



ECO0045 | ECO085

ELECTRIC TANKLESS WATER HEATER

INSTRUCTION MANUAL

Keep this manual with you after your unit has been installed, you may need it for further technical information.



www.marey.com





Congratulations!

You've just purchased a new Marey EC0045 | EC0085 tankless water heater and will soon begin to enjoy the benefits of "going tankless."

Please take the time to thoroughly read and understand this safety and installation manual in its entirety before you attempt to install your new tankless water heater, as it contains important safety tips and instructions.

Please carefully read all instructions and warnings. Should you have any questions, please visit www.marey.com for installation videos and FAQ.

Please keep this manual for future reference and technical information.



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EC0045 | EC0085

1) Mounting

Mark the two mounting holes on the wall according to the slots in the back of the unit, then drill two holes of 6.00mm diameter. Place expansion bolts in the holes, then screw self-tapping-screw into expansion bolts, now affix the water heater on the installation screws.

2) Water Connections

Plumbing connections are 1/2" NPT, both the inlet and outlet can be found at the bottom of the unit. The cold water inlet is on the right side it should be preceded by a high pressure discharge valve and a shut off valve in that order. 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 heat 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

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. All electrical work must comply with national and applicable state and local electrical codes. The heater must be connected to a properly grounded dedicated branch circuit of proper voltage rating. EC0045/EC0085 can be connected to a single circuit, use a supply cable protected by a double pole breaker, please make sure the metal wire ends and the terminal blocks touch completely. Then tighten the screws up to make sure the full current can go through.

4) Operation

Turn on the water faucet for a few minutes until water flow is continuous and all air is purged from water pipes. Next, turn on the circuit breaker to bring electrical power to the unit. The range of options for the temperature setting is 30-55°C/86-131°F. When the units is ON, but not working, turn it on and off (5) times to convert the temperature display between Fahrenheit and Celsius. When you set the setting temperature, the LED display screen will blink for 3 seconds; the temperature switches automatically to the real-time temperature.



This is not a do-it-yourself project. Failure to have this appliance installed by a licensed plumber and electrician will void all warranties.

Under no circumstances should you attempt to install, repair or disassemble the MAREY tankless electric water heater without first shutting off all power to the unit directly at the circuit breaker box.

Installation of this product is restricted to indoor locations and should only be installed by licensed plumbing or electrical contractors.



IMPORTANT SAFETY INSTRUCTIONS

1. The installation must be in compliance with the National Electrical Code and your local electrical and plumbing codes.
2. This appliance must be GROUNDED.
3. All wiring and installation must be supervised by a qualified electrician.
4. **CAUTION:** This product has more than one power-supply connection point. Disconnect all power supplies before servicing.
5. 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.
6. This appliance **MUST** be permanently connected to the fixed circuit breaker and it must be installed vertically. **DO NOT** install this appliance near a pile of tinder or strong magnetic field.
7. This appliance **MUST NOT** 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.
8. Please feel the outlet hot water temperature with hand to make sure it is suitable for showering before taking shower to avoid getting scalded.
9. 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.
10. The heating chamber is treated with composite nano insulation material; it is natural

if there might be a bit of smell or green blue smoke when the unit is used for the first time.

11. If there is damage to the wiring, you must contact qualified electrician to replace it.

12. CAUTION: FOR HOUSEHOLD AND INDOOR USE ONLY

13. CAUTION: Risk of electric shock ,CONNECT ONLY TO A CIRCUIT THAT IS PROTECTED BY A GROUND-FAULT CIRCUIT INTERRUPTER (GFCI).

14. Save this instruction booklet.

PRODUCT FEATURES

The MAREY tankless electric water heaters are built national patent technology with multi-safety devices.

