

**EZ TANKLESS**

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**EZ 101 & 202**

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**OPERATION  
& INSTALLATION  
MANUAL**

<b>EZ 101 TANKLESS WATER HEATER SPECIFICATIONS</b>	
Maximum Gas Consumption BTU/h	42,500
Hot Water Supply at 45f Temperature Rise	1.6GPM
Gas Supply Pressure (LPG)	11" WC
Exhaust System	Natural Draft / Flue
Ignition System	Water Controlled Electric Ignition
Electric Supply	2 X "D" Cell Battery
Safety Devices	Flame Out Over Temperature, 20 Minute Timer
Suitable Inlet Water Pressure	8-100 PSI
Water Connection	1/2" NPT
Gas Connection	1/2" NPT

<b>EZ 202 TANKLESS WATER HEATER SPECIFICATIONS</b>	
Maximum Gas Consumption BTU/h	85,000
Hot Water Supply at 45f Temperature Rise	3.2GPM
Gas Supply Pressure (LPG/NG)	11" WC/ 8" WC
Exhaust System	Natural Draft / Flue
Ignition System	Water Controlled Electric Ignition
Electric Supply	2 X "D" Cell Battery
Safety Devices	Flame Out Over Temperature, 20 Minute Timer
Suitable Inlet Water Pressure	8-100 PSI
Water Connection	1/2" NPT
Gas Connection	1/2" NPT

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*Note: Please ensure that the contents of this manual have been fully understood prior to installation or operation of this gas tankless water heater.*

# 1.0 LIMITED WARRANTY

## WHAT IS COVERED?

The EZ Tankless warranty covers any defects in materials or product workmanship when the product is installed and operated in accordance with written installation instructions contained herein, subject to the terms outlined within this limited warranty document. This warranty is applicable only to products that are installed by a state qualified or licensed contractor, or installations approved by EZ Tankless through the return of included warranty card and documentation demonstrating proof of installation.

## HOW LONG DOES COVERAGE LAST?

ITEM	PERIOD OF COVERAGE
Heat Exchanger	1 Year*
All other parts and components	1 Year*
Reasonable Labor	1 Year*†

\*Warranty period begins from date of purchase unless proper proof of installation is provided, in which case warranty period begins from date of installation.

†Warranty only covers labor deemed necessary and performed by EZ Tankless tech support staff at our repair center in Earl Park, IN.

## WHAT WILL EZ TANKLESS PROVIDE?

EZ Tankless will repair or replace the product or any part or component that is considered defective in materials or workmanship, except as set forth below: EZ Tankless will provide parts with free shipping for most repairs. EZ Tankless will perform labor and pay shipping costs to repair the product if deemed necessary by EZ Tankless. All repairs must be performed using genuine EZ Tankless parts.

If EZ Tankless determines that repair of a product is not possible, EZ Tankless will replace with a comparable product, at EZ Tankless' discretion. If a component or product returned to EZ Tankless is found to be free of defects in material or workmanship, or damaged by improper installation or during return shipping, the warranty claim for product, parts and labor may be denied.

## 2.0 WHAT'S INCLUDED?



1 x EZ Tankless Water Heater



1 x Showerhead

## 2.1 FEATURES AND BENEFITS

- Fully-automatic operation. Once installed, simply turn on the water spigot or shower—instantaneous hot water will arrive in a few moments. After the tap is turned off, the tankless heater will extinguish and cease operation.
- Complimentary shower head and hose included with unit.
- Simple and aesthetically pleasing design features – the unobtrusive unit design fits seamlessly in a variety of locations.
- Advanced electronic control system controlled by water flow provides extremely reliable operation. (Ignition electrical source is supplied by 2 x “D” cell battery)
- Integrated ion flame sensor cuts the gas supply if the pilot flame is unexpectedly extinguished.
- Insufficient water pressure protection.
- 20-Minute safety timer reduces the risk of carbon- monoxide poisoning in the event of inadequate ventilation.
- Independent control of water flow, burners, and gas flow allow for more flexible range in water temperature.
- If water supply is interrupted, the gas valve will automatically turn off.
- High thermal efficiency and superb combustion performance.
- Low water pressure ignition. The heater can function at as low as 8PSI water pressure, making this unit suitable for use at high altitude or applications using well water with older or less powerful pumping systems. For example; as tested in our USA laboratory, this unit has been proven to easily operate via a garden hose inlet water supply.

