EZ TANKLESS

EZ ULTRA HE

OPERATION & INSTALLATION MANUAL

EZ ULTRA HE GAS TANKLESS WATER HEATER SPECIFICATIONS

Maximum Gas Consumption BTU/h	70,000
Minimum Gas Consumption BTU/h	12,500
Hot Water Supply at 45f Temperature Rise	3.4GPM
LPG (Propane) Inlet Pressure	11” WC
NG (Natural Gas) Inlet Pressure	8” WC
Exhaust System	Forced Exhauste Type
Flue Diameter	2.25” OD
Ignition System	Automatic Ignition
Electric Supply	110V/60Hz
Rated Power	24W
Safety Devices	Flame Sensors, Thermal Limit Switch, Thermal Fuse Fan, RPM Sensor, Surge Protect Fuse
Usable Water Pressure	8-100 PSI
Water Connection	1/2” MECH 1/2”NPT w/included fitting
Gas Connection	1/2” MECH 1/2”NPT w/included fitting
Energy Efficiency Level	> 92%

IMPORTANT SAFETY INFORMATION

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 either the word "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 can 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.**

⚠WARNINGS:

- **This water heater is not approved for use in manufactured (mobile) homes!**
- **Improper installation, adjustment, alteration, service, or maintenance can cause death, personal injury, or property damage. Follow the instructions in this manual.**

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 death or serious bodily injury. 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.

IMPORTANT SAFETY INFORMATION

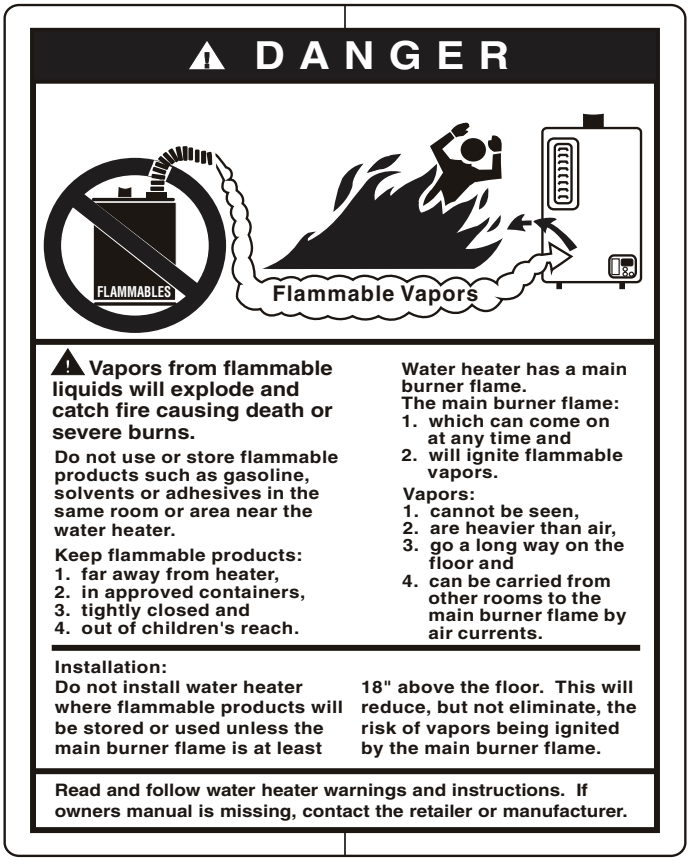
Water Heater Venting Safety

⚠DANGER:

- **Failure to install and properly vent the water heater to the outdoors as outlined in the "Venting" section of the Installation Instructions in this manual will result in death from fire, explosion, or asphyxiation from carbon monoxide. NEVER operate this water heater unless it is properly vented and has the air supply piping properly installed and terminated to the outdoors.**
- **Be sure to inspect the vent terminal, the air intake, and the vent system on the water heater 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 vent system inspection.**

⚠WARNINGS:

- **Gasoline and other flammable liquids, materials, and vapors (including paint thinners, solvents, and adhesives) are extremely dangerous. DO NOT handle, use, or store gasoline or other flammable or combustible materials anywhere 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 death, bodily injury, or property damage.**
- **Combustible construction refers to adjacent walls and ceilings and should not be confused with combustible or flammable products and materials. Combustible materials, such as clothing, cleaning materials, or flammable liquids, should never be stored in the vicinity of this or any gas appliance. Fire or explosion can occur causing death, personal injury, and/or property damage.**
- **Follow vent manufacturer's instructions for venting installation, including additional clearances from combustibles, to avoid conditions that can lead to death, personal injury, and/or property damage.**
- **Use tankless water heater manufacturer-approved Schedule 40 PVC (foam core is not permitted at any time), Schedule 80 PVC, CPVC, ABS, UL 1738-listed Category III Stainless Steel. No other vent material is permitted.**
- **Moisture in the flue gas will condense as it leaves the vent terminal. In cold weather this condensate can freeze on the exterior wall, under the eaves, and on surrounding objects. Some discoloration to the exterior of the building is to be expected. However, improper location or installation may result in severe damage to the structure or exterior finish of the building.**
- **For multiple-unit installation, a minimum distance between vent terminations must be maintained to prevent recirculation of vent gases.**



⚠CAUTIONS:

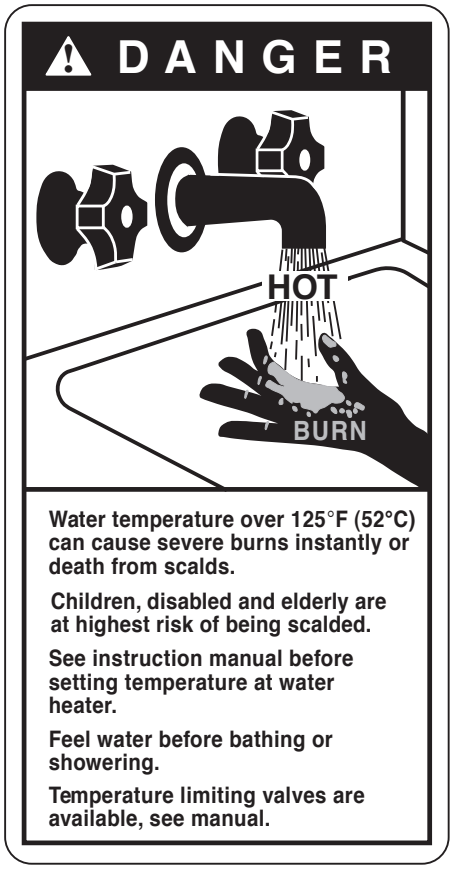
- **Ensure that the appliance vent is securely glued and attached to the vent connection on the top of the water heater. DO NOT USE SCREWS.**
- **DO NOT operate without the condensate drain connected and routed to a proper drain.**

