3 Installation

3.1 Installation Instructions

WARNING
- High voltage electrical installations should be prioritized by professional electricians.
- Installation must comply with the National Electrical Code, local electrical and plumbing codes.

NOTICE
Unit must be installed in a vertical position with the water fittings pointing downward.

WARNING
Do not install unit where it would routinely be splashed with water. Electric shock may result.

CAUTION
Hot water outlet pipes leaving unit can be hot to the touch. Insulation must be used for hot water pipes below 36" (0.9 m) due to burn risk to children.

NOTICE
This unit should not be installed in a location where it may be exposed to temperatures less than 36 °F (2 °C). If the unit may be subject to freezing temperatures all water must be drained from the unit. Failure to comply with this instruction voids all warranties.

The unit should be located in an area where water leakage from the unit or connections will not result in damage to the area adjacent to the unit. If such a location cannot be avoided it is recommended that a drain pan be installed under the unit.

- Make sure the product is intact and complete with accessories.
- Please ensure that the main power supply, water pressure, grounding conditions, ammeter and wires meet the installation requirements.
- The unit must be installed in a circuit suitable for overcurrent. Must be grounded at the breaker panel.
- This unit must be permanently connected to a fixed circuit breaker. If you are not using the unit, turn off the circuit breaker.
- Do not install the unit in the place of fire or strong magnetic field. This unit needs to be installed vertically. This unit should be connected to water first and then to electricity.

Guidelines You Need to Be Aware of

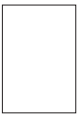
- This unit is designed for indoor installation only. However, it may be installed in an outdoor location as long as it is mounted in a suitable enclosure that provides protection from rain, splashed water, freezing temperatures, direct sunlight, debris, and insects.
- Install unit as close as possible to the main hot water draw off points.
- Install unit in a frost free area. If frost might occur, remove unit before freezing temperatures set in.
- Leave a minimum of 5" (120 mm) of clearance on all sides for servicing.
- DO NOT install under water pipes or air conditioning lines that might leak or condense moisture that could then drip onto the unit.
- DO NOT install above electrical boxes or junctions.

CAUTION
The water heater should not be located in an area where leakage will result in damage to the area adjacent to it or to lower floors of the structure. Where such areas cannot be avoided, it is recommended that a suitable catch pan, adequately drained, be installed under the water heater.

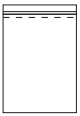
3.2 Prepare for Installation

■ Parts included

Electric Tankless Water Heater



User Manual



Assembly Kit

Mounting template

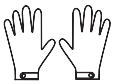
■ Tools needed (Not included)

Phillips screwdriver

Hammer

Hammer Drill With Concrete Bits

Ruler

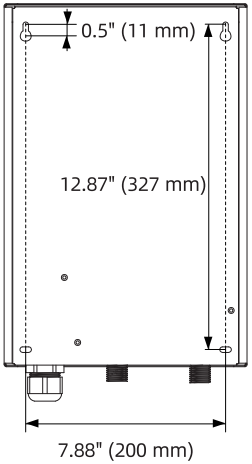


Gloves

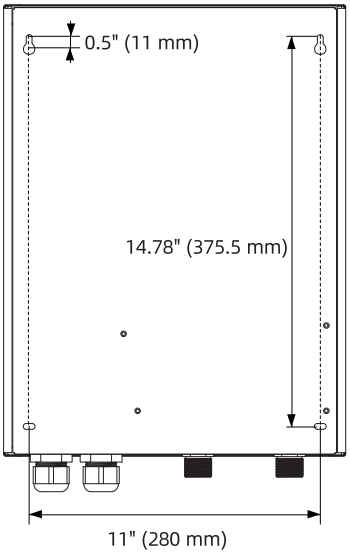
Pencil

3.3 Installation Dimensions

ET008/ET011/ET014



ET018/ET024/ET027



3.4 Installation Method

1. Figure out where to mount the water heater unit, mark 4 mounting holes on the wall according to the water heater or installation guide. (Fig.1).

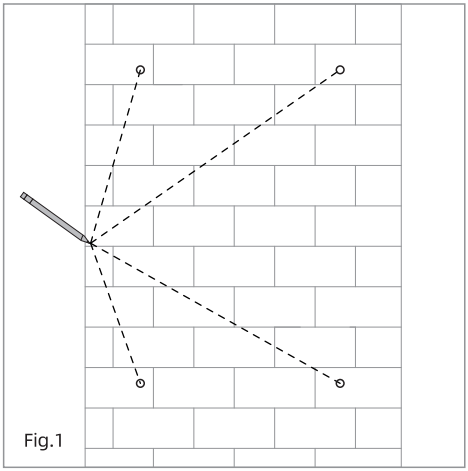


Fig.1

2. Use a hammer drill with concrete bits to create a hole in the wall according to the punching mark, ensuring it is 0.24" (6mm) in diameter. Then, insert the matching 4-M4 plastic wall anchors into the hole (Fig.2).