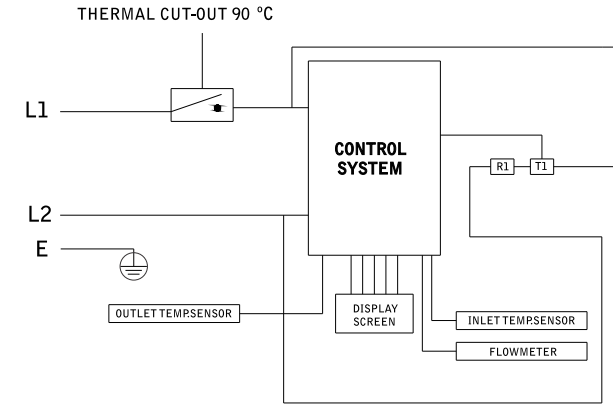
Also, the unit has the following features.

1. Tankless, instantaneous heating for on demand hot water, No pre-heating. No stand-by heating loss. Energy-saving.
2. Micro-computer control, adopting patent heating technology. Water is completely separated from electricity by multi-layers of composite nano insulation material.
3. 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 after the while temperature drop to the setting temperature.
4. Malfunction of sensor- when there is malfunction with the temperature sensor, the heater stops working and displays E3
5. Conversion between degree Fahrenheit and degree Celsius.

These units use SMART technology, which means that the units read the incoming water temperature and the flow rate of the fixture being used, and applies only the power necessary to heat the water to your desired set point. This allows the unit to be very efficient, and not waste power by only heating the water that is being used.



ELECTRICAL DIAGRAM



REMARK: R: HEATING SYSTEM T: TRIAC



TECHNICAL SPECIFICATIONS

Product Code	EC0045	EC0085
Voltage	120V	220V
Power	4.5kW	8.5kW
Rated Current	37.5A	38.6A
Min. Required Circuit Breaker	50A	
Recommended Wire Size	8 AWG	
Min. Water Flow to Activate the Unit	0.48 GPM - 1.5 L/min	
Recommended Min. Flow Activation	0.5 PSI	
Safe Operating Pressure	5 PSI - 100 PSI	
Water Connections	1/2" NPT Brass	
Dimensions	11.0" x 10.2" x 4.5"	
Weight	5 lbs	

EC0045	Temp. Increase per GPM	
	0.8	38°F
	1.0	31°F

EC0085	Temp. Increase per GPM	
	0.8	73°F
	1.0	58°F
	1.5	39°F
	1.9	31°F

*Gallons per minute indicated on the Temperature Increase table are calculated assuming an outlet temperature of 105 ° F. Variable factors such alternate incoming water temperature or incorrect installation may yield different results.

