EZ TANKLESS

EZ DELUXE

OPERATION & INSTALLATION MANUAL

EZ DELUXE TANKLESS WATER HEATER SPECIFICATIONS	
Maximum Gas Consumption BTU/h	87,500
Hot Water Supply at 45f Temperature Rise	3.4GPM
LPG (Propane)	11” WC
NG (Natural Gas)	8” WC
Exhaust System	Direct Vent w/ Concentric Flue Pipe
Ignition System	Water Controlled Electric Ignition
Electric Supply	110V
Safety Devices	Flame Sensors Thermal Limit Switch Thermal Fuse Fan RPM Sensor Surge Protect Fuse
Suitable Inlet Water Pressure	8-100 PSI
Water Connection	G 1/2” to 1/2” NPT w/incl. fitting
Gas Connection	3/4” NPT

WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

• Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

• WHAT TO DO IF YOU SMELL GAS:

- Evacuate all persons from the home.
- Shut off the gas supply at the nearest shutoff or main.
- Do not touch an electrical switch, use any phone, or any other electrical devices.
- Contact the nearest gas supplier or qualified service technician for repairs.
- If you cannot reach a gas supplier or qualified service technician, contact the nearest fire department.
- Do not turn on the gas supply until the gas leak(s) has been repaired.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

INSTALLER/CUSTOMER RESPONSIBILITIES

- Installation and Service is recommended to be performed by a qualified installer, service agency or gas supplier.
- Read and observe all safety rules.
- Shut off gas appliances and their pilot lights (if any) when refueling.
- Keep these instructions and warranty for future reference.
- Follow all applicable State and Local Codes.
- Follow a regular schedule of maintenance as outlined in this manual.

WARNING – FIRE OR EXPLOSION
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FOR YOUR SAFETY --- WHAT TO DO IF YOU SMELL GAS:

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USA AND CANADA - FOLLOW ALL APPLICABLE STATE AND LOCAL CODES IN THE ABSENCE OF LOCAL CODES OR REGULATIONS REFER TO CURRENT STANDARDS:
The installation must conform to one or more of the following, as applicable:
1. Local codes or, in the absence of local codes, the National Fuel Gas Code, ANSI Z223.1/NFPA 54 and/or CSA B149.1, Natural Gas and Propane Installation Code.

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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 Earl Park, IN.

WHAT WILL EZ TANKLESS PROVIDE?

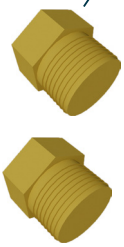
EZ Tankless will repair or replace the product or any part or component that is considered defective in materials or workmanship, except as set forth below: EZ Tankless will provide parts with free shipping for most repairs. EZ Tankless will perform labor and pay shipping costs to repair the product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

2 x 1/2" NPT Bushings



1 x Horizontal Direct Vent Pipe

2.1 FEATURES AND BENEFITS

- The EZ Deluxe features our advanced sealed double-chamber forced air intake - exhaust system
- Fully-automatic operation. Once installed, simply turn on the water spigot or shower–instanteous hot water will arrive in a few moments. After the tap is turned off, the tankless heater will extinguish and cease operation
- Key touch LCD panel with easy to understand display
- High efficiency concentric venting system. Our direct vent system uses a dual chambered single pipe. Inlet air flowing through the outer chamber keeps the exposed pipe cool while outlet exhaust gases flow through the inner chamber
- Featuring a proportional control valve for both electricity and gas, the EZ Deluxe self regulates gas flow to maintain a constant water temperature
- Simple and aesthetically pleasing design features – the unobtrusive unit design fits seamlessly in a variety of locations
- Advance electronic ignition is safer, more convenient, and more energy efficient than a pilot light system
- High thermal efficiency (88%)
- Low water pressure ignition. The heater can function as low as 8PSI water pressure, making it suitable for use at high altitude or for installations using well water with older or less powerful pumping systems
- Dynamic gas and fan control allows for consistent temperatures in proportion to water flow

① Touch Control Panel
② Temperature Display
③ Water Inlet + Flow Control
④ Water Outlet
⑤ Gas Inlet
⑥ Power Cord
⑦ Flue Outlet

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 indivdual.

