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# User Manual



## EZ PRIME

**Tankless Gas Water Heater**

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## Contents

Thank you for buying this energy efficient water heater. We appreciate your confidence in our products.

This instantaneous gas water heater is manufactured with advanced technology and equipment from Japan, Germany and Switzerland, together with our decades' experience.




You should thoroughly read this manual before installation and/or operation of this water heater. Please pay particular attention to General Safety Precautions as well as the **WARNINGS AND CAUTIONS**.

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## General Safety Precautions

In order to avoid any potential physical harm to human and property, be sure to follow the below instructions. They are classified into a few types marked with different warning signs.

	DANGER: means possibility of physical harms to human.
	WARNING: means possibility of body and poverty damage.
	ATTENTION: means possibility of poverty damage.

Different signs means:



Forbidden




No touching



Compulsory




No fire

 **DANGER**


■ Safety protections when gas leaks:

When smelling the odor of gas, don't operate any electricity equipment or light any fire. Switch off gas valve immediately, open the doors and windows, let the gas being discharged out of the room. Check out the cause and contact the local service agency and gas supplier.

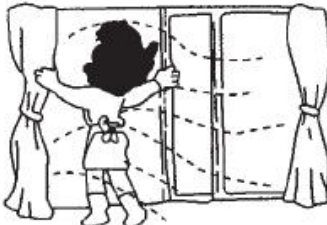
switch off gas valve




gas valve





open doors and windows





contact the local customer service center

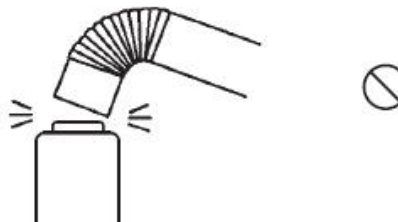




## General Safety Precautions

### ■ Check the venting pipe:

It's forbidden to use the water heater when the venting pipe not to be set up yet, smoke leaks or blocked. Otherwise it may cause waste gas leak or the appliance abnormal combustion, which will result in CO poisoning.



## WARNING

### ■ Be sure of using the specified type of gas on the nameplate, power supply and voltage:

If using different type of gas, it may result in abnormal combustion, CO poisoning, fire and make the electrical components spoiled.

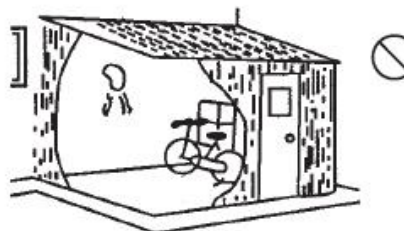
Name :	Forced Exhaust Instant Gas Water Heater
Model :	JSG-XX-XX(PXL)
Type of gas :	XXXgas-XXX
Rated gas pressure :	XXXXPa
Rated heat load :	XXXkw
Applicable water pressure :	0.02-0.5MPa
Rated hot water output :	XXL/min
Rated voltage :	AC220V~60Hz
Rated electrical power :	45W
Standard of production :	NBR8130-1998



Gas type

Voltage

### ■ No coving near to the venting pipe, as it may affect the performance of the waste gas ejection. Do not install the vent inside of house, or it may cause fire or abnormal combustion etc.



### ■ Prevention of fire.

Don't leave anything flammable materials near to water heater, such as paper, clothes, gasoline, light oil etc, so as to avoid to cause fire.



## General Safety Precautions

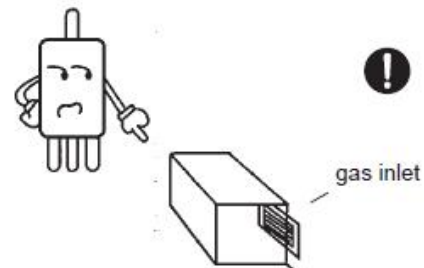
- When starting the appliance every time, try to feel the temperature of the hot water with hand slightly before taking shower, then use it.

When using the passage of mixing the cold and hot water, open others valves, it may change the output water temperature. Feel the temperature with hands first, avoid raising water temperature suddenly to cause possibility of scalding.



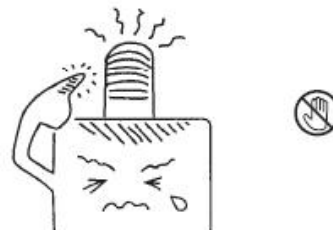
### ■ Ventilation

Make sure the ventilation is in good condition, keep the water outlet clear and no-jammed. Or it may cause abnormal combustion or CO poisoning.



## ATTENTION

- Don't touch the venting pipe when using or switching off the water heater immediately, it may cause scalding.

