# EcoSmart™ Troubleshooting Guide

## Models ECO 18 – 36 kW

ECO SMART™

TANKLESS WATER HEATERS

This guide is designed for installers or homeowners to help troubleshoot any issues experienced during the lifetime of the tankless water heater.

For additional help, go to ecosmartus.com/support/videos and view the troubleshooting videos, or email technical support at support@ecosmartus.com.

ECOSMARTUS.COM

This page will help you navigate our troubleshooting guide. Read the each step carefully and do not skip ahead. For additional help, contact technical support by email at support@ecosmartus.com, or call 877-474-6473, Monday-Friday, 9:00 am—5:00 pm EST.

## Existing installations

- LED display light is not activating with flow rate
  - **Follow Activity B (page 6)**
- LED display light is illuminated on heater, but unit is not heating
  - **Follow Activity A (page 4)**
- Not receiving power at unit
  - **Follow Activity C (page 8)**
- Unit is no longer producing adequate heat, but is activating
  - **Follow Activity E (page 12), and then Activity F (page 14)**

## New installations (same day install)

- LED display light is not activating with flow rate, but does when rotating round knob
  - **Follow Activity B (page 6)**
- LED display light is illuminated on heater, but unit is not heating
  - **Follow Activity C (page 8)**
- Unit is not activating, even when rotating round knob
  - **Follow Activity D (page 10) & E (page 12)**

## Error Codes

- **E 1** - Inlet Thermistor (Page 19)
- **E 2** – Outlet Thermistor (Page 20)
- **E 3** – Both Thermistors (Page 21)
- **E4** – High Temp (Page 22)
- **E 5** – High Flow Rate (Page 23)
- **S 103** – Low Voltage (Page 24)

When contacting technical support, please have your model and serial number ready. The serial number is located on the front cover of the unit. Serial number is printed on a white and black pixelated sticker and begins with the letters S/N followed by numbers (*see image below*).

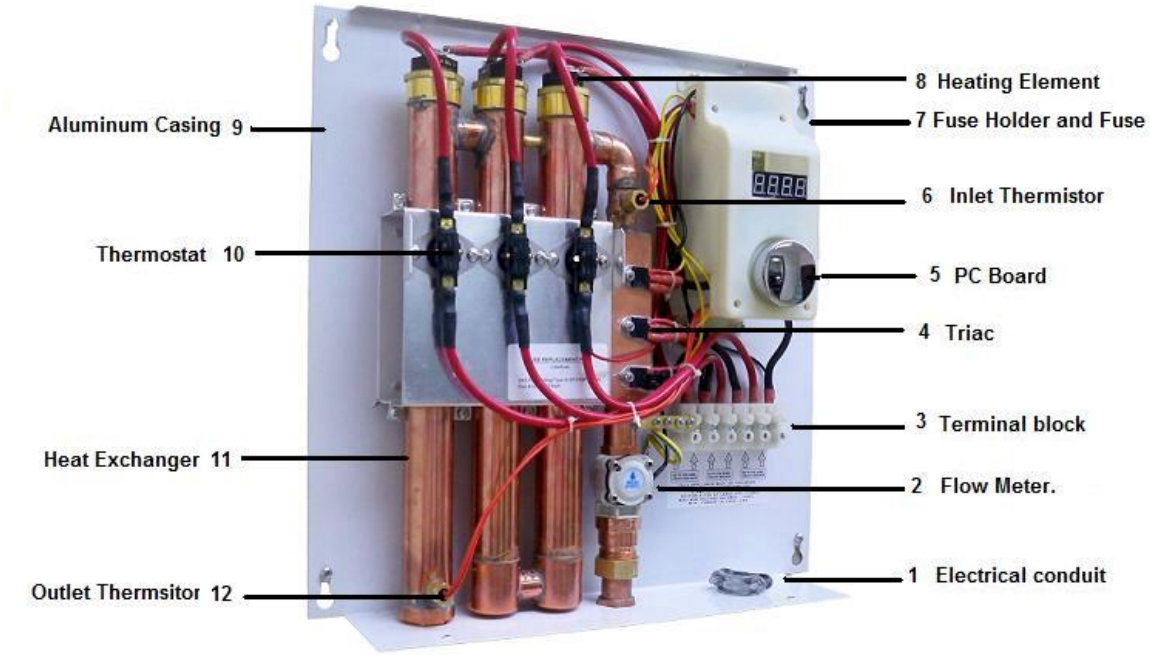
## This guide is for use by qualified electrical professional and/or homeowners.

This guide takes you through a sequence of steps that MUST be followed. Skipping steps will prevent you from being able to successfully detect and resolve a problem.

All electric tankless units are designed to be checked with a multi-clamp volt meter (*pictured right*) to measure for both voltage and amperage.

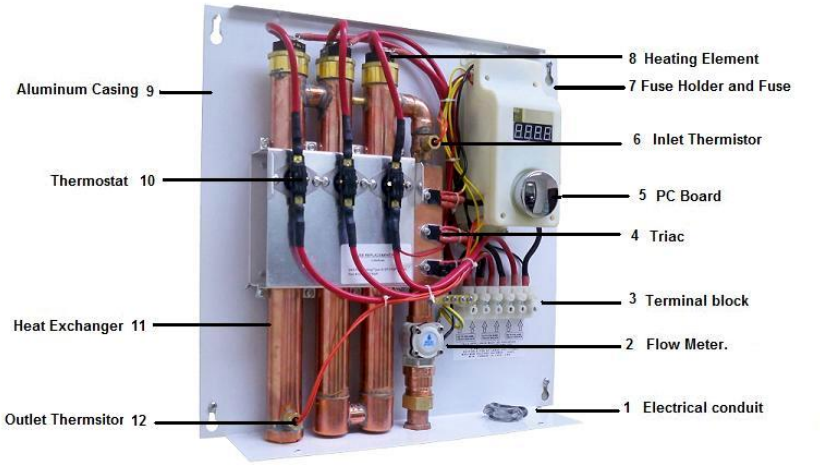
Below is an inside view of an electric tankless water heater.
Always write down any volt meter readings/results before contacting technical support.