04. Seek medical advice - call your medical advice hotline and describe the scalding properties, follow their directions to provide further treatment if necessary.

3.3 PROFESSIONAL INSTALL

01. EZ Tankless recommends installation and service performed by qualified installer service agency or the gas supplier.

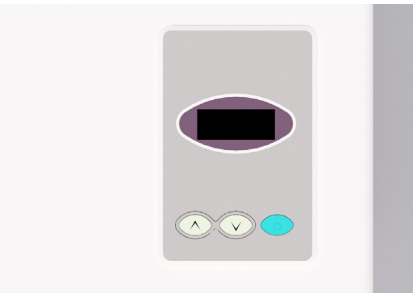
02. DO NOT use matches, candles or other sources of ignition when checking for gas leaks.

4.0 INITIAL SETUP AND OPERATION

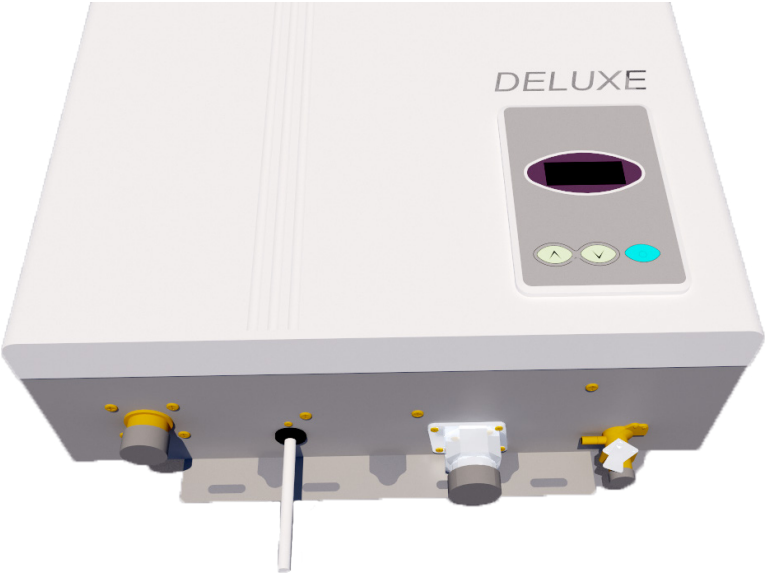
Note: These steps should be followed for every new location or water source

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
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

Inlet water 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 use mixing valves anywhere in the home we do recommend setting the heater with 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.

4.1 SPECIAL NOTES - INSTALLATIONS

Be sure to tape all vent seams with included vent tape.

1. WELL WATER INSTALLATIONS

Due to the fluctuation in water pressure when using on a well water system, users may experience fluctuations in water temperature. Fluctuations can be rectified 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.

2. BASEMENT INSTALLATIONS IN COLD WEATHER CLIMATES

The EZ Deluxe does not come provided with freeze protection. If exposed to freezing temperatures, the water in the heat exchanger can freeze and can 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 a 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. POWER SUPPLY CONNECTION

