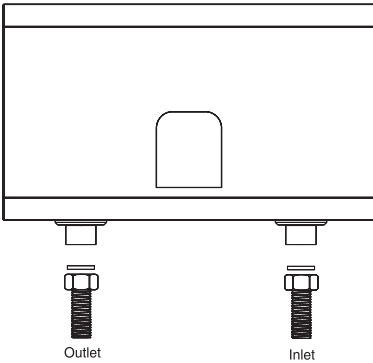
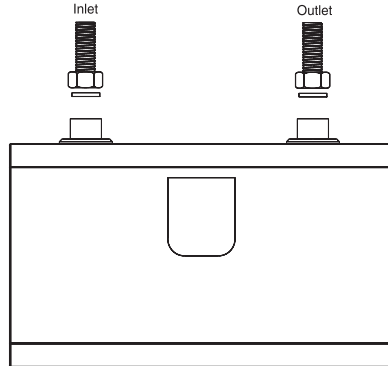


Fig 5-B: Upside down Installation



■ Water Connections

- 1--- All water pipe must comply with national and applicable state and local water pipe codes.
- 2--- No matter install the appliance upright or handstand, please connect the inlet connection (blue arrow points to) to the cold water inlet pipe; connect the outlet connection (red arrow points to) to the hot water outlet pipe.
- 3---The unit should be connected directly to the main water supply. Flush pipe with water to remove any debris or loose particles. Following pictures are for your reference.
- 4---It is required that use 1/2"NPT water connections to fit the appliance. Please connect the inlet and outlet pipe in perspective. Following pictures are for your reference.
- 5---Please remember to install rubber seal rings at the connections. When all water connections are completed, check for leaks and take corrective action before proceeding.

■ Electrical connection

- 1, All electrical work must comply with national and applicable state and local electrical codes.
- 2, All unit must be connected to a properly grounded dedicated branch circuit of proper voltage rating.
- 3, While fed the cable to terminal blocks/Circuit Breaker, please make sure the metal wire ends and the terminal blocks to touch completely. Then tighten the screws up to make sure the full current can go through.
- 4, Before beginning any work on the electric installation, be sure that main breaker panel switch is OFF to avoid any danger of electric shock, all mounting and plumbing must be completed before proceeding with electrical hook-up.

■ Operation Instructions

1. Turn on the circuit breaker to bring electrical power to the unit. The LED digital display screen will light.
2. Turn on the water faucet for a few minutes until water flow is continuous and all air is drained from water pipes. The unit must be operated after the breaker is turned on.
3. After the unit is supplied with power, please turn on the water and then the appliance will start work.
4. Turn off the water flow, the appliance will stop working. It is not necessary to turn off the heater by pressing any key on front panel.
5. Press  to adjust the setting temperature between 30°C -60°C, temperature setting will cycle among 30°C-60°C -30°C, single press the key, the setting temperature will be up 1°C, only in the working condition, the press key is available to adjust the temperature. The default setting temperature is 49°C.
6. Press  continuously for 3 seconds, the setting temperature will be circularly setup among 38°C -42°C -55°C -60°C.

7.  is the function key. If you need to install the unit upside down, please press  and hold for 3 seconds, the temperature display Arabic numerals will rotate 180°. Short press  to convert the temperature display between Fahrenheit degree and Celsius degree.
8. When the unit is ON, LED displays setting temperature for 3 seconds, then display the actual outlet water temperature. stop operating for 30 seconds, the screen switch to the screen saver mode. the display screen will be light off. If there is touch to the screen, the screen will light again.
9. There is an automatic memory function to avoid repetitive operation, while you turn on the appliance, the default set temperature will be the same as last time set.
10. There is overheat protection function for the appliance, while the outlet temperature reaches 75° C, the appliance will enter into pause mode, only after the hot water temp. drop to 60° C, it will start to work again automatically.
11. Please check hot water with hand before using.

*** If the unit will not be used in winter, drain out water completely so that the heater will not be frozen.**

*** Please periodically clean inlet strainer and the spray head to keep a free water flow.**

■ Trouble-shooting

Problems	Possible Causes	Corrective Actions
1. Inlet and outlet fittings leaking	A. Fittings not tight B. Rubber washer worn-out	A. Tighten fittings. B. Change rubber washer.
2. LED no signal	A. Power not connected. B. LED damaged.	A. Connect power to the unit. B. Change LCD.
3. Functional keys not working	A. No water out from shower. B. Water pressure too low. C. Key or PCB damaged.	9. Open valve to get water. 10. Open valve to get pressure. 11. Change key or PCB.
4. Water too hot	A. Too high temperature set. B. Water flow too small.	A. Set a lower temperature. B. Increase inlet water flow.
5. Water too cold	A. Low temperature set. B. Water flow too much.	A. Set a higher temperature. B. Reduce water flow.
6. Outlet water gets smaller and smaller.	Inlet strainer or shower clogged.	Clean strainer and shower.
7. LED displays E1	Outlet temp. is over 75°C.	A, Reduce the temperature B, Turn up the water flow
8. LED displays E4	A, the connecting wire loose. B, Outlet Temperature sensor failure	A, Plug in the connecting wire tightly. B, Replace the temperature sensor

■ Normal Maintenance

Note: Do not attempt to repair this water heater yourself, call a service person for assistance. Before these operations, the power supply needs to be shut off.

It is not required any regular maintenance. However, to ensure consistent water flow, it is recommended following maintenance.

- 1, Periodically remove scale and dirt that may build up at the aerator of the faucet or in the shower head.
- 2, There is a built -in filter screen at inlet connection which should be cleaned from time to time. Please turn off the water flow before doing this.

■ Packing List

Item	Unit	Quantity
Electric Water Heater	Unit	1
Rubber plugs and screw	Set	1
Operation and Installation instructions	copy	1



Intertek
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