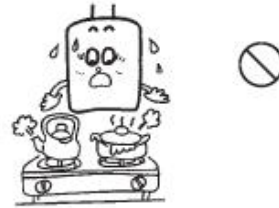


- The heater water is not suitable for drinking, cooking or any other use just for providing hot water and shower. Otherwise it may damage health or cause technical problem.



## General Safety Precautions

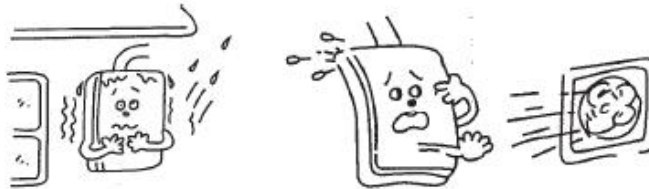
- Don't install the water heater over any heater appliance like cookers, and it's not suitable to install on vehicle or boat. Otherwise it may cause technical problem.



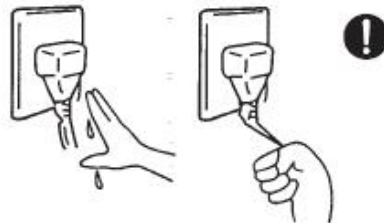
- When the water heater won't be used for a long time, close the gas valve, switch off the power supply, and empty the water inside of the water heater, which to avoid the leakage of gas and breakage of the water heater.



- Don't install the water heater outside the house to avoid damage by wind, rain and freezing. Otherwise it may cause the heater abnormal combustion or others problems.



- Plugs and sockets should be placed in a moisture proof surrounding. Don't conduct any operation related to electricity with wet hand. Make sure the sockets and the shell of the water heater is correctly earthed. Otherwise it may cause electrical shock.



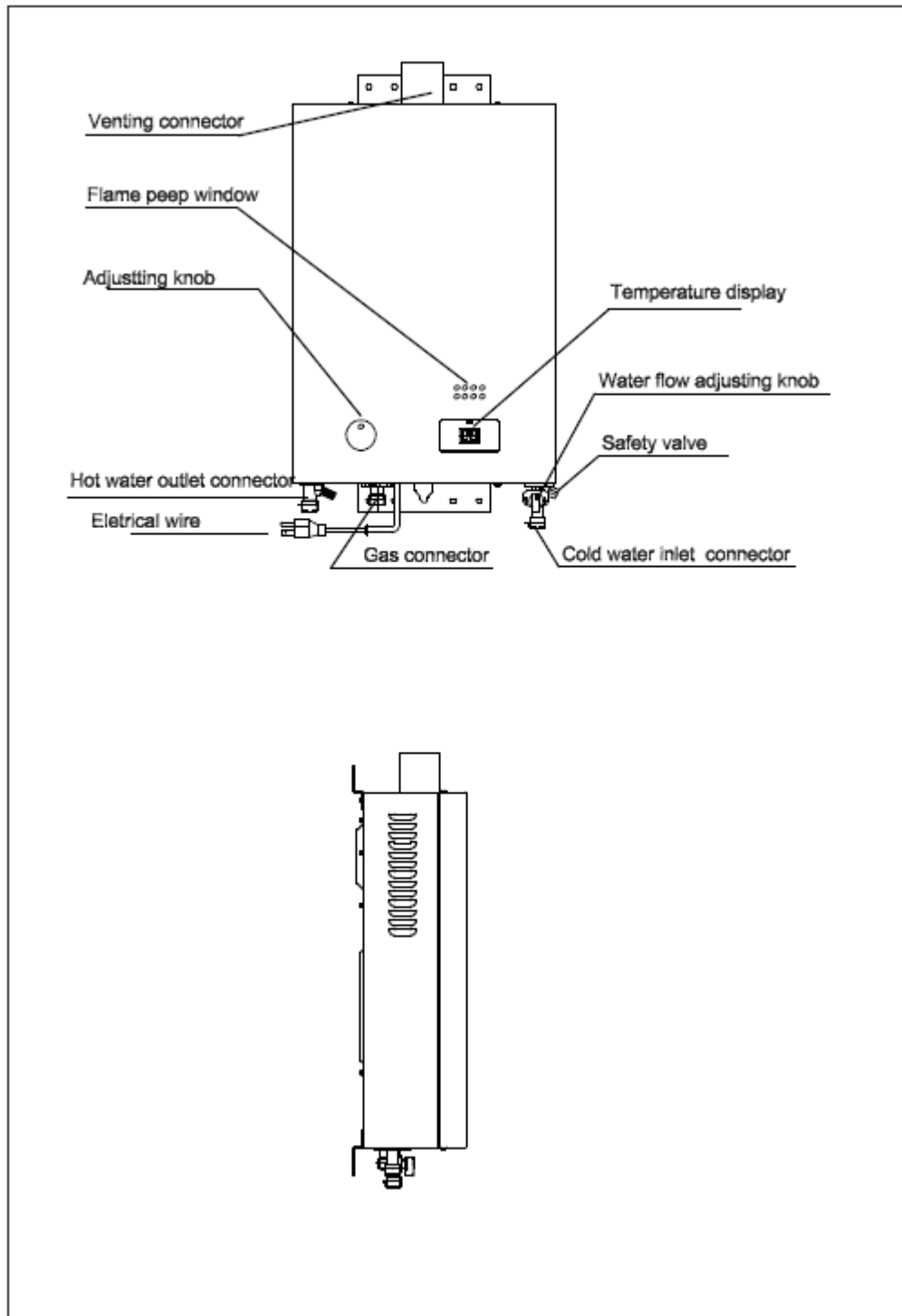
- Plug should be pulled out from socket when there is a thunder. Don't use the water heater when the water or power supply failure. Switch off the inlet water valve. Otherwise it may cause technical problem.