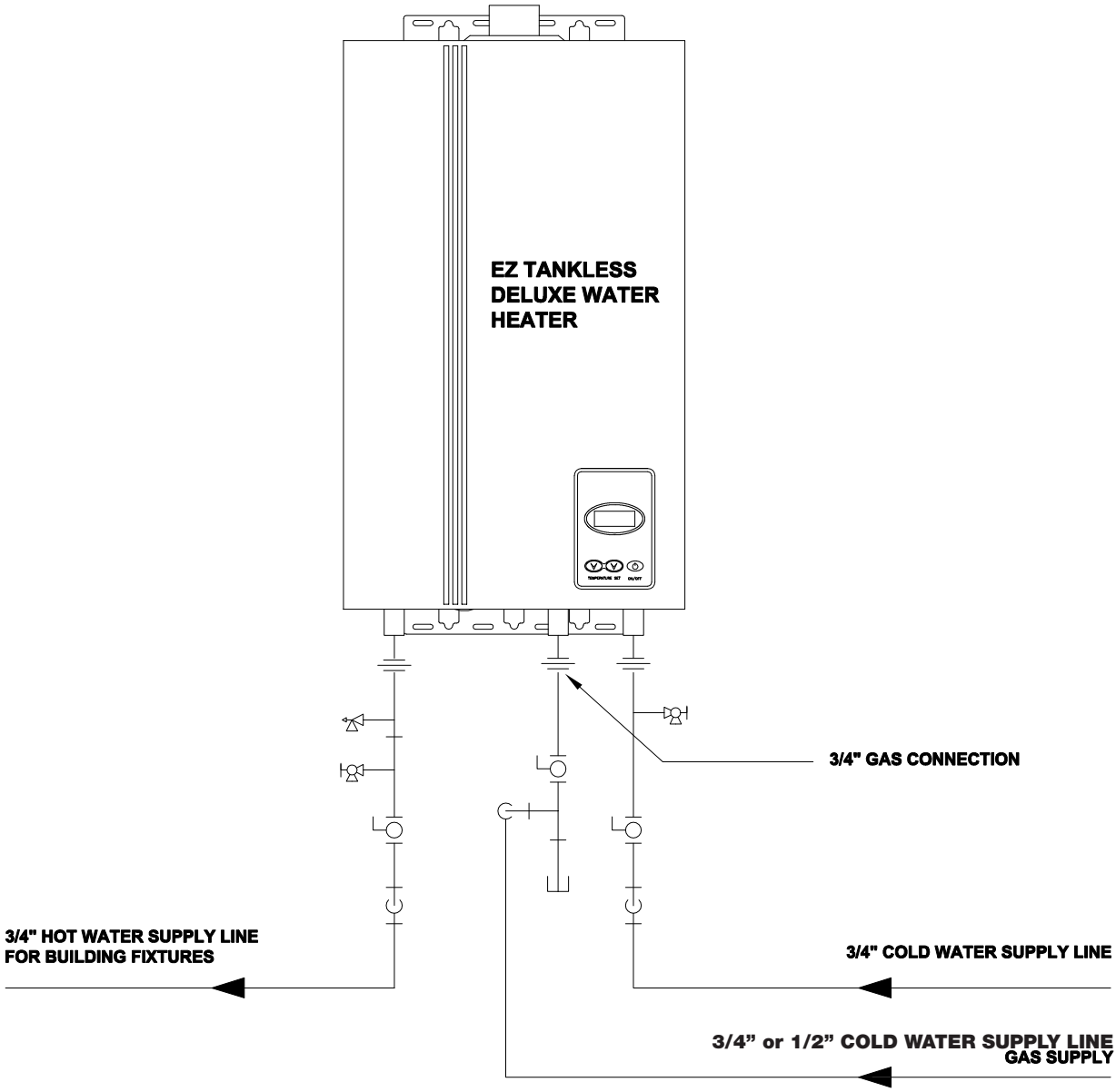
The EZ Deluxe uses many sensors that are based on resistors. It is important to protect the electronics of the EZ Deluxe system by plugging the units power cord into a surge protector. EZ Tankless recommends the wall outlet used is above all water connections.

5. CARBON MONOXIDE DETECTOR

A carbon monoxide detector should be located in the same room as the installation.

6. GAS LEAK TEST

Use a soapy water solution to test for leaks at all the connections and fittings. If bubbles are seen, it indicates a gas leak that must be corrected.



KEY

- 3/4" Ball Valve
- 3/4" Union
- **Ball Valve**
- **Union**
- Pressure Relief Valve
- 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.

EZ TANKLESS WATER HEATERS

EZ-Deluxe: Domestic Hot Water - Standard Installation Schematic

5.0 RECOMMENDED EZ DELUXE 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 Deluxe. When this happens the unit will not ignite. This is the most common fault that causes ingnition 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 Deluxe 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 Deluxe. Be sure to wipe away any dirt or debris that may be on the cover before each use.

6.0 TROUBLESHOOTING

Q1. WHEN THE HOT WATER TAP IS OPENED, AND THE EZ DELUXE IS NOT RESPONDING.

