



## Electric Tankless Water Heater Instruction Manual



Model: ECO55W/ECO55B

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Thanks for your trust in ECOTOUCH and congratulations on your choice, it is one of the best tankless water heaters available on the market today.

To enjoy the best performance of this unit, please read these instructions 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.

## Customer Service

At ECOTOUCH, we think highly of product quality, excellent performance, pleasant experience of valued customers, if you get any question the unit or anything unexpected occurs, please feel free to contact us at [ecotouching@outlook.com](mailto:ecotouching@outlook.com), we will try best to serve and help.

We also strive for continuous improvement, so your comments, feedback and suggestions are highly welcome.



customer service  
[ecotouching@outlook.com](mailto:ecotouching@outlook.com)

## Other optimal products from ECOTOUCH:



**9.0kW Tankless  
Water Heater**



**Induction Cooktop 2hobs**



**Induction Cooktop 4hobs**

Thanks for your trust in ECOTOUCH, you may get more information about those units on Amazon, and if you need one please let us know, special discount of 10% off will be offered to show our gratitude for your great support.

**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 read and follow the warnings outlined on the label pictured below.

Time/Temperature Relationship in Scalds

Temperature	Time To Cause 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 water 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.

**⚠ DANGER**

Water temperature over 125°F can cause severe burns instantly or death from scalds.

Children, disabled and elderly are at highest risk of being scalded.

See instruction manual before setting temperature at water heater

Feel water temperature with hand before bathing or showering.

Temperature limiting valves or mixing valves are recommended for use.





## 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 directly at the circuit breaker box. **SERIOUS INJURY OR DEATH COULD OCCUR IF YOU IGNORE THIS 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. 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 HOUSEHOLD AND INDOOR USE ONLY**
11. **CAUTION: Risk of electric shock, CONNECT ONLY TO A CIRCUIT THAT IS PROTECTED 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 temp with hand before use again.

## Quick Start Guide

### 1) Mounting

Plot the holes for the mounting bracket 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 top right hand side of the unit. Use 10 AWG/2 wires with grounding wire, Black is L1, Red is L2 and the Green is Grounding wire. The ECO55 unit requires a 30 AMP double pole breaker. Make sure that all of the wires are connected properly before turning on the switch at your breaker panel.

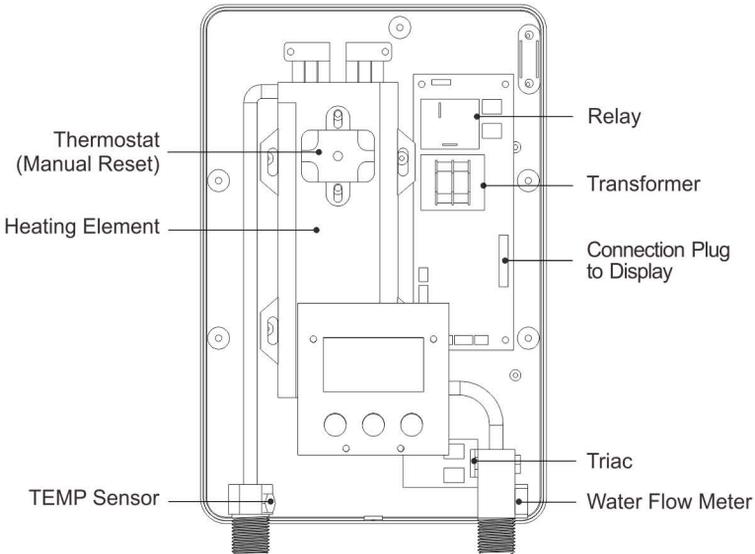
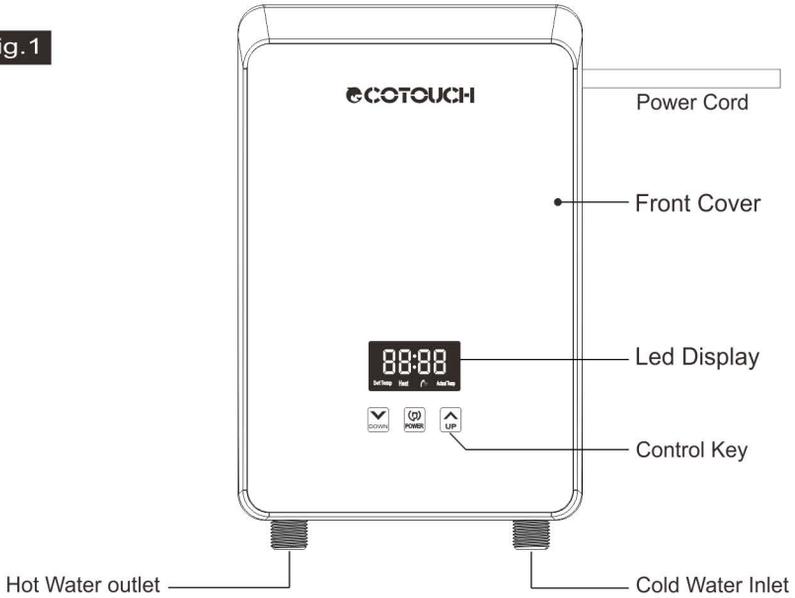
### 4) Operation

