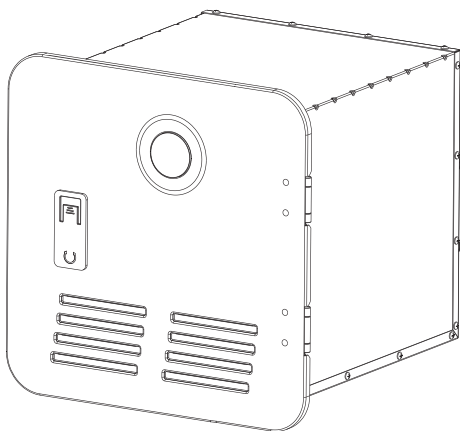


# FOGATTI

## Instruction Manual

### InstaShower Series RV Tankless Water Heater



CSA/ANSI Z21.10.3:19 • CSA 4.3:19

This water heater is specifically designed for RV users,  
DC 12V operating voltage with propane gas source.

TEL:877-216-1818

(8:30am-5:00pm EST Monday-Friday)

E-mail:service@fogattiliving.com



**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 vehicle.
- Shut off the gas supply at the gas container or source.
- Do not touch an electrical switch, or use any phone or radio in the vehicles.
- Do not start the vehicle's engine or electric generator.
- Contact the nearest gas supplier or qualified service technician for repairs.
- If you can not 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.

# Preface

Thank you for using our RV instant gas water heater. Correct installation and use of this product will bring new enjoyment to your wonderful life. Please read and follow all safety rules before installing and using this heater. Please keep the instructions manual properly for future reference.

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# Function Introduction and Explanation

The water heater is designed with intelligent control system. Simply set the temperature and press the start button for machine detecting the qualify water flow. After ignition, the gas valve invites propane to ignite the burner, then runs steady hot water. The intelligent device detects the entire process, where may shut down gas whenever abnormal failures detected. The water heater is forced exhaust structured. The outside air passing through the air intake grille enters the combustion chamber via anti-dust net. Flue gas or air mixture is discharged outdoor through the small-diameter pipe automatically and safely.

## 1. Digital constant temperature system:

Microcomputer control system, which constitutes the "computer" of the whole machine, which controls the water, electricity of the water heater in a coordinated manner, and does not cause the temperature of the water temperature to fluctuate, satisfying the user's comfort.

**2. Low startup water pressure:** Low startup water pressure making it easier to use.

**3. Flameout protection:** When water heater accidently flames out during operation, the gas supply will be automatically cut off to ensure no leakage.

## 4. Speed changing and wind resistance

**function:** When a blockage of the flue or the smoke is blocked, the built-in microcomputer system will increase the operating speed of the fan and eliminate the generation of harmful gases. When the speed reaches the predetermined maximum speed, the microcomputer system will issue the cease-gas and cease-fire instruction, effectively guarantee safety.

**5. Water and gas linkage control:** When the water supply is interrupted or the water outlet valve is closed, the water heater will automatically stop the combustion and shut down.

