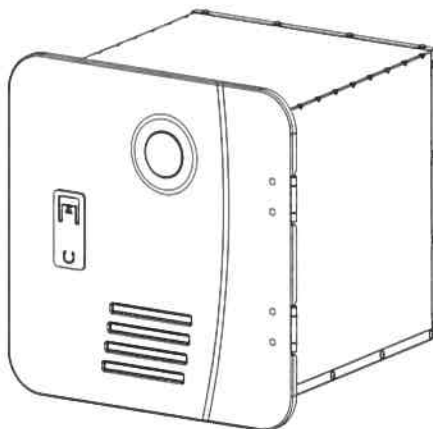


FOGATTI

Instruction Manual

RV Instantaneous Gas Water Heater



Intertek
5012140



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

Respected user:

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

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The water heater is simple and convenient to operate. The microcomputer intelligent control system controls the whole process of the water heater. Press the key to start the water heater and set the required temperature. After the microcomputer intelligent control system detects the qualified water flow, it starts the ignition of the ignition device. After that, the gas valve is turned on to turn on the gas burner, and then the user can enjoy a steady stream of constant temperature hot water. Microcomputer automatic detects entire process, safe and reliable. In case of failure, the microcomputer system will automatically shut down the gas to prevent accidents. The water heater is a forced exhaust structure. After the water heater is turned on, the air outside will pass through the air intake grille, enter the combustion chamber after the dust-proof net, and the flue gas or air mixture is discharged to outdoor automatically and safely.

1. Digital constant temperature system: microcomputer control system, which constitutes the "computer" of the whole machine, which controls the water, electricity, and gas of the water heater in a coordinated manner, and does not cause the temperature of the water temperature to fluctuate to satisfy the user's comfort.

2. Low water pressure startup: low water pressure at startup and easier to use.

3. Flameout protection: When the water heater accidentally flames out during use, it can automatically cut off the gas to ensure that the gas will not leak.

4. Speed changing and wind resistance function: When there is a blockage of the flue or the smoke is blocked, the built-in microcomputer system will increase the running 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 for effectively safeguards 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.

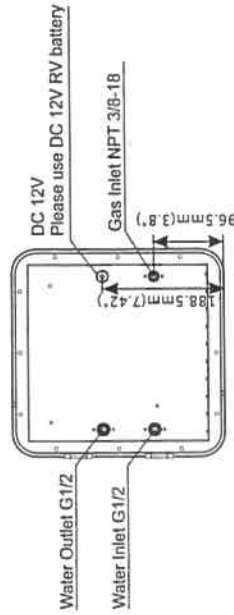
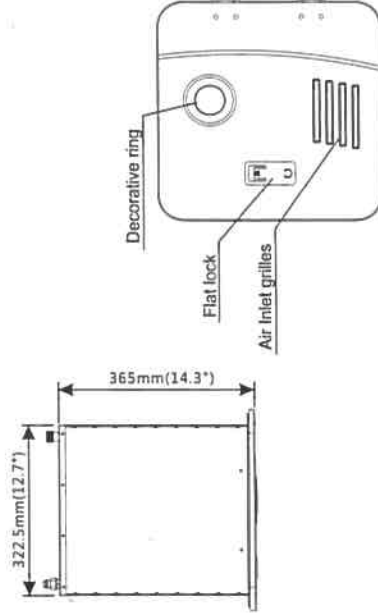
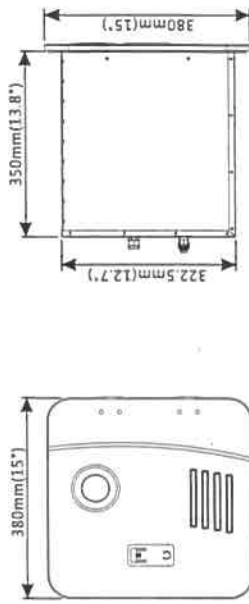
6. Outlet water temperature display: with outlet water temperature display.

7. Frost protection function: When the temperature of the water pipe in the water heater is lower than $6\pm1^{\circ}\text{C}$ ($43^{\circ}\text{F}\pm2^{\circ}\text{F}$), the line controller will display "Fd" character, the machine will start ignition and run with a certain load, the water heater will automatically shut down or 2S after the whole machine runs for 5S. When the water temperature in working water heater reaches $32\pm1^{\circ}\text{C}$ ($90^{\circ}\text{F}\pm2^{\circ}\text{F}$), it will shut down automatically.