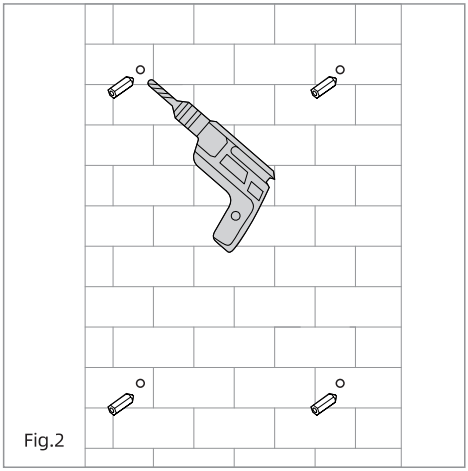


Fig.2

3. Insert M4 screws into the two upper holes, leaving about 0.12 inches to 0.2 inches (3-5mm) not tightly fastened (Fig.3).

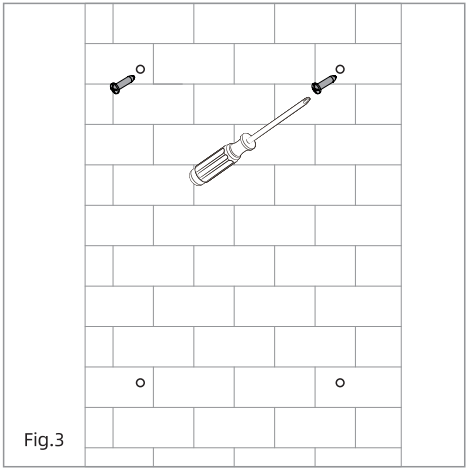


Fig.3

4. Use a screwdriver to remove the four screws at the top and bottom, then open the front cover (Fig.4).

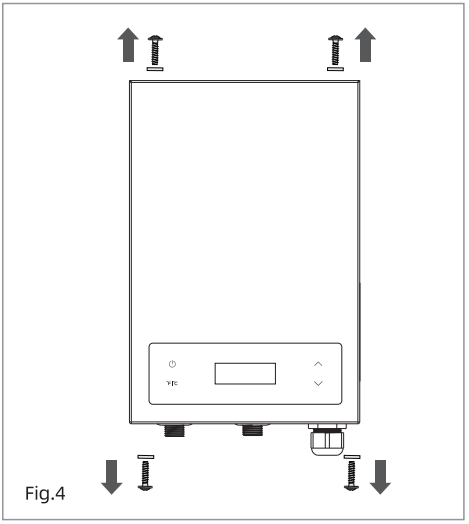


Fig.4

5. Hang the machine on the two previously installed screws, then secure the lower two screws. Finally, tighten the upper two screws (Fig.5).

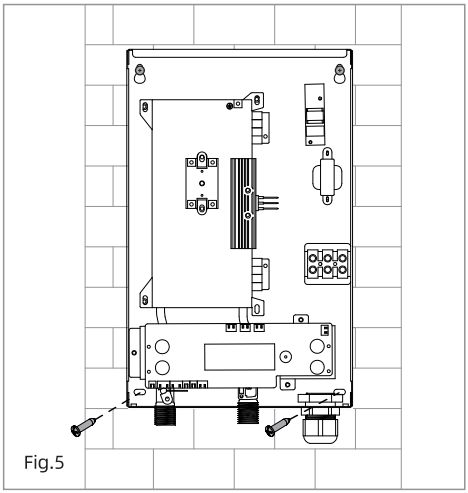


Fig.5

6. After completing all plumbing and electrical connections, install the front cover and tighten the four upper and lower screws with a screwdriver.

3.5 Water Connections

NOTICE

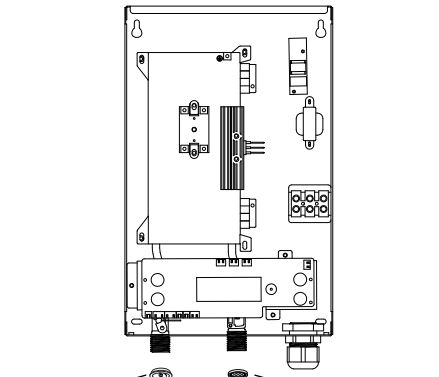
Excessive heat from soldering on copper pipes near the Unit may cause damage.

