



ECCOTEMP
THE FUTURE OF EFFICIENCY

L10

ECCOTEMP

TANKLESS WATER HEATERS



ECCOTEMP L10 PORTABLE OUTDOOR TANKLESS

WATER HEATER

USE & CARE MANUAL

WITH INSTALLATION INSTRUCTIONS FOR THE INSTALLER

Congratulations!

You've just purchased a new Eccotemp L10 portable tankless water heater. This will open a world of enjoyment to going tankless.

We highly suggest you take the time to read through all of the safety and installation procedures in this manual, before attempting to install your new water heater.



FOR YOUR RECORDS

Write the model and serial numbers here:

You can find them on a label on the appliance and/or packaging.

Staple sales slip or canceled check here.

Proof of the original purchase date is needed to obtain service under the warranty.



READ THIS MANUAL

Inside you will find many helpful hints on how to use and maintain your water heater properly. A little preventive care on your part can save you time and money over the life of your water heater. You'll find many answers to common problems in the Troubleshooting Guide. If you review the chart of Troubleshooting Tips first you may not need to call for service.







READ THE SAFETY INFORMATION

Your safety and the safety of others are very important. There are many important safety messages in this manual and on your appliance. Always read and obey all safety messages. This is the safety alert symbol. Recognize this symbol as an indication of Important Safety Information! This symbol alerts you to potential hazards that can kill or hurt you and others.

All safety messages will follow the safety alert symbol and the words: **"DANGER"**, **"WARNING"**, **"CAUTION"** or **"NOTICE"**.

These words mean:

-  **DANGER** - An imminently hazardous situation that will result in death or serious injury.
-  **WARNING** - A potentially hazardous situation that could result in death or serious injury and/or damage to property.
-  **CAUTION** - A potentially hazardous situation that may result in minor or moderate injury.
-  **NOTICE**: Attention is called to observe a specified procedure or maintain a specific condition.

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IMPORTANT SAFETY INFORMATION READ ALL INSTRUCTIONS BEFORE USING

Be sure to read and understand the entire Use and Care Manual before attempting to install or operate this water heater. It may save you time and money. Pay particular attention to the Safety Instructions. Failure to follow these warnings could result in serious bodily injury or death. Should you have problems understanding the instructions in this manual, or have any questions, STOP, and get help from a qualified service technician, or the local gas utility.

DANGER!

PROPERLY INSTALL WATER HEATER





Failure to properly install the water heater outdoors as outlined in the Installation Instructions in this manual can result in unsafe operation of the water heater. To avoid the risk of fire, explosion, or asphyxiation from carbon monoxide, never operate this water heater unless it is installed properly and has an adequate air supply for proper operation. Be sure to inspect the flue terminal for proper installation at initial start-up; and at least annually thereafter. Refer to the Care and Cleaning section of this manual for more information regarding flue terminal inspection.

WARNING!



Gasoline, as well as other flammable materials and liquids (adhesives, solvents, paint thinners etc.), and the vapors they produce are extremely dangerous. DO NOT handle, use or store gasoline or other flammable or combustible materials any where near or in the vicinity of a water heater or any other appliance. Be sure to read and follow the labels on the water heater, as well as the warnings printed in this manual. Failure to do so can result in property damage, bodily injury or death.

 **DANGER**



Flammable Vapor

<p> Vapors from flammable liquids will explode and catch fire causing death or severe burns.</p> <p>Do not use or store flammable products such as gasoline, solvents or adhesives in the same room or area near the water heater.</p> <p>Keep flammable products :</p> <ol style="list-style-type: none"> 1. Far away from heater 2. In approved containers 3. Tightly closed 4. Out of children's reach 	<p>Water heater has a main burner flame. The main burner flame</p> <ol style="list-style-type: none"> 1. Can come on at any time and 2. Will ignite flammable vapors. <p>Vapors:</p> <ol style="list-style-type: none"> 1. Cannot be seen 2. Are heavier than air 3. Go a long way on the floor 4. Can be carried from other rooms to the main burner flame by air currents.
<p>Installation: Do not install water heater where flammable products will be stored or used unless the main burner flame is at least 18" above the floor. This will reduce, but not eliminate, the risk of vapors being ignited by the main burner flame.</p>	
<p>Read and follow water heater warnings and Instructions. If owners manual is missing, contact the retailer or manufacturer.</p>	



⚠ DANGER!