## General Character

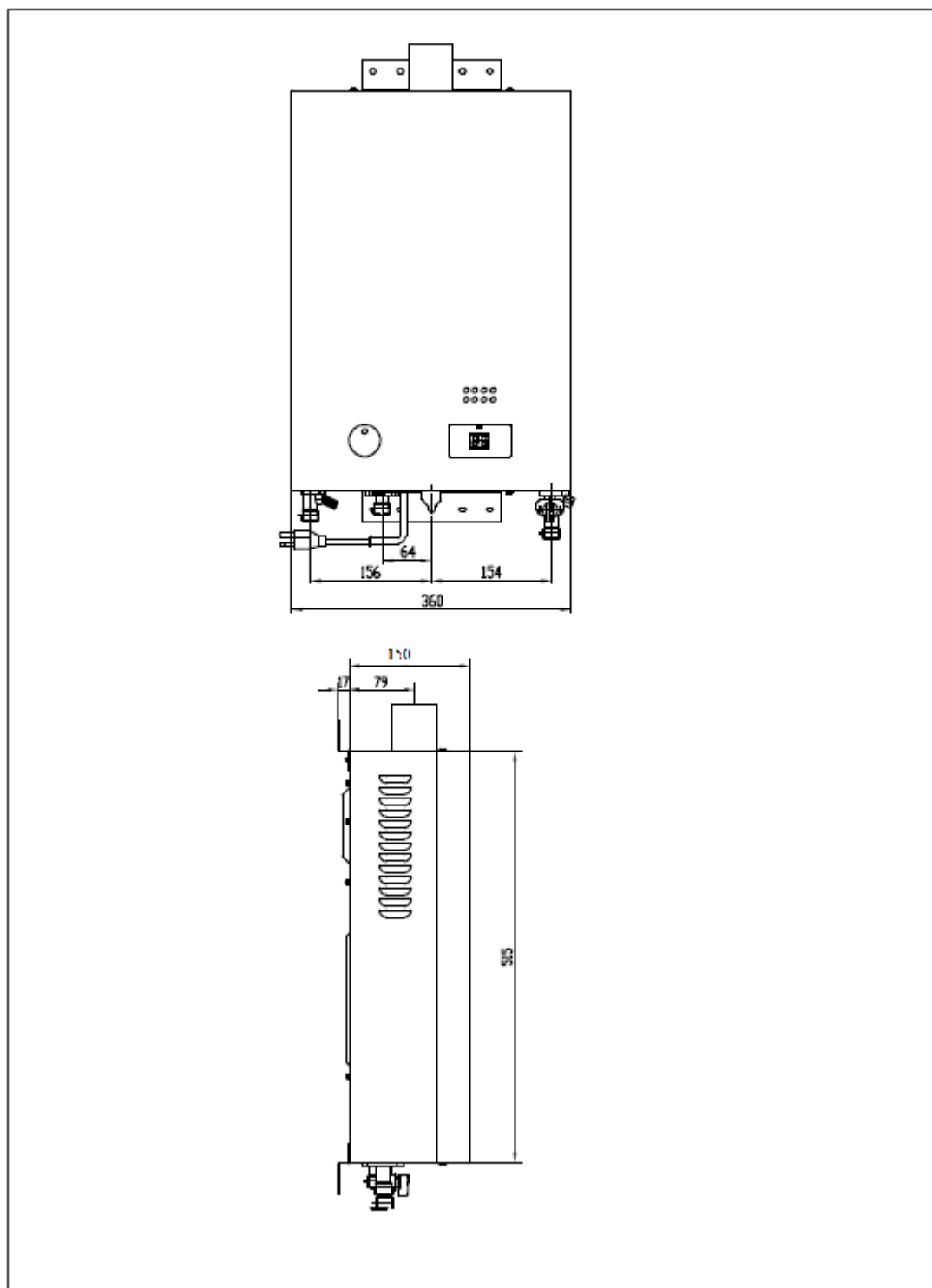
### Parts Name



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## ***General Character***

### **External dimensions illustration**





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## ***General Character***

### **Technical parameter**

<b>Name</b>		<b>Tankless Gas Water Heater</b>	
<b>Model</b>		<b>EZ PRIME</b>	
<b>Gas Type</b>		<b>NG</b>	<b>LPG</b>
<b>Rated Gas Pressure</b>		<b>8" WC</b>	<b>11" WC</b>
<b>Usable Water Pressure</b>		<b>3-100PSI</b>	
<b>Hot Water Supply</b>		<b>4.3GPM at 45F Rise</b>	
<b>Rated Heat Input</b>		<b>110,000 BTU/h</b>	
<b>Voltage</b>		<b>AC110V/60Hz</b>	
<b>Net/Gross Weight</b>		<b>9.5kg/11.5kg</b>	
<b>Dimension</b>		<b>515mm X 360mm X 150mm</b>	
<b>Pipe Size</b>	<b>Water Inlet Connection</b>	<b>1/2" NPT</b>	
	<b>Gas Inlet Connection</b>	<b>1/2" NPT</b>	
	<b>Water Outlet Connection</b>	<b>1/2" NPT</b>	
<b>Ignition Mode</b>		<b>Automatically Continuous Pulse Ignition Mode</b>	
<b>Exhausted Mode</b>		<b>Forced Exhausted Mode</b>	
<b>Safety Protection</b>		<b>Anti over-heat, anti flue blocked, over water pressure etc.</b>	