**6. Outlet water temperature display:** Enables outlet water temperature display function.

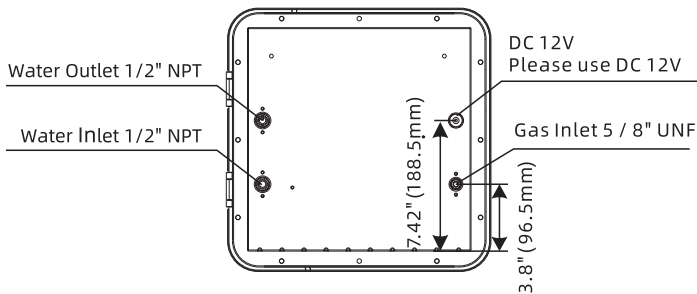
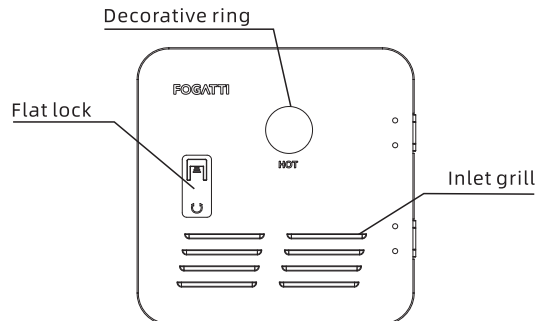
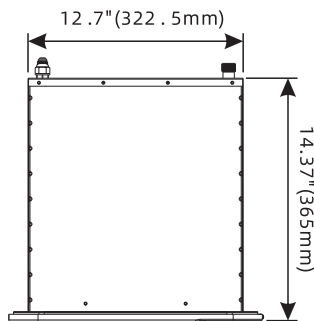
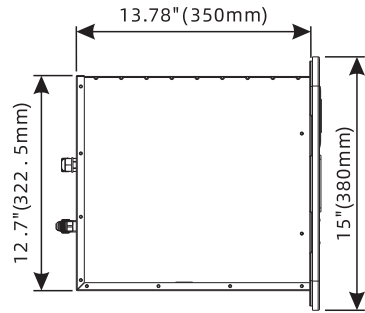
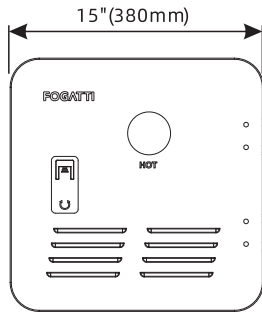
**7. Antifreeze function:** Antifreeze function: When water pipe temperature is lower than  $43^{\circ}\text{F}\pm 2^{\circ}\text{F}$  ( $6\pm 1^{\circ}\text{C}$ ) and wire controller displays "Fd" character, the machine starts ignition and runs a certain load of water from 2 to 5 seconds, until water temperature reaches  $90^{\circ}\text{F}\pm 2^{\circ}\text{F}$  ( $32\pm 1^{\circ}\text{C}$ ). Around 3 minutes, the machine starts self-testing again. When temperature is lower to  $43^{\circ}\text{F}\pm 2^{\circ}\text{F}$  ( $6\pm 1^{\circ}\text{C}$ ) again or antifreeze thermostat control stops working, the water heater starts again with same cycle.

- In the process of starting the antifreeze function, if a fault occurs, the corresponding fault is reported, and the corresponding code is displayed. After 15 minutes, the system automatically clears the fault code. If the antifreeze start condition is fulfilled, the antifreeze will automatically start again, and the cycle continues.

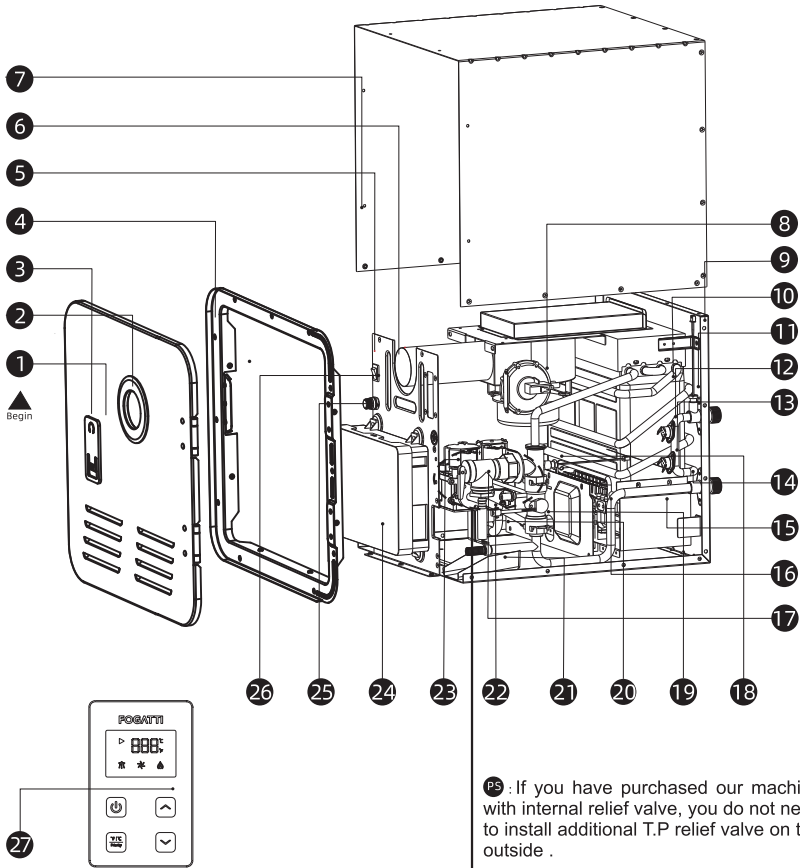
**8. Error auto-diagnosis and error code display function:** Intelligent microcomputer can monitor various safety devices, gas proportional valves and other components at real-time, find faults and timely safety shutdown. Advanced fault code display function makes it easy to use and maintain.