NATURAL GAS AND LIQUEFIED PETROLEUM MODELS

Both LP and natural gas have an odorant added to aid in detecting a gas leak. Some people may not physically be able to smell or recognize this odorant. If you are unsure or unfamiliar with the smell of LP or natural gas, ask the gas supplier. Other conditions, such as “odorant fade,” which causes the odorant to diminish in intensity, can also hide or camouflage a gas leak. Always check with commercial leak detector or soapy water.

- **Gas detectors are recommended in LP and natural gas applications and their installation should be in accordance with the detector manufacturer’s recommendations and/or local laws, rules, regulations or customs.**
- Water heaters utilizing LP gas are different from natural gas models. A natural gas water heater will not function safely on LP gas and vice versa.
- No attempt should ever be made to convert the water heater from natural gas to LP gas. To avoid possible equipment damage, personal injury or fire, do not connect the water heater to a fuel type not in accordance with the portable tankless water heater data plate; propane for propane portable tankless water heaters and natural gas for natural gas portable tankless water heaters. These portable tankless water heaters are not certified for any other fuel type.
- LP appliances should not be installed below grade (for example, in a basement) if such installation is prohibited by federal, state and/or local laws, rules, regulations or customs.
- Propane or LP gas must be used with great caution. It is heavier than air and will collect first in lower areas making it hard to detect at nose level.
- Before attempting to light the water heater, make sure to look and smell for gas leaks. Use a soapy solution to check all gas fittings and connections. Bubbling at a connection indicates a leak that must be corrected. When smelling to detect a gas leak, be sure to sniff near the floor also.
- It is recommended that more than one method, such as soapy solution, gas detectors, etc., be used to detect leaks in gas applications.

Notice: If a gas leak is present or suspected:

- **DO NOT attempt to find the cause yourself.**
- **DO NOT try to light any appliance.**
- **DO NOT touch any electrical switch.**
- **DO NOT use any phone in your building.**
- **Leave the house immediately and make sure your family and pets leave also.**
- **Leave the doors open for ventilation and contact the gas supplier, a qualified service agency or the fire department.**
- **Stay away from the house (or building) until the service call has been made, the leak is corrected and a qualified agency has determined the area to be safe.**



! ADDITIONAL WARNINGS

- 1. Do not leave unattended.**
- 2. The exhaust gas and top of the portable tankless water heater is HOT! Do not place hands or any foreign object near the top of the heater.**
- 3. Do not use in high wind conditions.**
- 4. If the smell of gas is detected, turn off the gas valve at the tank immediately! Do not use flame for leak detection.**
- 5. Use only Liquid Propane.**
- 6. Use only outdoors.**
- 7. Do not over tighten the gas regulator connection to the portable tankless water heater with a wrench. This may cause a crack in the gas regulator.**

The Purpose and Benefits the L10

The EccoTemp L-10 is a liquid propane fired water heater capable of delivering 2 to 2.65 gallons of hot water almost anywhere. The portable tankless water heater has standard 1/2"NPT pipe fittings and an adapter for using a standard garden hose for inlet water supply.

The L10 is not a toy. People around the world use similar portable tankless water heaters to heat the water around their homes, safely, and reliably.

Gas is supplied from a standard 20 pound propane cylinder (not included) such as used with outdoor grills. A regulator with hose is furnished with the heater.