IMPORTANT SAFETY INFORMATION

Water Supply Safety

⚠DANGERS:

- **WATER TEMPERATURE SETTINGS – Safety and energy conservation are factors to be considered when selecting the water temperature setting of a water heater's remote control. Water temperatures above 125°F (52°C) can cause death or severe burns from scalding. Be sure to read and follow the warnings outlined on the pictured label.**
- **There is a hot water scald potential if the water temperature is set too high. Households with small children, the disabled, or elderly persons may require a 120°F (49°C) or lower temperature setting to prevent contact with "HOT" water.**
- **Before manually operating the relief valve, make certain no one will be exposed to the danger of the hot water released by the valve. The water may be hot enough to create a scald hazard. The water should be released into a suitable drain to prevent injury or property damage.**
- **Failure to perform the recommended Routine Preventive Maintenance can harm the proper operation of this water heater, which can cause carbon monoxide dangers, excessive hot water temperatures, and other potentially hazardous conditions.**



⚠CAUTIONS:

- **This water heater must only be used with the following water supply system conditions:**
- **– With clean, potable water free of corrosive chemicals, sand, dirt, or other contaminants.**
- **– With inlet water temperatures above 32°F (0°C), but not exceeding 120°F (49°C).**
- **– DO NOT reverse the hot and cold water connections. The water heater will not operate.**

⚠WARNINGS:

- **IMPORTANT: DO NOT apply heat to the HOT or COLD water connections. If sweat connections are used, sweat tubing to adapter before fitting adapter to the water connections on heater. Any heat applied to the water supply fittings will permanently damage the internal components of the water heater.**
- **In case the pipe insulation is not rated for the appropriate weather conditions, install electric heat tracing or equivalent to prevent freezing of the pipes. DO NOT insulate or block the drain valve on the hot outlet fitting. If the pipes are allowed to freeze, the water heater and the pipes may malfunction or leak due to freezing water.**
- **Failure to drain the water heater as described on "Draining the Water Heater" can cause serious personal injuries from scalding and/or damage the water heater.**

Time/Temperature Relationship in Scalds

Water Temperature	Time to Produce a Serious Burn
120°F (49°C)	More than 5 minutes
125°F (52°C)	1 1/2 to 2 minutes
130°F (54°C)	About 30 seconds
135°F (57°C)	About 10 seconds
140°F (60°C)	Less than 5 seconds
145°F (63°C)	Less than 3 seconds
150°F (66°C)	About 1 1/2 seconds
155°F (68°C)	About 1 second

Table courtesy of Shriners Burn Institute

Temperature Conversion Chart °F/°C

85	100	102	104	106	108	110	112	114	116	118	120	125	130	140 °F
29	38	39	40	41	42	43	44	46	47	48	49	52	54	60 °C

IMPORTANT SAFETY INFORMATION

Natural Gas and Liquefied Petroleum Safety

⚠DANGERS:

- **Never attempt to convert the water heater from natural gas to LP or vice versa. The water heater must only use the fuel type in accordance with listing on data plate—natural gas for natural gas units and LP for LP units. Any other fuel usage will result in death or serious personal injury from fire and/or explosion. This water heater is not certified for any other fuel type.**
- **Both natural gas and propane (LP) 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 natural gas or LP, 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.**
- **Water heaters using LP gas are different from natural gas models. A natural gas water heater will not function safely on LP and vice versa.**
- **LP 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 also sniff near the floor.**
- **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.**
- **Combustible materials, such as clothing, solvents, cleaning materials, or flammable liquids, must not be placed in the vicinity of the water heater.**
- **If a gas leak is present or suspected:**

– DO NOT attempt to find the cause yourself.

– Never use an open flame to test for gas leaks. The gas can ignite resulting in death, personal injury, or property damage.

⚠WARNINGS:

- **The installation of gas piping must comply with local utility company requirements and/or in the absence of local codes, use the latest edition of National Fuel Gas Code (NFGC), ANSI Z223.1/NFPA 54, or CAN/CSA B149.1, Natural Gas and Propane Installation Code.**
- **If inlet gas pressure is out of allowable range [4.0" w.c. (1.0kPa) – 10.5" w.c. (2.6kPa)] for Natural Gas, or [8.0" w.c. (2.0kPa) – 13.0" w.c. (3.2kPa)] for LP gas, a gas pressure regulator must be installed to maintain the allowable inlet gas pressure.**
- **Should overheating occur or the gas supply fail to shut off, turn off the manual gas control valve to the water heater.**

⚠CAUTIONS:

- **DO NOT attempt repair of electrical wiring, gas piping, remote control, burners, vent connectors, or other safety devices. Refer repairs to qualified service personnel.**
- **Turn off the manual gas shut-off valve if the water heater has been subjected to overheating, fire, flood, physical damage, or if the gas supply fails to shut off.**
- **DO NOT turn on the water heater unless the water and gas supplies are completely opened.**

IMPORTANT SAFETY INFORMATION

Before operating this water heater, be sure to read and follow the instructions on the label pictured below and all other labels on the water heater, as well as the warnings printed in this manual.

Failure to do so can result in unsafe operation of the water heater, resulting in death, personal injury, or property damage. Should you have any problems reading or following the instructions in this manual, STOP and get help from a qualified service technician.

FOR YOUR SAFETY READ BEFORE OPERATING

WARNING : If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

A.This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. DO NOT try to light the burner by hand.

B.BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS

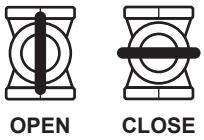
● DO NOT try to light any appliance. ● DO NOT touch any electric switch; DO NOT use any phone in your building. ● Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions. ● If you cannot reach your gas supplier, call the fire department. ● DO NOT return to your home until authorized by the gas supplier or fire department.

C.Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand,don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.

D. DO NOT use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

OPERATING INSTRUCTIONS

1.STOP! Read the safety information above on this label.
2.Turn off all electric power to the appliance.
3.DO NOT attempt to light the burner by hand.
4.Turn the Gas Shutoff Valve located on the outside of the unit clockwise ↷ to the "OFF" position.



5.Wait five (5) minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step.
6.Turn the Gas Shutoff Valve located on the outside of the unit counterclockwise ↶ to the "ON" position.
7.Turn on all electric power to the appliance.
8.If the appliance will not operate, follow the instructions "To Turn Off Gas To Appliance" and call your service technician or gas supplier.

TO TURN OFF GAS TO APPLIANCE

1.Turn off all electric power to the appliance if service is to be performed.
2.Turn the Gas Shutoff Valve located on the outside of the unit clockwise ↷ to the "OFF" position.