EC0045



120V



POWER



ONE POINT OF USE



WORKS WITH LOW PRESSURE



240V



POWER

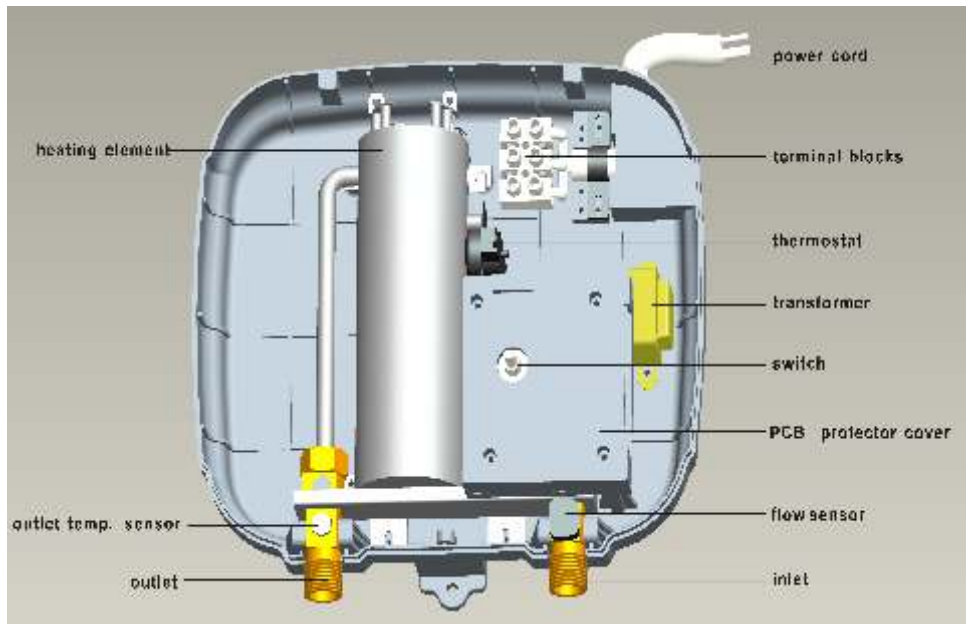


MULTIPLE POINTS OF USE



WORKS WITH LOW PRESSURE

PRODUCT INNER STRUCTURE



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 secure.
2. Please make sure the main power supply, water pressure, grounding condition, electrical breaker and wire reach the standard of installation requirement.
3. The appliance must be connected to a properly grounded dedicated circuit of proper voltage rating. Ground must be brought to the "grounding bar" 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 tinder or a strong magnetic field. The unit must only be mounted in a **VERTICAL** position near the water fittings. Please electrify try the machine after getting through waterway.

INSTALLATION METHOD

Fixed installation on the wall

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

Fig 1: Front and back of the appliance

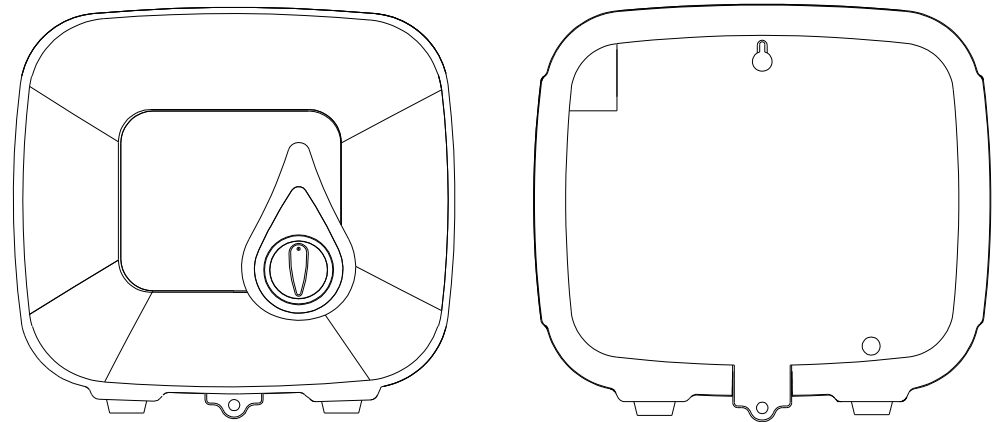


Fig 2: Mark two mounting holes on the wall according to the following picture, then drill two holes of 6.00mm diameter. Put expansion bolts in the holes, screw self-tapping-screw into expansion bolts, then fix the water heater on the installation screws.

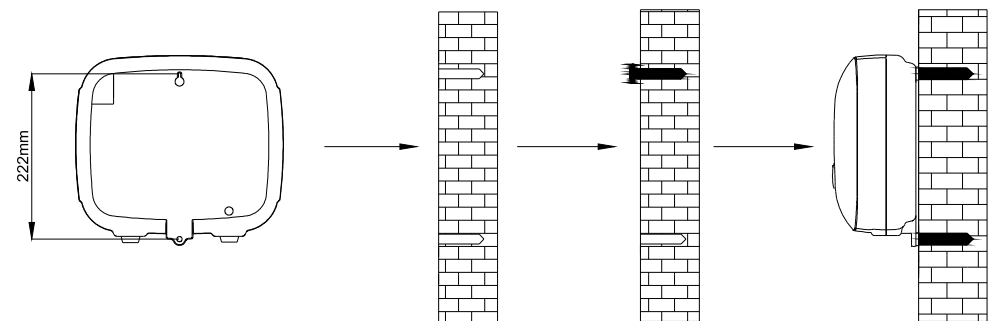
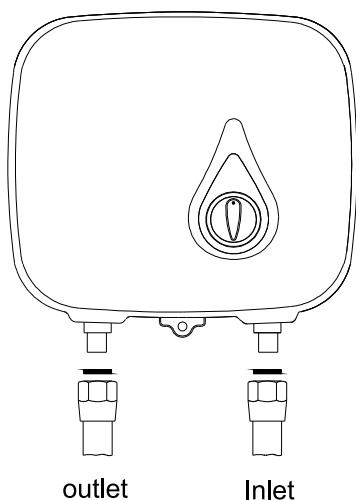


Fig 3: Connect the water pipe to the water inlet and water outlet connections, please remember to install the rubber seal ring.