## General Installation Guidelines

### Installation

#### • Installation of the water heater body

##### \* The Height

Standard for the height of the heater is that the height of the flame inspection hole (flame peep window) should be horizontally at the level of your eyes.

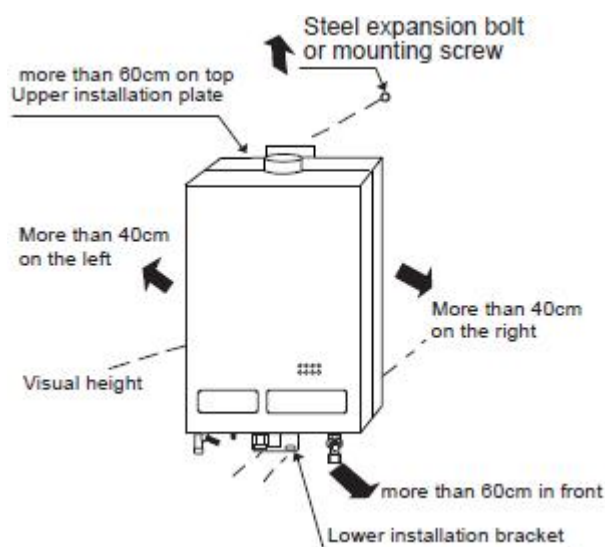
##### \* Mount the Heater Body

1. Fix the upper part of the heater with a steel expansion bolt or a mounting screw, then fix the heater with two mounting screws at the holes of the lower bracket.

2. If the wall for the mounting is of combustible material, insulation of fire resistance is needed between the wall and the heater. The thickness of the insulation should be not less than 10mm.

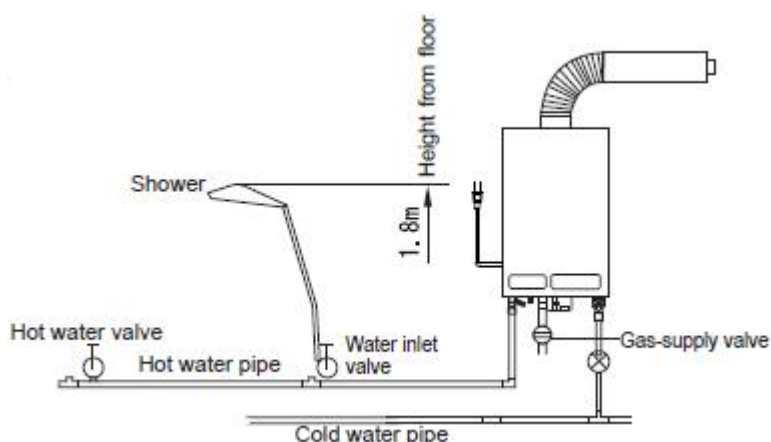
3. Spaces should be left between the roof/wall and the heater. (Refer to the diagram)

4. Two holes of 130cm for air inhale and exhaust discharge respectively are required for the room the heater is installed. The two holes should be separately in the vicinity of the floor and the roof and has access to outdoor. The holes should be far from exhaust discharge pipe to avoid countercurrent. When blinds are used for air inhale and exhaust discharge, the minimum space between the leafs should be not less than 8mm.