IMPORTANT SAFETY INFORMATION

Electrical Safety

⚠DANGER:

- **Shock Hazard – Make sure the electrical power to the water heater is off to avoid electric shock that will result in death or serious personal injury.**

⚠WARNINGS:

- **For your safety, the information in this manual must be followed to minimize the risk of fire, explosion, or electric shock that can result in death, personal injury, and/or property damage.**
- **Field wiring connections and electrical grounding must comply with local codes or, in the absence of local codes, with the latest edition of the National Electrical Code, ANSI/NFPA 70, or in Canada, Canadian Electrical Code, CAN/CSA C22.1, Part 1.**

⚠CAUTIONS:

- **Label all wires prior to disconnecting for service. Wiring errors can cause dangerous and improper operation. Verify correct operation after servicing.**
- **For your safety, burner inspection and cleaning should be performed only by qualified service personnel.**
- **Make certain the power to the water heater is OFF before removing the unit cover panel. Exposed electrical components and moving parts can cause personal injuries.**
- **For your safety, DO NOT attempt repair of electrical wiring, gas piping, remote control, burners, vent connectors, or other safety devices. Refer repairs to qualified service personnel.**

FOR INSTALLATIONS IN THE STATE OF CALIFORNIA

California law requires that water heaters must be braced, anchored, or strapped to resist falling or horizontal displacement due to earthquake motions. For water heaters up to 52-gallon capacity, a brochure with generic earthquake bracing instructions can be obtained from: Office of the State Architect, 1102 Q Street, Suite 5100, Sacramento, CA 95814, or you may call 916-445-8100 or ask a water heater dealer.

However, applicable local codes shall govern installation. For residential water heaters of a capacity greater than 52 gallons or tankless-style, consult the local building jurisdiction code for acceptable bracing procedures.

IMPORTANT SAFETY INFORMATION

General Installation and Maintenance Safety

⚠WARNINGS:

- **This water heater must be installed in accordance with these instructions, local codes, utility company requirements and/or in the absence of local codes, use the latest edition of the American National Standard/National Fuel Gas Code (NFGC), ANSI Z223.1 and National Fire Protection Association, NFPA 54.**
- **For your safety, DO NOT attempt to disassemble this water heater for any reason. Improper adjustments, alterations, service, or maintenance can cause death, personal injury, or property damage.**

SAFETY PRECAUTIONS:

Read this manual entirely before installing and/or operating the water heater.

Use this water heater only for its intended purpose as described in this Use and Care Manual.

Have the installer show you the location of the gas shut-off valve and how to shut it off if necessary. Turn off the manual shut-off valve if the water heater has been subjected to overheating, fire, flood, physical damage, or if the gas supply fails to shut off.

Be sure your water heater is properly installed in accordance with local codes and the provided installation instructions.

DO NOT attempt to repair or replace any part of your water heater unless it is specifically recommended in this manual. All other servicing should be referred to a qualified service technician.

SAVE THESE INSTRUCTIONS

PRODUCT INFORMATION

For Your Records

Write down and save the following product information along with the original sales slip and/or cancelled check. The model and serial numbers can be found on the top label on the right side of the water heater.

MODEL NUMBER:

SERIAL NUMBER:

DATE OF INSTALLATION:

INSTALLING COMPANY/PHONE NUMBER:

PLUMBING CONTRACTOR/PHONE NUMBER:

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 Chart" on this Use and Care Manual. Always refer to this chart before calling for service. Referring to this chart before calling may answer your question(s) and eliminate the need for service.

Preoperating Checklist

- ☐ Is the main gas valve to the water heater turned on?
- ☐ Is the fuse in place or is the breaker turned on?
- ☐ Does the water heater's electronic ignition light?
- ☐ Is the water temperature set to a safe temperature?
- ☐ Is the water heater connected to a floor drain?
- ☐ Is the water heater properly vented to the outside?
- ☐ Is the water heater installed in a safe location away from flammable materials and/or freezing conditions?

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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	5 Years*
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 Fowler, Indiana.

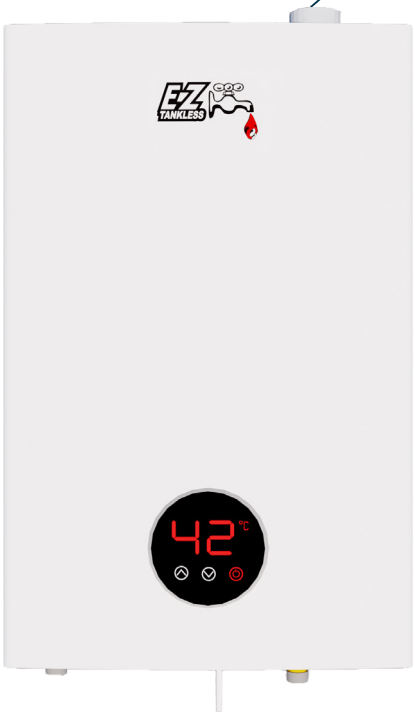
WHAT WILL EZ TANKLESS PROVIDE?

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 Ultra HE Tankless Water Heater

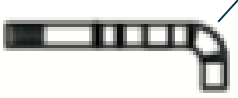


1 x Expandable Screw

2 x Drywall Anchors

2 x Mounting Screws

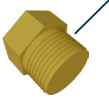
Flue pipe



2 x Self-tapping screw

Condensation Drain Hose

3 x NPT connector 1/2”



Lower baffle

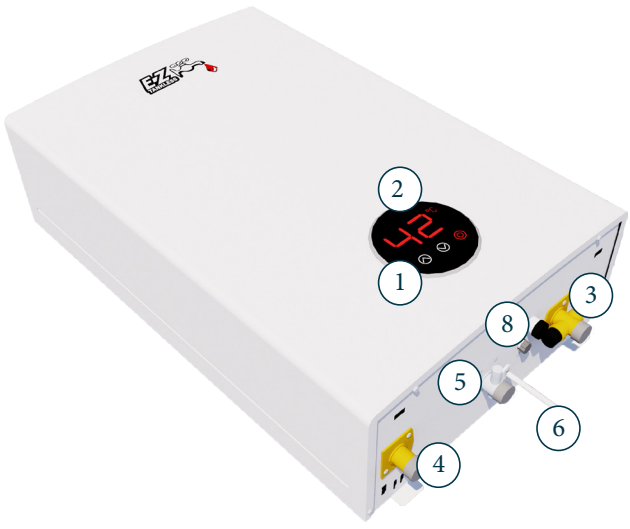
1 x Back draft prevention device (flapper)