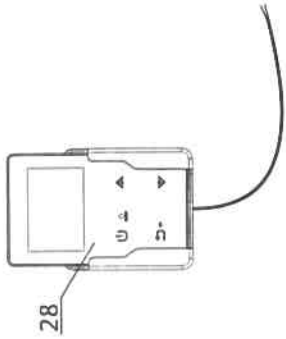
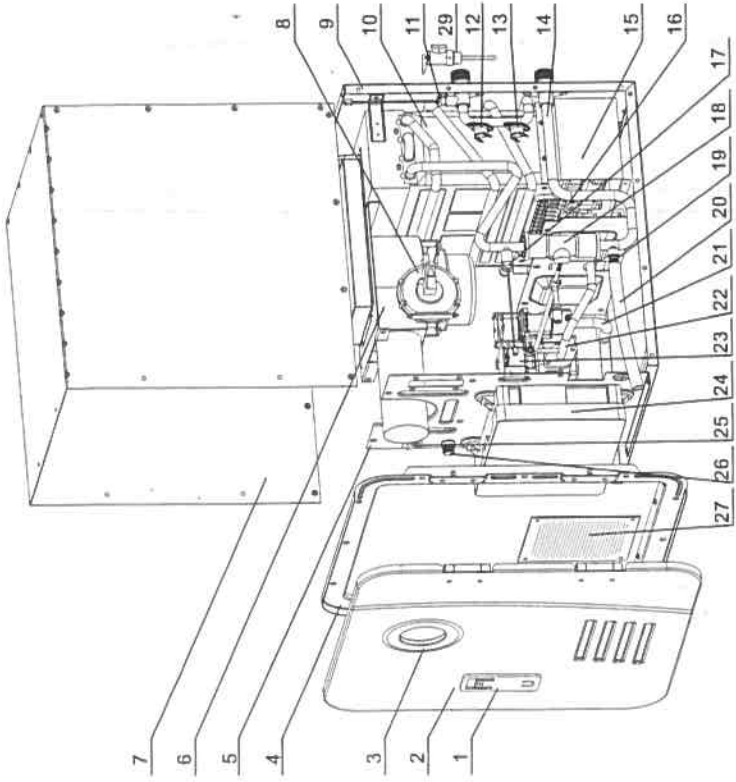
● After shutdown, wait for 3 minutes self-testing. When the temperature is lower than $6\pm1^{\circ}\text{C}$ ($43^{\circ}\text{F}\pm2^{\circ}\text{F}$) or antifreeze thermostat control stops working, it will start to run again.

● In the process of starting the antifreeze function, when 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 still met, the antifreeze will automatically start again.

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



Main Parts Name



3

NO.	Name	NO.	Name
1	Flat Lock	16	Ignition Pin
2	Front Panel	17	Water Inlet Temp. Probe
3	Decorative Ring	18	Water Flow Sensor
4	Blind Flange	19	Drainage Screw
5	Fixing Plate	20	Drain Pipe
6	Fan Volute	21	Gas Inlet Assembly
7	Housing Upper Hoarding	22	Connecting Pipe for Burner and Valve
8	Wind Pressure Switch	23	Gas Proportional Valve
9	Housing Nether Hoarding	24	Controller
10	Heat Exchanger	25	ON/OFF Switch
11	Water Outlet Temp Probe	26	Fuse Box
12	Thermostat	27	Anti-dust Mesh
13	Anti-freezing Thermostat	28	Wire Controller
14	Water Inlet Pipe	29	Pressure Relief Valve(for Canada)
15	Burner		

4

Safety Warnings And Operational Safety Guidelines



Please observe the safety warning information and operating safety instructions in this manual to avoid possible injury or death. In case failure to comply with these warnings and safety guidelines can result in fire, explosion, and even death.

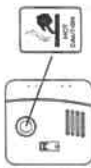
1. RV instant gas water heaters are forbidden to be installed indoors, please only installed it in recreational vehicles (RVs). RV is a tourist caravan, with its own power supply, it is a leisure and camping temporary living area. The RV can drive by itself or be towed by another vehicle.



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



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



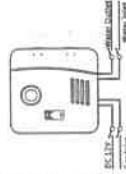
4. In the shower or bath, in order to prevent scalding, you should firstly test the water temperature by hand, and then use it after confirming it is suitable for shower.



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



6. When the water heater is not used for a long time, in order to prevent hydro block of the water heater from freezing and leaking, it shall be drained, and turn off the water inlet valve, turn off the gas as well as the power supply. When the environment temperature is lower than 0°C, it must be evacuate the water in the water heater, or turn on the power supply and open the gas valve to start anti-freezing function, to make a well 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. Please regularly check if the exhaust venting pipe and air intake port have any blockage, accumulation of snow, ice, or dirt. Make sure the water heater can suck in clean air and the exhaust gas produced by combustion can be discharged smoothly.

8. Water heaters are used only for the supply of hot water and cannot be used for other purposes to prevent accidents.
9. 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 be power supply complying with class 2 safety-isolated. Please use a qualified power supply to avoid damage to the water heater.
10. Do not modify the positive grounding system of the water heater.
11. Do not test the water heater with high voltage power unless the water heater power switch is turned off.
12. Do not use a water heater while the vehicle is in motion. Do not use the water heater while the vehicle is refueling, and turn off the water heater.
13. Pay attention to protect the surrounding buildings when the smoke is discharged.
14. Do not connect the water heater to the exhaust system of other appliances.
15. Make sure the bottom of the water heater is installed parallel to the horizontal plane. When using a water heater, choose a flat place to park the vehicle.
16. Do not use accessories other than ours.



- Evacuate all personnel to leave the vehicle.
- Turn off the gas supply.
- Do not use any electric appliance or telephone on 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 air supply until the gas leak is repaired.