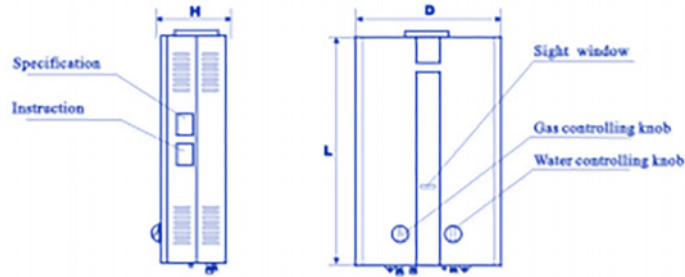
You may also plumb it in to existing water lines and using a low pressure LP gas regulator. Check local codes for proper installation.

The portable tankless water heater includes a stainless steel rain cap that helps protects it for outdoor usage.

Ignition is automatic and powered by 2 "D" cell batteries (not included). Burners come on when water flows, and off when the water is shut off. No pilot light.

Functions and Features

- Water controlled automatic ignition: Water pressure between 20-80 PSI and 0.75-1.0 GPM opens the ignition circuit for easy and convenient operation.
- Auto-cut-off protection: The auto-cut-off protection will shut the gas supply off immediately in the event of flameout to reduce the risk of gas leakage.
- Energy savings: 85%.
- Removable drain valve to avoid water pipe and regulator damage caused by freezing water*.
- Anti-dry combustion protection: The portable tankless water heater will shut off the gas supply in the event water stops flowing through the portable tankless water heater.



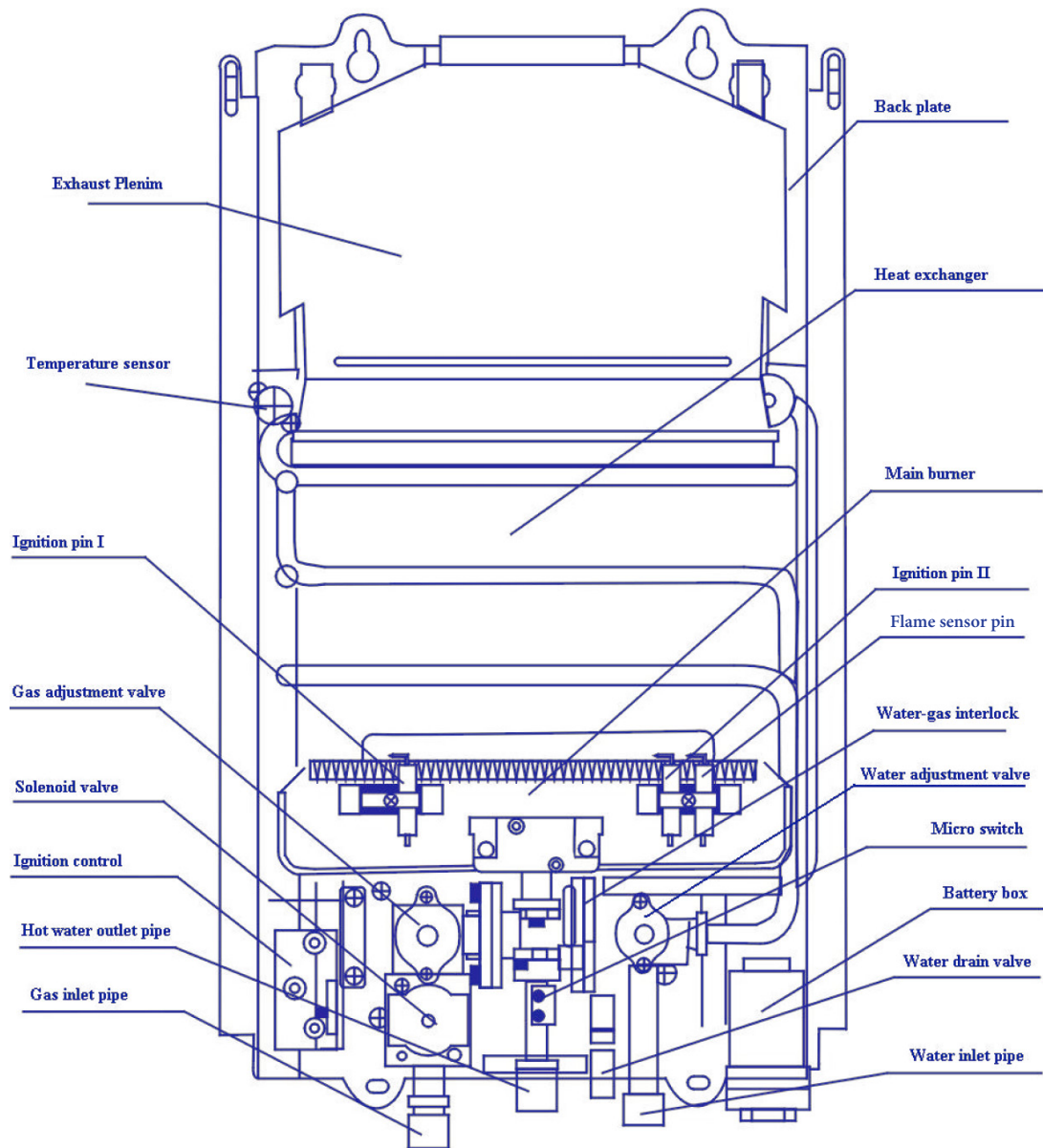
*Read the maintenance section on draining the portable tankless water heater entirely to avoid freeze issues.