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|----------------------|----------------|
| ① Water Flow Dial    | ⑤ Water Outlet |
| ② Seasonal Mode Dial | ⑥ Gas Inlet    |
| ③ Flame Level Dial   | ⑦ Flue Outlet  |
| ④ Water Inlet        |                |



## 3.0 SAFETY PRECAUTIONS

01. Always check water temperature by hand before entering shower or bath. The temperature may have been changed. Do not touch the unit cover or the flue outlet while in use.
02. Do not insert objects into the flue outlet. On colder days steam may discharge from the flue outlet. This condition is normal for high efficiency appliances.
03. The vent/air intake should be positioned away from flammable materials such as trees, shrubs, etc.

### 3.1 HOT WATER RISK

01. Hot water is dangerous, especially for the young and the elderly or the infirm. The EZ Tankless water heater allows you to precisely control the temperature of your hot water, ensuring safe water temperature. Water temperature over 125°F can cause severe burns instantly or death from scalding.
02. Hot water can cause first degree burns with exposure for as little as:  
3 Seconds at 140°F  
20 Seconds at 130°F  
8 Minutes at 120°F
03. Test the temperature of the water with your elbow to ensure adequate temperature before placing a child in the bath or shower.
04. Do not leave children or an infirm person in the bath unsupervised.

### 3.2 SCALDS-FIRST AID GUIDANCE

01. Remove clothing - remove all wet clothing, quickly, as wet clothing retains the heat.
02. Apply cold water for 30 minutes - immediately submerge the burnt area in cold water for 30 minutes to reduce the heat in the skin, preventing deeper burning. Never use butter, oils, or ointment to cover the burn, as they may retain the heat.
03. Keep the individual warm - place a blanket around the affected individual.
04. Seek medical advice - call your medical advice hotline and describe the scalding properties, follow their directions to provide further treatment if necessary.

## 4.0 INITIAL SETUP AND OPERATION

*Note: These steps should be followed for every new location or water source*

### 1. DIAL POSITIONING (PRE-FIRST IGNITION)

- a. Water Flow Dial - The water temperature dial should be first set to the “low” setting.
- b. Winter/Summer Dial - The winter/summer knob should be first set to the “summer” setting.
- c. Flame Dial - The flame dial should be first set to the “low” setting.

### 2. GAS SUPPLY

Gas supply to the EZ 101 unit should only be propane (lpg) regulated to a pressure setting of 11”WC. The EZ 202 Natural Gas requires 8” WC. Lower or higher pressures beyond this value will deliver inconsistent ignition and operation and are not recommended.

### 3. WATER SOURCE

Inlet water source should be at least 1 gpm filtered water at a minimum pressure of 8PSI. Water flow or water pressure values less than these recommended may result in unit failing to ignite.

### 4. ADJUSTMENTS FOLLOWING FIRST IGNITION

*Note: These adjustments should be made with the unit running and heating water.*

- a. To increase water flow, slowly turn water temperature dial counter clockwise. If, while increasing water flow, the EZ 101 flames out, slowly return dial clockwise until unit reignites.  
**Stop! At point of reignition you have reached the maximum flow rate as provided by your chosen water inlet source.**
- b. To increase water temperature, slowly turn the “flame” dial clockwise. If you reach the maximum flame level and the water is still not warm enough, return the “flame” dial to the low setting and attempt “step c”. When desired water temperature is set, do not reset the dials until a new water source is provided.
- c. Turn the winter/summer dial counter clockwise to the next setting. The dial will lock into place when turned to each setting. With the dial at the new setting return to step “b” and continue to find desired temperature setting.