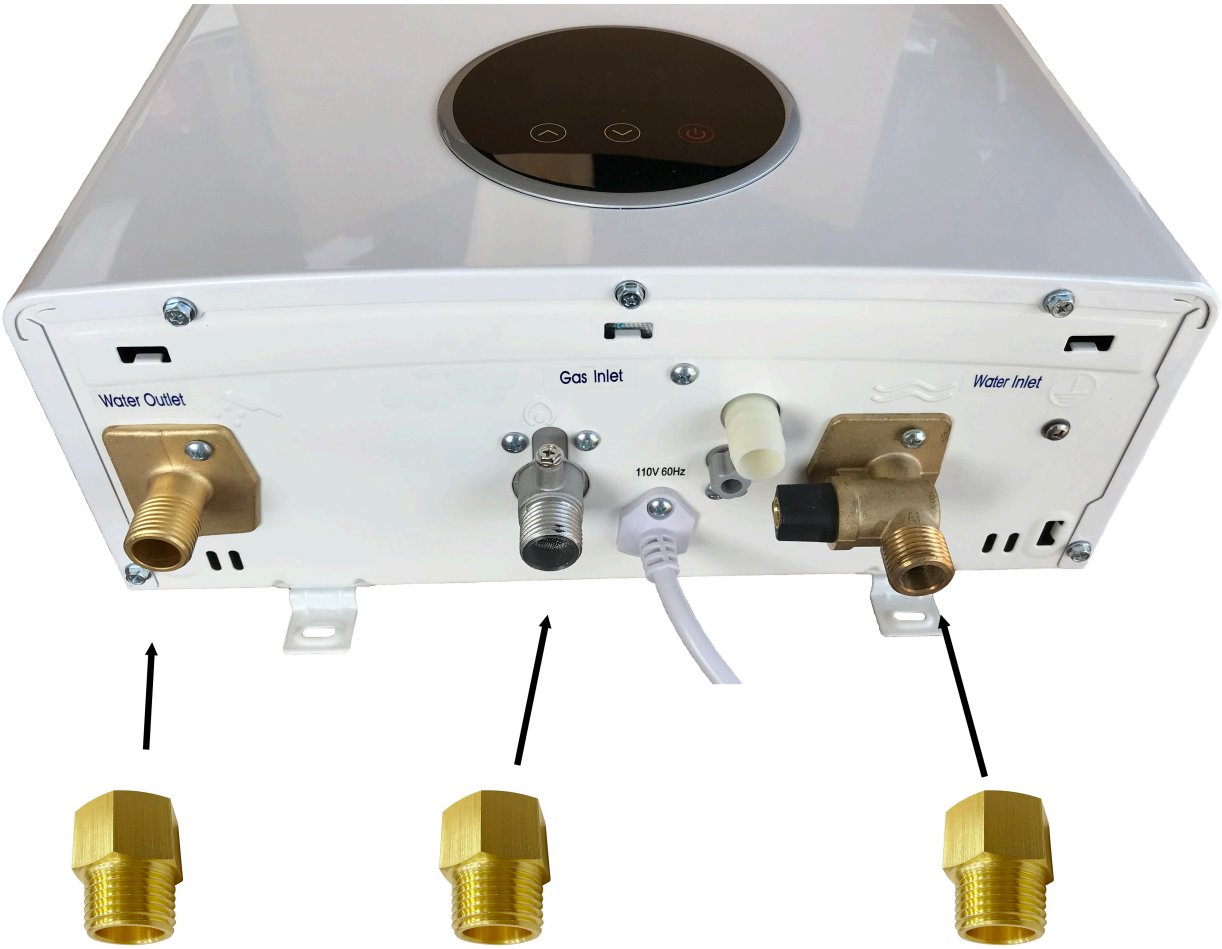
3.0 FEATURES & BENEFITS

The EZ Ultra HE is a gas condensing tankless water heater designed to provide hot water for all your household hot water needs.

- **Intelligent Computer Control System** – The built in CPU chip measures the volume, pressure, and temperature of the incoming water while taking into account the desired outgoing water temperature and adjusts the unit to the correct parameters to ensure the desired temperature is reached.
- **High Efficiency Condensing Technology** – Before the water is passed through the burn chamber it runs through a heat exchanger that utilizes the exhaust fumes thermal energy, thus preheating the water before it enters the burn chamber which in turn operates at a lower BTU than traditional tankless technology. The fan speed is also regulated according to the set temperature and volume of water being used.
- **Low Water Pressure Start-Up** – The EZ Ultra HE will fire at 0.6 GPM at a pressure as low as 3psi.
- **Temperature Memory** – Upon startup, the unit will operate to the last set temperature used. If the unit is powered off or unplugged it will remember the last temperature used so when power returns it's still set at your desired temperature.
- **Touch Temperature Setting** – The temperature is adjusted using the 'up' and 'down' arrows on the front of the unit. The temperature ranges from 35°C (95°F) - 65°C (149°F).
- **Multiple Safety Features** – The self-inspecting characteristics on the EZ Ultra HE include flameout protection, dual gas valve insurance device, over pressure of flue-exhaust, detection and evacuation of leftover combustion gases from subpar ignition, and (2) two thermal limit switches.

1. Touch Control Panel
2. Temperature Display
3. Water Inlet
4. Water Outlet
5. Gas Inlet
6. Power Cord
7. Flue Outlet
8. Condensation Drain





⚠NOTICE

The 3x supplied 1/2" NPT Fittings MUST be used with the GAS and WATER CONNECTIONS for all installation types.

4.0 INSTALLATION

Contact your local licensed plumber for a proper installation of the EZ Ultra HE tankless water heater. Do not install this unit by yourself if you are not a licensed plumber. The EZ Ultra HE uses a forced exhaust which must be installed according to the instructions in this manual and all local codes.

4.1 NOTICES FOR INSTALLATION

01. Do not install this tankless water heater in any room with poor ventilation (closet, bathroom, cabinet, etc.) unless the door has a 12" x 24" vent installed at the bottom.
02. Do not use this tankless water heater with any other gas type than the one labeled on the unit.
03. The tankless water heater should be installed at a serviceable height (do not install this unit in an area that is hard to get to).
04. The unit should have 12" of clearance on every side from any electricity (outlet, breaker box, etc), combustibles (cleaners, gas, etc.), as well as windows and doors.
05. This tankless water cannot be installed outdoors. It must be installed indoors in a heated room.
06. It is recommended to mount the unit to a concrete backer board if planning to install on drywall.
07. The (GFCI recommended) outlet for the power cord should be above all water connections and at least 12" away from the unit. It is also recommended to use a surge protector at the outlet.
08. Hang the unit onto the expansion bolt and screw down the nut. Then screw in the bottom brackets using two expansion bolts.
09. The (waves symbol) on the bottom of the heater indicated cold water inlet, the (shower head symbol) indicates hot water outlet, and the (flame symbol) indicates gas connection.
10. Both the cold water inlet and hot water outlet are ½" male mechanical connections. Be sure to use 1/2" NPT bushings before installing plumbing.
11. Flush the water line before connecting it to the unit.
12. It is recommended to install service valves on the water connections (hot and cold). They serve as both shut off valves and serviceable valves to flush your tankless water heater semi-annually.
13. The cold water inlet connection is the far right connection on the bottom of the unit and the hot water outlet connection is located at the far left bottom of the unit.
14. Connect the condensation drain tube to the condensation water outlet and place the tube into a drain or bucket to catch the condensation.