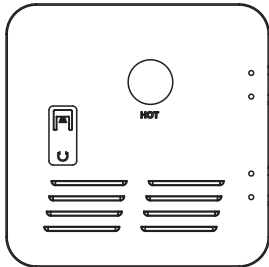
# Appearance



# Main Parts



PS: Another door panel appearance



<b>NO.</b>	<b>Name</b>	<b>NO.</b>	<b>Name</b>
1	Front Panel	15	Burner
2	Decorative Ring	16	Ignition Pin Assembly
3	Flat lock	17	Pressure Relief Valve
4	Blind Flange	18	Water Inlet Temperature Probe
5	Fixing Plate	19	Water Flow Sensor
6	Fan Volute Assembly	20	Gas Inlet Assembly
7	Upper Enclosure	21	Drainage Pipe
8	Wind Pressure Switch	22	Connecting Pipe for Burner and Valve
9	Lower Enclosure	23	Gas Proportional Valve
10	Heat Exchanger	24	Controller
11	Water Outlet Temperature Probe	25	Fuse Box
12	Anti-freezing Thermostat	26	ON/OFF Switch
13	Thermostat	27	Wire Controller
14	Water Inlet Pipe		

# Safety Warnings and Operation Safety Guidelines

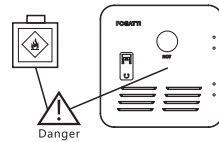


Please read the warnings and safety instructions carefully to avoid potential injury or death caused by failed applications.

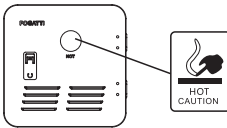
1. RV instant gas water heater is forbidden from indoor installation. Please only install into RVs supported by independent power source.



2. To prevent fire or explosion accidents, do not place flammable, volatile articles near the water heaters and flue exhaust pipe.



3. During operation and after use of the water heater, the temperature of the flue exhaust pipe and the surrounding parts is high. Please do not touch any of it with your hands to avoid scalding.

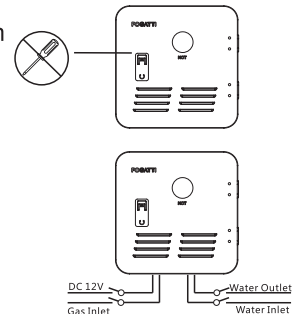


4. To prevent burning, test the water temperature by hand before showering or bathing.



5. Do not modify the water heater in any way. Self-modification is dangerous and will void the warranty.

6. When the water heater is not in use for a long period, in order to prevent frost crack on waterway and leaking of the water heater, water within the water heater shall be drained, with water inlet valve, gas supply and power supply turned off. When the ambient temperature is lower than 32°F(0°C), you may either discharge the water in the water heater, or turn on the power supply and open the gas valve to start anti-freezing mode, in preparation for anti-freezing treatment. (For details, refer to the relevant section of the manual.)



7. During use, please perform regular maintenance as instructed in this manual. Check the exhaust venting pipe and air intake port for blockage, accumulation of snow, ice, or dirt regularly. Ensure the water heater can take in clean air and smoothly discharge the exhaust gas produced by combustion.

8. Water heaters are used only for the supply of hot water and cannot be used for other purposes to prevent accidents.

9. Hot water from water heater is not available for direct drinking purposes.
10. Do not use the battery charger to power or test the water heater. The on-board power supply used by the vehicle-mounted gas water heater must comply with class 2 safety-isolation. Please use a qualified power supply to avoid damage to the water heater.
11. Do not alter the positive grounding system of the water heater.
12. Do not test the water heater with high voltage power unless the water heater power switch is turned off.
13. Do not use a water heater while the vehicle is in motion. While refueling the vehicle, do not use the water heater and turn off the water heater.
14. Pay attention to protect the surrounding buildings when the smoke is discharged.
15. Do not connect the water heater to the exhaust system of other appliances.
16. Ensure the bottom of the water heater is parallel to the horizontal surface while installing.
17. Park the vehicle onto flat ground while in use.