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 30A double pole breaker. For more information please consult a certified electrician in your area.**

**Product Inner Structure**

**Fig. 1**



**Technical Specifications**

**TABLE 1-ELECTRICAL LOADING TABLE**

Model	ECO55W/B	
Voltage	240V~	
Power	5.5kW	
Min. Required Circuit Breaker Size	1x30 AMP	
Max. Amperage	23A	
Recommended Wire Size	10 AWG	
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	0.8 GPM	57°F
	1.0 GPM	47°F
	1.2 GPM	42°F
	1.5 GPM	33°F
Dimensions	11" x 7.5" x 2.35"	
Weight	5.07 lbs	

**Remarks:**

1. The above wire size and circuit breaker size are for this ECO55 5.5kW unit only, if you need other high-power appliances, please do further research for that.
2. About heating performance of the ECO55 unit, if water inlet in your area is 67 °F, you are able to get 1.0GPM hot water @114°F, if you set lower temp, you get more than 1.0GPM, correspondingly.
3. For the best user experience, the ECO55 unit is recommended for sink use and booster for tank heater.

## Installation Instructions

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 Guide

1. The ECO55 instant water heater must be installed professionally, with 240V power source, 10AWG wires, 30AMP double pole circuit breaker, fine Grounding connection.
2. 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.
3. Steps for installation:
  - (1) Determine where to place the hot water unit, drill hole for mounting bracket and get them fixed with anchors and screws provided.
  - (2) Hang the hot water heater unit in place and drag it downwards, make sure it sits tight.
  - (3) Before pipe connection, run water for more than 10 seconds to flush all the loose particles, so as to avoid clogging the machine.
  - (4) Use the rubber washers to avoid water leaking issue when you do pipe connection and make sure they are placed evenly.
  - (5) Use a monkey wrench to tighter pipe connection, but don't apply excessive force and make sure the pipe not be damaged.
  - (6) Turn on the faucet to run water through for 3 minutes, purge all the air out of the unit. Failure to do so may cause damage to the unit and its lifespan.
  - (7) Insert the 240V Double Pole Breaker into right place in the breaker panel, run a set of 10AWG wires with Grounding wire from the breaker panel to the hot water heater.
  - (8) Connect the 2 hot wires separately to the Black(L1) and Red(L2) cable of the unit so as to get 240V power supply, the Grounding wire must be connected to the green cable of the unit and Make sure that all of the wires are connected properly before turning on the switch at your breaker panel.
  - (9) Switch on power supply on the breaker panel, run water through and then press the Power button of the unit to turn on.
  - (10) Set outlet temperature with "UP" and "DOWN" buttons, temp rises in seconds, which can be seen on the screen.
  - (11) If you can see only "Actual temp" on the display, it means no water running through or water pressure is not enough to activate the unit, increase waterflow to that.
  - (12) In cold days, you should reduce flowrate to very slow to keep water running through but not enough to activate heating, so as to avoid frozen damage. In extreme cold days, please drain water out of the unit if it is not used. When the unit is supposed to get any frozen issue inside, it is forbidden to start heating until all ice has been melt, failure to do so will result in serious damage to the unit.

## 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 ECO55.
4. Flexible water hose are recommended to use with your hot water heater as part of installation, it makes future maintenance 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.

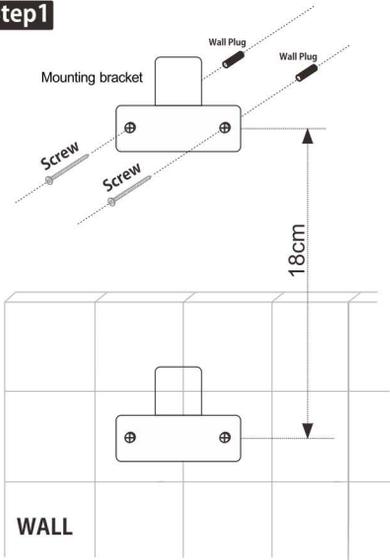
## Electrical Connections

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 ECO55 hot water unit needs 30AMP double pole breaker, a set of 10AWG/2 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 circuit breaker please make sure the metal wire ends and the circuit breaker touch completely. Then tighten the screws to make sure the full current can go through.
8. Connect the wires to circuit breaker and fully tighten them as follow

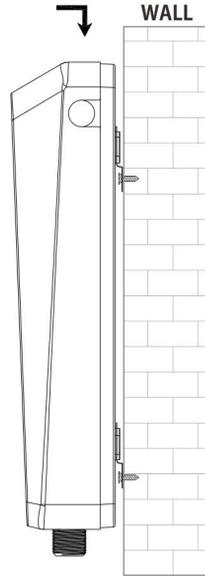
Connect the live wire (Black) to the circuit breaker L1.  
Connect the live wire (Red) to the circuit breaker L2.  
Connect the Grounding wire to the ground bar E.

