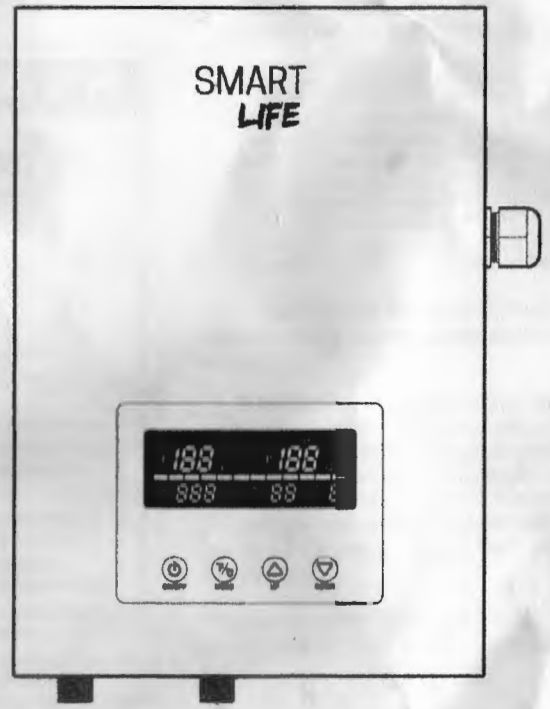
This product must not be disposed together with the domestic waste. This product has to be disposed at authorlszed place for recycling of electrical and electronic appliances.
By collecting and recycling waste,you help save natural resources, and make sure the product is disposed in an enviromnental friendly and healthy way.

Remarks:The specifications maybe change without prior notice. All features and specifications are all given by manufacturer.

Electric Tankless Water Heater

Instruction Manual



Model: TM13

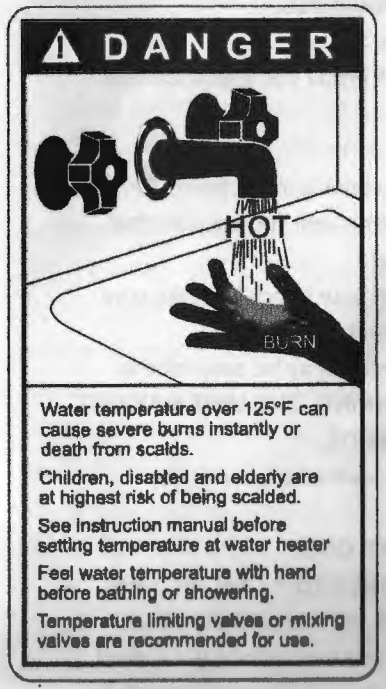
To enjoy the best performance of this unit,please read these instrcutions thoroughly and completely prior to installation and use.Failure to do so may cause property damage, serious injury or death.
Please keep this manual with you after installation, you may need it for future reference and technical information.

Important Safety Information

READ ALL INSTRUCTIONS BEFORE USING

⚠ DANGER!
WATER TEMPERATURE SAFETY SETTING

Safety and energy conservation are factors to be considered when selecting the water temperature setting of water heater's thermostat. Water temperatures above the 125°F can cause severe burns or death from scalding. Be sure to readand follow the warnings outlined on the label pictured below.



Notice: Mixing valves are recommended for reducing point of use water temperature by mixing hot and cold water in branch water lines. It is recommended that a mixing valve complying with the Standard for Temperature Actuated Mixing Valves for Hot Water Distribution Systems be installed.

