RV Tankless Water Heater

User Manual

Models:

TMRVCQ-05010265
TMRVCQ-05010165



AVOYTE

BUILT FOR THE VOYAGE

support@avoyte.com

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⚠. Important Information

1. Please read this manual carefully before installing or operating the heater.
2. Before installation, verify that all components listed in the Package Contents section are included.
3. If any parts are missing or damaged, please contact **AVOYTE Customer Support** (**support@avoyte.com**)
4. If you encounter any issues during installation or operation, our support team is ready to assist you.

We are committed to providing reliable hot water solutions for your RV adventures.

Travel Free. Live Easy.

I. Safety Precautions

1. **User Responsibility**

- Operators are responsible for their own health and safety.
- Users with pacemakers must consult a doctor before operating, servicing, or accessing the heater.

2. **Proper Use**

- Use the heater strictly according to this manual. Improper use may cause injury or property damage.
- The water heater is for supplying hot water only and must not be used for other purposes.

3. **Installation Restrictions**

- RV tankless gas water heaters must **never** be installed indoors or in enclosed spaces such as tents or garages.
- Always install on a **non-combustible surface**.
- The heater must not be connected to a chimney serving other appliances.

4. **Exhaust & Combustion Safety**

- Exhaust gases are hot and contain carbon monoxide. Do **not** inhale or block exhaust.
- Ensure all combustion products are vented outdoors.
- Keep flammable materials, gasoline, or vapors away from the heater and exhaust path.

5. **Operation Safety**

- Never use the water heater while the vehicle is in motion.
- Always turn off the appliance and shut off the gas supply during RV refueling or when parked in enclosed spaces.
- Do **not** place seats, tables, awnings, or canopies in the exhaust path. The heater may be installed under a retractable awning only if no enclosed structure is created.
- Avoid touching hot flue pipes and surrounding components during or after operation.

6. **Before Moving the RV**

- Ensure all components are properly seated and locked.
    - Access door is flush with the mounting plate.
    - Door lock is engaged.
- Ensure gas valves are closed at the cylinders before transit.

7. **Maintenance & Alterations**

- Always disconnect power and gas before moving, adjusting, or servicing the heater.
- Do not alter the product without express permission from the manufacturer.
- Professional installation is required. If unsure about any instructions, contact **AVOYTE support**. Do **not** attempt DIY installation.

Ⅱ. Unboxing and Inspection

After receiving your product, please inspect it immediately after opening the package. If any parts are missing or damaged, contact our support team through the platform where you purchased the product.

Inspection Steps

1. Carefully open the package to avoid dropping or damaging internal components.
2. Verify that all components listed in the Package Contents section are included.
3. Inspect each component for visible damage such as scratches, deformation, cracks, or other defects.
4. After confirming that all parts are complete and undamaged, proceed with installation and test the basic operation of the heater.

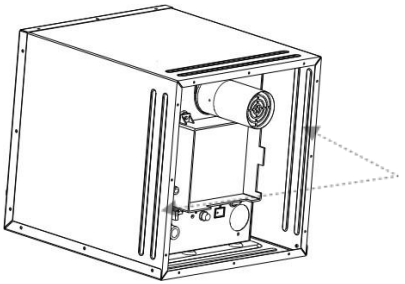
If any issues are discovered during inspection, please contact our support team for assistance.

Tip:

Keep the original packaging until installation is completed.
It may be required for returns or replacement.

Important Notice:

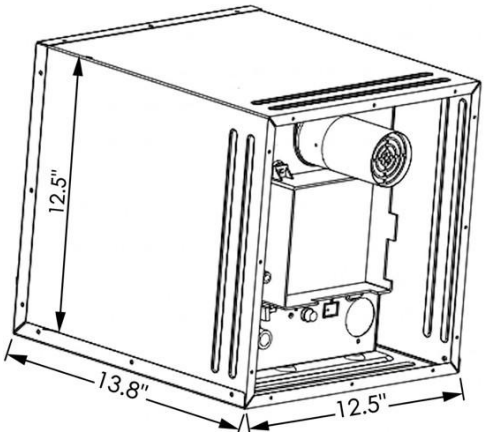
- The internal cardboard supports are used only to protect the unit during transportation.
- All internal cardboard supports must be removed before operating the heater.
- Failure to remove these supports may result in malfunction or damage to the unit.