Water connections

1. All water pipe 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 pipe with water to remove any debris or loose particles before connecting to the unit.
3. It is required that use 1/2" NPT water connections to fit the models of EC0045/EC0085.
4. 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 units must be connected to a properly grounded dedicated circuit of proper voltage rating.
3. EC0045 can be connected to a single-pole circuit, please use the supplied cable. The EC0085 must be protected by a double pole breaker.

4. Please make sure the wiring and the terminal blocks touch completely and are secure. Also, tighten the screws completely on the terminal blocks to make sure the full current can go through.

5. 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. Open water faucet for a few minutes until water flow is continuous and all air is purged from water pipes.

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

3. The range of options for the temperature setting is 30-55°C/86-131°F.

4. When the unit is ON, but not working, then turn the unit on and off 3-4 times to convert the temperature display between Fahrenheit and Celsius.

5. Centigrade display: when the setting temperature is 45°C, outlet hot water temperature will be 45°C;

Fahrenheit display: when the setting temperature is 113°F, outlet hot water temperature will be 113°F.

When you set the setting temperature, LED display screen will twinkle 3 seconds; the temperature switched automatically to real-time temperature.

6. When the unit is ON, the LED display screen will display the actual temperature, if it does not start working for 30 seconds, the screen will switch to the screen saver mode, the LED display screen will be off. When you touch the knob switch, the LED display screen will light up again and display the actual temperature again.

7. There is an overheat protection function for the appliance, if the outlet temperature reaches 75°C/167°F, the LED display screen will display E1, the appliance will decrease the power level automatically. After the hot water temp. drops to 60°C/140°F, the unit will begin to work again. If this happens repeatedly then you should reduce the setting temperature.

8. The dry heat protection temperature is 90°C/194°F, water heater is with manual reset unipolar protector

9. There is an automatic memory function to avoid repetitive adjustments. When you turn on the appliance, the default set temp will be the same as last time used.

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 not coming on	A. Power not connected. B. LCD damaged.	A. Connect power to the unit. B. Change LCD.
3. Functional keys not working	A. No water flow from fixture. B. Water flow too low. C. PCB damaged.	A. Open valve to get water. B. Open valve to get pressure. C. Change key or PCB.
4. Water too hot	A. Too high temperature set point. B. Water flow too low.	A. Set a lower temperature. B. Open valve bigger.
5. Water too cold	A. Low temperature set point. B. Water flow too high.	A. Set a higher temperature. B. Reduce water flow.
6. Outlet gets water smaller and smaller	Inlet strainer or shower clogged.	Clean strainer and shower.
7. LED displays E1	Outlet temp. is over 75°C/167°F	A. Reduce the temperature. B. Turn up the water flow.
8. LED displays E3	Temperature sensor failure	Please contact with your local dealer .

7 and 8 should only be performed by qualified electrician. The person who initially installed the unit is the best one to contact for help.

NORMAL MAINTENANCE

Note: Do not attempt to repair this water heater yourself. Call a service person for assistance. Always turn off of 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.

CUSTOMER SERVICE



At Marey, we pride ourselves on the excellence of our customer service and support team.

Please feel free to contact us if you have any questions about our products, warranty service, or if you need assistance installing a unit.

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OTHER PRODUCTS

Marey proudly manufactures water heaters and accessories for use in almost any application. Please visit our website to learn more about other Marey products.



EC0110



POWER PAK



EC0180



GAS PORTABLE



POWER GAS



POWER GAS 16L

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