4.2 – INSTALLATION OF THE GAS PIPE

01. Contact your local gas supplier for installation of the gas line to the tankless water heater.
02. Install a shut off valve at the unit.
03. Natural Gas must be at 8" WC, Propane must be at 11" WC.
04. Always check for gas leaks after connecting the gas line to the unit. An electronic gas detector works best, but soapy water in a spray bottle works as well (bubbles indicate leak).

4.3 – INSTALLATION OF EXHAUST PIPE

The EZ Ultra HE is a forced exhaust tankless water heater which must be vented to the outside using either the flue provided or 2" solid core PVC/CPVC schedule 40. The flue can be used horizontally through an exterior wall or vertically through the roof.

01. The flue cannot be connected to any other existing flues or chimneys. It must stand alone either through an exterior wall or through the roof.
02. Use a metal wall thimble if the flue is to touch any flammable surfaces (wood, insulation, siding).
03. Tape all joints on the flue using aluminum heat tape to prevent exhaust leakage.

5.0 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 should be positioned at least 12" away from flammable materials such as trees, shrubs, etc.

5.1 HOT WATER RISK

1. Hot water is dangerous, especially for the young, the elderly, or the frail. 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.
2. 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
3. Test the temperature of the water with your elbow to ensure adequate temperature before placing a child in the bath or shower.
4. Do not leave children or an infirm person in the bath unsupervised.

5.2 SCALDS-FIRST AID GUIDANCE

01. Remove clothing & jewelry - 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 indivdual.

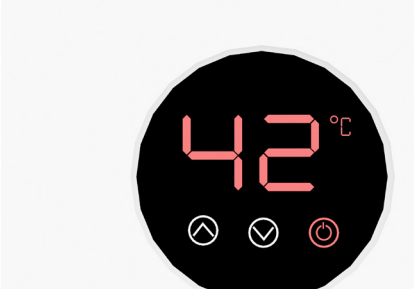
04. Seek medical advice - call your medical advice hotline and describe the scalding properties, follow their directions to provide further treatment if necessary. Assess the severity of the burn, it is serious if: Larger than the size of the casualty's hand; On the face, hands, feet; or a deep burn – Call 911.

6.0 INITIAL SETUP AND OPERATION

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

1. ON/OFF SWITCH

Turn the systems power on. Display will light up with temp.



2. INITIAL TEMPERATUE SETTING: BETWEEN 40-50C

	CELSIUS	FAHRENHEIT
	35	95
	36	97
	37	99
	38	100
	39	102
Recommended	40	104
	41	106
	42	108
	43	109
	44	111
	45	113
	46	115
	47	117
	48	118
	49	120
	50	122
	51	124
	52	126
	53	127
	54	129
	55	131
	56	133
	57	135
	58	136
	59	138
	60	140
	61	142
	62	144
	63	145
	64	147
	65	149

3. WATER SOURCE

Water inlet source should be at least 1 GPM filtered water at a minimum of 8PSI. Lower water flow or a lower water pressure may result in unit failing to ignite.

4. AFTER FIRST IGNITION ADJUSTMENTS

If you're using mixing valves (sinks, showers w/one handle) anywhere in the home we do recommend setting the heater at a lower water temp setting in combination with using more hot water in the mixture. This will guarantee that there is at least 1GPM running through the heater.

6.1 SPECIAL NOTES - INSTALLATIONS

1. WELL WATER INSTALLATIONS

Due to the fluctuation in water pressure when using a well water system, users may experience fluctuations in water temperature. Fluctuations can be fixed with use of a water pressure regulator. When using a well system with a pump switch set to 40-60PSI, it is best to set your water pressure regulator at 45PSI. Alternatively, if using a pump switch set to 30-50PSI, it is recommended to set your water pressure regulator at 35PSI. This ensures a more consistent pressure entering the unit which will help stabilize the water temperature.

2. BASEMENT INSTALLATIONS IN COLD WEATHER CLIMATES

The EZ Ultra HE does not come with freeze protection. If exposed to freezing temperatures, the water in the heat exchanger can freeze and damage the pipework within the heat exchanger. When performing a basement wall installation, it is recommended to install on a sub-frame (e.g 2x4) to create an air buffer between the wall and the back of the unit. This is to reduce risk of freezing through direct contact with basement walls. Typically, basement walls are poorly insulated & thus surface temperatures can be much colder than the ambient room air.