Prohibit use cases:

- Do not use in a watery environment.
- It is prohibited for indoor heating.
- It is prohibited to use in mobile homes.
- It is prohibited to use in food trucks or roadside food carts.
- It is prohibited to use in construction trailers.
- It is prohibited to heat pool water.

Installation Instructions

WARNING

- This product is not suitable for DIY installation.
- Installation and maintenance must be installed by professional person, service company or gas water heater suppliers.
- Improper installation, commissioning, alteration or maintenance will 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.

WARNING

- Any parts removed from this model, please keep them in places where children cannot reach them, so as to avoid personal injury.

• The installation must conform to one or more of the following, 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 shutoff 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 following:

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

WARNING

• The following instructions are applicable to the Fogatti RV gas water heater. If you have any other questions about a particular installation or application, please consult to our company or the company authorized by our company for installation and maintenance services business.

- The water heater must be properly installed to ensure the air flow is free of air flow 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 the overhang structure or place. 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. If the condition is not allowed, you must limit the distance of the door to provide a minimum 6 inches gap between the water heater vent and the door when the door is opened.
- If the wall is not fire-proof, the 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 vinyl panel, due to the difference in the vinyl panel.
- Do not install at the position when the water heater venting pipe is less than 305mm(1 foot) from the door.
- The water heater should be installed at a higher level than 305mm(1 foot) above the ground.
- Do not install the water heater or other electrical appliances in the exhaust port facing an area covered with 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 uprightly, otherwise it will affect the normal use 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 is connected to the outlet pipe.
- Valve should be installed in gas pipe, inlet pipe and outlet pipe for easy maintenance and maintenance.
- The outlet of the water heater should be installed with the Pressure relief valve in accordance with ANSI Z21.22/CSA 4.4.
- Check the gas leakage and water leakage after installation, make sure there is no any gas and water leakage.
- The minimum distance from the smoke outlet to the flammable surface should be > 500mm (20 inches).
- The gas pressure range for the normal operation of the water heater is that the maximum inlet pressure cannot exceed 3.3 kPa (13" w.c.) and the minimum pressure cannot be lower than 1.99 kPa (8" w.c.). Out of range will not work normally.
- Forbid using this gas water heater in the altitudes up to 609.6m(2000ft).



WARNING

Sharp edges can cause cuts and injury!

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 on how to correct this situation. Do not plug the relief valve.

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



WARNING

● Before installing the water heater, a water mixing valve must be installed. At the rated setting, the equipment to provide water is not more than 50°C(122°F). When the water flow is small or high inlet water temperature, water heater will heat the water to the likely above 50°C(122°F) temperature. At this moment, please open the mixing valve to provide you with a comfortable shower temperature

● Pressure Relief Valve Specifications and Installation.

To prevent water heater water system damage caused by excessive pressure. At the water outlet of the water heater, it is necessary to install an appropriate pressure relief valve to protect the water system and user safety. The pressure relief valve complies with ANSI Z21.22/CSA 4.4.

● Pressure Selection

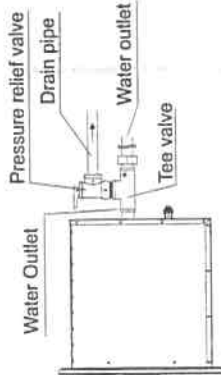
In the hot water system, the temperature rises continuously, and the volume of water expands. If the system is equipped with an expansion tank or a flexible connection bellows can absorb a part of the expansion amount, the expansion tank or the soft connection bellows cannot absorb the pressure relief valve needed to protect the pressure relief valve to protect. The entire system prevents breakage of pipes and other components, so the relief valve pressure setting is generally selected to be slightly less than the maximum pressure (Pmax) that the entire system can withstand. In addition, the pressure can not be the same as the normal operating pressure, too close to the normal operation of the pressure relief valve will frequently pressure relief, lower temperature and pressure relief valve service life.

● Temperature Information

In order to prevent the damage of the temperature probe or control system and cause the continuous heating of hot water to reach 100°C(212°F) vaporization, it is necessary to install a temperature and pressure safety valve, and the temperature and pressure valve temperature reaches 99°C(210°F) to relieve the pressure, thereby protecting the entire system. So the safety valve temperature is generally set to 99°C(210°F).

● Pressure relieve valve Installation and Attention

Model	Recommended pressure relief value / temperature
FS06B1	800kPa/99°C (210°F)



(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 G3/4 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

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

● The user must check the relief valve at least once a year. When checking, turn off the water heater's power supply and gas. Turn on the water inlet switch to create pressure in the water system. Then gently open relief valve handle until there is water out and then gently close, if there is no water out, indicating that the valve is invalid, this time should immediately turn off the water heater water switch and ask the service personnel to deal with. Before operating the handle, check the discharge line connecting the valve to ensure that the water drained from the valve can be drained to a suitable place.



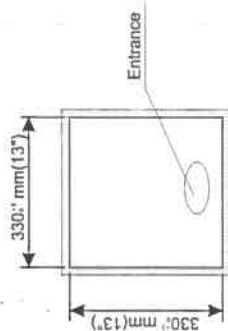
WARNING

● Do not check the safety valve when the water heater is in normal operation to avoid hot water burns.