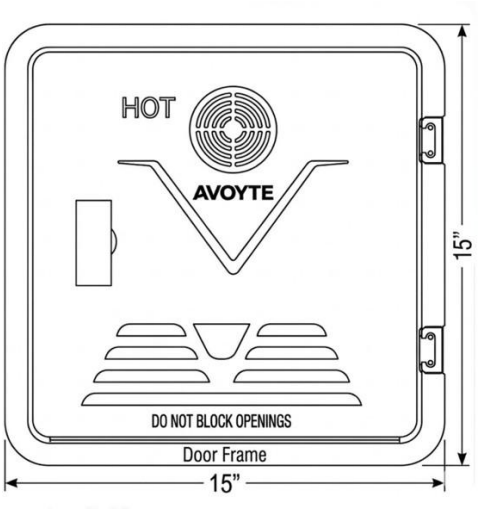


Internal supporting cardboard

Specifications

Water Heater Dimensions





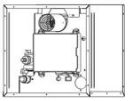
Item	Specifications
Model	TMRVCQ-05010265 TMRVCQ-05010165
Rated Power	65000 BTU/hr
Fuel	Propane
Max. Inlet Gas Pressure	13" w.c. (3.23 kPa)
Min. Inlet Gas Pressure	8" w.c. (1.99 kPa)
Total Input Current	5A-10A
Rated Gas Inlet Pressure	11" w.c. (2.74 kPa)
Ignition Method	Automatic ignition
Applicable Water Pressure	14.5 - 110 PSI
Electric Supply	DC 12V / 5A-10A
Max. Temperature	123 °F (51 °C)
Min. Temperature	95 °F (35 °C)
Dimensions (H × W × D)	15" x 15" x 14.3"
Net Weight	28.6 lbs
Gross Weight	35.7 lbs
Standard	CSA
Operating Air Pressure	2 kPa - 3.3 kPa
Water Inlet Connection	1/2” NPT
Water Outlet Connection	1/2” NPT
Gas Inlet Connection	5/8” UNF
Front Water Outlet	Available

III. Package Contents

Before installation, please verify that **all components listed below are included in the package**.

If any parts are **missing or damaged**, please contact **AVOYTE Customer Support** immediately:

Through the **marketplace where the product was purchased**, or By email at **support@avoyte.com**

Part	Description	Photo	Quantity
A	Tankless Water Heater		1
B	Door Frame		1
C	Screw Kit		15
D	Gas Pressure Regulator		1
E	Wired Control Panel		1
F	Shower Head		1
G	Shower Hose		1
H	Silicone Washer		2
I	Rubber Gasket Filter		2
J	Sealing Tape		2
K	Shower Head Holder		1

Tools Required (Not Included)

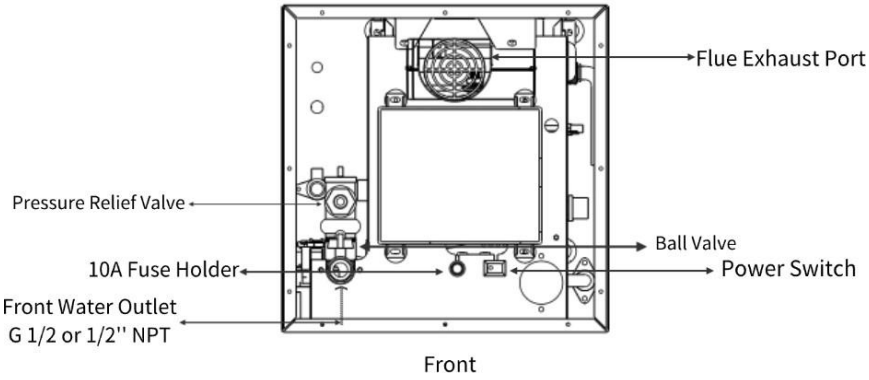
Before installation, prepare the following tools. These items are not included with the heater:

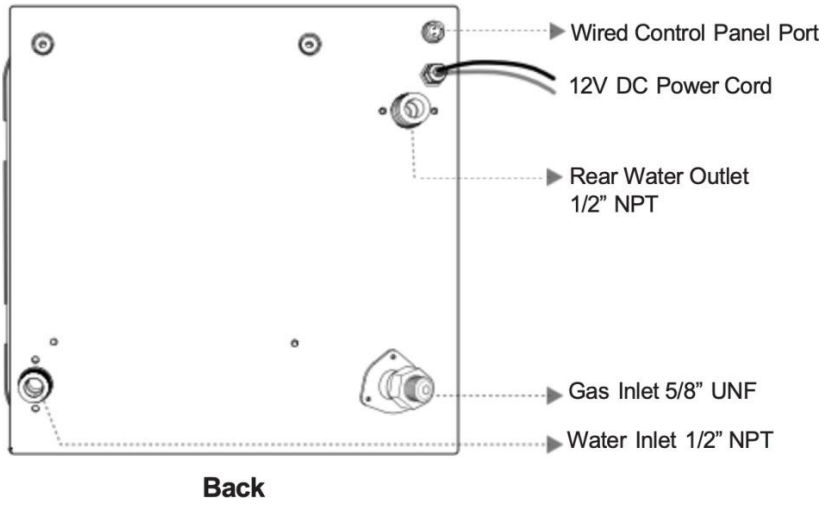
- **Screwdriver**
- **Wrench**
- **Scissors**
- **Pliers**
- **Electrical adhesive tape**
- **Hammer drill with concrete bit**
- **Sealant**

Tip: Having all tools ready before installation helps ensure a smooth and safe setup.

Ⅳ. Product Structure Diagram

1. Product Structure Diagram





V. Installation Guide

Warning:

- This product is not suitable for DIY installation.
- Installation and maintenance must be performed by a qualified professional, service company, or authorized gas water heater supplier.
- Comply with all local codes. If none exist, follow:
    - National Fuel Gas Code (ANSI Z223.1/NFPA 54)
    - CSA B149.1 Natural Gas and Propane Installation Code

Precautions before installation:

- Shut off the gas supply, **disconnect 120V AC** power from the RV, and disconnect the positive **12V DC** battery terminal before drilling or cutting into the RV.
- Ensure there are no obstacles (wires, pipes, etc.) inside the RV roof or walls at the installation location.
- Install the heater in a location where water or gas leaks will not damage adjacent surfaces or lower floors.
    - If unavoidable, place a suitable drain pan underneath.
    - The pan must not restrict combustion airflow.

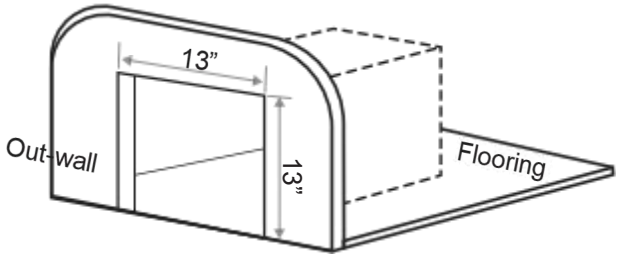
Step 1 – Choose Installation Location

Select a location based on the following:

- **Do NOT** install at the front-facing portion of the RV (road debris may cause damage).
- **Do NOT** install in enclosed areas.
- **Do NOT** install where the exhaust vent may be blocked by doors, slide-outs, pop-ups, or bag doors.
- **Do NOT i**nstall on any access door or slide-out area.
- Choose a convenient location with easy access to water supply, propane, and **12V DC** for installation and servicing.
- Recommended: Locate the heater near the center of hot water loads.
- Install on a flat, non-combustible surface (wood, linoleum, or fixed platform).

Step 2 – Cut Opening (If Needed)

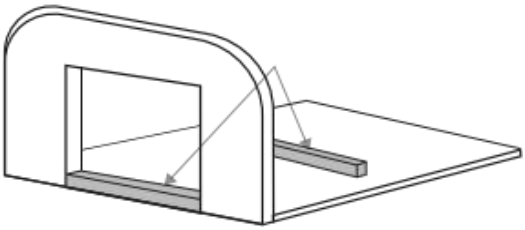
- Cut a square opening at the chosen location to fit the appliance, ensuring the opening does not interfere with structure or wiring.
- Verify all dimensions before cutting.

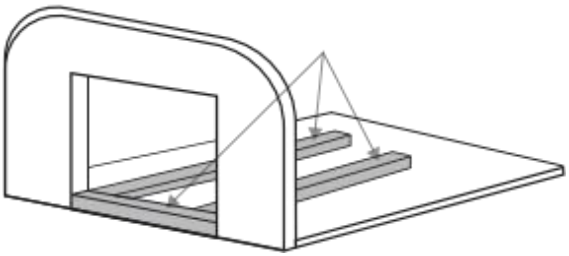


⚠Installation Support Guidelines

To ensure safe and stable installation of the water heater:

- Place the appliance on a solid, weight-bearing floor or platform.
- Securely frame the front edge of the opening to anchor the water heater.
- If framing is required, use minimum 1.5" × 1.5" wood or aluminum.
- Build a support platform under the heater if additional support is needed.
- After mounting, make sure the platform is completely level before proceeding with further installation steps.