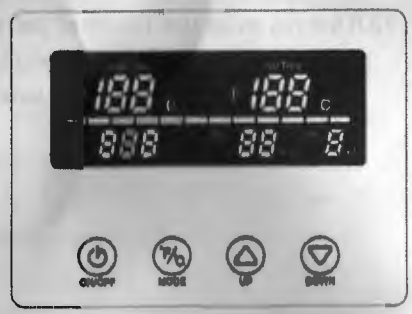
Time/Temperature Relationship in Scalds

Temperature	Time To Produce a Serious Burn
120°F	More than 5 minutes
125°F	1½ to 2 minutes
130°F	About 30 seconds
135°F	About 10 seconds
140°F	Less than 5 seconds
145°F	Less than 3 seconds
150°F	About 1½ seconds
155°F	About 1 second

The chart shown above may be used as a guide in determining the proper water temperature for your home.

⚠ **DANGER**: Households with small children,disabled, or elderly persons may require a 120°F or lower thermostat setting to prevent contact with "HOT" water. The temperature of the water in the heater is regulated by the electronic control on the front of the wate heater. To comply with safety regulations, the thermostat was set at 104°F before the water heater was shipped from the factory.

Please consult Operating Instructions to learn more about setting your heaters temperature.



Setting : 77-131°F

⚠ Important Safety Information

1. The installation must be installed professionally ,in compliance with the National Electrical Code, your local electrical and plumbing codes.
2. All wiring and installation must be supervised by a qualified electrician.
3. **CAUTION**: This product has more than one power-supply connection point. Under no circumstances should you attempt to install, inspect, clean, repair, disassemble, or other service this water heater, without first shutting off all power to the unit dircetly at the circuit breaker box. **SERIOUS INJURY OR DEATH COULD OCCUR IF YOU IGNORE THIE WARNING.**
4. This appliance MUST be permanently connected to the fixed double pole circuit breaker and it must be installed vertically. DO NOT install this appliance near tinder or a strong magnetic field place.
5. This appliance must be **EARTHED**.
6. This appliance is forbidden to be switched on if you think it might 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.
7. Please feel the outgoing hot water temperature with your hands to make sure it is suitable for shower. As a result, you will avoid getting scalded.
8. DO NOT install this hot water unit in a location where it may be subjected to freezing temperatures.**IF YOU IGNORE THIS WARNING, THE UNIT MAY GET PERMANENT DAMAGE DUE TO IT FREEZES INSIDE.**
9. If there is damage to the wire, you must contact a qualified electrician to replace it with specific wire.
10. **CAUTION: FOR HOUSEHOLDAND INDOOR USE ONLY**
11. **CAUTION: Risk of electric shock, CONNECT ONLY TO A CIRCUIT THAT ISPROTECTED BY A GROUND-FAULT CIRCUIT INTERRUPTER(GFCI).**
12. If the hot water unit has been paused during use, you may initially get a short burst of very hot water when you turn it on again. Please run water through for a few seconds to settle down water temperature.Check water tempt with hand before shower again with it.

Quick Start Guide

1)Mounting

Plot the holes for the mounting screws onto the wall. Mount vertically on a flat surface (i.e. board or wall)larger than the unit itself. Make sure heater is secure by utilizing a stud or the provided wall anchors. Keep away from any potential slashing or leaking water and strong magnetic fields.

2) Water Connections

Plumbing connections are 1/2"NPT, and both the inlet and outlet can be found at the bottom of the unit. When installing your water connections make sure to use 1/2"NPT fittings. Please use the provided gaskets to prevent leaks. When tightening fittings, use a wrench on inlet and outlet fittings. The cold water inlet is on the right side it should be preceded by a high pressure discharge valve and a shut off valve (ball valve)in that order. **For the best service and lifespan of the hot water unit, it is advised that a descaler device should be installed inline to the supply line (cold) to avoid any potential damage due to scale build-up.**

The hot water outlet is on the left side and runs to your hot water source. NEVER USE PVC ON HOT WATER OUTLET. Use instead CPVC or other high temperature rated materials. Run water through the heater for a few minutes to purge all air from the system. Shut off flow at faucet to pressurize system. At this point check for and fix any leaks. If no leaks are present move to next step.