18 = 2 Heating element (2 chamber heat exchanger)
24-27 = 3 Heating element (3 chamber heat exchanger)
36 = 4 Heating element (4 chamber heat exchanger)




For additional help, contact technical support at 877-474-6473, Monday-Friday, 9:00 am—5:00 pm EST, by email support@ecosmartus.com, or on our website ecosmartus.com.

# Activity A | Thermistors Troubleshooting




Each heater is equipped with two thermistors (*see image above*). One located on the inlet side (yellow wire) and one located on the outlet side (red wire). The function of the thermistors is to measure the incoming and outgoing water temperature and keep it within 1 to 2 degrees (+ or -) of the set temp shown on the LED display. If the thermistors fail, the heater will still activate, however the control board will not send power to the elements. Follow these steps to test the thermistors. This activity should take 3 – 7 minutes.

Turn off breaker

1. Once breaker is off, turn round knob to ensure no power is at unit. Board should not light up if correct breaker is off.
2. If board does illuminate the correct breaker was not turned off.

Unscrew front cover of unit.

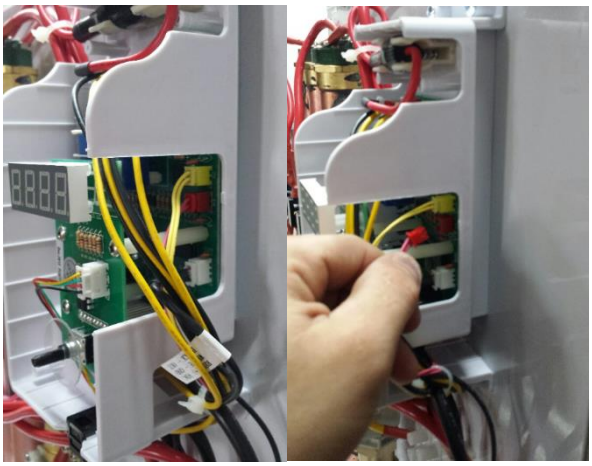
3. In order to remove the front cover you will need to unscrew **4** phillip head screws located on each corner of the cover.
4. Two screws located on top of cover facing up and two screws located on the bottom of cover facing down. .

Locate white plastic cover covering control board and remove.

5. Cover is located on the upper right had side of unit and secured with **4** Philips head screws. One in each corner.

Locate thermistor on control board *(see above image 6 & 12*)

6. Disconnect inlet and outlet thermistors from control board. (See below image)
7. Both wire are quick connect style. To disconnect, lightly pull wires until unplugged.
8. Inlet yellow
9. Outlet is red



Turn breaker On

10. Leaving thermistors unplugged, turn breaker back to on position.

Run water

11. Run hot water tap at sink for approximately 2/3 mins. Within this time, the unit should begin to heat water.

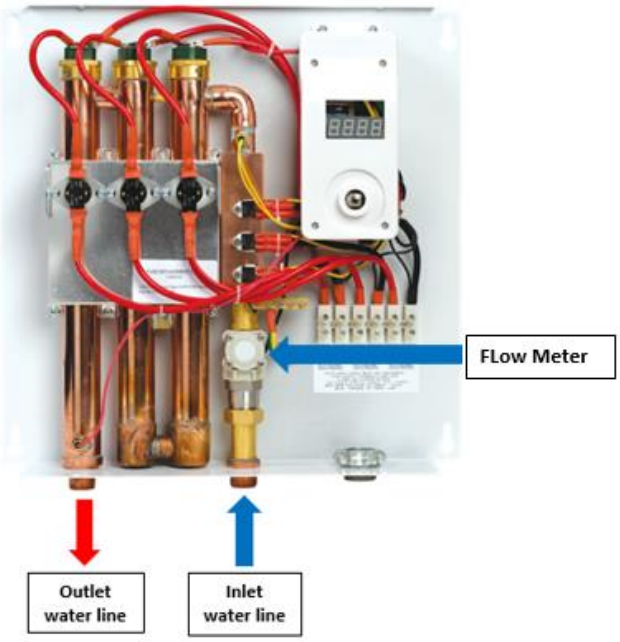
12. Make sure LED light is illuminated on heater. If not, Make sure the correct breaker was turned on.

Issue resolved.

If the heater begins to heat with thermistors disconnected, then these parts need to be replaced. If the heater is still within warranty, part will be covered. If not, parts can be purchased online at Amazon.com or through our support team see links below.

a. If the heater begins to heat with thermistors disconnected, then these parts need to be replaced. If the heater is still within warranty, parts will be covered. If not, parts can be purchased online at Amazon.com or through our support team.
    i. https://www.amazon.com/EcoSmart-THRM-Ecosmart-Thermistor/dp/B00Z0Z5IP2/ref=sr_1_1?s=industrial&ie=UTF8&qid=1518718177&sr=1-1&keywords=Ecosmart+thermistor
    ii. Support info email at support@ecosmartus.com or by phone at 877-474-6473
b. Issues not resolved
    i. Please go to Activity C | Electrical Connection

# Activity B | Flow Meter Troubleshooting




The flow meter is located on the inlet side of the water heater and has 4 Phillips head screws and a small black wire (*see image above*). The flow meter is equipped with a small propeller that must spin freely counter clockwise in order to activate heater. The flow meter controls the activation of the water heater by sensing water flow. If the flow meter is functioning properly, the LED display will illuminate once water is flowing through the system and will continue to stay illuminated while water is running. If the LED display not illuminated while water is running, follow the steps below.