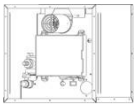


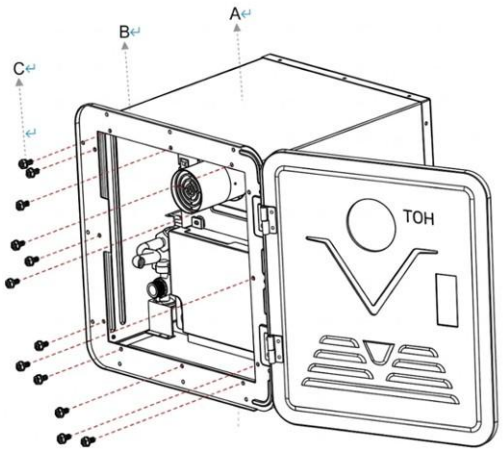


Step 3 – Install the Door Assembly

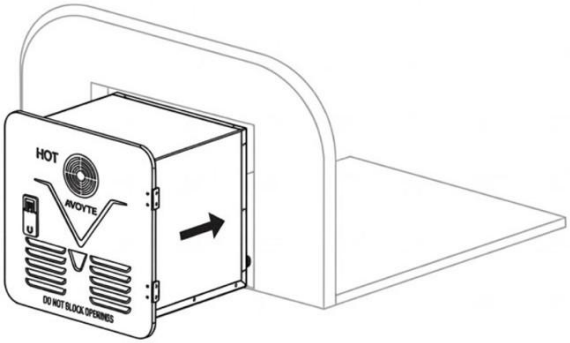
1. Align the door assembly with the mounting plate on the heater.
2. Using the screwdriver and screws provided in the installation kit, secure the door assembly to the mounting plate.
3. Ensure the door sits flush and level with the mounting plate.
4. Do not overtighten screws to avoid damaging the door or mounting threads.
5. After installation, verify that the door lock engages properly and opens/closes smoothly.

Tip: If the door feels tight or misaligned, slightly loosen the screws, adjust alignment, and then retighten.

Part	Description	Picture	Quantity
A	Tankless Water Heater		1
B	Door Frame		1
C	Screw Kit		12



Step 4 – Position the Heater into the Opening



1. Keep the area under and behind the appliance clear before positioning.
2. Slide the heater carefully into the square opening to avoid damaging the linoleum or floor surface.
3. Do not fully insert yet — leave enough space for the following installation steps.

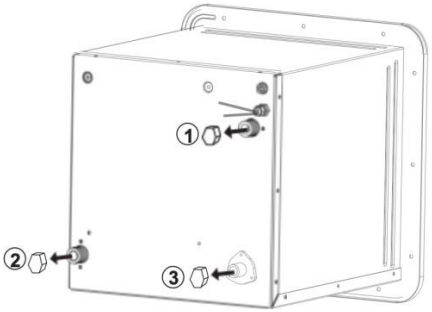
Tip: Ensure the heater remains level and properly aligned with the opening as you slide it into place.

Step 5 – Remove Protective Caps from Connectors

Before connecting water and gas lines, remove all protective caps from the **back side of the heater**:

1. **Hot water connector** – remove the cap.
2. **Cold water connector** – remove the cap.
3. **Gas connector** – remove the cap.

Tip: Keep the caps for future transport or maintenance, in case the heater needs to be moved.



1	Hot water connector
2	Cold water connector
3	Gas connector

Step 6 – Wrap Sealing Tape on Water Connections

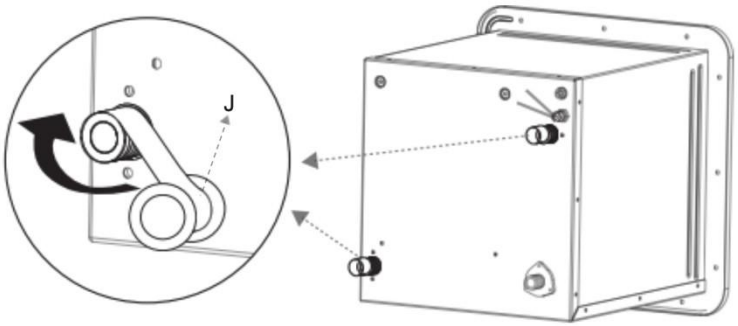
Before connecting the water lines:

Apply Sealing Tape

1. Wrap **PTFE (white) sealing tape** around the threads of:
    - **Hot water connection**
    - **Cold water connection**
2. Wrap **PTFE (yellow) gas-rated sealing tape** around the threads of the **gas connection**.