3)Electrical Connections

Power wires and Grounding come into the unit from the bottom right hand side of the unit. Use 6 AWG/1 wires with grounding wire, running from the"E"space in the terminal block all the way to the ground bar of the breaker panel. Run one 6 AWG wire from each of the"L1" and "L2" connection points of the terminal block to the double pull 60amp breaker at your circuit panel.

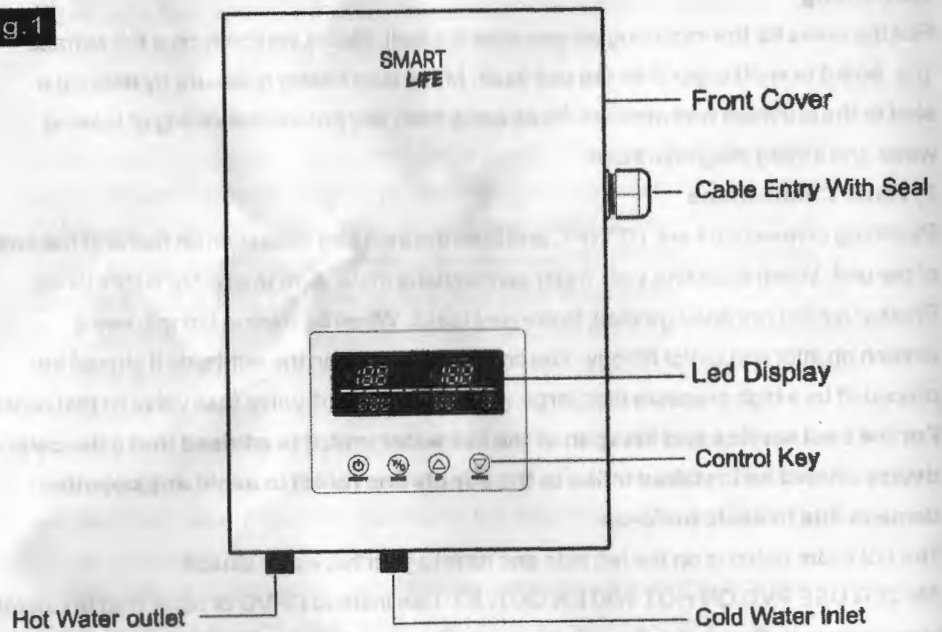
4)Operation

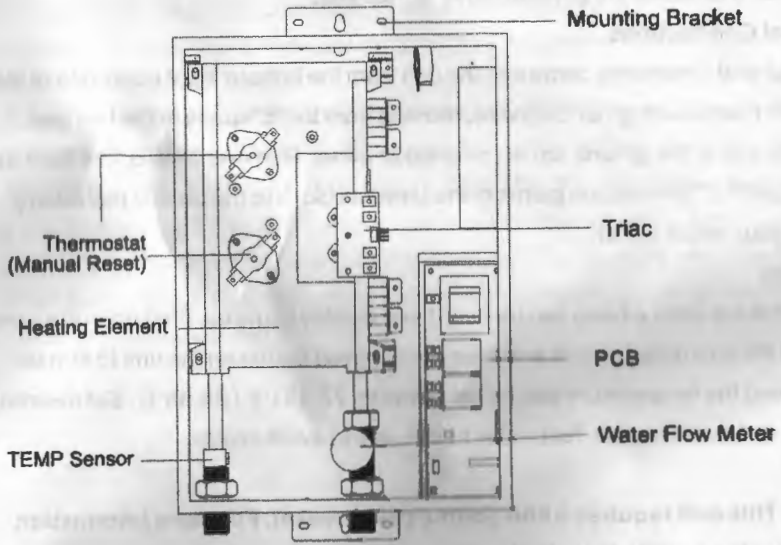
After power is supplied a beep can be heard and display lights up. First open the water to purge all the air inside the unit,and then press power button on the unit to turn on . Set Temp, and the temperature can be set between 77-131°F / 25-55°C. Set desired temp with the up and down arrows.Test water before use to avoid scalds.