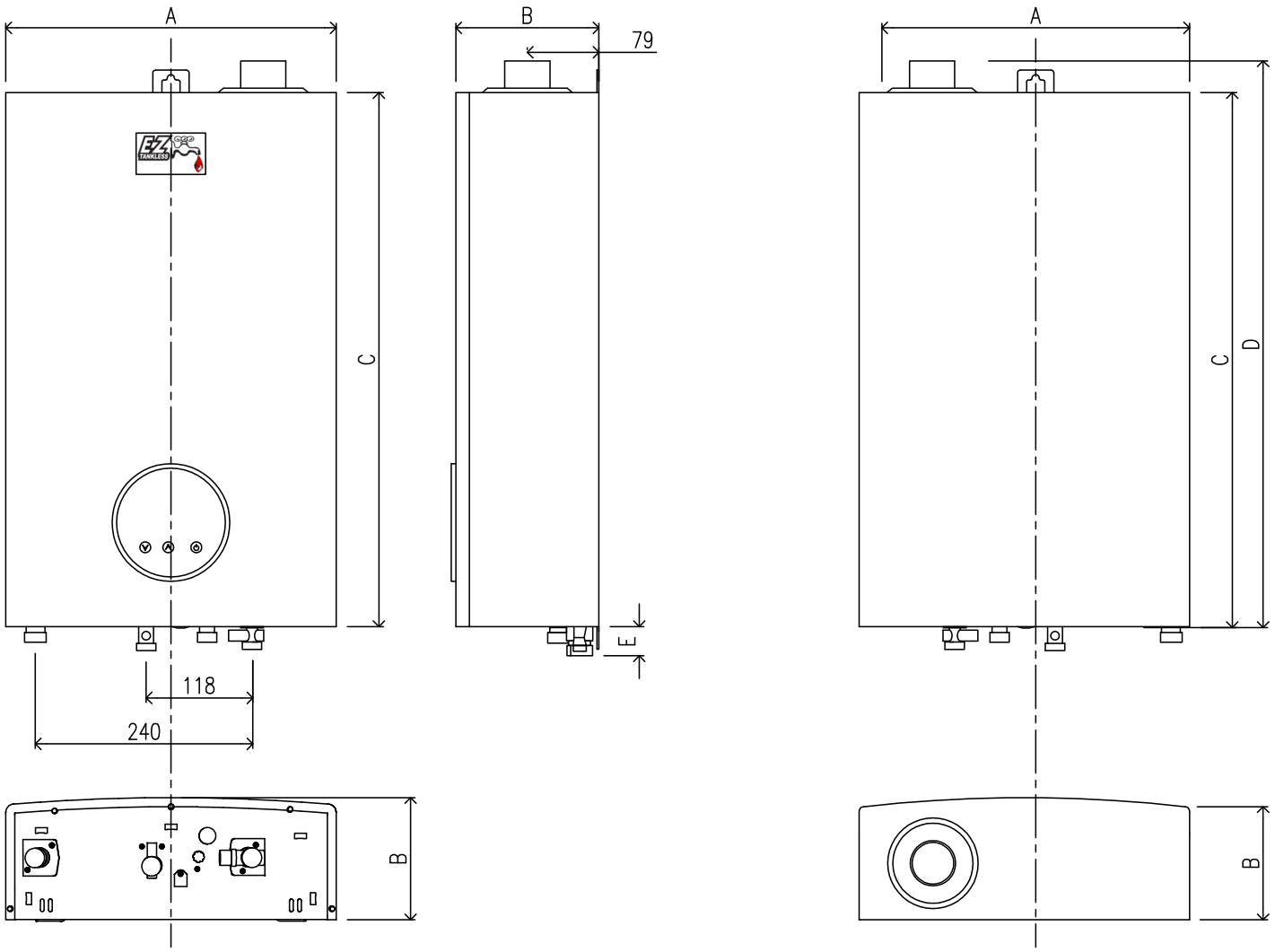
3. MIXING VALVES

Modern mixing valves use a thermostatic temperature valve to control hot and cold water to faucets, showerheads, and tub fixtures. These devices can often cause an issue when used in conjunction with a tankless water heater set at a high temperature. When water temp is set above 110-120F, these valves will add cold water to adjust the temperature to keep from scalding. An unwanted effect of this is that the hot water flow may drop below required levels to keep the heater running. There are a number of recommendations to reduce the risk:

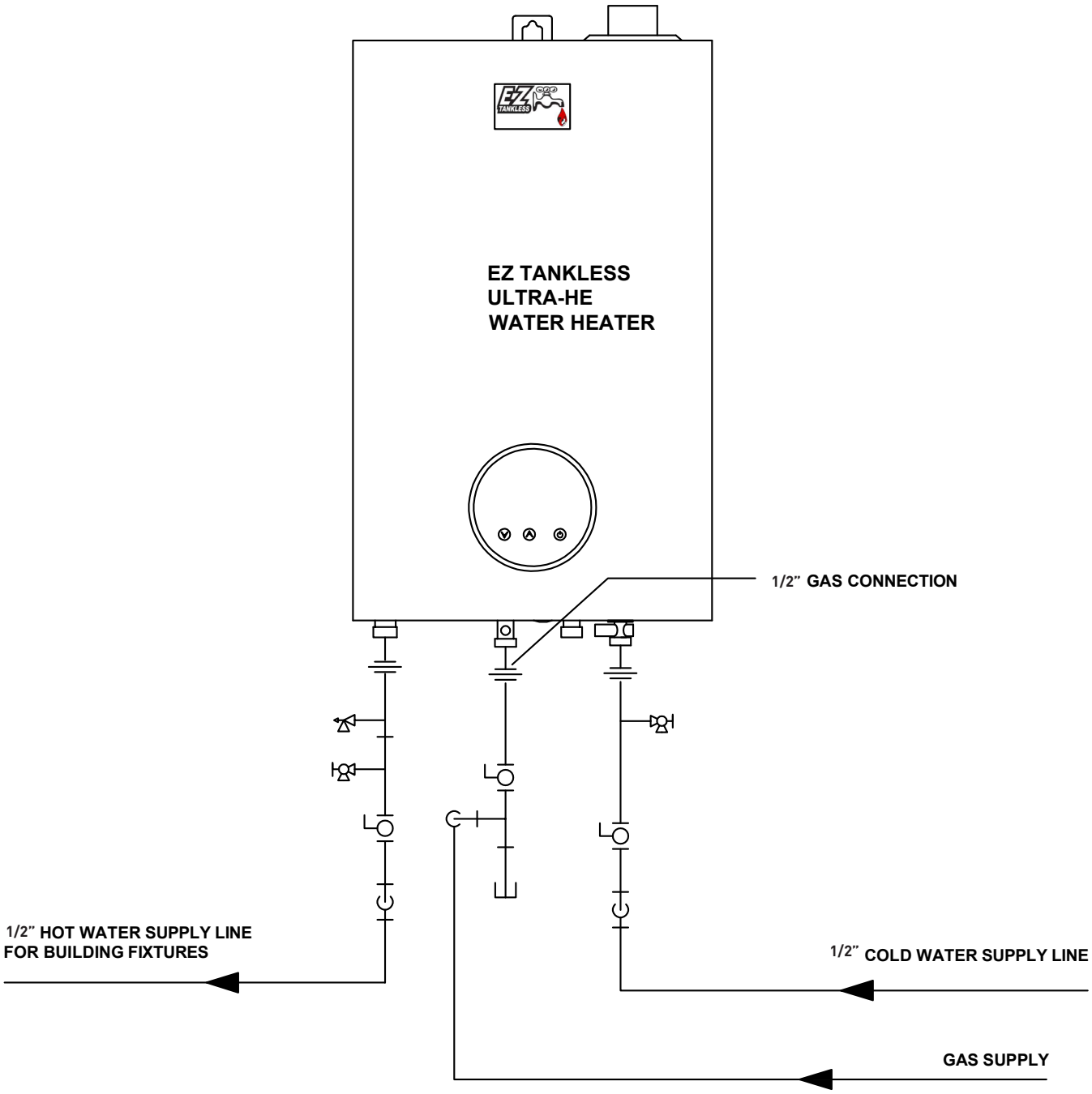
a. Lower the water temperature setting on the water heater. Suggested settings of approx. 42C are ideal in many scenarios.
b. Adjust the temperature setting on the mixing valve. (See manual for each individual fixture.)
c. Replace showerhead with a high flow rate showerhead. It is common for a mixing valve fixture used in conjunction with a water saving showerhead to cause ignition issues with most tankless water heaters. Be sure to use a showerhead with at least a 2GPM flow rate in conjunction with a mixing valve fixture to limit issues.