### What should I do if I smell the gas?



- Evacuate all personnel from vehicle.
- Shut off the gas supply at the gas container or source.
- Do not use any of the vehicle's electrical appliance or use any phone the vehicle.
- Do not start the vehicle's engine or generator.
- Contact the nearest authorized service provider or gas supplier for repairs.
- If you cannot contact an authorized service provider or gas supplier, contact the nearest fire department.
- Do not open the gas supply until the gas leaks has been repaired.

### Warnings:

- Stay away from water to prevent shock.
- **NEVER** use for indoor heating.
- **NEVER** use in mobile homes.
- **NEVER** use in food trucks or roadside food carts.
- **NEVER** use in construction trailers.
- **NEVER** heat pool water with this machine.



# Installation Instructions



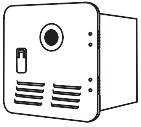
- This product is not suitable for DIY installation.
- Installation and maintenance must be carried out by qualified person, service company or gas water heater suppliers.
- Improper installation, commissioning, modification or maintenance may lead to property damage, personnel injury or death.
- The product must be installed and repaired by our company or our authorized installation service company, otherwise our company will not be responsible for any accidents caused by improper installation or maintenance.

## Rv water heater installation check list:

- After receiving the RV tankless water heater, please check whether your gas supply is as required by the RV water heater, which is stated in the specifications.
- After opening the product box, please check whether any damages in the water heater body, and screw threads.
- Open the RV Water Heater's front door, and take out the Digital Controller which is put inside the chamber of the water heater, next to the exhaust vent.
- Check whether the exhaust vent is clogged or blocked, clean up if anything .
- Check whether the gas pressure meets the requirements stated in the specifications.
- Check whether the water pressure meets the requirements stated in the specifications.
- Check whether the power supply is 12V DC (Direct Current).
- Connect your 12V DC Power Supply to the red and black cables in the back per instruction: Red cable is positive, Black cable is negative. Also connect the Digital
- Controller to the two Blue cables in the back, it's unnecessary to differentiate the positive and negative cables for the Digital Controller.
- Connect your cold water pipe to the water inlet, hot water pipe to the water outlet, and gas supply to the gas inlet per the labels on the back of the water heater.
- Check whether the gas pipe fittings are fully sealed, make sure there are no gas leaks.
- Check whether Washers/Teflon Tapes are correctly used in the water pipe fittings, and make sure there are no water leaks.
- Make sure to use the original Digital Controller that match with the water heater. otherwise EC errors will occur.
- For the first time using of the water heater, it is normal that it may take 2~3 times of turning the water heater on and off before igniting successfully, as the air residing in the gas pipes needs to be evacuated so that the gas pipes can then be filled with propane gas.

# Prepare for installation

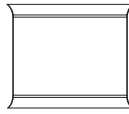
## Parts included



FOGATTI Tankless Water Heater



Use's Manual



Assembly Kit



Wired Digital Controller

## Tools needed



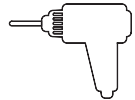
Screw Driver



Wrench



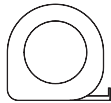
Scissor



Hammer Drill with Concrete Bits

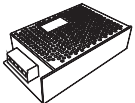


Pliers



Ruler

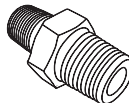
## Materials needed



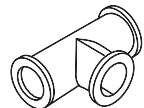
12V DC Power



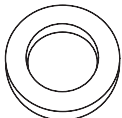
Soapy Water



Pipe Fittings



Threaded Tee Fitting  
(Middle 3/4" both ends 1/2")



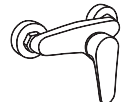
Washers



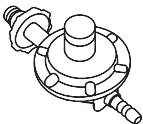
Pressure Relief Valve



Electrical Adhesive Tape



Thermostatic Mixing Valve



Gas Pressure Regulator

● Please keep any parts removed from this model inaccessible to children to avoid injury.