Installation Diagram

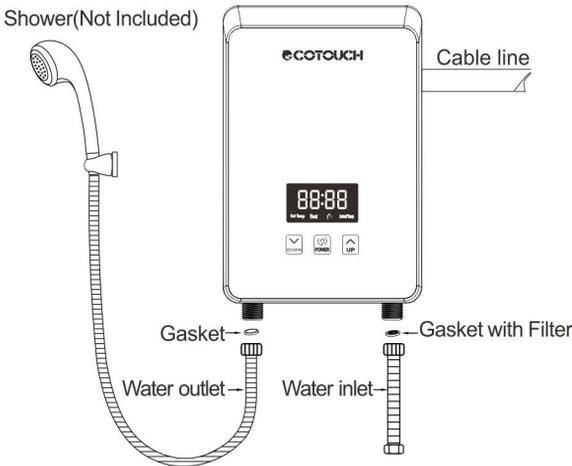
Step1



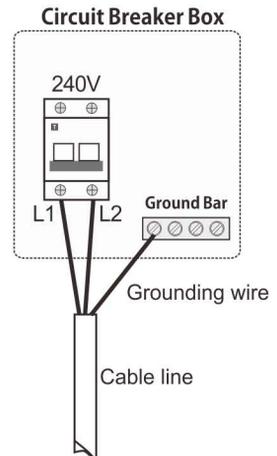
Step2



Step3



Step4



**A 2-pole 30AMP Breaker is required for 240V~ proper installation**

- Connect the live wire (Black) to the circuit breaker L1.
- Connect the live wire (Red) to the circuit breaker L2.
- Connect the Grounding wire to the ground bar E.

## Operating Instructions

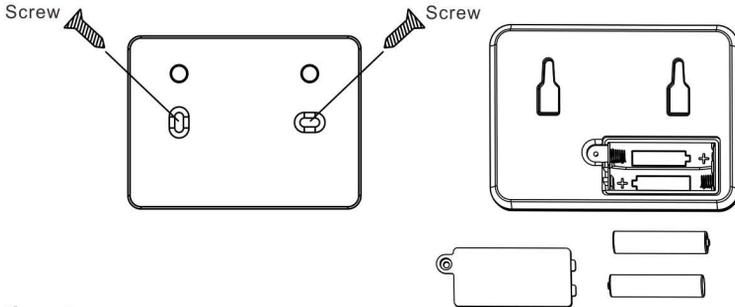
### **IMPORTANT WARNING:**

**Open water source and allow water to run through 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 operation, the appliance keeps standby.
4. Press Power button (⏻) on the unit to turn ON/OFF the appliance. Press ▲ and ▼ to adjust the outlet water temperature, Temperature setting range is 77-131°F / 25-55°C.
5. When the unit is working, LED lights show "the shower head spraying", "HEAT", "Actual Temp" and the water temperature. When we turn off the water supply or not enough water pressure, only the "Actual Temp" is displayed.  
**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 using again.**
6. 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.
7. **If the unit is not used in winter drain out the water completely so that the heater does not freeze.**
8. **Please clean the inlet filter periodically in order to keep a proper water flow.**

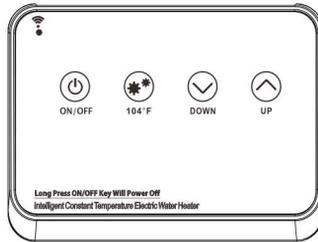
## Remote Control instruction

**kindly note:** the Remote control is **optional** purchase according to your choice.



### Installation steps:

1. Select the appropriate position to mount the base of the remote control to the wall.
2. Open the back cover of the remote control, install two AAA1.5V\*2 batteries and put back the cover.