## 4.1 CONTROL DIALS INFORMATION

### 1. WATER FLOW DIAL

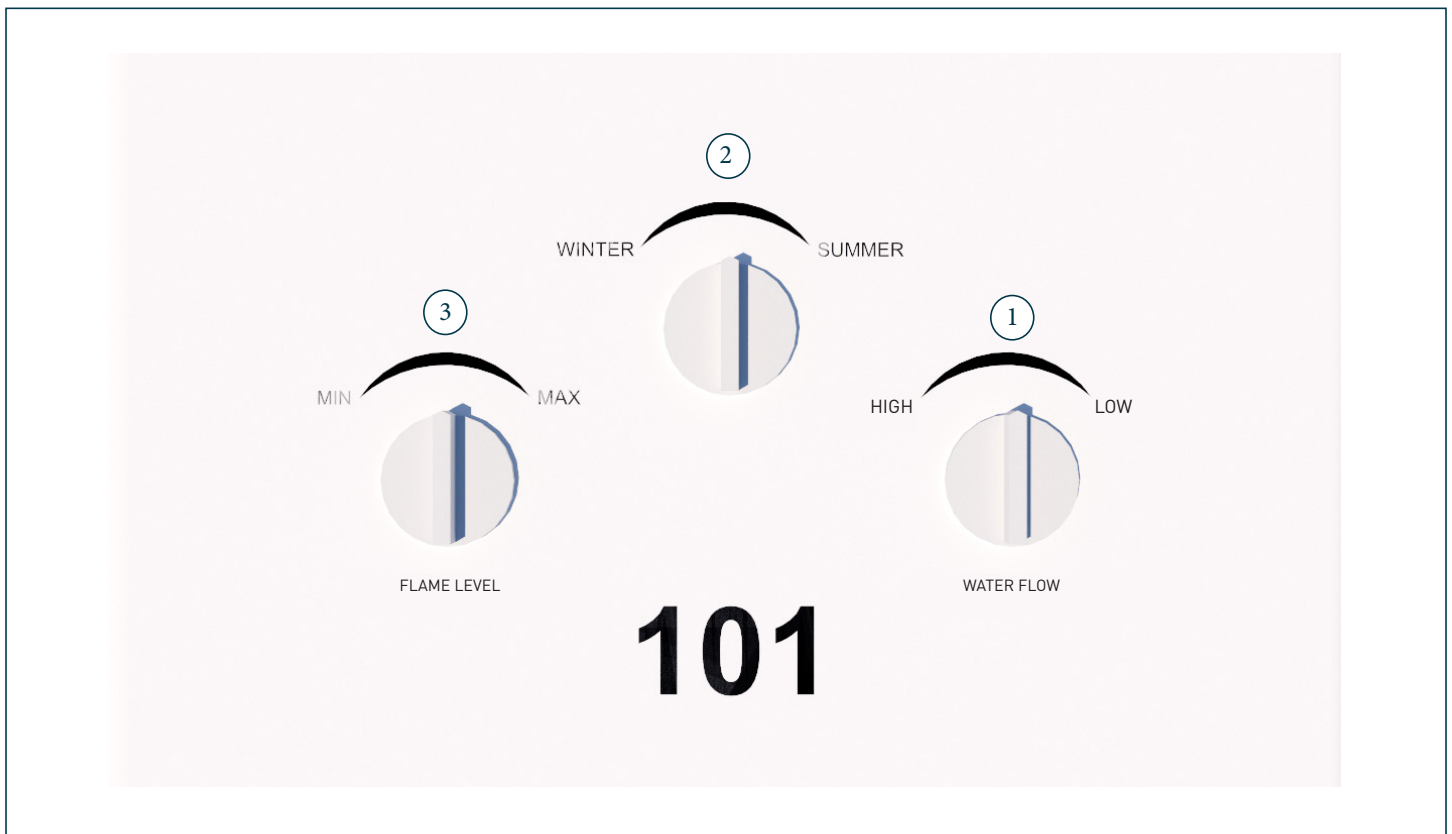
The water temperature dial provides the greatest level of control over ignition level. This dial controls water flow through the system. The EZ 101 uses a water pressure activated valve to control the electronic ignition and gas flow through to the burners. If the user sets the water flow dial at the “high” setting (highest amount of water flow) but has a water source with less than 2gpm, there will not be a large enough build of pressure in the water/gas diaphragm to engage the pressure valve. This is why it is always recommended to set the water flow dial to “low” during initial setup/first ignition.

### 2. SEASONAL MODE DIAL

The seasonal mode dial will provide the largest fluctuation in delivered water temperature. This dial regulates the internal burners within the system. Selecting between 1 or 2 burners, the available options include summer or winter respectively.

### 3. FLAME DIAL

The flame dial will provide the greatest level of control in water temperature. When adjusting water temperature to that desired, the flame dial should be used between each burner selection to reach the desired temperature setting.



## 5.0 RECOMMENDED EZ101 MAINTENANCE

### 1. CHECK THE GAS HOSE AND REGULATOR FOR ANY DEFECTS

Propane regulators, especially single stage regulators, defect at a high rate predominantly due to age. Most single stage regulators will eventually allow a higher pressure than the required 11"WC by the EZ 101. When this happens the unit will not ignite. This is the most common fault that causes ignition failure.