If this is not a new installation (same-day install) skip Step 1.

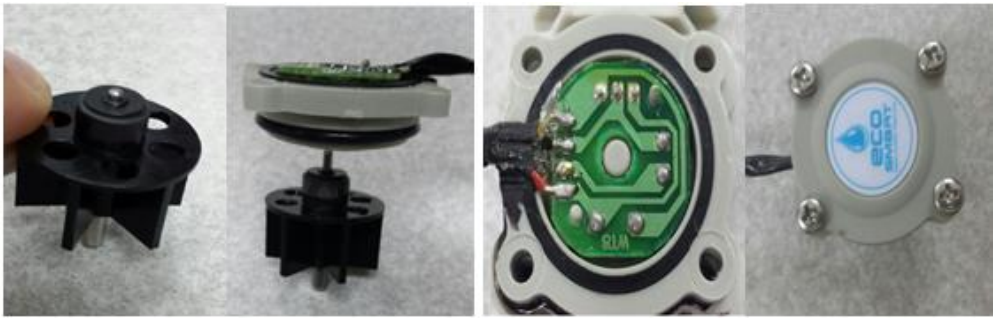
1. The simplest way to clean out flow meter is to run a high volume of water through your system in order to flush out any particles that can be blocking the propeller from spinning freely.
    a. Turn on at least 5/6 GPM for around 3 minutes. This could be a bath tub, shower, and a sink or 2 showers and a sink.
    b. Once you have a high volume of water flowing through your heater check to make sure your LED display is illuminated. This can take up to 3 minutes. (If you begin to hear a load humming noise coming from the heater don't worry this is normal)

2. If the LED display is now illuminated with water flow, you can now begin to slow down the GPM's. Close all running water taps except for 1 sink to verify your water is been heating and your LED display is staying on. Leave this sink running for approximately 45/60 seconds, within this time the unit should be heating water. (If the LED display is not staying illuminated. Move to Step 3)

3. The next exercise is to clean the flow meter, sometimes sediments or debris get caught in the flow meter area, this will cause the unit not to turn on. Turn breakers to the unit off, shut off water to the unit and open a few faucets of hot water to drain water and relief pressure within the heater.
    a. Identify flow meter & remove 4 screws and pull cover off, remove impeller and rinse it out.




4. Place parts back together making sure the impeller is spinning freely and that all the components are in the right order as shown in the pictures below;



5. Turn water on and open a few faucets for 3-5 minutes to flush the water lines and make sure there's no air pockets. Skipping this exercise might cause permanent damage to the heating elements.

6. Turn on power to the unit and verify if the display remains illuminated with water running. Let water run for approximately 45/60 seconds, within this time the unit should be heating water. If this does not resolve the issue. This part must be replaced.

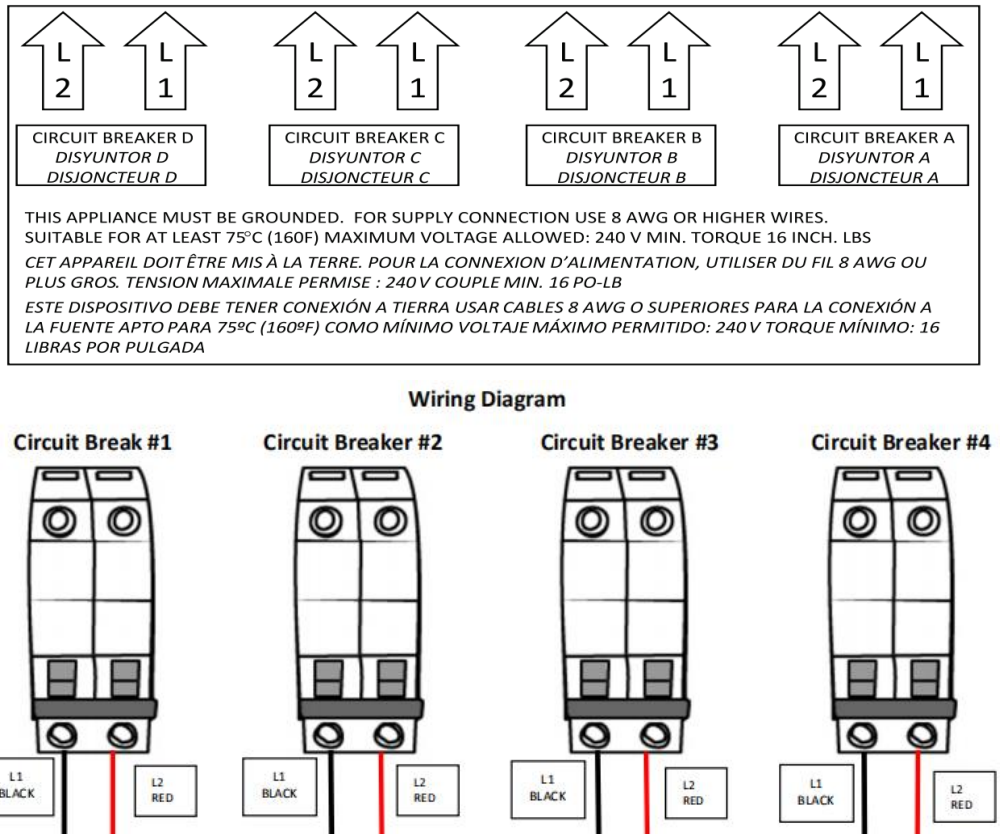
    ii. If this does not resolve the issue. This part must be replaced. If the heater is still within warranty, part will be covered. If not, part can be purchased online at Amazon.com or through our support team, see links below.
    iii. https://www.amazon.com/Ecosmart-FSA-QC-MEDLRG-Sensor/dp/B00Z0Z5XXE/ref=sr_1_1?ie=UTF8&qid=1521129025&sr=8-1&keywords=fsa+qc+medlrg
    iv. Support info email at support@ecosmartus.com or by phone at 877-474-6473