Attention: This unit requires a 60A double pole breaker. For more information please consult a certified electrician in your area.

Product Inner Structure

Fig.1





Technical Specifications

Model	TM13	
Voltage	240V	
Power	13kW	
Min.Required Circuit Breaker Size	1x60 AMP	
Max. Amperage	54.5A	
Recommended Wire Size	1x6AWG	
Min. Water Flow to Activate the Unit	0.475 GPM / 1.8L/min	
Safe Operating Pressure	2.9 PSI - 87.02 PSI	
Water Connections	1/2" NPT	
Installation	Wall mounted	
Temperature Setting	Digital Panel	
Temp. Increase Per GPM	1.2 GPM	40℉
	1.3 GPM	45℉
	1.4 GPM	50℉
	1.6 GPM	55℉
	1.7 GPM	60℉
	2.0 GPM	65℉
	2.2 GPM	70℉
	2.6 GPM	75℉
	3.0 GPM	80℉
Dimensions	16"x11.2"x3.3"	
Weight	14lbs	

Installation Instructions

Installation Guideline:

1.This product is designed to be installed indoors only. You may install your unit in an outdoor location so long as it is mounted in a suitable enclosure that protects it from rain, splashed water, freezing temperature, direct sunlight, debris and insects.

2.DO NOT install this product in a location where it may be subjected to freezing temperatures. If the water inside your tankless water heater freezes, it can cause severe and permanent damage that is not covered under your warranty.

3.DO NOT locate the water heater in a location that is difficult to access.

4.Make sure that the water heater and hot water outlet pipe are out of reach of children so they are unable to tamper with the temperature controls or injure themselves by touching the hot water outlet pipe. The outlet water pipe can get very hot.

5.Avoid installing your tankless water heater in a location prone to excessive humidity, moisture or dust, or in an area where it may be splashed with water or other liquids.

6.DO NOT install under water pipes or air conditioning lines that might leak or condense moisture that could then drip onto the heater.

7.DO NOT install above electrical boxes or junctions.

CAUTION: The water heater should not be located in an area where leakage will result in damage to the area adjacent to it or to lower floors of the structure. Where such areas cannot be avoided, it is recommended that a suitable catch pan, adequately drained, be installed under the water heater.

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. 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 bar"at the circuit breaker.
4. This appliance MUST be permanently connected to the fixed circuit breaker. If you do not use the heater, please switch off the circuit breaker.
5. DO NOT install this appliance near tinder or a strong magnetic field place. The unit must only be assembled in a VERTICAL position near by the water fittings.
   Please test the unit after getting the water flow.

Installation Steps:

1.Fix the hanging board to the back of the machine with 4 screws. (fig.2a)

2.Remove the screws of A, B, C, D. (fig.2b)

3.Run a set of 6AWG/2 wires to the terminal blocks, and please notice the guidance marking below the terminal blocks. 2 Live wire and 1 Grouding wire for 240V Power supply. (fig.2c&2d.)

4.Fix back the cover with 4 screws. (fig.2d)

5.Mark mounting holes on the wall, then drill holes of 6.0mm diameter. Put expansion bolts into holes, and then screw the self tapping screws into the expansion bolts. Fix the machine on the mounting screws. (fig.3a)

6.Install shower accessory, and connect ELCB device. (fig.3b)

7.Connect the water pipe to the water inlet and water outlet connection, please remember to use the rubber seal ring.(fig.3b)

8.The way of power connection. (fig.3c)

Water Connections

1. All water pipes must comply with national and applicable state and local water pipe codes.
2. The unit should be connected directly to the main water supply. **Flush the pipe with water to remove any debris or loose particles before pipe connections,so as to avoid clogging.**
3. It is required to use 1/2"NPT water connections to fit the models on TM13.
4. Flexible water hose are recommended to use with your hot water heater as part of installation,it makes future maintanence more convenient.Please remember to install rubber seal rings at the connections. When all water connections are completed, check for leaks and take the necessary actions before proceeding.
5. Install a shut off valve(Not Supplied) and descaler device(Not Supplied) to prevent any particles entering the unit that may clog or damage the internal parts.
6. When you do pipe connection to the unit, use a wrench to hold connection of the unit and use another wrench to tighten flexible water hose to the hot water unit. Over tighten must be avoided.