##### • Connect Water Pipes

The joints for connecting of water inlet and outlet is screw thread with diameter of 1/2" NPT. Refer to the diagram for the connecting.



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## General Installation Guidelines

### • Installation of the water inlet pipe

- Connect the metallic hose and seal washer enclosed with the heater and water supply pipe.
- A water inlet control valve is required to be connected with the water inlet pipe (the hose).
- To keep normal operation of the heater, it is required that the input water pressure is higher than rated input water pressure.

### • Connection of the hot water supply pipe

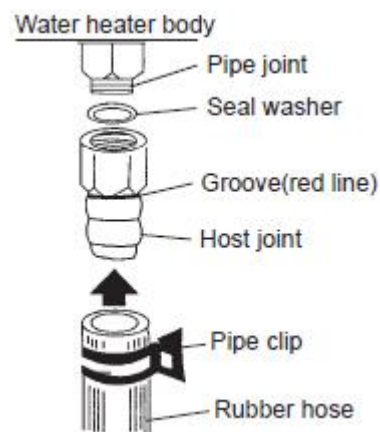
- Hot water supply pipe can use the flexible metal tube (as short as possible) for connection, or the rigid water pipe for direct connection. As shown in the drawing, if rigid water pipe is used as the hot water supply pipe, it had better be deoxidized copper pipe or stainless steel pipe.
- If hot water supply is needed over a long distance, then a control valve had better be installed on the hot water supply pipe.
- If the height for hot water valve is higher than that of the heater, another hot water valve has to be installed at a place lower than the heater to drain water remained in the pipe and to prevent freezing.
- Material of the hot water pipe should be high temperature resistant.
- The hot water pipe should be not too long to reduce heat loss and it is recommended that the sprayer with less pressure loss be used.

### • Installation of the gas supply pipe

The size of the joint connecting gas inlet of the heater and the hose is 1/2' NPT (screw thread).

#### \* Connect to LP gas cylinder

1. Connect the joint enclosed in the package to gas inlet of the heater (make sure the seal washer be installed); then connect the joint with specialized gas hose (rubber) of 9.55mm inner diameter as shown in the diagram.
2. Make sure proper gas pressure regulator is used (Standard gas pressure is 11"WC for LP gas, 8"WC for NG. Gas pressure regulator for commercial use is prohibited).
3. A gas valve should be installed at Gas Inlet. (Diameter of valve is more than 9.5mm)



#### \* Connect to pipe gas

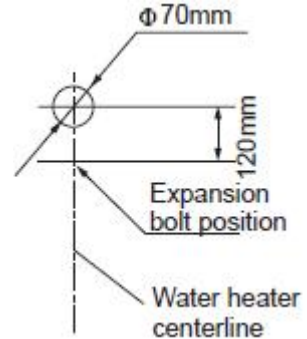
1. It is required that only specialized rubber gas hose or metallic pipe approved by gas supplier be used for the connecting.
2. A gas valve should be installed at Gas Inlet. (Diameter of valve is more than 9.5mm)

## General Installation Guidelines

### • Installation of the venting pipe

Only venting pipe and the accessories enclosed in the package is allowed to be used for venting.

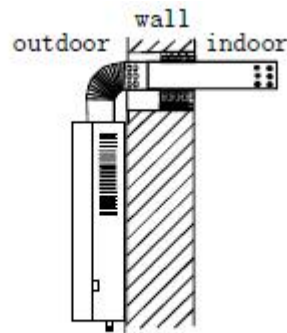
The diameter of the venting pipe is 90mm, the hole on the mounting wall for venting pipe should be at the place 120mm above from the place of expansion bolt for the mounting of the water heater. Diameter of the hole is 70mm. When the venting pipe is properly installed, seal the joint by sealed band. And the interface between the venting pipe and the mounting wall should be sealed with fire proof material or concrete material. Refer to the diagram for the installation.