- Issues not resolved

    v. Please go to Activity C | Electrical Connection

# Activity C | Electrical Connection

Models 18 - 36 Kilowatts are supplied with a 4 to 6 prong terminal block (depending on model) marked (circuit breaker A - L1 L2) (circuit breaker B - L1 L2) (circuit breaker C - L1 L2) & (circuit breaker D - L1 L2). Each one of the circuit sets must be connected to an in-dependent double pole 40 amp breaker. Circuit A – L1-L1 goes to one 40 amp double pole breaker, Circuit B – L1-L2 goes to another 40 amp double pole breaker and so on. (See below image.)

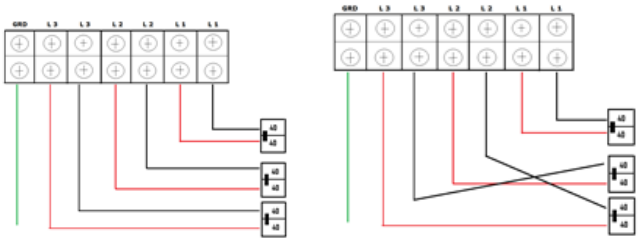



You must ensure the set of wires from each leg are not crossed at the breakers otherwise the unit will not function as designed. In order to make sure the wiring is connected correctly perform the following test located on the following page.

# Activity C-1 | verifying Connection

1. Disconnect all breakers at the service panel. Once all breakers have been disconnected measure the voltage going to each one of the sets (L1 L1) (L2 L2) (L3 L3) & (L4 L4) all should read 0 voltage.

2. Now, turn on 1 breaker, it does not matter which one. Once one breaker has been turned on, using your voltmeter place one probe on L1 and the other probe on the other L1, measure across (L1-L1) you should get a reading of 208-240v. Do the same for (L2-L2), (L3-L3) and (L4L4) (see above images for example.)



   a. If you measure voltage across one of the legs in a set and voltage in another leg of another set, then your wires at the breakers are crossed and must be corrected. Example– L1-L1 reads no voltage, but L1-L2 gives you voltage reading, then your wires at the breakers are crossed and must be fixed.

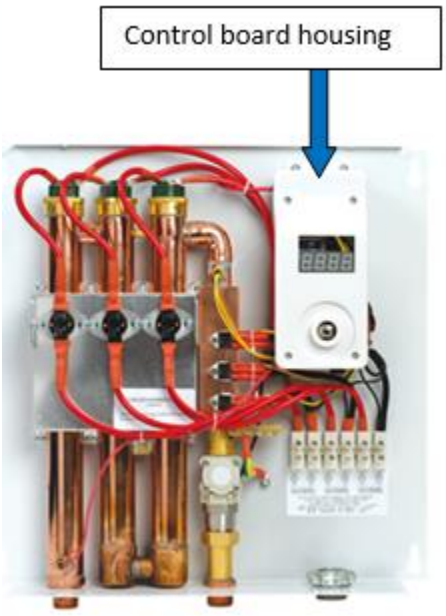
Perform this voltage reading on all legs of terminal block both at the bottom and top of terminal block turning on 1 breaker at a time. If power going to the unit is not correct, the unit will not operate correctly, so it is important to perform this test first, before proceeding. The problem might not be at the unit, but at your electrical panel, or breakers.

# Activity D |Checking Fuse

Each heater is equipped with one inline fuse. This fuse is designed to protect the control board against power surges. Depending on your model, your heater will have one of two fuses. Follow below steps to locate and test the fuse.

