

DOMESTIC GAS INSTANTANEOUS WATER HEATER

(Flue type)

OPERATING INSTRUCTION

Whatpowercrisis.com

Continuous Flow Water Heater

Model: GWC-12L GWC-16L

Gas Types: Natural Gas LPG

Gas Supply Pressures GWC-12L

Nat gas 1.5 kPa, 1.7 kPa (max) 1.2 kPa (min)

LPG 2.75 kPa, 3.5 kPa (max), 2 kPa (min)

Gas Supply Pressures GWC-16L

Nat gas 2 kPa, 2.3 kPa (max) 1.5 kPa (min)

LPG 2.75 kPa, 3.5kPa (max) 2 kPa (min)

Gas Input rates:

GWC-12L 87 MJ/h

GWC-16L 115 MJ/h

WHATPOWERCRISIS
COM

ALTERNATE POWER SOLUTIONS Ph 0508 942 876

ISO9001 Quality Management System Certified

Dear user:

Thank you for your support and trust to us. We appreciate your choosing our Domestic gas instantaneous water heater. This product is in conformity to the national standard GB6932-2001, ' Domestic gas instantaneous water heater.' Its installation conforms to the national standard CJJ12-1999, and safety conforms to National standard GB17905-1999.

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Special caution:

The water heater must be installed in a area with good ventilation condition.

Keep the room well ventilated when use the water heater .

Qualified gas regulator musbe be used.

Service

According to national standard GB17905-1999, water heaters for Manufactured Gas are with designed life of 6 years and those for LPG or natural gas are of 8 years. When found problems during use, please follow the “general trouble-shooting” step by step. We provide one year warranty to the products but do not take any responsibility for accidents caused by improper use. No advance notification will be issued for model update due to rapid improvement.

Our company will serve you with all-out effort!

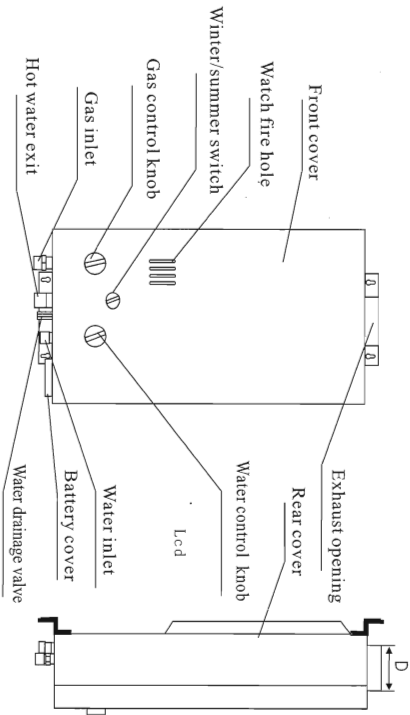
Features and characteristics

This type domestic quick gas water heater can use LPG, NG and Manufactured gas. You can get hot water simply by opening the gas valve and water valve. It's suitable for bath, shower and other purpose. It has built-in multi-purpose protection device:

- 1) Flameout protection
It adopted the most advanced IC ion sensor. When unexpected flameout occurs, the sensor will cut off the gas in 5 seconds to prevent gas leakage and ensure safety.
- 2) Water-gas linkage safety device
It featured with built-in water-gas linkage safety device. The linkage of water and gas operations ensures the safety.
- 3) Anti-blast device
The twin pin high voltage pulse ignition device can effectively prevent the flame blast.
- 4) Water regulating device
The water regulating device guarantees the stable temperature of water output under fluctuated pressure of water supply.
- 5) Ultra low pressure start up
The built-in ultra low pressure start up device makes it suitable for users living in high rise apartment that suffering low water pressure.
- 6) Anti-freezing device
The water heater has its safety valve for inside water discharge to prevent from damage caused by icing.
- 7) Over pressure protection
The over pressure protection device will automatically drain the water to lower the pressure and protect the water heater from damage when water pressure exceeding 0.8MPa.
- 8) Over heating protection
The thermo stad will cut off the gas when water temperature is too high, this eliminated the possibility of dry burning.
- 9) Back wind protection
The back wind protection device can effectively prevent the back flow of the wind, and ensures normal combustion.

Profile, structure and Parts description:

1) Mode JSD12-6A1

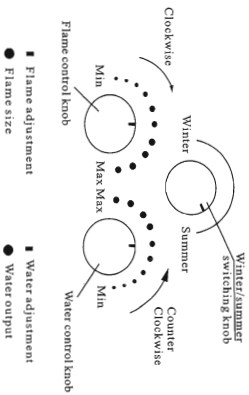


- 7) Using batteries of metal encapsulation. Normally the batteries should be replaced once half year.
 - 8) Clean the surface of water heater with clean cloth . Don't use chemical detergent or solvent.
 - 9) It's prohibited to keep using malfunctioned water heater. It should be treated timely when found malfunction (see 'general trouble -shooting section')
 - 10) After used for half a year, the water heater should be cleaned and inspected by professionals or service department.
 - 11) Water heater using manufactured gas may fail in the first time ignition due to low gas pressure. Turn it off and try again.
 - 12) In cold winter, remember to drain the water inside after use.
 - 13) If cold water to be mixed with hot water at the hot water exit , make sure cold water pressure is not too high ,or there would be flame out.
 - 14) After installation the water heater can be used only after the inspection and certification
- **General Trouble -shooting :**