A. If you are running water through the system, but do not see a showerhead image on the display, the heater is failing to sense the water flow. This will require one of the following to resolve the issue:

1. Flush the unit. Flushing the unit with Distilled White Vinegar will help to clean the magnetic turbine located inside of the flow sensor housing.
2. Disassemble and clean the flow sensor housing by hand. Please call our tech support department for access to our tech support videos (Note: Tech support videos are intended for advanced technicians only).
3. Replace the flow sensor housing. If after cleaning the flow sensor housing by hand the system still fails to sense water flow, the flow sensor housing may need to be replaced.

Q2. THE DISPLAY SHOWS AN 'E0' ERROR CODE WHEN TRYING TO IGNITE.

A. This is an error on the inlet water temperature probe. We recommend trying to clean it before replacing it. It is located on the flow sensor housing located on the bottom right of the unit where the water first enters. It will have a set of two black wires coming off of it and held in by one or two screws. Turn the water off to the unit then remove the two screws holding the temperature probe in place. Once removed, clean the probe with white vinegar and reinstall it. If the unit continues to show an E0 after cleaning the probe then it will need to be replaced.

Q3. THE DISPLAY SHOWS AN 'E1' ERROR CODE WHEN TRYING TO IGNITE.

A. Does the unit show an 'E1' error code every time the unit tries to ignite or sporadically?

1. Should the unit be showing the 'E1' error code only occasionally, we recommend flushing the system with distilled white vinegar.
2. Should the unit be showing 'E1' every single time it tries to fire:
    A. Check to make sure that only EZ Tankless vent is being used. Be sure that the vent is installed in a horizontal manner, through an exterior wall and vented outdoors. Check that there is nothing blocking the proper flow of air through the intake or exhaust.
    B. After verifying proper flow of air through the vent system, remove the front cover of the unit (Be careful as the display should remain attached for this test.) Once the front cover is removed, while viewing into the combustion chamber windows, open a water source to allow the heater to try to fire. If the unit fires on the right side of the burners, but only the right side before going to the 'E1' error code, your unit will need a motherboard replacement.
3. If your unit is showing 'E1' error code and the above steps have been taken to address the issue without resolution, please call EZ Tankless Tech Support for further assistance.

Q4. THE DISPLAY SHOWS AN 'E2' ERROR CODE WHEN TRYING TO IGNITE.

A. Please call EZ Tankless support for assistance.

Q5. THE DISPLAY SHOWS AN 'E4' ERROR CODE WHEN TRYING TO IGNITE.

A. This is an error in the fan sensor, fan motor, or motherboard. Remove the front cover of the EZ Deluxe, keeping the display wires attached. Locate the fan in the bottom left corner of the unit. Run a hot water tap. Watch the fan blades and observe how they are spinning. If the fan increases to high speed when the unit senses water flow, but the unit shows an 'E4' error code, the fan sensor is faulty and requires replacement. If the fan spins very slowly and the unit goes to E4, the motherboard needs replaced. If the fan does not spin at all, the fan motor is faulty and requires replacement.

Q6. THE DISPLAY SHOWS AN 'E5' ERROR CODE WHEN TRYING TO IGNITE.

A. This is an error of the limit switch or limit switch wire. Remove the front cover of the EZ Deluxe, keeping the display wires attached. Locate the limit switch in the top left corner. Remove the wires from the limit switch. Complete the circuit between the two wires using a piece of wire, or by sliding the two tabs together (A video of this test can be found on our web site). Run water through a hot water tap connected to your EZ Tankless Deluxe unit kit. If the unit fires and runs while the wires are "jumped", a new limit switch is required. If, after jumping the limit switch wires, the unit still returns an 'E5' error code, the thermal fuse in the wire may have been blown.

1. To Diagnose: Follow the wire back to the motherboard. Remove the wire from the motherboard, and using a flathead screwdriver, complete the circuit between the two prongs inside of the socket from which the limit switch wire had been removed. If the unit runs as it should, a new limit switch is required.

Q7. THE DISPLAY SHOWS AN 'E6' ERROR CODE WHEN TRYING TO IGNITE.

A.This is an error on the outlet water temperature probe. We recommend trying to clean it before replacing it. It is located to the left of the fan on the outgoing water line. It will have a set of two white wires coming off of it and held in by one bolt. Turn the water off to the unit then remove the bolt holding the temperature probe in place. Once removed, clean the probe with white vinegar and reinstall it. If the unit continues to show an 'E6' after cleaning the probe then it will need to be replaced.