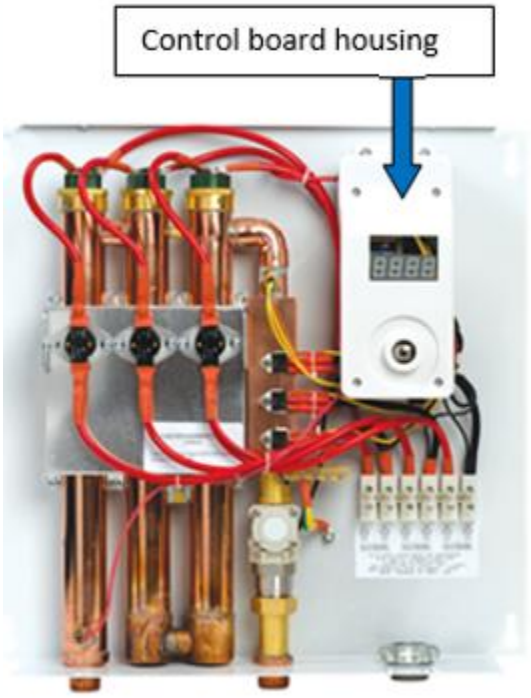
<u>Fuse A /250 Volt 3 AMP</u>

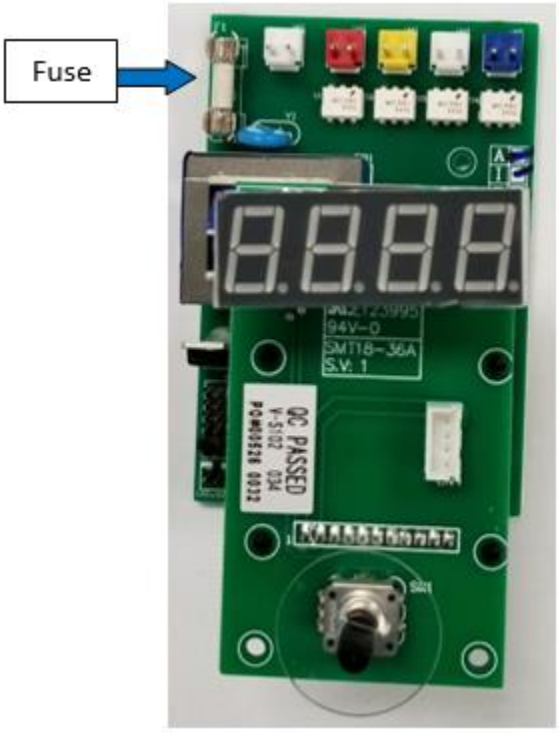
1. Locate plastic housing covering the LED control board. See below images for help.
    a. Make sure breaks are turned off.
    b. Remover round knob
    c. Locate 4 philips head screws, 1 in each corner of housing and remove.
    d. Locate round black fuse holder on top of housing and open.
    e. Insert new fuse (250V 3 Amp)and put holder back together
    f. Turn on breakers and verify if unit is turning on.




## Fuse B/250 volte 500 milliamps Fast Acting

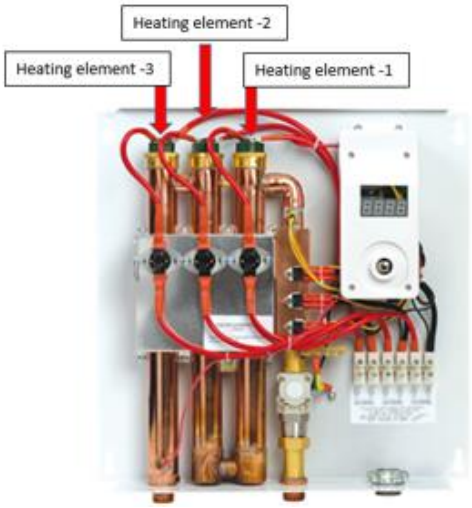
1. Locate plastic housing covering the LED control board. See below images for help.
    a. Make sure breaks are turned off.
    b. Remover round knob
    c. Locate 4 philips head screws, 1 in each corner of housing and remove.
    d. Locate fuse on upper right hand corner of board.
    e. Insert new fuse (250V-200-400 mA)
    f. Turn on breakers and verify if unit is turning on.



# Activity E | Checking Elements

The following steps verify the heating elements are working correctly. The heating elements will only draw voltage when hot water is being called for and uses only the voltage needed based on the temperature setting. This feature is called self-modulation. When hot water is 'demanded' the elements instantly draw power. The heating elements then work in series, which means that the element #1 (located on the inlet side of the unit) will be the first to draw power. In order for the second element to draw power, the first element must be drawing at 100% capacity.




1. <u>Locate elements</u>
   a. There are two red wires connected to the top of the element. In order to check if the element is working you must turn on a hot water tap. We suggest that you run the shower or sink. This way both elements will draw voltage and can be checked. Once you have water running through the unit, the LED display will light up and display the temperature setting on the unit. Using your volt meter-place one probe on one screw and the other probe on the other screw located on the top of the element. (See above image) check what voltage you are drawing.
   b. When measuring voltage across the top of the elements you will get a voltage reading between 220v – 240v. Remember– you must have water running in order for the elements to activate and draw power.
   c. If your LED display is illuminated and you have water running through the unit and have a 0 voltage reading when measuring with probes on each screw – perform conductivity test ( turn breaker off , set your meter for ohms and place one probe on one screw and the other probe on the other screw located on the top of the element. (See above image) take reading.
      i. If the reading is in the range of 6- 10 omhs, the element is good and it will be necessary to contact our support team for further troubleshooting.

ii. If the ohm reading is lower than 5 or higher than 10, the element will need to be replaced. Common element failures are due to air pockets, scale/sediment buildup and or freeze damage. . Please Note: *It is the responsibility of the user to be aware of their respective water quality and its effect on the heater. Failure to maintenance your product may result in damage to the heating elements or heat exchangers caused by sediment/mineral and or lime build up. This is not covered by the warranty*.

d. If you notice your element has failed do to scale/sediment buildup. Please follow the Required Maintenance page.

If the heater is still within warranty, part will be covered. If not, part can be purchased online at Amazon.com or through our support team. Follow links below.

i. https://www.amazon.com/Ecosmart-HE-90240-Heating-Element/dp/B00Z0Z5J4M/ref=pd_sim_60_1?_encoding=UTF8&pd_rd_i=B00Z0Z5J4M&pd_rd_r=7XV5X49JRPG6XGFVWCPQ&pd_rd_w=9PcS8&pd_rd_wg=toK58&psc=1&refRID=7XV5X49JRPG6XGFVWCPQ

ii. Support info: 877-474-6473 or Support@ecosmartus.com

# Activity F | Required Maintenance

When scale forms on elements, it is due to minerals such as calcium and magnesium found in water. There are three ways to deal with this this issue. Manual Maintenance, Recirculating Maintenance, and Filtration Maintenance.