Electrical Connections

1. All electrical work must comply with national and applicable state and local electrical codes.
2. This water heater must be permanently connected to the direct main breaker panel. The use of a plug and socket is forbidden.
3. The unit must be connected to a properly grounded dedicated branch circuit of proper voltage rating.
4. The TM13 hot water unit needs 60AMP breaker, a set of 1x6AWG wires with Grounding wire for 240V proper power supply.
5. Before beginning any work on the electric connections, make sure that the main breaker panel switch is OFF to avoid any danger of electric shock.
6. All mounting and plumbing must be completed before proceeding with electrical hook-up.
7. While connecting the wires to the terminal blocks, please make sure the metal wire ends and the terminal blocks touch completely. Then tighten the screws to make sure the full current can go through.
8. Connect the wires to Terminal Block and fully tighten them as follow(fig.2c)

Connect the live wire (Black) to the terminal marked L1.
Connect the live wire (Red) to the terminal marked L2.
Connect the Grounding wire to the terminal marked E.

Installation Diagram

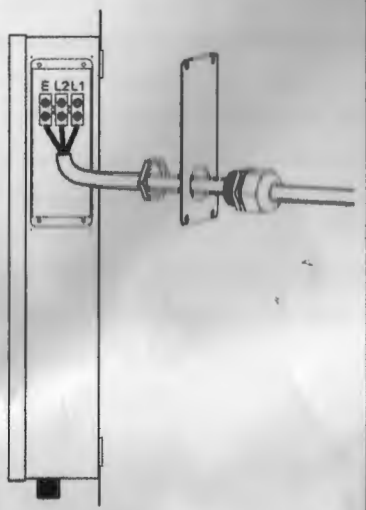
2a

Fix the hanging board to the back of the machine with 4 screws.

2b

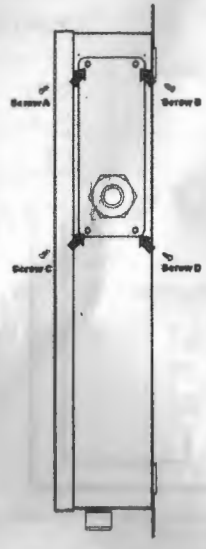
Remove the screws of A,B, C,D

2c



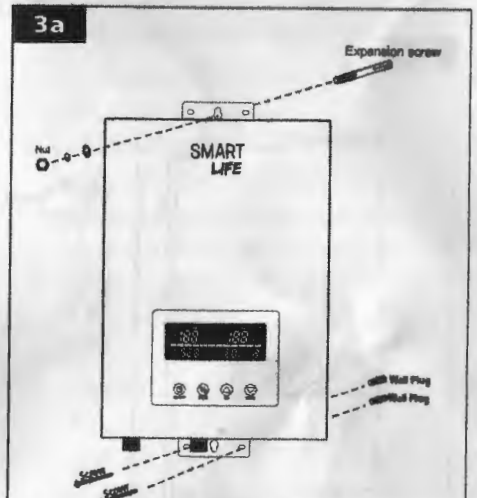
Run the power cord through the cable jacket and then connect with the machine.