● Installation Steps:

1. Select the installation location on the RV before installation. Do not install the water heater in the RV aisle. It should be installed on the exterior wall of the RV. The exhaust port should face outside the RV. RV hot water heater should be installed on a solid, non-combustible floor (other than wood flooring) or on a non-combustible frame. In order to install a water heater firmly, the unit's bottom should be supported by a non-combustible floor or frame. If the surrounding of the opening is a combustible material, use a flame-retardant insulating material such as heat-insulating felt or heat-insulating board to completely separate the back surface of the water heater from the combustible surface. And the minimum thickness of the filling material must be greater than 20mm(0.8"). The housing connection gap behind the water heater should be sealed with a high temperature

sealant during installation to isolate it from the inside of the RV. In this way, the burning air does not come from the inside of the RV, but from the outside of the RV. The exhaust gas generated by the combustion is discharged outside the vehicle. Cut a hole sizing 330x330mm(13"x13"). The opening depth should be sufficient to accommodate the gas pipe, wire, and water pipe when the water heater is pulled out of the hole. And at the bottom or back of the hole, please reserve gas inlet, inlet, outlet pipe, power line and other channel holes. Reserve extra gas pipe, wire, pipe length should be greater than the opening depth 1.5 times for maintenance and testing. The perimeter of the hole should ensure sufficient strength to fix the water heater (please refer to Picture 1).



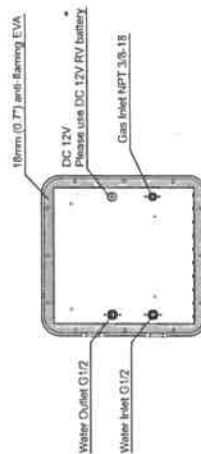
(Picture 1)

2. Correctly connect the G1/2 cold and hot water pipe to the back of the water heater. Correctly install the G3/8 liquefied gas pipe and the G3/8 air intake connector on the back of the water heater. Correctly connect the volt power cable to the power cable on the back of the water heater. Red is positive, black is negative; connect the line controller with the two blue lines on the back of the water heater, it is not necessary to divide the positive and negative poles; pay attention to the water pipe, trachea, and wires on the back of the water heater to leave enough length to put the water heater from the mounting hole. (Please refer to Picture 2)



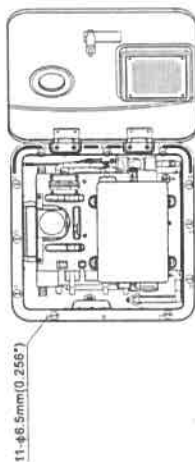
WARNING

This water heater is designed for RV users. The working voltage is DC 12V RV battery and the gas source is propane. Excessive force will damage the water heater's cold water and hot water connections. When installing the gas joint, tighten the joint with two wrenches to avoid damaging the water heater joint.



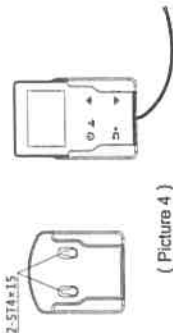
(Picture 2)

3. The water heater flange cover is glued with 18mm(0.7") wide single-sided adhesive EVA. The paste should be flat and connected seamlessly. (Be careful not to be too thick) Then press this product into the opened hole. Secure the water heater to the car body with 11 screws (M6 x 15mm) Air and water should be isolated from openings to prevent entry into the interior of the RV. (Please refer to Picture 3)



(Picture 3)

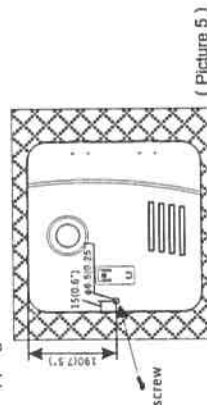
4. Choose a convenient location to place the remote controller. The connection between the line controller and the water heater should be reasonably laid out according to the specific environment. Use the two screws provided to secure the remote controller seat and place the remote controller in the controller seat. (Please refer to Picture 4)



(Picture 4)

• Tips

After finishing installation and adjusting on the RV, the door of the water heater should be screwed to prevent from being accidentally opened. As shown in Figure 5, please drill $\phi 6.5\text{mm}(0.25\text{'})$ in the water heater door lock position and fix the water heater door to the RV with a M6X25mm self-tapping screw.



(Picture 5)

Operation Instructions

The user confirms whether the water heater is installed correctly before the initial use, carefully check that the connections are properly connected and leak free. After confirming it, please follow the below steps:

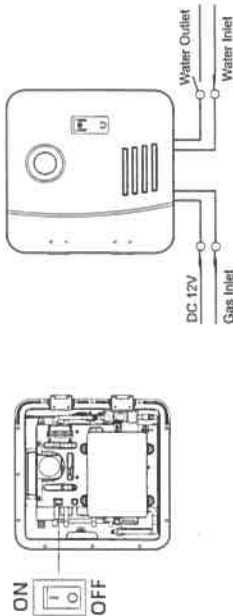
The steps for starting the unit :

1. Confirm that the power switch in the water heater is turned on;
2. After confirming the power is on, press the wire controller key "U" ;
3. Turn on the water inlet valve and gas valve;
4. Turn on the water outlet valve (hot water tap), the water heater is ignited, and hot water flows out.