● **The installation must conform to one or more of the followings, 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;
- 2) Local codes or, in the absence of local codes, Recreational Vehicles, **NFPA 1192**, and/or **CAN/CSA-Z240** RV Series;
- 3) Local codes or, in the absence of local codes, with the National Electrical Code, **ANSI/NFPA 70**, and/or the **CSA C22.1**, Canadian Electrical Code, Part 1 The appliance must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than  $\frac{1}{2}$  psi (3.5 kPa).

Provisions for adequate combustion and ventilation air in accordance with one of the followings:

- A) The national Fuel Gas Code, **ANSI Z223.1/NFPA 54**;
- B) **CSA B149.1**, Natural Gas and Propane Installation Code;
- C) Applicable provisions of the local building code.

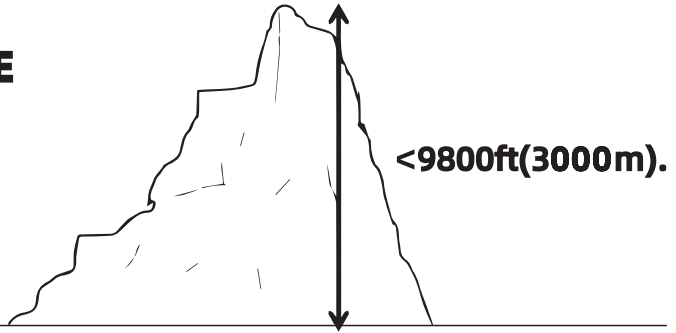


**The following instructions are applicable to the FOGATTI RV gas water heater. If you have any query about a particular installation or application, please consult our company or authorized partners for installation and maintenance issue.**

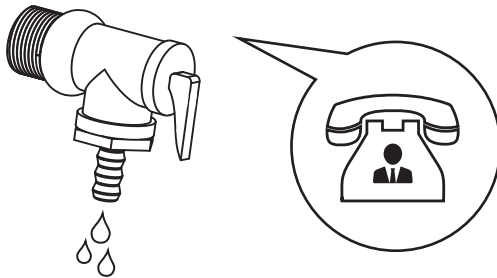
- The water heater must be properly installed to ensure the air flow is free of obstruction at any time when the air inlet louvers and exhaust pipes are in place.
- During any stress test of the system, the device should be disconnected from the air supply piping system.
- Do not install this product under a hanging structure. It should be installed in a firm position.
- This product should be installed in any place where the door will not be covered or blocked by a flue gas exhaust pipe. If this condition is not allowed, please ensure a minimum of 6 inches gap between the water heater vent and the door when the door is opened.
- If the wall is not fire-proof, any gap between the back of the product and the surrounding flammable structure and combustible materials must be filled with heat-proof and flame resistance materials.
- The equipment should not be installed on a vinyl panel, due to the difference in the vinyl panel.
- Do not install the water heater venting pipe at a position less than **1ft (305mm)** from the door or window.
- Do not install the water heater or any other electrical appliances facing the gas exhaust pipe or in the zone covered with an awning, canopy, or any other enclosure.
- The water heater can be installed in the trailer or under the retractable awning, but the awning must be well ventilated.
- The water heater must be installed upright, otherwise it will affect the normal operation of the water heater.
- When the water heater is installed, it should be reliably grounded.
- Clean the dirt in the pipe before the inlet pipe connecting to the outlet pipe.
- A suitable assembled filter should be installed at the back of the water pump for filtration, without which our company will not claim any warranty.
- A valve should be installed in the gas pipe, inlet pipe and outlet pipe for easy maintenance and servicing.

- Check for gas and water leakage after installation, make sure the machine is safe to operate.
- The minimum distance from the smoke outlet to the flammable surface should be **>20 inches (500mm)**.
- The normal operation gas pressure range of the water heater is maximum inlet pressure cannot exceed **13" w.c.(3.3 kPa)** and the minimum pressure cannot be lower than **8" w.c.(1.99 kPa)**. The water heater will not operate normally when out of range.
- **The gas water heater is not recommended for use at altitudes above 9800ft(3000m).**

## ALTITUDE



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 to rectify the issue.** Do not plug the relief valve.