Tip: Wrap the tape **clockwise (in the direction of the threads)** to ensure a tight seal and prevent leaks.

Part	Description	Picture	Quantity
J	Sealing Tape (white+yellow)		2

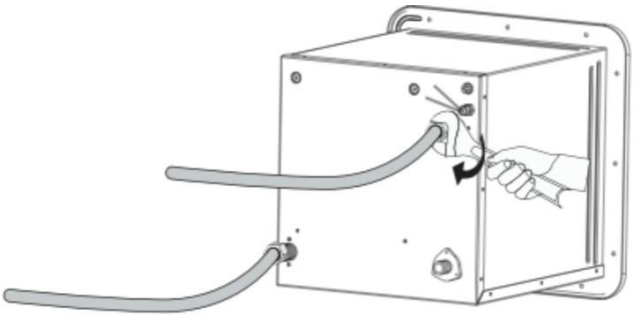


Tip: Wrap the tape **clockwise**, following the thread direction, to ensure a tight, leak-free connection. Avoid overwrapping, which may prevent proper screwing.

Step 7 – Connect the Water Pipes

1. Hot water line – connect to the hot water outlet on the back of the heater.
2. Cold water line – connect to the cold water inlet on the back of the heater.
3. Ensure all fittings are tight and secure.
4. Do not overtighten, which may damage threads or fittings.
5. After connecting, check that the pipes are properly aligned and have no kinks.

Tip: Slowly turn on the water supply and check for leaks before proceeding to gas connection.



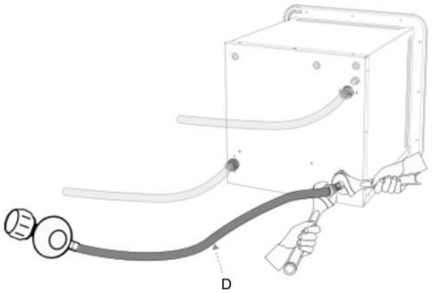
Notes for Water Connections

1. Do not overtighten any connection fittings — this can damage threads or fittings.
2. Ensure washers and sealing tape are correctly installed in all water pipe connections. Check carefully for leaks.
3. Flush the water lines before connecting the pipes: open the water supply briefly to remove any debris.
4. Correct connection is critical: reversing the hot and cold water lines will prevent the heater from starting, may stop hot water production, and can damage the unit.

Tip: After connecting, turn on water supply slowly and inspect all fittings for leaks before proceeding to gas connections

Step 8 – Connect the gas pipe.

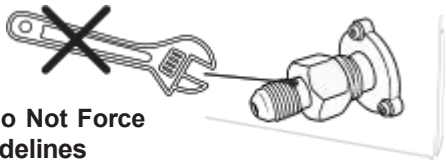
Part	Description	Picture	Quantity
D	Gas Pressure Regulator		1



⚠Note – Gas Connection

- The 5/8” LP gas flared fitting is pre-installed and fixed in place.
- **Do not** use tools to force it open or adjust it.
- Forcing the fitting may loosen or damage the connection, which can cause gas leaks and safety hazards.

Tip: Always inspect the gas connection visually before turning on the propane supply. If in doubt, contact AVOYTE support for assistance.