2d



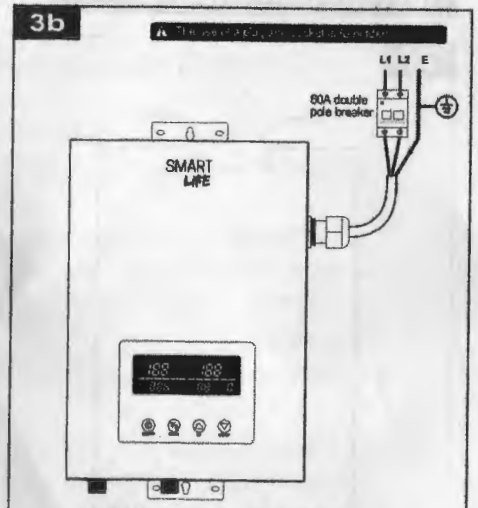
Fix back the cover with 4 screws.

3a



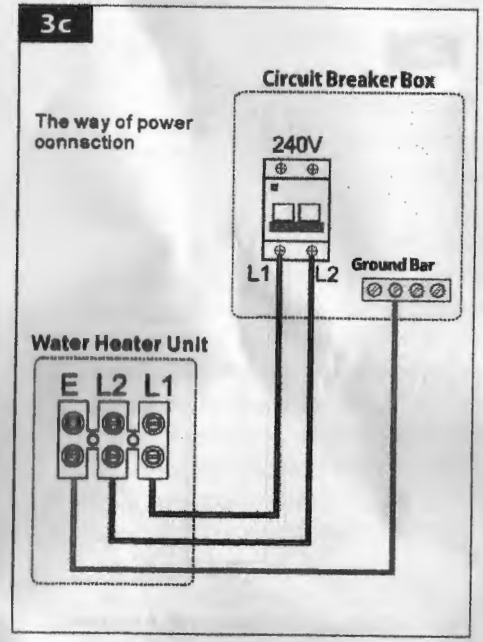
Drill 8.0mm diameter hole, put M6*60 expansion screw in the hole firstly, then drill 6.0mm diameter holes, put the expansion bolts into the holes. Hang the machine on the expansion screw, lock the nut with wrench, then tighten M4*25 self tapping screws into the expansion bolts.

3b



Install shower accessory, and connect ELCB device.

3c



Operating Instructions

IMPORTANT WARNING:

Open water source and allow water to run though the water heater for at least 2 to 3 minutes. This will purge the air out of the unit and must be performed prior to turning on the power at the unit. Failure to Do So will Cause Serious Damage to Heating Elements.

1.Open the water faucet for 3 minutes until the water flow is continuous and all the air has been purged from the water pipes.

2.Turn on the circuit breaker to supply electrical power to the unit.

3.After the unit is supplied with power, a beep sound can be heard and LED lights up and stays; if there is no other display, the appliance keeps standby.

4.Press Power button ⏻ on the unit to turn ON/OFF the appliance. When the unit is working, LED lights show "Actual Temp" , "Set Temp" ,"Work voltage","Water flow" and "Power". When we turn off the water supply or not enough water pressure, only the "Actual Temp" and "Set Temp" is displayed.

5.Press △ and ▽ to adjust the outlet water temperature, Temperature setting range is 77-131°F / 25-55°C.

If the unit has been paused, you may initially get a short burst of very hot water when you turn it on again. Please run the water through for a few seconds to let the temperature settle down. Please check the hot water with your hand before taking a shower.

6.Press °F/C to change the temperature display between Fahrenheit and Celsius degree.

7.There is an automatic memory function to avoid repetitive operation. When you turn on the appliance, the default setting temperature will be the same as last time setting.

If the unit is not used in winter drain out the water completely so that the heater does not freeze.Please clean the inlet filter and the shower periodically in order to keep a proper water flow.

Normal Maintenance

Note: Do not attempt to repair this water heater yourself if the unit is not working properly. Call a technician for assistance. The power supply always needs to be shut off before these operations are carried out .

To ensure consistent Maximum performance of the unit, it is recommended to follow these instructions:

1.Periodically remove scales and dirt that may build up at the aerator of the faucet or in the shower head.