*Please Note: It is the responsibility of the unit owner to be aware of your water quality and its effect on the heater. Failure to properly maintain your unit may result in damage to the heating elements or heat exchangers if sediment/mineral and/or lime build up. This damage is not covered by the warranty. See below recommend water quality levels.*

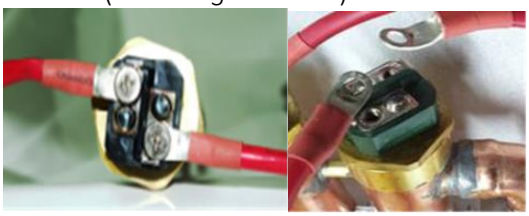
| Recommended Water Quality Levels | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| pH | Total Dissolved Solids (TDS) | Free Carbon Dioxide (CO@2) | Total Hardness | Aluminum | Chloride | Copper | Iron | Manganese | Zinc |
| 6.5 - 8.5 | Up to 500 mg/L | Up to 500 mg/L | Up to 200 mg/L | 0.5 to 0.2 mg/L | Up to 250 mg/L | Up to 250 mg/L | Up to 0.3 mg/L | Up to 0.5 mg/L | Up to 5 mg/L |

## Manual Maintenance

Depending on how hard the incoming water is, maintenance may need to be performed every 6 to 12 months. What is needed: 1 five gallon bucket and 3 to 4 gallons of undiluted white vinegar (food grade)

1. Turn OFF breaker
    a. Once breaker is off, turn round knob to ensure no power is at the unit.
        LED display will not light up if the correct breaker is off.
    b. If LED display does light up, correct breaker was not turned off.
2. Turn off water going into unit
    a. Per national plumbing codes, there must be a shut-off valve within 5 to 10 feet from the water heater. If there is not a dedicated shutoff valve, shut off the main water line to home.
    b. Once water is off, verify this by turning a tap ON at a sink. Turn tap on to hot side and let run until water is dripping lightly and leave open to relief pressure.
3. Remove front cover of unit
    a. In order to remove the front cover you will need to unscrew 4 phillip head screws located on each corner of the cover.
    b. Two screws located on top of cover facing up and two screws located on the bottom of cover facing down.

4. Locate heating elements
    a. Depending on model, the unit may have either 1 or 2 heating elements.
    b. Locate heating elements and remove both Philips head screws on top of element and fold red wires back (*see images below*).



5. Remove element
    a. The element has a brass hexagon manifold located on top. Grip hexagon brass top of heating element and rotate counter clockwise to unscrew from the copper tank, see picture below;

Cleaning Process

a. Place elements in a small bucket and add white vinegar. Cover element to just under hexagon brass top. Do not submerge whole element. Vinegar can also be poured into heating chamber if needed.

- We recommend letting elements soak for at least 3 hours.

Replacing Elements

a. Insert and rotate heating element clockwise until tight
b. Reset red wires and tighten screws
c. Turn water ON to unit. Inspect for leaks. (If an element is not fully tightened down, it may leak.)
d. Open a few hot water faucets for 2 to 3 minutes to remove air pockets in the lines

## Filtration Maintenance

For filtration maintenance we recommend consulting your local water company or a water filter specialist. You can find these filter systems at most hardware and plumbing supply stores, or online. It is important to regulate calcium, lime and sediment levels in your water before it enters your tankless water heater

## Recirculating Maintenance

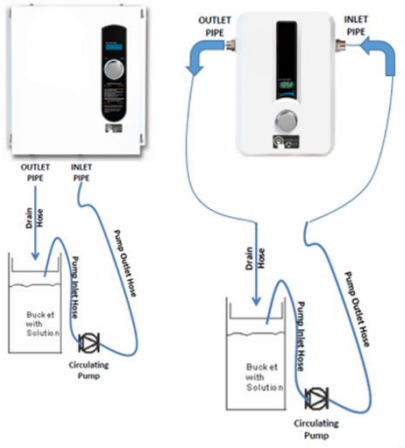
What is needed: 1 five gallon bucket, 1 four gallon-per-minute recirculating pump, two ¾ inch female hoses, and 3 to 4 gallons of undiluted white vinegar (food grade). Depending on the hardness of the water in your area, you may need to perform this maintenance once to twice a year.
See diagram on page 17.

### Flushing the Heat Exchanger

1. Disconnect electrical power to the water heater
2. Close shut off valves for both hot and cold water lines
3. Place bucket under service valve of hot water line
4. Unscrew cap from service valve on hot water line
5. Let water from heater drain completely into bucket
6. Unscrew cap from service valve on cold water line
7. Connect pump outlet hose to service valve
8. Connect drain hose to service valve on hot water line
9. Pour 4 gallons of white vinegar into bucket
10. Place drain hose and pump inlet hose into the vinegar
11. Operate the pump and allow vinegar to circulate through the water heater for at least 3 hours at a rate of 4 gallons per minute.