The cold water connection to the unit must be disconnected periodically in order to clean the filter screen. It is required to use water connections that are easily detachable such as braided steel flex connectors.

CAUTION

Hard water or water with a high mineral count may damage the unit. Damage to the unit caused by scale or a high mineral count is not covered under the warranty.

- All plumbing work must comply with national and applicable state and local plumbing codes.
- A pressure reducing valve must be installed if the cold water supply pressure exceeds 150 PSI (10 bar).
- Make certain that the cold water supply line has been flushed to remove any scale and dirt.
- The unit has a built in filter screen that should be cleaned from time to time. Clean screen and put the screen and the washer back into their original position.



- The cold water connection (inlet) is on the right side of the unit, and the hot water connection (outlet) is on the left side of the unit.

CAUTION
Tankless water heaters are not required to be equipped with a temperature and pressure relief valve (T&P). If the local inspector will not pass the installation without a T&P, it should be installed on the hot water outlet side of the unit.

- The unit on the hot side is designed for connection to copper tubing, PEX tubing or a braided stainless steel hose with a female tapered thread.
- The plumbing on the cold water inlet side needs to be such that it can easily be removed to allow access to the inlet filter screen. The easiest way to achieve this is to us a stainless steel braided hose connector. If soldering near the unit is necessary, please direct the flame away from the housing of the unit in order to avoid damage.
- When all plumbing work is completed, check for leaks and take corrective action before proceeding.

3.6 Electrical Connection

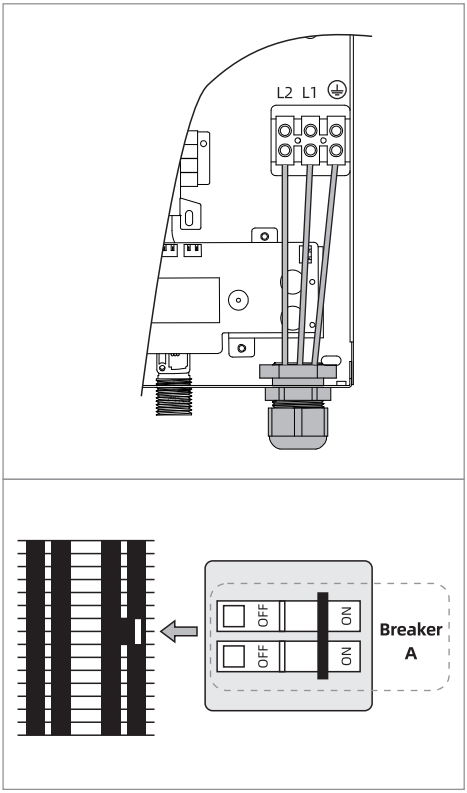
WARNING: Electrocution
Before beginning any work on the electric installation, be sure that main breaker panel switches are "Off" to avoid any danger of electric shock. All mounting and plumbing must be completed before proceeding with electrical hook-up. Where required by local, state or national electrical codes the circuits should be equipped with a "ground fault interrupter".

The unit must be properly grounded in accordance with state and local codes, or in absence of such codes, in accordance with national electric code or the Canadian electric code. Failure to electrically ground the product could result in serious personal injury or death.

- The unit should be connected to properly grounded dedicated branch circuits of proper voltage rating. Ground must be brought to the "Ground" at the circuit breaker panel.

3.6.1 Circuit Layout

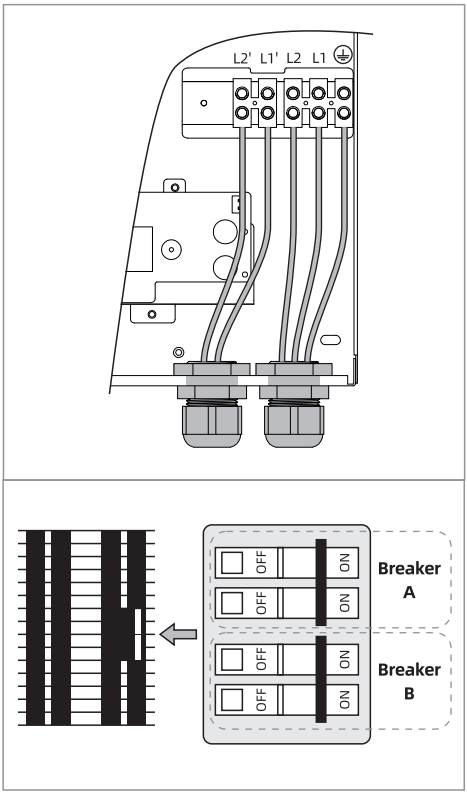
ET008/ET011/ET014



ET008/ET011/ET014: These units can be connected to a single circuit. Use a supply cable protected by a double pole breaker.