WARNING

●Minors are not advised to operate the water heater by themselves unless they are accompanied by a guardian.



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Remote Controller Instructions:

1. The wire controller emits a buzzer sound "B.B.B" when the power is turned on. The display shows the gas source code, and this code will stay only for 3 seconds. The wire controller's indicator light is on and the back light of power switch button is on.
2. After pressing the power button, the fan, shower, flame and outlet temperatures are displayed in real time according to the operating status.
3. Set the temperature to be what you want, the setting temperature will flash for 5 times, then it will automatically switch to display the timely water temperature.
4. Press "C" to switch Celsius/Fahrenheit degrees.
5. In the event of a fault alarm, the display will change to display fault code;
6. The buzzer sound "B" occurs when the system is powered on or is operating effectively. When fault alarm occurs in the system, the buzzer sound "B, B, B" is issued for continuously 10 times, and every one second for each sound.
7. After finishing using the water heater, please press "U" to turn off the heater (water and gas should be turned off at the same time)

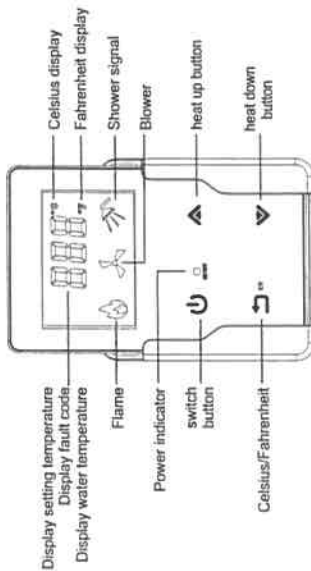
Steps Of Setting Water Temperature :

1. The setting range of the outlet water temperature of this machine is 35°C~51°C; Designed for operation at outlet water temperature(s) not in excess of 51°C (123°F).
2. Each time you press the "Δ" key, the temperature will rise by 1 °C, and the temperature rises by 1 °C every 0.25 seconds while you keep pressing this key continuously.
3. Each time you press the "▽" key, the temperature will drop by 1 °C and the temperature drops by 1 °C every 0.25 seconds while you keep pressing this key continuously.

Celsius Degree and Fahrenheit Degree Comparison (Please refer to Table 1)

35°C (95°F)
36°C (96°F)
37°C (98°F)
38°C (100°F)
39°C (102°F)
40°C (104°F)
41°C (105°F)
42°C (107°F)
43°C (109°F)
44°C (111°F)
45°C (113°F)
46°C (114°F)
47°C (116°F)
48°C (118°F)
49°C (120°F)
50°C (122°F)
51°C (123°F)

(Table 1)



FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.



WARNING

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■ Fault Judgment And Processing

Fault treatment: When the water heater fails, the display will show the fault code, and the buzzer will continuously issue alarms "B, B, B". Please follow the table below for the corresponding treatment.