TEMPERATURE INCREASE PER GPM					
MODEL	Gas Setting	1.5 GPM	2.0 GPM	2.5 GPM	3.0 GPM
L10 Portable	Highest	96 °	48 °	32 °	25 °
	Lowest	34 °	17 °	11 °	9 °

*Temperature increases listed are based on use of the water heater under optimal conditions. Variable factors such as incorrect or imperfect installations and varying incoming water temperatures may yield different results.

TECHNICAL SPECIFICATIONS - PORTABLE	
Fuel Type	LPG (Liquid propane gas)
Model	L10
Activation Flow Rate	25 PSI
BTU/h	75,000
Related gas pressure	0.4 PSI
Ignition	Electric Pulse, D cell Battery Powered (No electrical connection required)
Protections	Auto-cut off water control, automatic ignition, anti-dry combustion protection, over-pressure overheating and flameout protection
Dimensions	15" x 6.5" x 35"
Pipe fittings	1/2 " NPT, incoming/outgoing water & 3/8 compression fitting gas

Construction and parts for the L10



Getting Started

1. Check box for damage. Damages caused in shipment must be reported immediately.
2. Make sure you have all the parts.
Please note: Included parts and accessories may vary depending on county and regulations.
 - a. Water heater
 - b. Hardware pack
 - c. Rain cap
 - d. 1/2" NPT to garden hose adapter
 - e. Gas hose and regulator
3. Install the rain cap to the top of the flue vent. The rain cap should fit securely. It is recommended that a beaded layer of high temperature sealant is used around the perimeter of the seal between the rain cap and the flue vent.
4. If using a standard garden hose, attach the 3/4" NPT to garden hose adapter to the fitting marked 'Water Input'. Use Sealant tape or other approved sealing method on the threads for a secure, water tight fit. Check to make sure the screen inside the water inlet is in place and clean. Then attach your water input/garden hose.
5. Install gas supply line and regulator to the portable tankless water heater. **DO NOT OVER TIGHTEN. OVER TIGHTING MAY CRACK THE GAS REGULATOR CAUSING A GAS LEAK!** Check for any gas smell before ignition! Make sure it is screwed all the way on.

WARNING!

GAS HOSE ADAPTER

THE L5, L7, & L10 PORTABLE TANKLESS WATER HEATERS HAVE A 1/2" TO 3/8" ADAPTER IN THE HARDWARE PACK FOR ATTACHMENT OF THE LP HOSE TO THE HEATER.

