WARNING

- To protect yourself from harm, before performing maintenance:

1. Turn off the electrical power supply by unplugging the power cord or by turning off the electricity at the circuit breaker. (The temperature controller does not control the electrical power.)
2. Turn off the gas at the manual gas valve, usually located immediately below the water heater.
3. Turn off the incoming water supply. This can be done at the isolation valve immediately below the water heater or by turning off the water supply to the building.

CAUTION

- BURN HAZARD. Hot exhaust and vent may cause serious burns. Keep away from the water heater unit. Keep small children and animals away from the unit.
- Hot water outlet pipes leaving the unit can be hot to touch. In residential applications, insulation must be used for hot water pipes below 36" due to burn risk to children.

WARNING

This product can expose you to lead, which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65warnings.ca.gov.

2 Features and Components

2.1 Components

- Touch-screen user interface for intuitive operation.
- High-power, staged burner with low NOx emissions.
- Adjustable water flow valve.
- Modulating burner control with a wide turndown ratio of 1:20.
- High-quality materials for long service life.
- Copper primary heat exchanger.

Features

- Compact, space-saving wall-mounted design.
- Built-in Wi-Fi connectivity with voice control capability.
- Fault code and status display for quick diagnosis and servicing.
- Integrated freeze protection function.

NOTICE

The freeze prevention kit is designed to provide protection for the water heater down to approximately -13 °F for short term conditions only when protected from direct wind exposure. It will not protect the appliance in areas where the temperature is routinely expected to be below freezing.

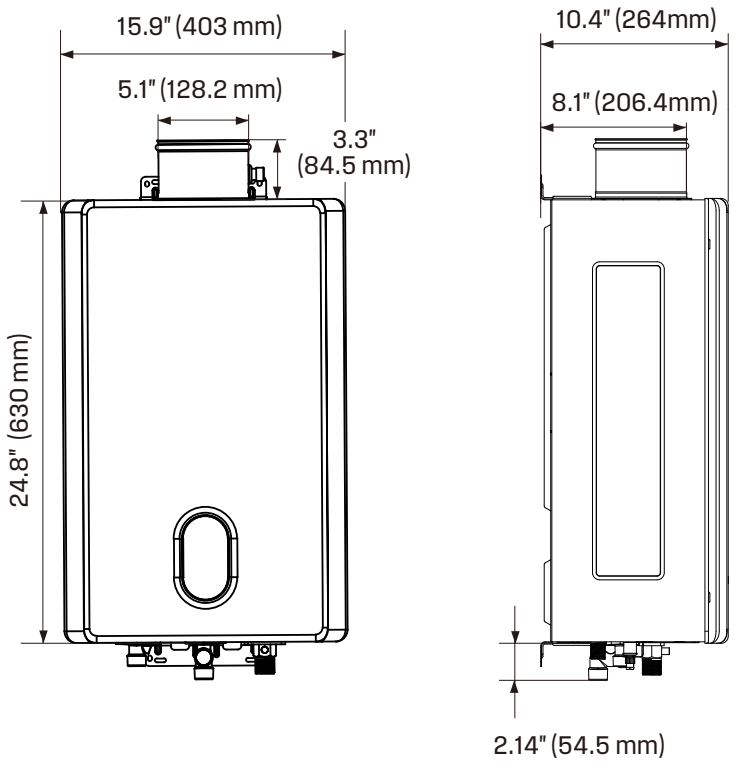
Drain the water heater in the event of power outage in freezing conditions.

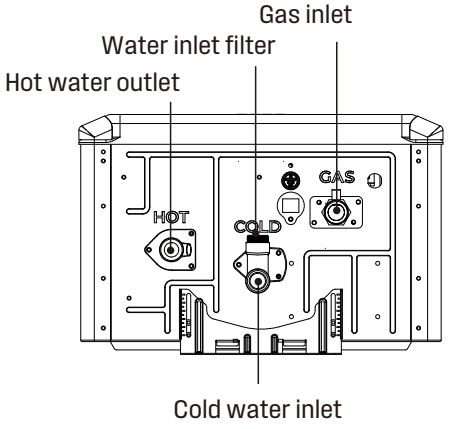
- The freeze prevention kit will not protect plumbing outside the

appliance from freezing. Precautions should be taken.

2.2 Dimensions and Connection Points

NOTICE
The images used in this document are for reference purposes only. Components and component locations may vary according to specific product models. Measurements may vary ±0.38 in. (10 mm).



