

- ① Display setting temperature
Display fault code
Display water temperature
- ② Priority icon
- ③ Shower signal
- ④ Switch button
- ⑤ Fahrenheit/Celsius Priority
- ⑥ Celsius display
- ⑦ Fahrenheit display
- ⑧ Flame
- ⑨ Blower
- ⑩ Heat up button
- ⑪ Heat down button

**ON/OFF button:**

switch between on and off status.

**Heat up button:**

Each time you press the heat up button key, the temperature will increase by 1 °C.

**Heat down button:**

Each time you press the heat down button key, the temperature will reduce by 1 °C.

**Fahrenheit/Celsius Priority button:**

1. Press toggle degrees Celsius Fahrenheit.
2. Long-press operation to enable or disable priority permission.

**WARNING**

There is a hot water scald potential if the thermostat is set too high. Should overheating occur or the gas supply fails to shut off, turn off the manual gas control valve to the appliance.

**CAUTION**

- While any hot water is being provided, the temperature setting can only be adjusted between 95 °F (35 °C) and 158 °F (70 °C).
- There may be a variation between the temperature displayed on the temperature controller and the temperature at the tap due to weather conditions or the length of pipe to the water heater.

6 Maintenance

The water heater should be checked at least once a year or as necessary by a licensed technician. If repairs are needed, any repairs should be done by a licensed technician. The water heater's lifetime may be extended by regular maintenance.

**WARNING**

- Turn off the electrical power supply and close the manual gas control valve and the manual water control valve before servicing.
- Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.
- Verify proper operation after servicing.
- Should overheating occur or the gas supply fails to shut off, turn off the manual gas control valve to the appliance.

6.1 Vent System

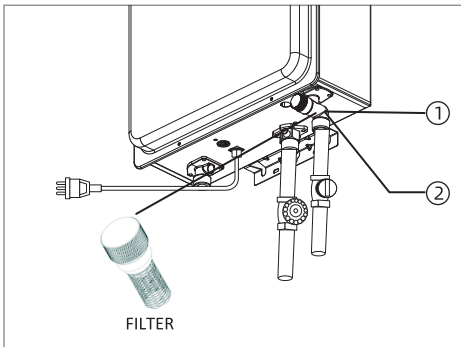
- Be sure that all openings for combustion air are not blocked. If blocked, remove obstruction.
- Check that the opening for exhaust is not blocked. If blocked, shutoff the water heater's combustion. And then after a while, remove obstruction.
- DO NOT touch while unit operating, otherwise you might get burnt due to high temperature.
- Check the gas pressure.
- Keep the area around the water heater clear. Remove any combustible materials, gasoline or any flammable vapors and liquids.
- Not obstructing the flow of combustion and ventilation air.

6.2 Unit Draining and Filter Cleaning

- Close the manual gas shut off valve.
- Turn off the power supply to the water heater.
- Close the manual water shut off valve.
- Open all hot water taps in the house (Bathroom, kitchen, laundry, etc.). When the residual water flow has ceased, close all hot water taps.
- Have a bucket or container to catch the water from the unit's drain plugs. Unscrew the drain plugs to drain all the water out of the unit.
- Wait a few minutes to ensure all water has completely drained from unit.

Clean the filter:

- Check the water filter located within the cold inlet. With a tiny brush, clean the water filter of any debris which may have accumulated and reinsert the filter back into the cold water inlet.
- Securely screw the drain plugs back into place. Hand-tighten only.



- ① Remove by turning counter clockwise and then clean and replace.
- ② 1. Turn off the water inlet supply valve.
2. Open a hot water tap to release the line pressure.

6.3 Clean Burners

It is imperative that control compartments, burners, and circulating air passageways of the appliance be kept clean.

Clean as follows:

1. Turn off and disconnect electrical power. Allow to cool.
2. Close the water shut off valves. Remove and clean the water inlet filter.
3. Remove the front panel by removing 4 screws.
4. Use pressurized air to remove dust from the main burner, heat exchanger, and fan blades. Do not use a wet cloth or spray cleaners on the burner.

Do not use volatile substances such as benzene and thinners. They may ignite or fade the paint.
5. Use soft dry cloth to wipe cabinet.

6.4 Pressure Relief Valve



WARNING

Testing the pressure relief valve should only be performed by a licensed professional. Water discharged from the pressure relief valve could cause severe burns instantly or death from scalds.

- Operate the valve manually once a year. In doing so, it will be necessary to take precautions with regard to the discharge of potentially scalding hot water under pressure. Ensure discharge has a place to flow.
- Contact with your body or other property may cause damage or harm.
- If a relief valve discharges periodically, this may be due to thermal expansion in a closed water supply system. Contact the water supplier or local plumbing inspector on how to correct this situation. Do not plug the relief valve.

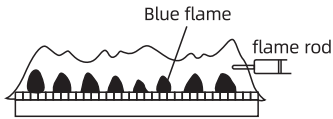
6.5 Visual Inspection of Flame

Verify proper operation after servicing.

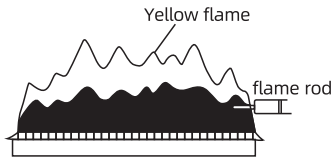
The burner must flame evenly over the entire surface when operating correctly. The flame must burn with a clear, blue, stable flame. See the parts breakdown of the burner for the location of the view ports. The flame pattern should be as shown in the figures below.

SATISFACTORY

FRONT VIEW

**UNSATISFACTORY**

FRONT VIEW

**Antifreeze Tips**

- When the temperature is below 46.4 °F (8 °C) while above 37.4 °F (3 °C), keep your water heater staying plugged in a 120V 60HZ power supply, the anti-freeze system will automatically heat up to prevent the water heater from damages. No manual work is needed.
- If the machine is not used for a long time, or if the ambient temperature is below 32 °F (0 °C) and the machine cannot be kept powered with electricity and gas, it is necessary to drain the water from the water heater to prevent damage due to freezing. And here is the process:

1. Turn off the gas shut-off valve.
2. Power off the water heater and unplug the power supply to the machine.
3. Turn off the water supply shut-off valve.
4. Turn on hot water taps in the house, to release the water and pressure in the pipes.
5. Screw out the drain screw on the hot water outlet.
6. Remove the inlet water filter from the cold water inlet and it's valve by turning counterclockwise.
7. Use a bucket to collect the residual water while draining. It may take more than 10 minutes to drain out the water thoroughly.
8. Securely screw the drain screw back in place; and screw the inlet water filter back in place.
9. Before you use the water heater next time, plug it into a 120 V 60 Hz power supply, and power on the water heater, and then open the water supply valve, hot water outlet valve, and the gas valve.

6.6 Freeze Prevention**WARNING**

If freezing conditions are expected, turn off water and gas and drain all water from the appliance. If power and the automatic frost protection are connected freezing will be prevented.

- Only the pipes and heat exchanger inside the water heater will be protected.
- Any hot or cold water pipes located outside of the unit will not be protected.
- Proper protection and insulation of these pipes will be required to ensure these are protected from freezing.

**CAUTION**

- Please note damages caused by freezing are NOT covered under the tankless water heater warranty as an industry standard.
- Please make sure to take all the measures to protect your water heater.

1. Turn Water Off
2. Turn Gas Off
3. Turn Off The Power Supply
4. Drain Water