THIS ADAPTER MUST BE INSTALLED WITH THREAD SEALANT, A SPOOL OF SEALANT TAPE IS INCLUDED WITH THE HEATER.

MULTIPLE WRAPS OF SEALANT TAPE MAY BE NECESSARY TO ASSURE COMPLETE SEAL.

ALWAYS CHECK FOR GAS LEAKS BEFORE USING HEATER.

6. Attach the water output to the fitting marked 'Water Outlet.' Do not over tighten.
7. Install two "D" cell batteries in the compartment on the bottom left of the heater. Check that batteries are facing the correct direction.
8. Use the top tab on the portable tankless water heater to suspend from a mounted screw capable of holding 30 pounds. Place at a comfortable height without putting stress on the gas hose.
9. Attach gas regulator with hose to the LP tank. Use hand pressure only on the plastic connector. **LEAVE GAS TANK VALVE IN THE "OFF" POSITION.**

Before going to the USE section:

Check around area for flammables, especially gasoline or other vapors which may ignite. The exhaust and top of the portable tankless water heater will get HOT! Make sure there are no foreign objects around the portable tankless water heater or have fallen into the top.

Use and Starting

Warning: This model is intended for recreational & portable use only. This model CANNOT be permanently mounted or plumbed in any way.

1. Turn on incoming water supply. Ensure that you have adequate water pressure of between 40-50 PSI.
2. Turn your water output device to its “off” position.
3. Turn the gas valve on the cylinder all the way open.
4. IF THE SMELL OF GAS IS DETECTED, TURN OFF THE GAS VALVE IMMEDIATELY!!
5. Set the water regulator knob on the face of the portable tankless water heater to its highest setting.
6. Set the gas regulator knob on the face of the portable tankless water heater to its minimum setting.
7. Turn on your water output device to the “on” position and adjust to the desired water flow.
8. There will be a series of audible clicks and the burner will ignite. Should the burner not ignite after 5 seconds, shut off and go to the “Trouble Shooting” section.
9. Upon completion of use or storage, open the drain valve (ribbed cylindrical stem next to the water input valve) to ensure draining of water.
10. Turn off your gas supply.
11. **WARNING:** If the outside temperature is around or below freezing (32 degrees F, 0 degrees C), ensure that the drain valve is opened and water drained from the portable tankless water heater after each use to avoid internal damage to the water regulator. You will also need to unhook the outgoing water line to ensure that any water in the heat exchanger is drained. Failure to properly drain your portable tankless water heater will cause water damage which may or may not be repairable.