WARNING
- ET008, ET011 and ET014 must be connected to 1 sets of 240V power. Each set power needs to be connected to a two-pole breaker.
- L1 & L2 must be connected to breaker A.

ET018

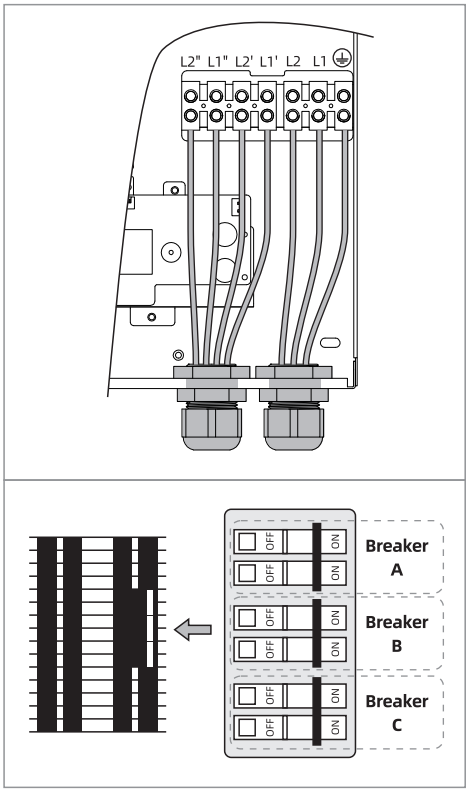


ET018: These units require two independent circuits. Use two supply cables protected by two separate double pole breakers.

WARNING

- ET018 must be connected to 2 sets of 240V power. Each set power needs to be connected to a two-pole breaker.
- L1 & L2 must be connected to breaker A, L1′ & L2′ must be connected to breaker B.

ET024/ET027



ET024/ET027: These units require three independent circuits. Use two supply cables protected by three separate double pole breakers.

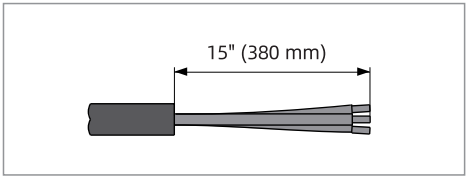
WARNING

- ET024 and ET027 must be connected to 3 sets of 240V power. Each set power needs to be connected to a two-pole breaker.
- L1 & L2 must be connected to breaker A, L1′ & L2′ must be connected to breaker B, L1" & L2" must be connected to breaker C.

3.6.2 Circuit Connection

Please refer to "2.3 Technical Parameters" for the correct wire and circuit breaker size. In all cases, make sure that the unit is properly grounded.

- Cut the electrical connection cable to length and strip.



The wire must be fed through the Cord clamp (See "3.6.1 Circuit Layout"). The "live" wires must be connected to the slots on the terminal block marked L1 and L2. The ground wire must be connected to slot marked with the ground symbol (See "7 Wiring Diagrams").

3.6.3 Terminal Block

Consult the chart below for the recommended torque amounts on the terminal block screws.

Screw Size (mm)	Min. Torque (N•cm)	Min. Torque (lbf•in)
M4	100-140	8.9-12.4

Using the proper torque specifications to secure wire to the wiring block helps to avoid personal loss or property damage.

3.7 Commissioning the Water Heater

WARNING
Open the hot water faucet for a few minutes until water flow is continuous and all air is purged from water pipes. The unit's cover must be installed before the circuit breakers are turned on.

- Fill the unit up completely with water.
- Close the cover and fix it using the screw with the lock washer.
- Turn on circuit breakers to bring electrical power to the unit.
- Adjust the water temperature to the desired level using the knob on the front cover of the unit.
- Turn on hot water and wait twenty seconds until temperature has stabilized.
- Check the water temperature with your hand and make sure that it does not feel too hot. Reduce if necessary.
- Explain to the user how the unit works and familiarize them with its use.
- Advise the user about possible hazards (hot water temperature up to 140 °F (60 °C)). Hand over these instructions, to be kept for future reference.