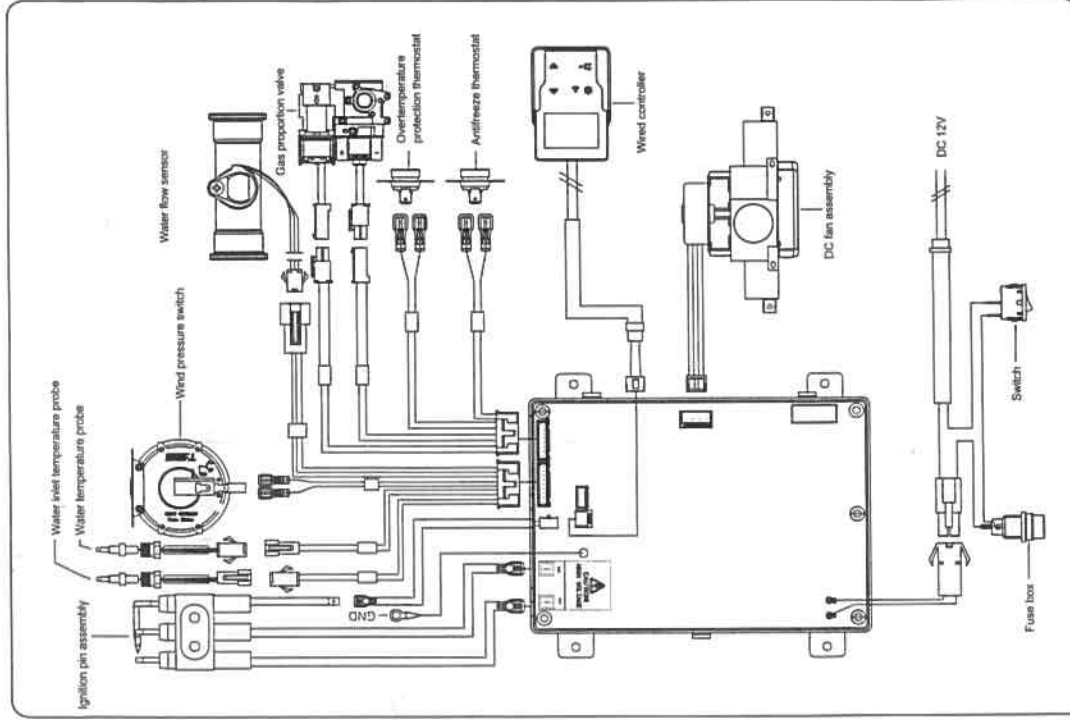
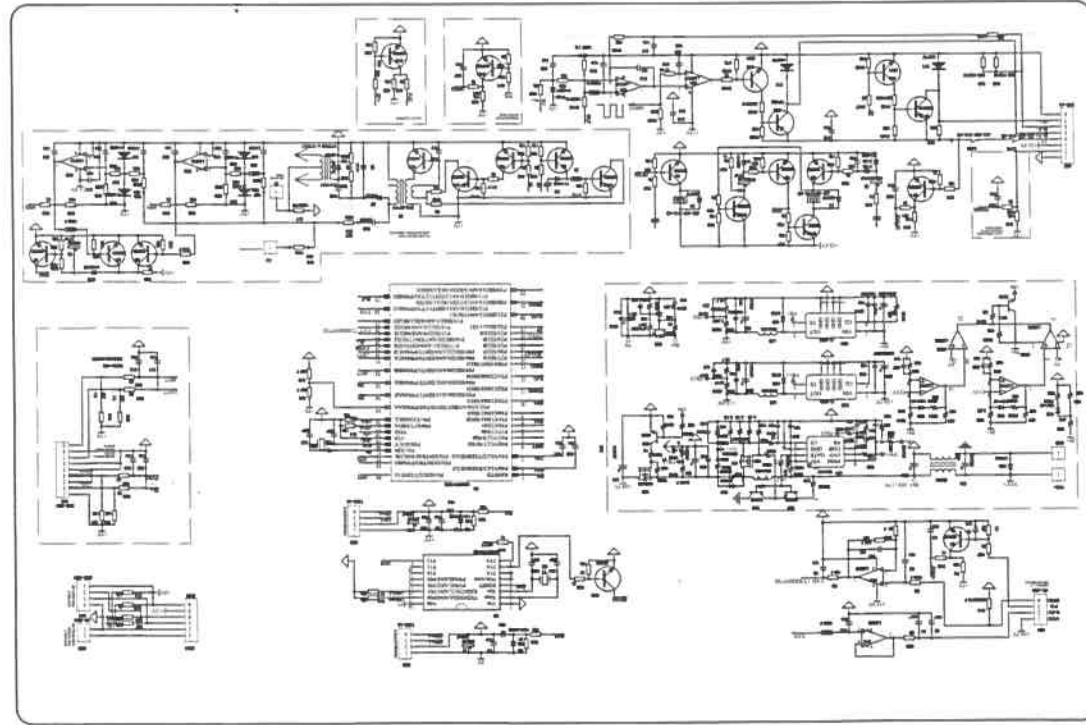
Error Code	Failure description and treatment
E0	The outlet temperature probe is open or shorted.
E1	Ignition failure, no ignition. Please check whether the gas is supplied normally and check it before use.
E2	Unexpected flameout failure, accidental flameout during work.
E3	The thermostat malfunctions, and the temperature control is detected during the start-up or water heater operation.
E4	The inlet temperature probe is faulty and the inlet temperature probe is open or shorted.
E5	Fan failure, no fan signal detected during start-up or water heater operation.
E6	Over-temperature fault. The display will show faulty code when the water temperature keeps continuous 3 seconds in more than 60°C(140°F). Please check if the water supply pressure is too low.
E7	Before normal combustion, the main valve opens or shorts; the proportional valve opens. In normal combustion, the main valve opens or shorts; the proportional valve opens.
E8	Wind pressure switch failure, when the power is turned on for 5 seconds, the wind pressure switch is closed or the wind pressure is continuously disconnected for 2 seconds.
E9	Pseudo-fire fault, when the start-up ignition detected a flame signal, buzzer alarm.
En	Water heater set timer time to ("nE" is set to open).
Fault alarm release and reset method: If the above code appears, please check that all moisture is normal, press the on/off switch or power off to restart. (when you start and or turn on the water, press the "on/off" switch within 15 minutes and then press the "on/off" switch 5 times (the fan starts for 5 times), the water heater will lock and cannot start. After the icon disappears or it waits for 15 minutes, it can be automatically unlocked (reset). The water heater returns to normal use. If the above operations cannot be returned to normal use, please inform the after-sales service personnel.	