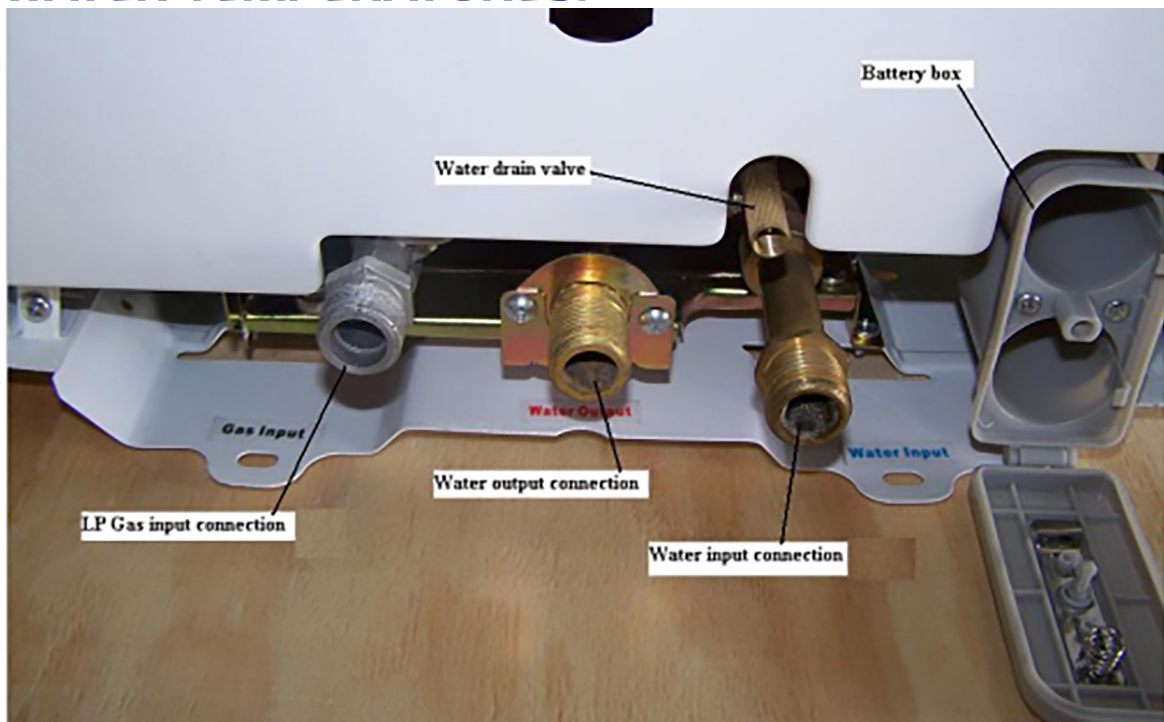
Adjustment

The temperature of the outgoing water is dependent on the temperature of the incoming water balanced with the amount of heat applied. Use extreme caution in setting the outlet water temperature.

1. With the water regulator set to high, and the gas regulator set to low, feel the outgoing water. This is the lowest setting available.
2. To initially raise the outgoing temperature, slowly turn the gas valve towards maximum. Adjust slowly and check the temperature often. There will be a slight delay between increasing the gas supply and the increase in water temperature.
3. Should the outlet water temperature need to be higher, slowly reduce the water flow regulator until desired temperature is reached.

(Warning: Do not alter or change this water heater's original temperature sensor)

WARNING: THE PORTABLE TANKLESS WATER HEATER IS CAPABLE OF PRODUCING SCALDING WATER TEMPERATURES!



DO NOT RETURN TO STORE

Troubleshooting

Portable tankless water heater will not start – there are no audible clicks at startup:

- a. The first thing to check is to ensure that the incoming water on the “right” side of the portable tankless water heater. If the incoming and outgoing are reversed, the portable tankless water heater will not work. The incoming is on the far right and the outgoing is in the middle.
- b. Check to make sure you have fresh batteries and they are installed in the correct position.
- c. Number one reason that the portable tankless water heater does not ignite is that there is not enough water pressure. You need a minimum of 0.25-10 PSI, sustained. Municipal water should supply enough water pressure. Most 12/18/120/240 pumps well as long as they are capable of delivering pressure of 0.25-10 PSI or greater.

ADJUSTMENT: Looking up at the bottom of the portable tankless water heater, you will see two “slits” in the case where the front and back come together. Locate the water regulator where you will see two Phillips head screws. Take the screw that is furthest on the right (larger screw) in about a ¼ or ½ turn. This will enable the portable tankless water heater to operate on a lower water pressure by restricting flow.

- d. A wire has become disconnected inside the portable tankless water heater during shipping. Make sure the gas is OFF. The front cover is held by six screws, four on top, two on bottom. The knobs pull off. All the wiring is done with push together plastic connectors. They are all visible without further dismantling of the portable tankless water heater. It should be obvious when a wire has become disconnected.
- e. It is possible that some debris or epoxy might have entered the water regulator. Check to see if the filter screen on the water inlet is clear of debris. You can also reverse the hookup by taking your water source and hooking it up to the water outlet side and back flushing the system.
- f. Propane gas cylinders sometimes are contaminated with air, especially new tanks upon their first filling. Cycle the portable tankless water heater turning off and on your output flow or similar. Does not include a shower head.