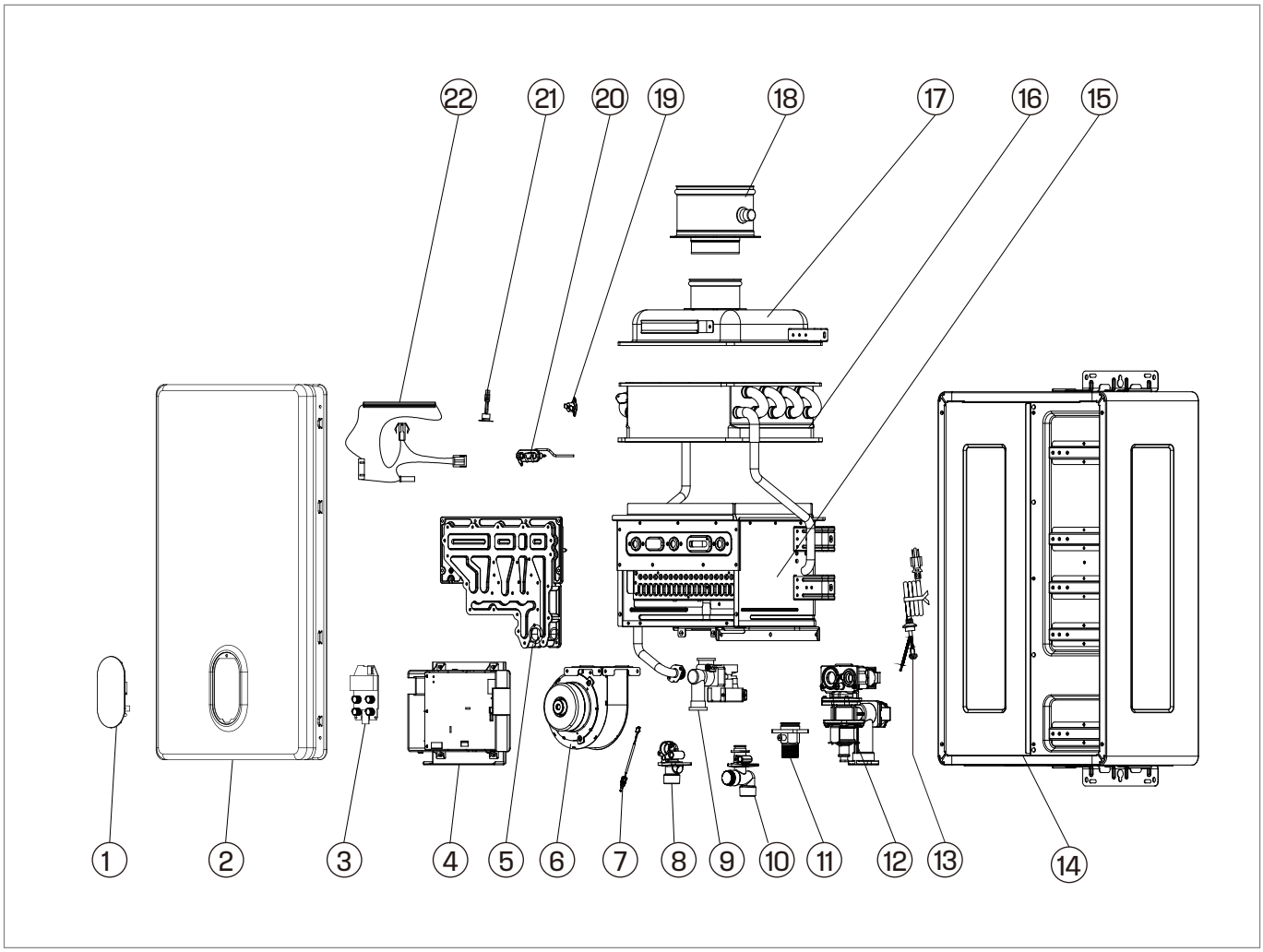


2.3 Technical Parameters

MODEL		HW199	
Minimum Gas Consumption Btu/h		10,000	
Maximum Gas Consumption Btu/h		199,000	
Hot Water Capacity (Min - Max) *		0.53 - 7.79 GPM (2 - 30 L/min)	
Temperature Setting (no controller)		95-149 °F (35-65°C)	
Maximum Temperature Setting		149 °F (65 °C)	
Minimum Temperature Setting		95 °F (35 °C)	
Weight		56.68lbs (25.7 kg)	
Electrical Data	Normal	44 W	48 W
	Standby	2 W	
	Anti-frost Protection	100 W	
	Max Current	0.62 A	0.69 A
	Fuse	10 A	
Gas Supply Pressure		3.5 - 10.5 inch W.C.	8.0 - 13.5 inch W.C.
By-Pass Control		Fixed	
Type of Appliance		Tankless, Temperature controlled continuous flow gas hot water system	
Connections		Gas Supply: 3/4" MNPT, Cold Water Inlet: 3/4" MNPT, Hot Water Outlet: 3/4" MNPT	
Ignition System		Direct Electronic Ignition	
Electric Connections		AC 120 Volts, 60Hz	
Water Temperature Control		Simulation Feed forward and Feedback	
Water Supply Pressure		Minimum Water Pressure: 15 PSI (Recommended 30-50 PSI for maximum performance)	
Maximum Water Supply Pressure		150 PSI	
Complies with South Coast Air Quality Management District 14 ng/J or 20 ppm NOx emission levels		Yes	

* Minimum flow may vary slightly depending on the temperature setting and the inlet water temperature. Minimum activation flow is 0.53 GPM (2 L/min).

2.4 Component Diagram



① Decoration board
② Front panel
③ Display assembly
④ Computer board
⑤ Manifold assembly
⑥ Fan module
⑦ Water outlet temperature probe
⑧ Water outlet connector
⑨ Water flow sensor
⑩ Water inlet connector
⑪ Intake connector
⑫ Gas control assembly
⑬ Power wire
⑭ Back panel
⑮ Burners
⑯ Heat exchanger
⑰ Exhaust
⑱ Outlet pipe
⑲ Over temperature protection therm
⑳ Ignition unit
㉑ Anti-freezing thermostat
㉒ Heating device