**▲ Sharp edges can cause cuts and injury!**

- Always wear protective gloves to avoid injuries from sharp edges during installation work and while handling the appliance.

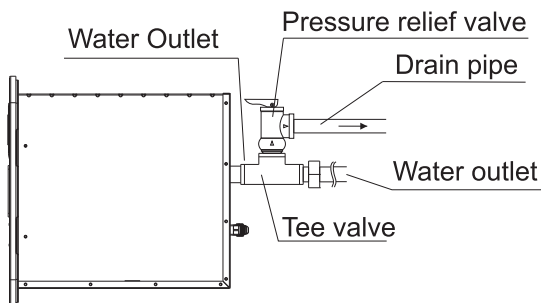


**WARNING**

Mixing valve is necessary to be assembled before the machine installation. Although water temperature is rated at 122°F(50°C) maximum, actual temperature may be higher under conditions of fluctuant water flow. To prevent burning, make sure to assemble mixing valve to ensure desired shower temperature.

## ● Pressure relief valve notices

Model	Recommended pressure relief value / temperature	Model	Recommended pressure relief value / temperature
FS06B1S	680kPa	FS08B1S	680kPa



(Picture A)



(Picture B)

### Caution: Do not over tighten!

Please use Teflon tape or sealant to seal the thread of pressure relief valve, then install it into Tee valve 3/4 " NPT outlet (see Picture A)

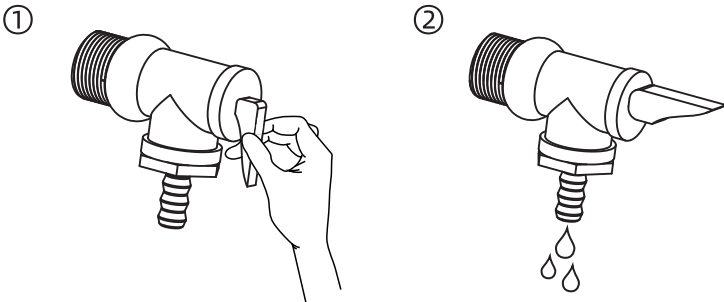
Please use Teflon tape or sealant to seal the thread of water outlet, then install pressure relief valve, tee valve and water outlet together. Please select a suitable position to install (see picture B). Please note that the outlet of pressure relief valve can not face upward, otherwise it will always leave some water inside.

- Anti-fouling and anti-scaling, dirt will directly affect the normal function of the safety valve function.
- The drain pipe must match the drain port to ensure that the valve does not interfere with the normal operation of the valve.
- The pressure relief valve outlet can be installed horizontally or vertically, but it cannot make pressure outlet facing upwards, otherwise it can not work normally. It is forbidden to block its outlet.

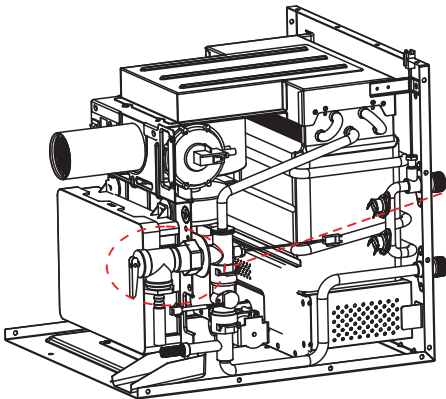
## ● Maintenance

● Dirt will directly affect the normal functioning of the safety valve. It requires hot water system maintenance of anti-fouling and anti-scaling cleaning.

● **The user must check the relief valve at least annually.** During checking, turn off the water heater's power and gas supply. Turn on the water inlet switch to create pressure in the water system. Then gently open relief valve handle until there is water flowing out and then gently close it. If no water flowing out, the valve is invalid. Immediately turn off the water heater switch and ask the service personnel to deal with it. Before operating the handle, check the discharge line connecting the valve to ensure that the water draining from the valve can be discharge to a suitable place.



● Do not operate the relief valve when the water heater is in normal operation to avoid being scalded by hot water



● If you have purchased our machine with internal relief valve, you do not need to install additional Pressure valve on the outside.