### • Standard installation of the venting pipe



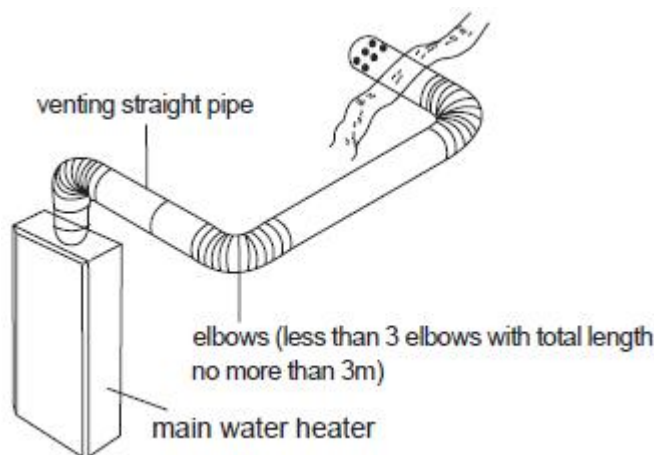
When venting pipe is sideward



When venting pipe is rearward

### • Installation of prolonged venting pipe

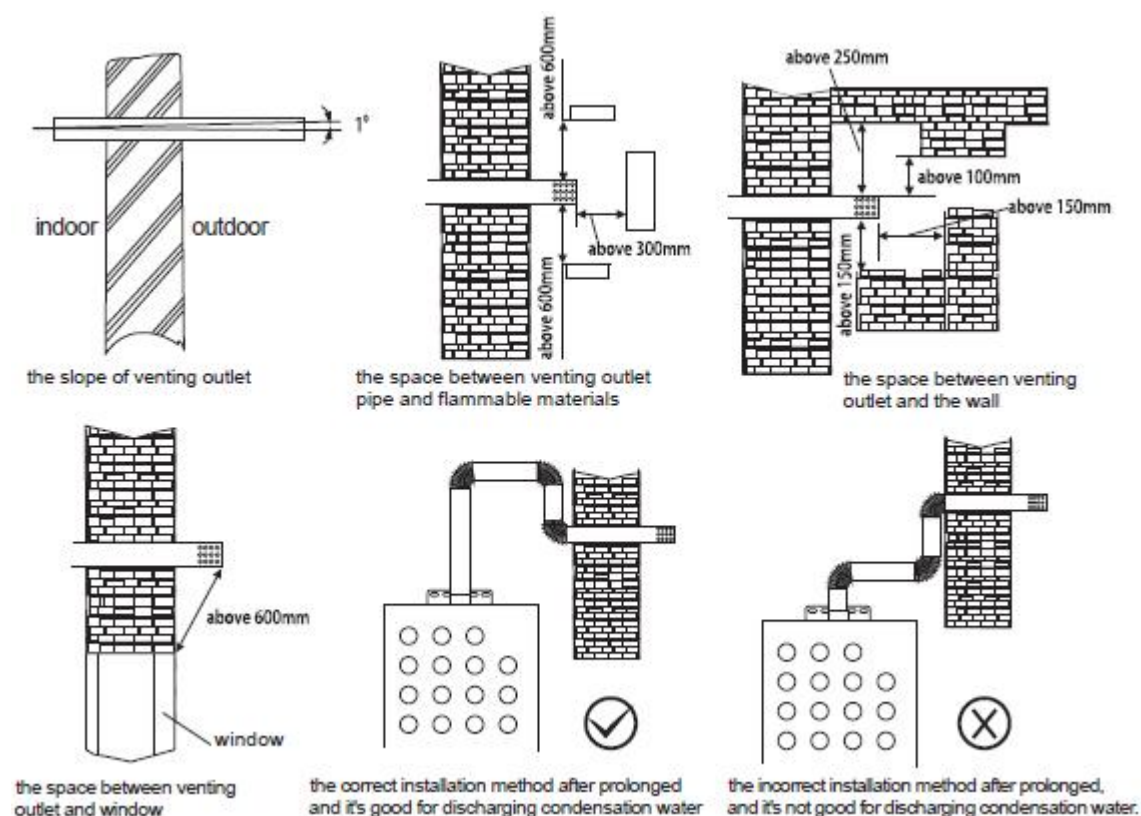
Extra accessories (elbow and straight pipe) of this installation should be purchased by user.



## General Installation Guidelines

### • Attention

- The flue pipe with the type or specification other than specified one shouldn't be mounted for the water heater, and the flue pipe shouldn't be modified by yourself.
- If it need to prolong the flue pipe, it also need to use the rigid pipe(device and specification as shown as drawing).The total of the straight pipe is no more than 3m, and the total of the elbows are no more than 3m.
- Venting outlet should be not point at venting tunnel or chimney of the building.
- A slope with a grade of 1 should be required for the installation of the venting pipe to discharge the condensation water.
- It should cover thickness of more than 20mm with heat insulation material when flue pipe crossing the flammable wall.
- The space is more than 55cm between flue pipe and the eaves of ceiling, flammable materials and furniture.
- You'd better not bury the flue pipe inside the ceiling, if you have to do so, you should wrap the pipe with fire retardant and insulation materials with the covering thickness of more than 20mm.
- The gas between the flue pipe and the hole should not be filled with something like cement, otherwise the repairing would become difficult.
- The space between the venting outlet and the wall of outdoor and installation precautions as the following drawing.