Portable tankless water heaters starts, then shuts off:

- a. If the Rain cap is blocked, or not long enough, the portable tankless water heater will shut off after a few minutes.
- b. The portable tankless water heater requires a minimum of about 0.75 gallons per minute (2 liters) and a minimum of about 20 PSI / 1.38 bar. Note: water pressure is at the lower end of operating parameters. You will need a sustained water pressure of approximately 40-60 PSI / 2.7-4.1 bar for adequate use if you are using a 12/18/120/240 volt pump. See ADJUSTMENT in previous section above.

Troubleshooting Continued...

c. Out of, or low on gas. Propane gas cylinders sometimes are contaminated with air, especially new tanks upon their first filling. Cycle the portable tankless water heater on and off by using the shower head switch several times (5) to purge the air from the gas. If this doesn't clear the air then the tank must be purged.

d. One of the ignition sensors is bent and/or too close to the burner. Look to ensure that the ignition pins and the heat sensor are completely vertical and they do a 90 degree to the back of the box. If they are not straight (i.e. a 45 degree angle) then you can straighten them with pliers.

e. The thermocouple is either too high or too low to complete the circuit. Check to ensure that the thermocouple is flush with the hole in the heat exchanger.

f. The gas sensor wire (looks like a black ground wire on the gas regulator) flange might have come loose or is no longer connected.

g. There is a faulty heat sensor. This is usually diagnosed by taking the front case off of the portable tankless water heater and let it run. If it continues to operate, then one of the sensors and/or the wire harness needs to be replaced. This may also be caused by insufficient clearance on the back of the portable tankless water heater where the majority of air intake is.

h. The valve on the propane tank should be all the way "Open".

i. Fresh batteries are required for ignition spark. Make sure batteries are aligned in the proper polarity (+/-).

The water does not get hot enough:

a. You are operating the portable tankless water heater above 4,000 feet / 1,000 meters. We only recommend using it below elevations of 4,000 to 5,500 feet.

b. Look into the viewer panes (middle horizontal windows on the front cover) to see if there is a blue flame. If the flame is yellow there could be a cracked gas regulator.

Water is flowing, but there is no hot water coming out:

a. Ensure that you have the incoming water supply and the outgoing water supply hooked up properly. Your water supply should be attached to your incoming connection (located on the far right) and the shower head should be attached to the outgoing water (located as the center connection).

b. Ensure that you have adequate water pressure of at least 20 PSI / 1.38 bar, sustained.

c. Ensure that you have adequate gas in your propane bottle and that the LP regulator is threaded all of the way on to the portable tankless water heater.

d. Fresh batteries are required for ignition spark. Make sure batteries are aligned in the proper polarity (+/-).

The portable tankless water heater does nothing:

a. Ensure that you have your water source hooked up to the water inlet side (far right connection) and the shower handle is hooked up on the water outlet side (middle connection).

b. Ensure that you have an adequate supply of propane.

c. Ensure that you have fresh batteries.