| Symptom | Flame out during use | Ignition failure | Yellow flame with black smoke | Abnormal flame with peculiar smell | Abnormal noise when combustion | Water not hot at Temp high position | Water too hot at Temp low position | Flame out at Temp low position | Flame not out when Turn off hot water valve | Water output failure | Solution |
|---|----------------------|------------------|-------------------------------|------------------------------------|--------------------------------|-------------------------------------|------------------------------------|--------------------------------|---|----------------------|---|
| Gas valve not open or Gas out | ● | | | | | | | | | | Open the gas valve or reset the gas valve |
| Gas valve not fully open | | | | | | ● | | | | | Completely open the gas valve |
| Air in gas tube | | ● | | ● | | | | | | | Repeat the start process till water heater ignited |
| Gas pressure High | ● | ● | | ● | | | | | | | Check gas tubes and adjust gas regulator |
| Gas pressure Low | ● | ● | | | | ● | | | | | Fully open the water valve |
| Water valve not open | ● | ● | | | | | | | | | Check water supply system |
| Water pressure low | ● | ● | | | | | | ● | | | Improve ventilation condition |
| Fresh air not sufficient | | | ● | | | | | | | | Re-start water heater after the operating condition resumed |
| Safety protection device Triggered | ● | ● | | | | | | | | | Replace the batteries |
| Low battery | ● | ● | | | | | | | | | Clean the burner |
| Burner blocked | | | ● | ● | ● | | | | | | Clean the heat exchanger |
| Heat exchanger blocked | ● | | ● | ● | ● | | | | | | Repair |
| Water-gas linkage valve malfunction | | ● | | | | ● | | | ● | | Repair |
| Control system fault | ● | ● | | | | | | | | ● | Change sensor and filter, clean mixed water |
| Sprayer, filter blocked, mixed water used | ● | ● | | | | | | ● | | | Use until wind moderated |
| Strong wind out side | ● | ● | | | | | | | | | |

Note: ○ user dealt with △ Dealt with by service department or professionals

- 3) Water heater: Temperature are adjusted by the combination of water and flame control knob adjustment. Adjust the left side knob for different flame size and the right side knob for different water output. When turning clockwise the gas and water control knobs, the water temperature will rise as gas consumption increased and water output decreased. When turning counter-clockwise the gas and water control knobs, the water temperature will fall as the gas consumption decreased and water output increased. (see right fig)



Right fig

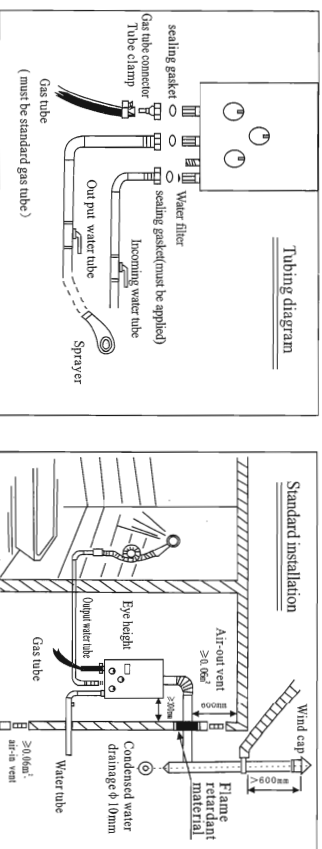
- 4) Winter/summer type of quick gas water heater has a winter/ summer switch knob ; In summer, turn it to summer position. In winter, turn it to winter position.
- **Temporary shut down:**
When hot water temporarily not needed during use, just turn off the hot water valve. When hot water needed again, turn on the hot water valve again. Be careful that the water temperature may be too high at the moment the water flow resumes.
 - **Stop use**
After using, shut off the water and gas supply and unplugging the power supply; turn off the hot water valve. Drain the water inside through water drainage valve if its in cold winter or the water heater suppo not to be used for quite a while.
 - **Caution**
 - 1) Make sure gas used is identical to the type specified on the brand plate. It's prohibited to use non-conformed gas type.
 - 2) After use , cut off the gas and water supply . Turn off the main gas switch for long term no use .
 - 3) Regularly check the connections for leakage. When gas leakage found, don't light any flame or turn on/off any electric appliances. Turn off the gas , open all doors and windows to air the room out , contact the professional department for repair.
 - 4) Never leave the water heater on when going out or to sleep.
 - 5) It's prohibited to put inflammables near the water heater or block the exhaust tube with towels or clothes.
 - 6) Water heater should be installed in the area with good ventilation condition. The room should be well ventilated when using water heater to avoid CO toxicosis.