### Instructions and methods for use:

1. There are four keys on the remote control, from left to right: ON/OFF, 104°F setting, DOWN, UP.
2. ON/OFF: press the ON/OFF key to turn on, long press the ON/OFF key to turn off the electric water heater.
3. 104°F setting: press the 104°F mode key, the electric water heater quickly sets the outlet water temperature to 104°F.
4. DOWN: press the DOWN key, the setting temperature to decrease by one degree Fahrenheit.
5. UP: press the UP key, the setting temperature to increase by one degree Fahrenheit.
6. Power indicator: Each time the key is pressed, the power indicator lights up, indicating that the electric water heater has got the signal ;  
If the power indicator is off indicating that the electric water heater has not received a signal or the battery is dead.
7. The distance between the remote control and the electric water heater should not exceed 3 meters(it should not be more than 1.5 meters when passes through wall).

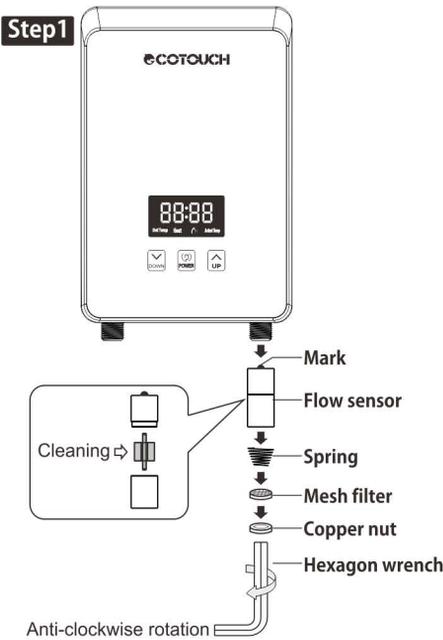
**Normal Maintenance**

**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 .**

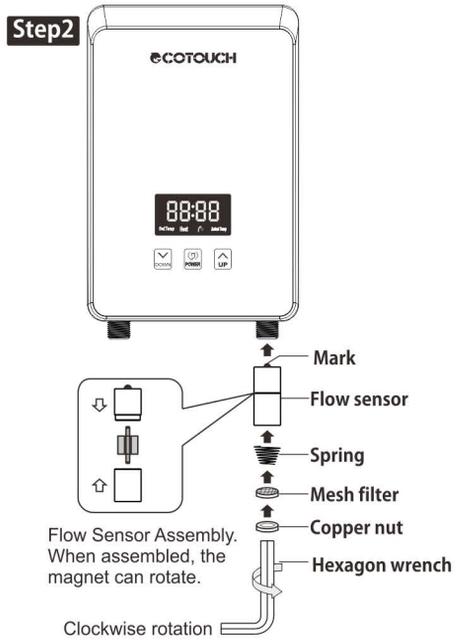
To ensure consistent Maximum performance of the unit, it is recommended to follow these instructions:

- 1.Periodically remove scales and dirt that may build up at the filter of the gasket for inlet pipe.
- 2.There is built-in filter and flow sensor at the inlet connection which should be cleaned from time to time. Please cut the water supply before doing this.If Water heater is not heating at all (water is flowing but the unit is not heating-the outgoing water Temperature is the same as the cold water supply)-the digital display lights up,but no "shower head spraying" or "HEAT", only the "Actual Temp" is displayed, you should disassemble the flow sensor, clean the filter and flow meter. **Remember to put it back in order after you get it done.**

**Maintenance of flow sensor**



Step1. Use the hexagon screw driver we provide to get the flow sensor out of the inlet pipe, take apart the flow sensor and clean the core part.



Step2. Get the flow sensor in one piece again, put it back inside the pipe, put back other accessories in right order and lock the copper nut with hexagon screw driver.

**Important Note**

- 1.Any maintenance performed on the water heater unit may introduce air into pumping 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 unit, use only a damp cloth with mild detergent.

**Trouble-shooting / Diagnostic Chart**

<b>Failure Phenomeno</b>	<b>Possible Reason</b>	<b>Treatment</b>
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 gasket.
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 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.

<b>Malfunction Code</b>		
<b>Show</b>	<b>Failure analysis</b>	<b>Solution</b>
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 via e-mail: [ecotouching@outlook.com](mailto:ecotouching@outlook.com) with following information 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 main body	pc	1
2	Mounting brackets and screws	set	1
3	Remote controll (optional)	set	1
4	Manual and warranty card	pc	1
5	Hexagon wrench	pc	1

**Product warranty**

**Warranty Card**

Name				Telephone			
E-mail							
Product Model			Purchase Date			Installation Date	
Serial NO.			Installation Location				
240V Power Supply	<input type="checkbox"/> Yes <input type="checkbox"/> No						
Power Switch on or not			Water leaking or not			Follow steps use or not	
Instllation Personnel (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: [ecotouching@outlook.com](mailto:ecotouching@outlook.com) 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.

**ECOTOUCH Customer Service**



This product must not be disposed together with the domestic waste. This product has to be disposed at authorized 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 environmental friendly and healthy way.

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