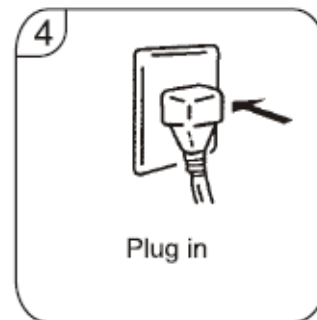
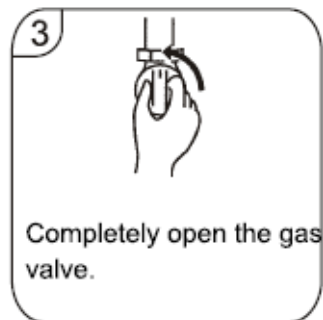
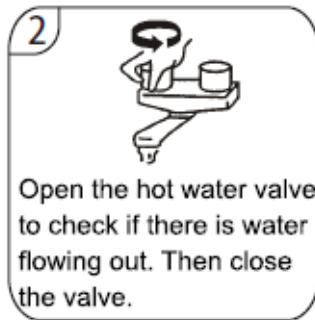
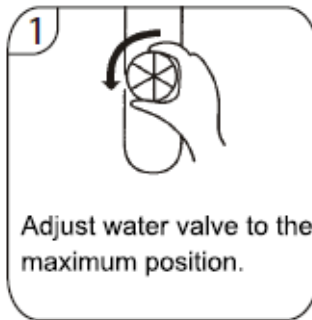
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## General Operation Guidelines

### Use Your Heater

#### ■ Preparation Before Ignition

##### Check water flow



1. Open both the cold and hot water valve, confirm cold water flows out from the hot water outlet and then close the outlet.
2. Open the gas valve.
3. Connect power supply.

#### ■ Ignition

Completely open hot water valve, the heater will ignite automatically and hot water will flow out.

##### Note:

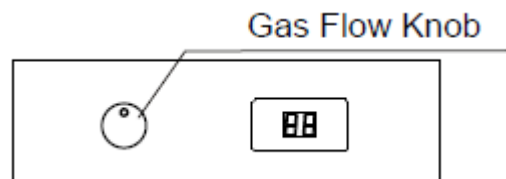
1. If the hot water valve is not completely opened, overheating or flameout will happen.
2. The heater will distinguish automatically if it keeps running for 20 minutes. In this case close the hot water valve and re-start.

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## General Operation Guidelines

### • Adjusting Water Temperature

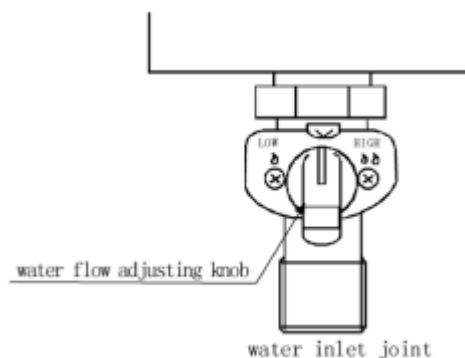
Rotating gas regulator to adjust water temperature by changing the gas flow.



Due to the maximal capability of the heater (16L water heater is rising temperature 25k/h, and the water output is 16/min), the following situation may cause the temperature of water supply can not meet the setting water temperature:

- (1) When the water inlet temperature is too high in summer, but requiring the temperature of water outlet is lower.
- (2) When the water inlet temperature is too low in winter, but requiring the temperature of water outlet is higher.

The above situation is compensation adjusting when the setting temperature exceeds the temperature which the adjusting is under the normal condition. It just needs one condition in a season, but not to adjust every time.





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## ***General Operation Guidelines***

### **Daily maintenance**

1. Check the gas supply pipe(rubber hose) regularly to see if it is in good condition, or there is aging or crack on the hose. Be sure to replace the old hose regularly. Please regularly use soap water to check the joints of hose to see if there is bubble, so as to find out if there is gas leakage on the joints. Be sure to stop the leakage if it is found.
2. Please regularly clean surface of water heater body to remove dirt or dust with wet cloth, and then use the dry cloth to wipe off moisture. For the dirt that is not easy to remove, please use neutral detergent to wipe off. For the plastic part, printing surfaces and spraying surfaces, it is not suitable to use strong detergent, benzene or gasoline to clean them.
3. Keep the each section of the exhaust pipe unblocked so as to ensure the smooth discharge of exhaust gas.
4. When the hard water is used, it is easy to form the scale. The scale can reduce the heat efficiency, increase the resistance for flowing water and decrease the performance of the heater. In order to reduce the scale, you can operate the water heater according to the following method: after using the water heater, switch off the gas valve and let all the hot water flow out of water heater, and as the cold water flows out of the water heater, you can switch off the water inlet valve.