Technical parameters:

| Description | | Domestic gas instantaneous water heater | | | | | |
|-------------------------|--|---|---------------------|------------|------------|------------|--|
| Model | JSD12-6A1 | JSD16-8A1 | JSD20-10A1 | JSD24-12A1 | JSD28-14A1 | JSD32-16A1 | |
| Gas type | Y: LPG | T: NG | R: Manufactured Gas | | | | |
| Rated gas pressure | Y:2800 Pa | T:2000 Pa | R:1000 Pa | | | | |
| Rated heat input | 12KW | 16KW | 20KW | 24KW | 28KW | 32KW | |
| Outputrate (Δt=25℃) | 6L/min | 8L/min | 10L/min | 12L/min | 14L/min | 16L/min | |
| Scope of water pressure | 0.02~1.0MPa | | | | | | |
| Exhaust mode | Flue type | | | | | | |
| Connection specs | Φ9.5mm(G·D·J)oil-proof rubber tube or G1/2(some Manufactured Gas type need G3/4) | | | | | | |
| Gas inlet | G1/2 | | | | | | |
| Water inlet | G1/2 | | | | | | |
| Hot water exit | G1/2 | | | | | | |

Installation method and requirement

Water heater must be installed in a location out of the bathroom where well ventilated. It's prohibited to install natural discharge type water heater in a room with poor ventilation condition. User should apply for an approval from local gas administrative institution before installation, and the installation must also be approved by local civil administrative department. Installation, installation should only be carried out by trained professionals who have obtained the certificate or licence from the local gas administrative institution.



● Installation height :

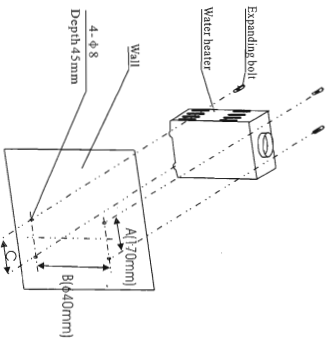
Installation height should be like this: Horizontally the height of peephole in line with human eyes.
(About 1400-1600mm).

● Installation distance:

The exhaust opening should be at least 600mm away from the ceiling and 300mm from the side walls. The wall for mounting should be of non-flammable material. If the wall is made of flammable material, heat insulation board should be used. And there should be at least a 10mm distance between the wall and the heat insulation board.

● Hanging installation:

- 1) Drill holes to the proper location on the wall and fix the expanding bolts in. Hang the water heater on to the bolts and fasten with nuts.
- 2) Installation fig :



- 3) If the room or the linked room is installed with steam exhauster, fans or other ventilators, keep in mind to turn them off when using water heater.
- 4) The following room or location are not allowed to install water heater:
(A)Bedroom, basement or living room (B)athroom (C)stairs or location within 5 meters from the safety exit (D) cupboard
- 5) No inflammables, explosives or corrosives should be put to the area of installation.
- 6) There should not be electric wire, equipment or gas tube above the water heater or gas cooker, stove, etc. Under the water heater.
- 7) Hanging installation should make the water heater set vertically without slope.

● Tubing:

- 1) Water tube, gas tube or hot water tube can be either steel tube or rubber tube. The water supply tube should withstand high pressure, hot water tube should withstand high temperature, and gas tube should be oil-proof,anti corrosion, and not more than 2 meters long.
- 2) Sealing gasket must be applied to the connection (see the fig of tubing)
- 3) Switch valves should be installed on gas supply and water supply tubes to make it convenient for installation or repair.
- 4) Make sure the tube is clean and without foreign materials inside when tubing, to prevent from blockage.

● Put on battery

Put 2 pieces of 1.5V, size 1 battery into the battery box. Make sure the polarity is correct. Close the battery cover.

● Exhaust tube installation

- 1) **⚠** Flue type quick gas water heater must be installed with exhaust tube.
This type of water heater has an exhaust opening on top of it for user to put on a self made or bought exhaust tube to discharge smoke.
- 2) Exhaust tube must be made of anti-corrosion, thin metal sheet, and the minimum thickness is 0.3mm.
- 3) Maximum number of bending joints to be installed for one water heater is 4. The horizontal part of the exhaust tubes should be as short as possible and the joints well secured. The tube should be at least 150mm away from flammable things. The vertical part of the tube above the exhaust opening of the water heater should be as long as possible, with a minimum length of 250mm.
- 4) At the far end of the exhaust tube, wind cap should be installed against wind, rain or snow.
- 5) The exhaust tube must be able to withstand self weight, wind pressure, accumulated snow and vibration. Connection should be secure, without leakage and easy to connect.
- 6) Flue type gas water heater should have its exhaust tube away from the front side of the building, and the far end of the exhaust tube should at least 600mm above the roof.
- 7) Inspection: After installation, check the connection of gas tubes with detergent for leakage. Use the water heater only when leakage free and passed the inspection by local gas administrative institution.

● Usage

● Preparation:

- 1) Open the main gas switch.
- 2) Open the water supply valve.

● Operation :

- 1) Open the hot water valve, the water heater ignites, the burner lit and hot water outputted.
- 2) If it's the first time use or after a long time without use, it may need more trials to discharge the air in gas tube. If the first trial failed, close and re open the hot water valve of a second trial of ignition.