2.There is a built-in filter at the inlet connection which should be cleaned from time to time. Please cut the water supply before doing this. And you can reverse inlet and outlet pipe connections,open faucet to Max.to flush the filter.Remember to reverse back after you get it done.

Important Note

1.Any maintenance performed on the water heater unit may introduce air into pumbing pipes, it is important to purge all the air out before power on again.Failure to do so could cause serious damage to the heating element.

2.If you have a water supply with high level of mineralization(hard water),you should increase the frequency of your maintenance.Check the declear device regularly to see if it is functional.

3.Do not use thinner,alcohol,petrol,or any other organic solutions to clean the set, use only a damp cloth with mild detergent.

Trouble-shooting / Diagnostic Chart

Failure Phenomeno	Possible Reason	Treatment
Leakage in the joint of inlet and outlet pipe.	A.Poor connection of inlet and outlet pipe. B.The rubber washer is damaged.	A.Reconnect the pipe. B.Replace the washer.
The water temperature is too high.	A. Water flow is too small. B. Pipeline jam. C. The power or temperature is set too high.	A.Adjust the valve to increase the water flow. B.Clear the inlet filter and shower head. C.Select lower power level or turn down the temperature.
The water is too cold.	A.The flowrate is too high. B.The voltage is less than 240V. C.The Temp set is too low. D.Mixing too much cold water.	A.Adjust the valve to decrease the water flow. B.Check if the voltage is too low or not. C.Select higher Tempt set. D.Mix less cold water.
Water temperature is unstable.	The voltage or water pressure is unstable.	The voltage water pressure are back to normal.
The water is smaller and smaller.	The inlet filter or shower is blocked by water impurities.	Remove the inlet pipe, clean the inlet filter/shower.
Circuit breaker switch off the power.	A.Leakage of electricity. B.The circuit breaker aging. C.The AMPS load is not enough.	A.Don's use it,send it back to after-sales service to repair. B.Change the circuit breaker. C.Using circuit breaker with high current.
The screen has no display.	A.Power is not connected. B.The screen is damaged. C.Not 240V power.	A.Close the switch to connect the power. B.Replace the screen. C.Chang to 240V power supply.

Malfunction Code		
Show	Failure analysis	Solution
E1	Leakage of electricity.	Send to after-sales service.
E2	Temperature exceed 131°F/ 55°C.	A.Select lower power level or turn down the temperature. B.Increase water flow.
E3	Temperature sensor failure.	Send back to after-sales service.
E4	Dry heating.	A.Restart machine and adjust lower temperature. B.Increase water flow.

After Sales Service

1.One year warranty for the main unit.

2.If there is something wrong with your machine, please feel free to contact us don' t repair it by yourself.

3.Please contact us with following inform ation included:

1)The product' s name, model, the purchase date.

2)The detailed problem of the unit.

We will do our best to serve and help, please be rest assured that you will not suffer any loss from this.

4.Please read the warranty card for more details.

5.To protect your right of after-sale service, please fill in the warranty card carefully.

Product packing list

Number	Product Name	Unit	Quantity
1	The water heater	pc	1
2	Mounting brackets and screws	set	1
3	Manual and warranty card	pc	1

Product warranty

Warranty Card

Name		Telephone			
E-mail					
Product Model		Purchase Date		Installation Date	
Serial NO.		Installation Location			
Charhe or not	☐Yes ☐No Reason:				
Check power or not		Water leaking or not		Follow steps use or not	
Instsllation Personnal (signature)		Customer (signature)			

Maintenance Date		Maintenance Personnel (signature)	
Situation			
Replacement Of Parts			

Customer Need To Know

When installation is finished,please check and make sure it is in good condition and then fill in the warranty card.When you need assistance, please send picture of the warranty card to our customer service with description of the issue you meet.
We will do our best to serve and help,ensure you will suffer any loss from this, even though it may exceed return window or warranty period.