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It is not a failure when the following conditions occur:

Phenomenon	Reason and handling method
White smoke at exhaust	When the outdoor temperature is too low, the exhausted smoke encounters outdoor cold air and condenses into a white mist.
Hot water is too small to turn into cold water heater.	If the hot water is too small to light the water heater, the water will become cold. A minimum water flow of 1 gallon per minute is required to ensure the stable operation of the water heater.
Winter failed to provide hot water	The water temperature is too low and the water flow exceeds the heating capacity of the water heater. Please adjust the amount of water appropriately.
After 20 minutes or 40 minutes, the water heater suddenly goes out	In order to prevent oxygen deprivation, some models have 20 or 40-minute timing protection. Please turn off the tap and use it after a while.
Close the hot water valve, but the fan cannot stop immediately	This is the function of delaying the shutdown of the fan, in order to completely discharge the exhaust gas of the water heater to ensure the safety of the user.
The hot water valve cannot open hot water immediately	From the water heater to the hot water valve there is a distance, because there are cold water left in the water pipe, it will take some time to complete the original cold water before the hot water. The farther the pipeline is, the more time it takes to wait.
After the machine is powered on, the remote controller does not respond	Open the door of the water heater door and make sure the switch inside the door is open and the fuse is intact. If the fuse blows, replace the fuse of the same size. (Fuse: 10A 125V)

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Maintenance

For your comfort and safety, we recommend to check and maintain the product monthly. Disconnect the power supply and allow the unit to cool down before perform maintenance. Do not disassemble gas passages and safety device during maintenance. The unit has some electronic components inside. Please do not open it to avoid contact with any type of liquid.

Daily inspection:

1. Check the air intake grille, exhaust vent for dust, avoid block.
2. Check the unit for unusual appearance.
3. Check the unit for noise during operation.
4. Check water and gas leakage.
5. Check the flame burning regularly every month. Observe that the flame, it should appear blue color through the observation window and the combustion is stable. No jitter, no lifted flame, no back draft, etc.. If anything abnormal, please contact the service provider to repair.
6. When carbon deposits are found, they should be promptly notified to the after-sales service provider for maintenance. The serviceman will remove the burner with the crater facing down, use a bristled brush to remove the coke, or replace the burner with a new one.

● Maintenance Instruction

1. Clean the unit regularly. Do not use chemical lotion and volatile solvents.
 2. To make it having a better performance, please clean the air intake grille, dust filter and exhaust port regularly. Not obstructing the flow of combustion and ventilation air.
To remove the air intake filter: open the panel, remove four thumbscrews. Clean with water.
 3. Turn off the water inlet, remove water inlet pipe, clean the filter and reinstall.
 4. Drain water from the RV regularly and flush the heat exchanger with an approved detergent. (Please refer to the RV vendor's instructions)
 5. Wipe the display with a damp cloth. Do not use gasoline or grease detergents to avoid shape changes.
- Keeping appliance area clear and free from combustible materials, gasoline, and other flammable vapors and liquids.
 - There is a hot water scald potential if the thermostat is set too high.
 - Should overheating occur or the gas supply fails to shut off, turn off the manual gas control valve to the appliance.
 - Caution: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

The way to set minimum heat load:

Method#1

1. Plug in electricity, it will show "O"
2. Press  for 3 second, it will show "pp"
3. Press  to show FA; Press  to show specifications: set the value to be 00. Press  to exit.
4. Press  to show PH; Press  to show PL. Then please turn on the gas and water. Then water heater will run in minimum heat load.
5. After testing above, press  to switch specifications like PL, dH, FH, FL.....till it shows "qu", then press  to save and exit setting.

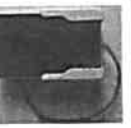
Method #2

Set the temperature on wired controller to be 35°C (95°F) , then if the water inlet temperature is high enough to make outlet water temperature higher than 35°C (95°F), it proves that the water heater is running in its minimum heat load.

Drain And Store Instruction

Here is the place to replace the spare parts:

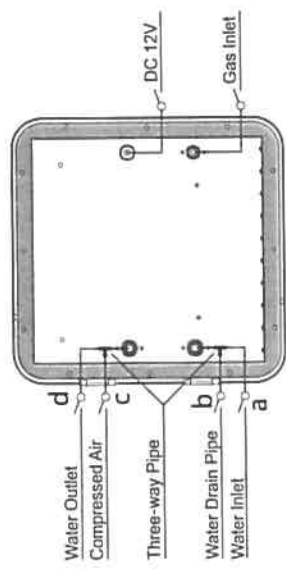
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Parts	Photo	Parts	Photo
Lock		Wind pressure switch	
Gas control valve		Water flow sensor	
Draught fan assembly		Inflow temperature probe	
Burner		Water temperature probe	
Ignition pin assembly		Overtemperature protection thermostat	
Gas inlet assembly		Antifreeze thermostat	
Water inlet assembly		Burner controller	
The connection pipe of burner and valve		Water inlet filter	
Wired controller			
FUSE(125V 10A)			

- Water must be drained to prevent freezing during winter.
1. As shown in picture 5, the water inlet connector is connected to the water outlet pipe with switch valve by a tee fitting. The water outlet connector is connected to the compressed air with switch valve using a tee fitting. Turn off water inlet A, open water outlet B before draining.
Turn water outlet D, open the compressed air valve C.
Compressed air blows water out of the drain. (Note: Turn off the power and gas valve before draining. Apply compressed air (less than 300kPa). Close the compressed air valve when the pipe is dry. Blowing water for a long time will cause damage to the internal parts of the water heater.)
 2. Turn off the power supply, air supply, and pump on the water system. Turn on the water outlet tap.
 3. Flush the entire water system according to RV manufacturer's instructions.
- Note: When the RV water system re-fills with water, starting the water heater after air is drained from the pipe.
- Note: Water must drain out of the RV through the pipe.