### 2. CHECK THE EXHAUST VENT FOR BLOCKAGE REGULARLY

Debris, animals, or insects may enter the exhaust vent at anytime. Be sure to regularly check the exhaust vent for any blockage. A blockage of the exhaust vent will cause inconsistent water temperatures as well as potential damage to internal components.

### 3. CLEAN INLET WATER FILTER SCREEN REGULARLY

Located just inside of the water inlet fitting on the bottom of the EZ 101 is a filter screen. This screen is used to keep sediment and small debris from entering the heat exchanger. Be sure to regularly check this screen for any debris that it may have caught. Remove the screen from the inlet using a small pick or screwdriver, blow away or rinse away any debris that may have accumulated and reinstall the filter screen into the water inlet before next use.

### 4. FLUSH UNIT ONCE A YEAR

With the heating of water through a heat exchanger comes the build up of minerals over time throughout the water heater parts and components. It is recommended to flush your tankless water heater with distilled white vinegar at least once per year when used on a regular basis, to ensure continued use and to avoid parts damage.

### 5. ALWAYS KEEP COVER OF UNIT CLEAN

The cover of your water heater will become hot during use. It is not recommended to place any stickers, magnets, or other decorative material on the cover of the EZ 101. Be sure to wipe away any dirt or debris that may be on the cover before each use.

## 6.0 TROUBLESHOOTING

### 1. WATER HEATER FAILS TO IGNITE/HEAT WATER

#### Q. DOES THE IGNITER SPARK?

##### A. NO:

1. Check that the batteries are installed correctly and hold a positive charge.
2. Detach your gas supply (turning off gas supply will not release built up pressure so you must detach gas supply to perform troubleshooting.)
3. Attempt running water through the unit with the gas supply detached. If your unit sparks the igniter without the gas supply attached you may have a gas regulator with an outlet pressure too high. Recommended outlet pressure is 11"WC.
4. If the unit fails to spark the igniter with the gas supply detached, there may be an issue with the microswitch used to control the electronics.
5. Remove the dials from the front of the unit
6. Remove the cover from the unit - screws are located at bottom rear corners
7. With cover removed, locate red and blue wires running from computer board (bottom left corner) to the micro switch (front and center). The wires are connected with using white connectors.
8. Detach the white connectors from each other, thus separating the computer board and micro switch.
9. Using a "flat-blade" screwdriver, complete the circuit between the two prongs located inside the white connector on the computer board side of the red and blue wires.
10. If a spark is produced when doing so, the unit micro switch has failed. If no spark is produced, the unit computer board or battery compartment is faulty.

To test for a faulty battery compartment –

With unit cover removed, remove the red and black wires from the top of the battery compartment. Tape two "D" cell batteries in a series (configuration as follows: +[battery#1]- +[battery#2]-). With the batteries taped together securely, hold the red wire to the positive side of the batteries and the black wire to the negative side of the batteries. Again touch the "flat-blade" screwdriver to the two prong located inside the white connector on the computer board side of the red and blue wires. If a spark is produced, a new battery compartment is required. If no spark is produced a new computer board is required.

## Q. DOES THE IGNITER SPARK?

### B. YES:

1. If the igniter sparks but the unit fails to flame up, first check that you are using alkaline batteries. If the batteries are weak they will not open/hold open the gas solenoid – this results in gas being restricted from entering the burners.
2. If the heater contains brand new alkaline batteries and sparks, yet does not ignite, a faulty gas solenoid valve may be present.

To test the gas solenoid:

Shut off unit and remove all gas supplies from the water heater. Remove the gas solenoid by removing the 2x philips screws holding it in place on the gas assembly. With the gas solenoid removed, apply a small amount of pressure on the valve (push the valve about 1/4 of the depth and it will drop into the solenoid). Trip the igniter by running water through the system, or lift the pressure plate off of the microswitch. With you finger resting on the solenoid and the igniter engaged, electricity should flow through the solenoid and pull the valve into the solenoid. If this does not happen, a new gas solenoid is required.

3. If the igniter sparks, the unit flames up but extinguishes itself in 5-10 seconds, a faulty limit switch may be present. In order to resolve, bypass the limit switch by completing the circuit between its two wire connections. With that circuit completed before again attempting to run the water heater.
4. If the unit fires and remains lit with the limit switch bypassed, order a new limit switch from our parts page on our website: [<http://www.eztankless.com>]

*For complete and up to date troubleshooting and self help videos please visit:  
<http://www.eztankless.com/support/ez-101-troubleshooting/>*

## CONTACT US

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