### Rinse Vinegar from Water Heater

1. Remove free end of drain hose from bucket and put in a sink or outside to drain
2. Allow vinegar to completely drain from drain hose
3. Disconnect pump outlet hose from service valve on the cold water line. Use bucket to capture any excess water that may be in the line.
4. Screw cap tightly back onto service valve of cold water line*
5. Open shut-off valve on cold water line
6. Allow water to flow through water heater for 5 minutes as it continues to drain
7. Close shut-off valve on cold water line and allow heater to drain completely
8. Remove drain hose from service valve on hot water line
9. Screw cap tightly back onto service valve*
10. Open both cold and hot water line shut off valves
11. Open a few faucets of hot water for 2-3 minutes to remove any air pockets in the lines
12. Restore electrical power to the water heater



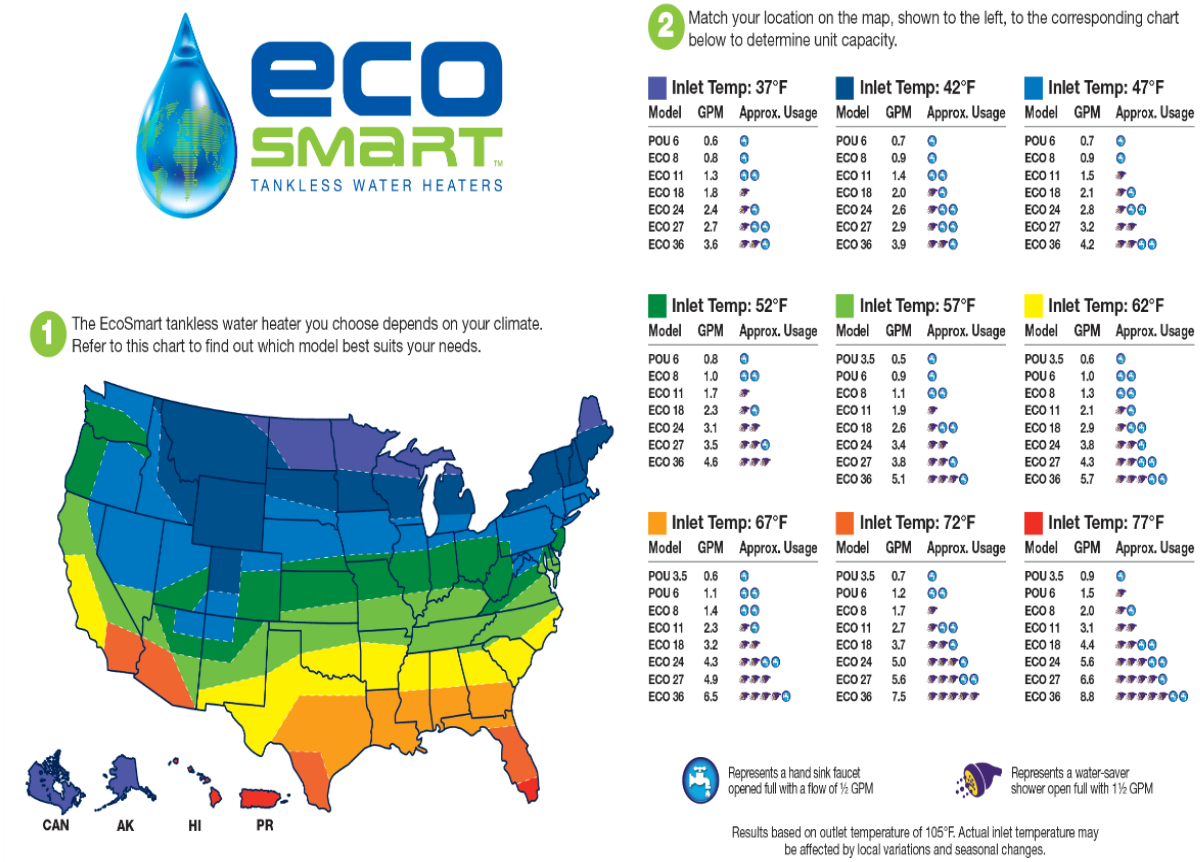
# Activity G | Sizing

Meeting temperature rise (ability to heat water to set/desired output temperature) for an electric tankless water heater is dependent on the climate/region where a heater is installed. Colder incoming water requires a larger kilowatt model. The same applies for flow rate. To meet the demand for higher flow rates, a higher kilowatt model is needed. There are 3 pieces of information needed to determine what size electric tankless water heater is right for you.

Note: The voltage you are receiving at the terminal will depend how many kilowatts (kW) your unit can pull. If you are receiving power lower than 220v, your unit decreases in kW by 25% giving you a lower temperature rise. For example: an 11 kW model receiving power lower than 220 volts will become an 8.25 kW model.

- **Watts**: Amount of energy needed to heat water to meet set/desired temperature
- **Temperature Rise: D**ifference between inlet water temperature and set/desired outlet temperature
- **Flow Rate:** Measured in gallons per minute (GPM)

The chart below will assist in selecting the correct model based on your location.




Certified through the ETL Nationally Recognized Testing Laboratory to UL 499 and CSA.

# E-1 Error code | Inlet Thermistor

If you unit is displaying an E1 error code. Your unit is notifying you the inlet thermistor is not reading correct Temperature and may need to be replaced. In order to temporary resolve this issue please follow the below steps. Keep in mind, this is only a short term fix. You will still be responsible for replacing you inlet thermistor.

Bypassing E1 Error Code

1. Turn on water so LED display is on and reading E1 error
2. Hold down round knob for 3/5 seconds and release.
3. At this point your LED display should be reading CE1
4. Keep water running for 2/3 mins and check for hot water.

This work around will allow you to receive hot water while waiting for the replacement part. While your unit is running in the CE1 mode, the heat will default to 125 degrees as a normal tank heater would. In this mode you will not be able to control your outlet temperature. Keep in mind you may need to mix some cold water in order to reach the desired Temperature.