Eccotemp Product Comparison Chart

L5 Series

i12 Series

45 Series



Outdoor Only

L5 Series

Indoor Only

i12 Series

Indoor / Outdoor

45 Series

Specifications	L5 Series	i12 Series	45 Series
BTU	37,500	80,000	155,000
Flow Rate	Rated 1.45 GPM	Rated 3 GPM	Rated 6.8 GPM
Portable	Yes	No	No
Power Source	2"D" Cell Batteries	120 VAC	120 VAC
Gas Type	Liquid Propane Only	Available in NG or LP	Available in NG or LP
Venting	Not Needed	Horizontal Venting (Incl)	Sold Separately
Water Pressure	20-80 PSI	20-80 PSI - Flow Activated	14-80 PSI-Flow Activated
Regulator & Hose	Standard / Included	Not Included	Not Included
Temperature Control	Manual 80° - 120°	Automatic 90° - 140°	Automatic 90° - 140°
Warranty	1 Year	2 Years - Heat Exchanger 2 years-parts	10 Years - Heat Exchanger 5 years-parts
Product Dimensions	12" x 4.5" x 20" - 11.2 lbs	27.5" x 15.7" x 10.9" - 24.25 lbs	15" x 5" x 24" - 38 lbs
Package Dimensions	12.4" x 7.7" x 21.9" - 13.8 lbs	27.5" x 15.7" x 10.9" - 28.7 lbs	16" x 7.5" x 27.9" - 40 lbs

Eccotemp Systems ,LLC

Limited Warranty Information

EccoTemp hereby warrants this product to be free of material defects in materials and workmanship when installed and operated according to EccoTemp's installation and operating instructions. This Limited Warranty extends to the original purchaser and subsequent owners, but only while the product remains at the site of the original installation. This Limited Warranty terminates if moved or reinstalled at a new location. There are no warranties, express or implied made or given other than contained in this Limited Warranty. No agent, employee or representative of EccoTemp has any authority to bind EccoTemp to any representation or warranty concerning the Product not contained in this Limited Warranty.

Except as expressly set forth herein, THERE ARE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ANY GOODS SOLD HEREUNDER. BUYER'S EXCLUSIVE REMEDY IS LIMITED TO REPAIR OR REPLACEMENT OF THE GOODS SOLD, AT ECCOTEMP'S DISCRETION. ECCOTEMP SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Item Period of Coverage

Heat Exchanger 1 year
All other parts 1 year
Free Accessories (Showerhead,hose,regulator etc) 30 days

Coverages are void if the unit is used in a hot water circulation loop, in series with a circulation system or where an on-demand recirculation system is not incorporated. Owner is responsible for all other costs incidental to repair such as labor, shipping, delivery and permits. Proof of purchase required. Products repaired will be covered under this Limited Warranty for the remainder of term of the original purchase.

This Limited Warranty becomes null and void if any of the following are determined to be a contributing factor to the failure of the product:

1. Abuse, misuse, alteration, neglect or misapplication;
2. Improper or inadequate maintenance;
3. Inadequate water quality;
4. Installation in a corrosive or otherwise destructive environment;
5. Freeze Damage;
6. Scale buildup;
7. Incorrect gas or water pressure;
8. Acts of force Majeure

This Product is not to be used as a pool or spa heater.

Shipping Related Costs:

Within the first 30 days of purchase, Eccotemp will cover all ground shipping costs for warranty related issues, excluding AK, HI, Canada, and any location outside of the continental US. After the first 30 days of purchase, Eccotemp will cover all shipping costs to the customer for warranty related issues, excluding AK, HI, Canada, and any location outside of the continental US. After the first 30 days of purchase, the customer is responsible for all shipping to Eccotemp, regardless of reason or circumstance. The method for warranty related shipping will be Ground equivalent with the provider of Eccotemp's choosing.

AK, HI, Canada, and any location outside of the continental US, will be responsible for all shipping costs, regardless of reason or circumstance.

All shipments of any type of product coming to Eccotemp for any reason must have an RGA for any repairs to be made. Please contact Eccotemp to obtain an RGA number prior to shipping anything to Eccotemp. Failure to do so could result in loss of product. Eccotemp will not be responsible for replacement due to loss or damage if these steps are not properly followed.

Extended Warranty :

Warranty Features:

- * No hassle complete replacement of your item it breaks
- * Coverage begins after the manufacturer warranty expires.
- * Does not include accidents.

Standard Features:

- * No hidden fees or repair costs
- * If a product can't be repaired it will be replaced
- * Power surge protection
- * Free replacement of the product should it require 3 repairs in 1 year. (after the manufacturer warranty expires)

Extended warranty is offered through a third-party company we have partnered up, Warranty Life.