**WARNING**

No valve is to be placed between the relief valve and water heater. The discharge from temperature and pressure relief valves will be conducted to a suitable place for disposal when relief occurs and that no reducing coupling or other restriction be installed in the discharge line. In addition, the discharge line be installed to allow complete drainage of both the valve and line.



(picture 5)

Antifreeze System

Water heaters must be protected before travel to a possible freezing environment.

Frozen damaged is not covered by the warranty. The anti-freezing function operation method is:

1. Drain away water inside the water heater. Applicable when the unit is not in use for long period. (For specific operations, see "Drain and Store Instructions")
2. Add antifreeze recommended by the RV manufacturer.
3. Start the antifreeze function to prevent freezing. Turn on the power switch and the gas valve, turn off the water inlet. The water heater will be on antifreeze mode automatically (please ensure there is enough gas in the RV).
 - When the water temperature in the water heater is lower than $6\pm1^{\circ}\text{C}$ ($43^{\circ}\text{F}\pm2^{\circ}\text{F}$), the remote controller displays "Fd", the machine starts the ignition and runs with a certain load. After the whole machine runs for 5 seconds, the water heater will automatically shut off or when the temperature of the water pipe reaches $32\pm1^{\circ}\text{C}$ ($90^{\circ}\text{F}\pm2^{\circ}\text{F}$) in 2 seconds, it will shut down automatically. Heater will run the test again after shut down 3 minutes.
 - 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 freeze protection start condition is still met, the anti-freeze will start again.

Model And Specification

Product name	Instantaneous Gas Water Heaters for RV.	
Model	FS06B1	
Control instruction	Manually set the water temperature, can be set up 35°C (95°F) to 51°C (123°F).	
Max. /Nominal Heat Input (Btu/hr)	42000	
Minimum Heat Input(Btu/hr)	20000	
Orifice Drill Size	0.91mm for LPG	
Max. Inlet Gas Pressure	3.23kPa (13"wc)	
Min. Inlet Gas Pressure	1.99kPa (8"wc)	
Max. Manifold Pressure	1.54kPa (6.19"wc)	
Min. Manifold Pressure	0.37kPa (1.49"wc)	
Total Input Current (A)	<10	
Nominal Inlet Gas Pressure	LPG 11°WC (2.74kPa)	
Ignition method	Automatic ignition	
Applicable water pressure	14.5~116PSI	
Connector specifications	Gas inlet	NPT 3/8-18
	Cold water inlet	G1/2
	Hot water outlet	G1/2
Electric supply	DC 12V RV battery	
Rated power	20±1W	
Dimensions	380mm x 380mm x 365mm (15"x15"x14.3")	
Max. Temperature	51°C (123°F)	

We reserve the right to amend the product without prior notice.

Warranty Notice

Dear users: Thank you for using our products.

The relevant provisions of the law provide you with quality services.

To ensure your interests, please fill in the warranty card carefully. This warranty is only applicable to Fogatti's RV gas water heater.

2. Customers who purchase products of Dehco Inc., the warranty period of each product of our company is (with the purchase certificate)

(from the date of shipment) : one year (12 months).

3. Please do not use it for business purposes, which will shorten the service life of the product. If using it for business purpose, there is a charge even within the warranty period.

4. The following situations are not within the scope of free warranty service. Our company can provide you with paid product services.

A. Beyond the validity period of the free warranty time, the product can still be used after repair;

B. Damage products caused by improper transportation or storage of the user or failure to operate in accordance with the instructions;

C. Disassemble or repair the product without our company's permission, and repair the product after repair at the non-authorized service agents;

D. Products without valid purchase certificate;

E. Products that have been effectively altered;

F. The voltage is unstable or beyond the normal voltage range (DC 24V), or the power line installation is not in conformity with the national electrical installation standard requirements;

G. The specification specifies that the product should not be used or damaged due to the wrong operation method.

Packing List

Order	Design	Quantity	Remarks
1	Gas water heater	1 piece	
2	Instruction Manual (including warranty card)	1 piece	
3	Controller	1 piece	
4	Screw	11 pieces	

Warranty Card

User name	Bar code number
Product name	
Product model	
Purchasing date	

Warning! For your safety, please ensure that your installation conditions meet the following requirements: (applies only to water heater products)

- The power supply of the water heater must be reliably grounded and equipped with a leakage protection device to prevent accidental circuit leakage.
- Power outlet, connector may be spilled into the water. Use a splash-proof power outlet and take care of the watertight joints.
- Water heaters should be used on the RV. Do not use indoors. Burning exhaust gas is discharged outside the vehicle to prevent carbon monoxide poisoning.
- Gas pipelines, the waterway must be reliably installed without leakage. Prevent damage due to leakage.
- The installation of the water heater should comply with local laws and regulations.

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