Q8. LOW WATER FLOW

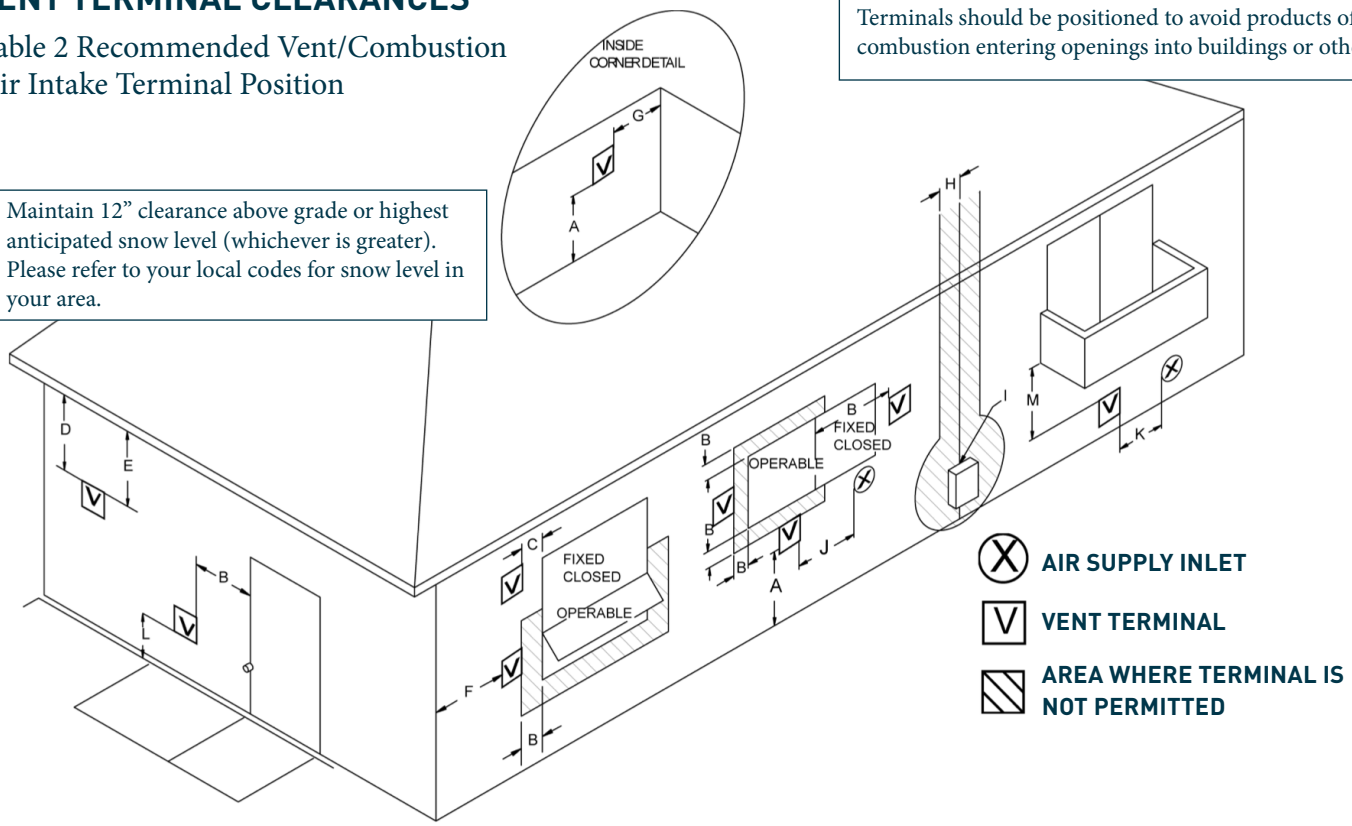
A. Check that flow control lever is in max position.

VENT TERMINAL CLEARANCES

Table 2 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.