4. USE A SURGE PROTECTOR

The EZ Ultra HE uses many sensors that are based on resistors. It is important to protect the electronics of the EZ Ultra HE system by plugging the units power cord into a surge protector.



DIM	DESCRIPTION	
A	Width	13-7/8” or 351mm
B	Depth	4-7/8” or 125mm
C	Height - Unit	22-7/8” or 566mm
D	Height - Including Brackets	24-5/16” or 618mm
E_1	Hot Water Outlet (from wall)	3/4” of 20mm
E_2	Gas	1-3/4” or 42mm
E_3	Water Inlet	2-1/4” or 52mm



KEY

	1/2" Ball Valve		Pressure Relief Valve
	1/2" Union		Boiler Drain Valve

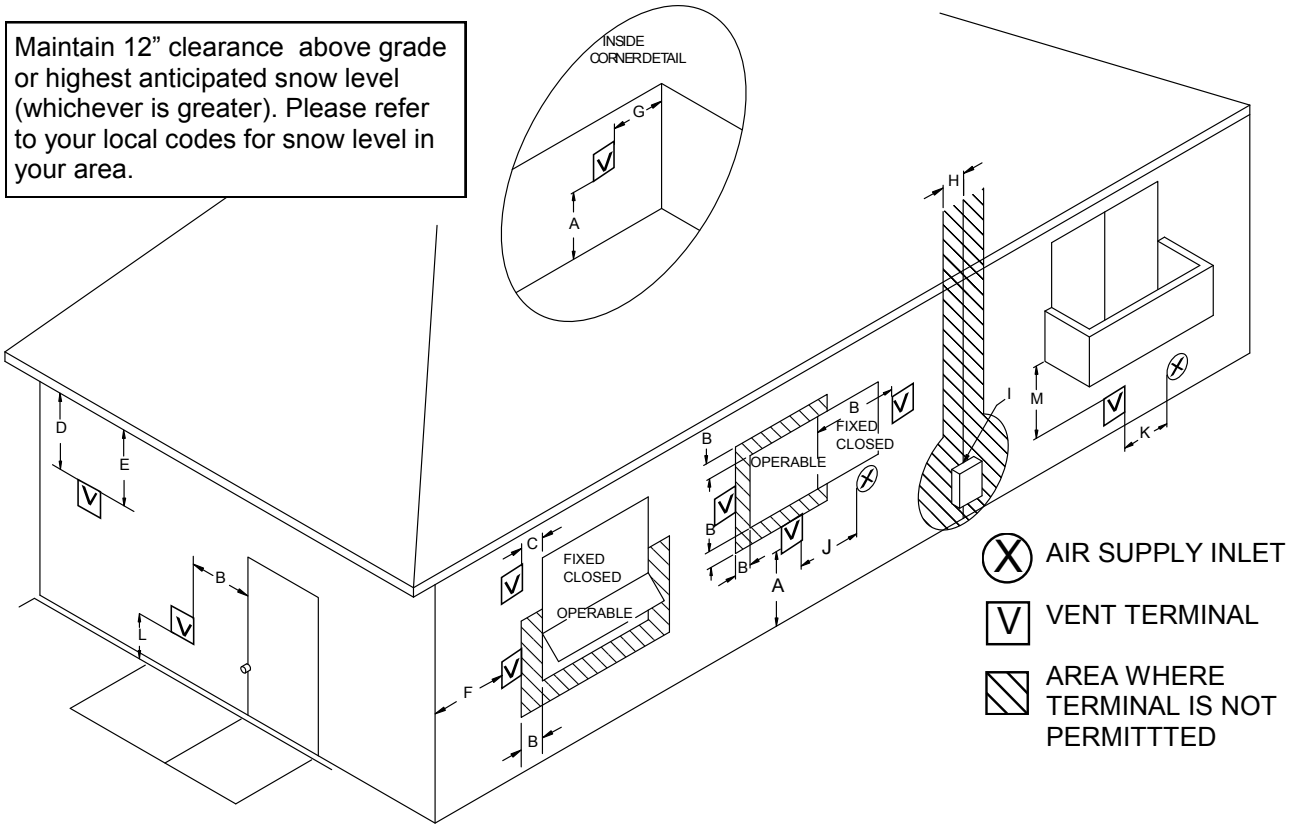
This drawing is not an engineered drawing. It is intended for use only as a guide and does not act as replacement for professionally engineered installation drawings. This drawing is not intended to portray a complete installation sysyem. The project engineer and/or installation contractor should determine the necessary components for configuration of the system being installed. This drawing does not imply compliance with local building code requirements. It is the responsibility of the project engineer and/or contractor to ensure that the installation is fully in accordance with the applicable building code through the authority having jurisdiction. Obtain approval with local building code officials prior to installation.

Vent Termination Clearances

Recommended Vent/Combustion Air Intake Terminal Position

Terminals should be positioned to avoid products of combustion entering openings into buildings or other vents.

Maintain 12” clearance above grade or highest anticipated snow level (whichever is greater). Please refer to your local codes for snow level in your area.



Ref	Description	Canadian Installations	US Installations
A	Clearance above grade, veranda, porch, deck, or balcony	12 inches (30 cm)	12 inches (30 cm)
B	Clearance to window or door that may be opened	36 inches (91 cm)	12 inches (30 cm)
C	Clearance to permanently closed window	*	*
D	Vertical clearance to ventilated soffit, located above the terminal within a horizontal distance of 2 feet (61 cm) from the center line of the terminal	*	*
E	Clearance to unventilated soffit	*	*
F	Clearance to outside corner	*	*
G	Clearance to inside corner	*	*
H	Clearance to each side of center line extended above meter/ regulator assembly	3 feet (91 cm) within a height 15 feet (4.5 m) above the meter/regulator assembly	*
I	Clearance to service regulator vent outlet	36 inches (91 cm)	*
J	Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliance	36 inches (91 cm)	12 inches (30 cm)
K	Clearance to a mechanical air supply inlet	6 feet (1.83 m)	3 feet (91 cm) above if within 10 feet (3 m) horizontally
L	Clearance above paved sidewalk or paved driveway located on public property	7 feet (2.13 m) ①	*
M	Clearance under veranda, porch, deck, or balcony	12 inches (30 cm) ②	*

[1] A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings.

[2] Permitted only if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.

* For clearances not specified in *ANSI Z223.1/NFPA 54*, clearances are in accordance with local installation codes and the requirements of the gas supplier.