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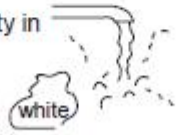
## ***Trouble Shooting***

### **Trouble shooting**

The following are normal condition and can't be regarded as troubles.

- The white flue is discharged out from venting pipe: when the temperature of outdoor is low, the vapor in the discharged flue is the state of white smoke, but not trouble.
- After stopping water output, the fan won't stop immediately: in order to let the inside of water heater cool down and make the waste gas to be discharged completely, the fan of water heater needs to operate a while after stopping providing water. This condition won't belong to trouble.
- When the water flow crossing the heater is less and the flow is below 3L/min, the main burner can't be ignited (or flame-out), which belongs to the normal condition. It's just to increase the water flow.
- The water heater is set the timer equipment, it will stop operating automatically after using about 30 minutes, and the display shows HE, which belongs to the normal condition.

## Trouble Shooting

Symptom	Cause
The combustion display is not light	<ul style="list-style-type: none"> <li>the power failure</li> <li>not put the mains plug into socket</li> <li>the gas runs out or not enough</li> <li>flue pipe is blocked(clean the blockage) and the wind pressure is more</li> <li>there is air inside the gas pipe(turn on/off the water heater several times)</li> <li>the inside trouble(contact the service department)</li> </ul>
Turn on the hot water supply switch, but not to flow out hot water 	<ul style="list-style-type: none"> <li>the water supply switch can't be turned on completely (if the water flow is less, the fire will be off)</li> <li>the water supply tap can't be turned on completely</li> <li>use the water heater the first time</li> <li>freezing</li> <li>water can't be supplied or the power failure</li> <li>the distance between the water heater and water tap is long, it need some time to flow out hot water</li> <li>gas runs out or no enough</li> </ul>
The temperature of the water output isn't high 	<ul style="list-style-type: none"> <li>improperly adjust the temperature of hot water</li> <li>turn on the water supply tap completely, and the water flow is much more(turn down the water tap and water flow)</li> <li>turn on the gas valve incompletely (the setting temperature isn't high enough)</li> </ul>
The temperature of the water output is too high 	<ul style="list-style-type: none"> <li>turn down the water flow when the temperature is high. It will result in making the temperature become higher.(Continue to adjust the water supply tap, and make the more water flow out. The temperature of the hot water will get down)</li> <li>improperly adjust the temperature of hot water</li> <li>turn on the water switch supply incompletely (increase the water tap flow)</li> </ul>
The water becomes cold when using 	<ul style="list-style-type: none"> <li>gas valve is turned on incompletely</li> <li>the water supply switch is turned on incompletely</li> <li>the power failure</li> <li>turn on the hot water supply incompletely(the flame will be off if the water flow is less)</li> <li>the gas runs out or not enough</li> </ul>
Often drip water at the safety valve	<ul style="list-style-type: none"> <li>when the water heater is in high pressure status, the safety valves operates. It often drip water from the water outlet. The hose can be used to discharge the water to other place.</li> </ul>
White turbidity in hot water 	<ul style="list-style-type: none"> <li>the air into the water is heating, as the pressure is released in a very short time, and there are a lot of small bubbles in the water.</li> <li>it's similar to the phenomenon like the beer, fizzwater, etc, which release some bubbles is different from the white turbid that is no harm. This situation is in normal.</li> </ul>
white flue from the venting pipe	<ul style="list-style-type: none"> <li>when the outdoor temperature is low, the vapor which is discharged out seems white, and it doesn't belong to trouble.</li> </ul>

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## ***Trouble Shooting***

Error Code	
Display	Cause
E1	flame-out during using or ignition failure
E2	wind pressure is abnormal or fan failure
E3	thermostat or valve failure
E4	temperature senser failure
E5	over-heat failure
E6	pseudo-fire or fire residue

When the water heater is in trouble or operation is improper, the heater will stop operating automatically, and the display shows the trouble sign. At the moment, switch off the water outlet valve, then switch on it, or adjust the switch on the main control plate to "off", then adjust the switch to "on", so the water heater can be operated again. If it still has trouble display (or non-display) when operating the heater again, please switch off the gas and the mains socket, then contact the service center.

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## **CONTACT US**

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