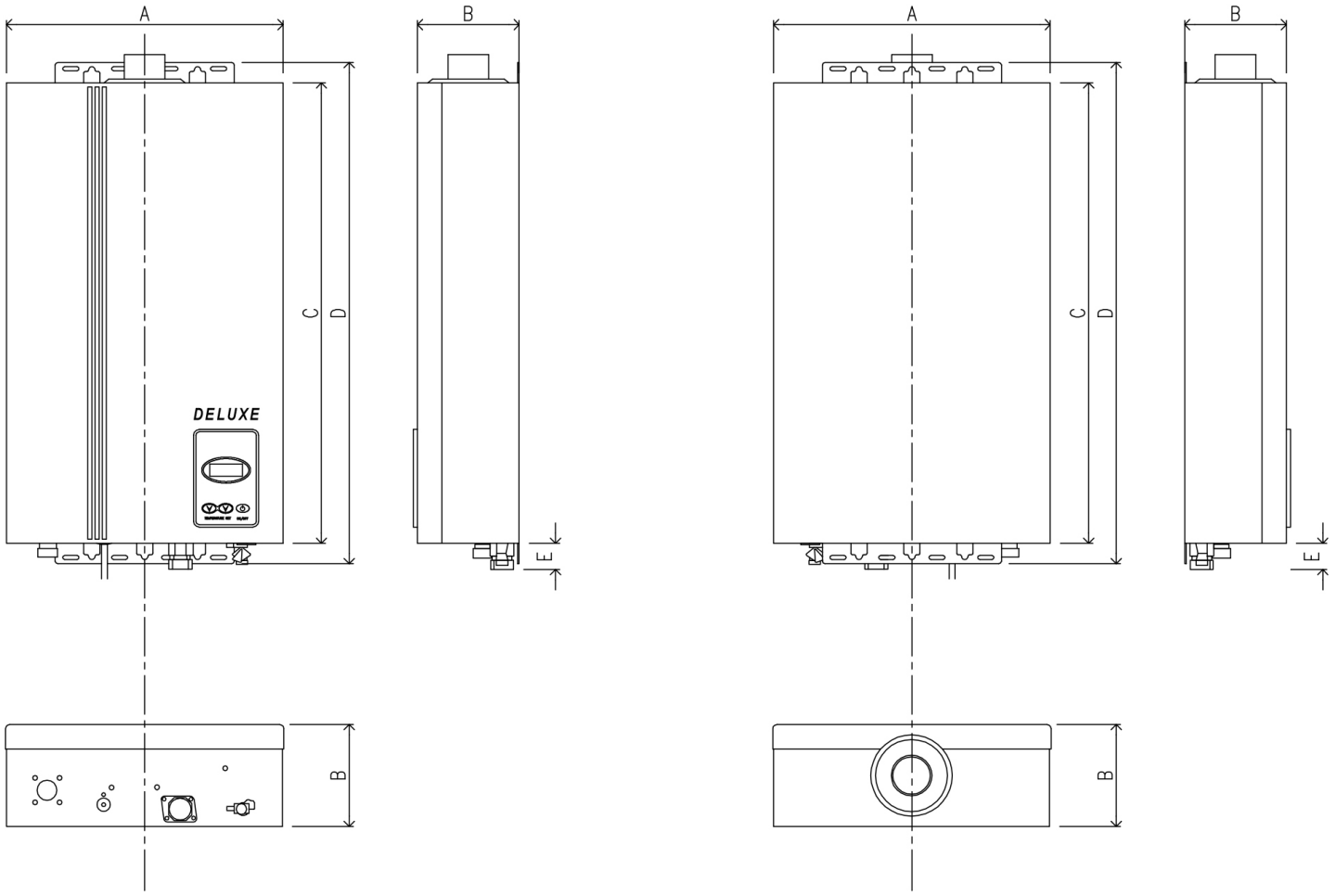
REF	DESCRIPTION	CANADIAN INSTALLATIONS	USA INSTALLATIONS
A	Clearance above grade, veranda, porch, deck, or balcony	12 inches (30 cm)	12 inches (30 cm)
B	Clearance to window or door that may be opened	36 inches (91 cm)	12 inches (30 cm)
C	Clearance to permanently closed window	*	*
D	Vertical clearance 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] Avent 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 INFORMATIONAL DRAWINGS



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		1-3/4” or 42mm
E_3		2-1/4” or 52mm

CONTACT US

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