Clearance to opposite wall is 24 inches (60 cm).

7.0 OPERATION OF THE EZ ULTRA HE

7.1 – INITIAL USE

Before operating the unit make sure connections are sealed (water and gas) as well as proper installation of the flue. After confirming, proceed as follows:

01. Open the cold and hot water valve at the unit.
02. Open the closest hot water tap, after confirming water is flowing through the unit close the tap.
03. Plug the unit into the wall outlet (surge protector recommended).
04. Turn on the gas valve at the unit.

WARNING – To prevent scalding, start with the water heater set at 42°C and run only hot water through your shower head. Adjust the water temperature up or down according to feel. Depending on your region and time of year you should be able to keep the unit within 42°C-50°C. Be careful when using water above 50°C as it can cause scalding.

7.2 – DISPLAY INSTRUCTIONS

FUNCTION OF THE DISPLAY

01. Under normal working conditions the unit will show the set temperature.
02. An error code will appear in the set temperature mark if there is a malfunction.

TEMPERATURE REGULATION INDICATION

01. Temperature symbol will light while in operation.

FLAME INDICATOR

01. Flame symbol will appear while in operation.

CHILD LOCK INDICATOR

01. The child lock indicator will appear if being used. This prevents the water heater from being set above 48°C.

FUNCTION KEYS

^ = Raise Temperature
v = Lower Temperature
ø = Power

7.3 – USING THE DISPLAY

TEMPERATURE REGULATION

01. Press the power button. The unit will come set at 42°C.
02. Use the up and down arrows to change the temperature. You may change the temperature in 1° increments from 35°C - 48°C. The temperatures available after 48°C are 50°C, 55°C, 60°C, and 65°C.
03. While running, the temperature can only be adjusted between 35°C - 48°C to prevent scalding. If you need to set the temperature above 48°C you'll need to stop running the hot water to adjust the temperature.

TIP* *Upon first ignition, the unit may fail to light because of air in the gas line. If so, turn the hot water off and back on again and repeat until the unit fires up. If the unit fails to light after several attempts please call our tech support line at (765)885-5125.*

04. The water heater will shut down once the hot water tap is closed. The unit will remain in stand-by mode until hot water is being used again. The temperature will not be displayed while in stand-by mode. Once the unit is called upon for hot water again the temperature will light back up to the last set temperature.

NOTICE**

- The temperature of the water may decrease slightly as it runs through your water lines to the hot water tap, therefore use the set temperature as reference and adjust according to feel.
- If the amount of water being passed through the unit exceeds the gallon per minute that the unit can keep up with the unit will slow the flow down so that it can accurately heat the water.

7.4 – OPERATION OF WATER HEATER – TIME-OUT PROTECTION

The EZ Ultra HE will shut down after 50 minutes of continuous operation. If you need to use hot water longer than 50 continuous minutes, close the hot water tap and open it back up to re-fire the unit.

CAUTIONS AND SAFETY TIPS

- Make sure that if the unit is installed in a small room or closet that there is a 12”x24” vent in the door.
- This water heater is intended for indoor use only. Do not install outdoors.
- Check the flue frequently for any clogs to prevent CO2 poisoning.
- Do not touch the flue while in operation to prevent burns.
- Any combustibles (cleaners, gas, etc.) should be kept away from the water heater.
- If you detect the smell of gas do not operate the water heater -
    01. Close the gas valve at the unit
    02. Call your local gas supplier to come check the leak
    03. Notify maintenance staff if you live in an apartment or condo
    04. If you hear any abnormal noise, outside of normal operation, contact your local plumber or EZ Tankless to check the problem. Do not operate the unit until the problem is solved.
    05. Do not open the cover of the unit unless instructed by EZ Tankless to avoid accidental damage.

8.0 RECOMMENDED EZ ULTRA HE MAINTENANCE

Please check the water heater regularly as instructed below.

Every 3-6 months do a routine maintenance check of the gas and water lines for leaks, abnormal noises while in operation, blockage of condensation drain, blockage of exhaust through the flue, and make sure you are maintaining a safe distance from the water heater and any combustibles.

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 11”WC required by the EZ Ultra HE. When this happens the unit will not ignite. This is the most common fault that causes ingnition failure with LPG tankless water heaters.

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 WATER INLET FILTER SCREEN REGULARLY

Located just inside of the water inlet fitting on the bottom of the EZ Ultra HE 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 TWICE 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 twice per year when used on a regular basis, to ensure continued use and to avoid parts damage. Videos can be found at **www.eztankless.com.**

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 Ultra HE. Be sure to wipe away any dirt or debris that may be on the cover before each use.

NON-MALFUNCTIONING SYMPTOMS & SOLUTIONS

SYMPTOMS	SOLUTIONS
White smoke coming from flue	White smoke can be caused from the hot air exiting the exhaust into cooler temperatures outside. This is normal.
Failing to light upon first use after installation or first use after sitting dormant	There may be air in the gas line. Open and close the hot water tap (allow the unit to attempt to fire before closing the tap) until successful ignition occurs.
Fan still spinning after unit shuts down	The fan will continue to run after the unit shuts down for a short time to exhaust all air out of the unit.
Unit will not fire with low flow	The flow of water must be at or above 0.6 gallons per minute for the unit to recognize water flow and kick on.
Water coming out of pressure relief valve	Open the pressure relief valve to relive any built up pressure inside the heat exchanger.

9.0 ERROR CODES

Error codes will be displayed in the temperature read-out if there is a malfunction. Call EZ Tankless if you have any questions (765)885-5125

ERROR CODE	ERROR CODE DESCRIPTION	CONFIRMATION & SOLUTIONS
01	Inlet Temp Probe Malfunction	Inlet temperature has either failed or is dirty. You may try cleaning the probe with white vinegar. If that does not work it will need to be replaced.
10 / 11 / 12	False Fire / Ignition Error / Accidental Flameout	Lack of Gas. The gas valve has either been turned off or the unit isn't receiving accurate gas pressure. It can also be caused by loose or corroded wires. Remove cover to ensure all wires are connected and in good condition.
13	Limit Switch Error	The Limit Switch has failed and needs to be replaced.
30 / 31 / 32 / 40	Flue or Fan Failure	Make sure the flue is not blocked or covered in any way. The fan wire may have come un-plugged. Fan needs to be replaced.
50 / 51	High Temperature Protection	The temperature of the water is exceeding 140°F. Turn the temperature down between 42°C-49°C.
60	Outlet Temperature Probe Malfunction	The outlet temperature sensor either needs to be cleaned or replaced.
80	Timing Protection	Non Malfunction, you have exceeded the 50 minute run time of the unit. Turn off your hot water tap then reopen to restart the unit.

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