- If the heater is still within warranty, part will be covered. If not, parts can be purchased online at Amazon.com or through our support team see links below.
    - https://www.amazon.com/Ecosmart-HE-90240-Heating-Element/dp/B00Z0Z5J4M/ref=pd_sim_60_1?_encoding=UTF8&pd_rd_i=B00Z0Z5J4M&pd_rd_r=7XV5X49JRPG6XGFVWCPQ&pd_rd_w=9PcS8&pd_rd_wg=toK58&psc=1&refRID=7XV5X49JRPG6XGFVWCPQ
    - Support info: 877-474-6473 or Support@ecosmartus.com

# E 2 Error Code | Outlet Thermistor

If you unit is displaying an E2 error code. Your unit is notifying you the outlet thermistor is not reading correct Temperature and may need to be replaced. In order to temporary resolve this issue please follow the below steps. Keep in mind, this is only a short term fix. You will still be responsible for replacing you inlet thermistor.

Bypassing E1 Error Code

1. Turn on water so LED display is on and reading E2 error
2. Hold down round knob for 3/5 seconds and release.
3. At this point your LED display should be reading CE2
4. Keep water running for 2/3 mins and check for hot water.

This work around will allow you to receive hot water while waiting for the replacement part. While your unit is running in the CE2 mode, the heat will default to 125 degrees as a normal tank heater would. In this mode you will not be able to control your outlet temperature. Keep in mind you may need to mix some cold water in order to reach the desired Temperature.

- If the heater is still within warranty, part will be covered. If not, parts can be purchased online at Amazon.com or through our support team see links below.
  - https://www.amazon.com/Ecosmart-HE-90240-Heating-Element/dp/B00Z0Z5J4M/ref=pd_sim_60_1?_encoding=UTF8&pd_rd_i=B00Z0Z5J4M&pd_rd_r=7XV5X49JRPG6XGFVWCPQ&pd_rd_w=9PcS8&pd_rd_wg=toK58&psc=1&refRID=7XV5X49JRPG6XGFVWCPQ
  - Support info: 877-474-6473 or Support@ecosmartus.com

# E 3 Error Code | Outlet & Inlet Thermistors

If you unit is displaying an E3 error code. Your unit is notifying you the outlet & inlet thermistor is not reading correct Temperature and may need to be replaced. In order to temporary resolve this issue please follow the below steps. Keep in mind, this is only a short term fix. You will still be responsible for replacing you inlet thermistor.

## Bypassing E1 Error Code

1. Turn on water so LED display is on and reading E3 error
2. Hold down round knob for 3/5 seconds and release.
3. At this point your LED display should be reading CE3
4. Keep water running for 2/3 mins and check for hot water.

This work around will allow you to receive hot water while waiting for the replacement part. While your unit is running in the CE3 mode, the heat will default to 125 degrees as a normal tank heater would. In this mode you will not be able to control your outlet temperature. Keep in mind you may need to mix some cold water in order to reach the desired Temperature.

- If the heater is still within warranty, part will be covered. If not, parts can be purchased online at Amazon.com or through our support team see links below.
  - https://www.amazon.com/Ecosmart-HE-90240-Heating-Element/dp/B00Z0Z5J4M/ref=pd_sim_60_1?_encoding=UTF8&pd_rd_i=B00Z0Z5J4M&pd_rd_r=7XV5X49JRPG6XGFVWCPQ&pd_rd_w=9PcS8&pd_rd_wg=toK58&psc=1&refRID=7XV5X49JRPG6XGFVWCPQ
  - Support info: 877-474-6473 or Support@ecosmartus.com

# E 4 Error Code | High Temperature

If the LED control board is displaying an E4 error code. The unit is reading an incoming water temperature of 150 degrees or higher.  This heater is equipped with 2 - 4 thermostats (depending on you model) all rated a 140 F. This unit is not rated to heat past 140 degrees. If your control board is displaying this error code, you will need to lower the incoming water temperature under 140F. Once the unit is receiving water under 150 degrees the LED display will illuminate with desired set temperature.

For further assistants please contact our support team via phone @ (877) 474-4673 or via email at support@ecosmartus.com

# E 5 Error code | High Flow Rate

If the LED control board is displaying an E5 error code the desired volume of water is too high and you will need to slow down the Flow rate. Each sink, shower or tub is equipped with an aerator to control the volume of water.

- Sinks =1 – 2.5 GPM (gallons per min)
- Showers = 1.5 – 3 GPM
- Bathtubs = 3.5 – 8 GPM
- Washing machines 1.5 – 2.5 GPM

In order to see what flow rate is currently running through the system follow the steps below

- From the temperature display screen (ON) - Press and hold the button for 10 secs to get to the diagnostics screen
- In the diagnostics menu you can navigate through 3 screens by rotating the round knob counter clockwise.
    - First Display = inlet water temp (see below for example)
        - I088 = 88 °F
        - I105 = 105F
- First turn = Outlet water temp (see below for example)
    - O088 = 88 °F
    - O105 = 105F
- Second turn = Current flow rate. In this screen there is a hidden decimal point. See below for example
    - F 005 = 00.5 GPM
    - F 049 = 04.9 GPM
    - F101 = 10.1 GPM

If the LED control board is displaying an E5 error, you will need to slow down the volume of water passing through the system until the LED display begins to read the selected degrees. In order to do this, we recommend installing a flow restrictor or slightly close the incoming or outgoing water valve. Flow restrictors can be purchased at most hardware stores, online retailers or directly from our company.

# S103 Error Code | Low Voltage

If the LED control board is displaying an S103 error code, your unit may not be receiving the correct power to the system. These heater requires at least 208 volts in order to function correctly. Please follow Activity C **(page 8)** to test the incoming power to the system. One the heater has the correct incoming power, the system the LED display the selected temp and water will begin to heat.

For further assistants please contact our support team via phone @ (877) 474-4673 or via email at support@ecosmartus.com