Do Not Force

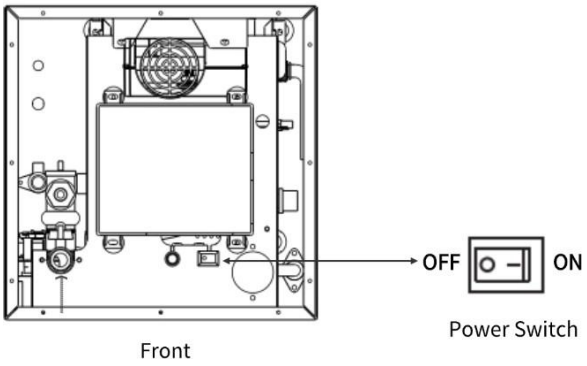
⚠Gas Connection Guidelines

1. **Use gas in vapor phase only.**
   - **Do not** use liquid-phase gas, which can **damage the heater**.
2. **Gas hose requirements:**
   - Use a **non-metallic flexible hose rated for 149 °F**.
   - Anchor hoses properly to prevent **wear, fatigue, or failure**.
3. **Gas supply pressure:**
   - Ensure the operating pressure of the gas supply matches the heater’s requirements: **8–13 in-w.c.**
4. **Leak test:**
   - Turn on the gas supply and inspect the water heater and all connections for leaks using **soapy water**.
   - Do **not** operate the heater if leaks are detected; correct the issue first.

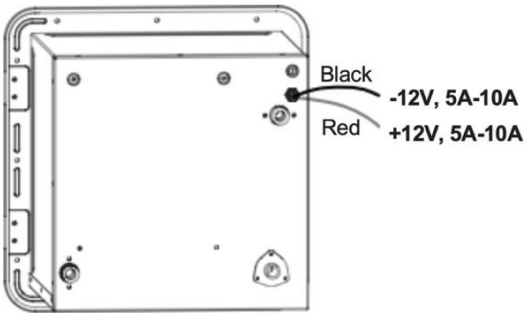
Tip: Perform the leak test **every time the gas connection is reconnected** or the appliance is moved.

Step 9– Power Off

Ensure the **power switch is set to "OFF"** before making any electrical connections.



Step 10 – Connect 12V DC Power



1. Connect the power cord to the **12V DC** (5–10A) power port.
2. Secure the connection with electrical adhesive tape (not included).
3. Use a **12V DC** power supply rated 5–10A. Incorrect connection may prevent the heater from starting and damage the controller.
4. Select the appropriate wire gauge (AWG) based on the length of the 12V cable:
    - 16 AWG – up to 40 ft (12 m)
    - 14 AWG – up to 66 ft (20 m)
5. Ensure enough wire length is available to make a secure and strain-free connection.

Tip: Always verify polarity before turning on the power. **Positive (+)** to heater positive terminal, **Negative (–)** to battery negative.

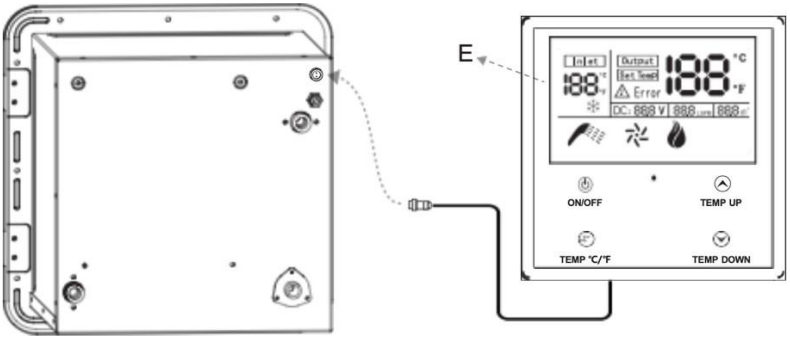


Step 11 – Connect the Wired Control Panel

1. Align the wired control panel connector with the corresponding port on the heater.
2. Insert the connector fully and ensure it clicks or locks into place.
3. Verify that the cable is secure, untangled, and not pinched.
4. Route the cable safely to avoid interference with other components or moving parts.

Tip: After connection, turn on the heater (**Step 12**) and check that the control panel powers on and responds correctly.

Part	Description	Picture	Quantity
E	Wired Control Panel		1

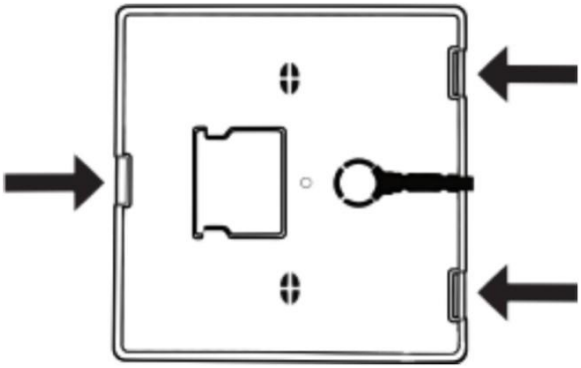


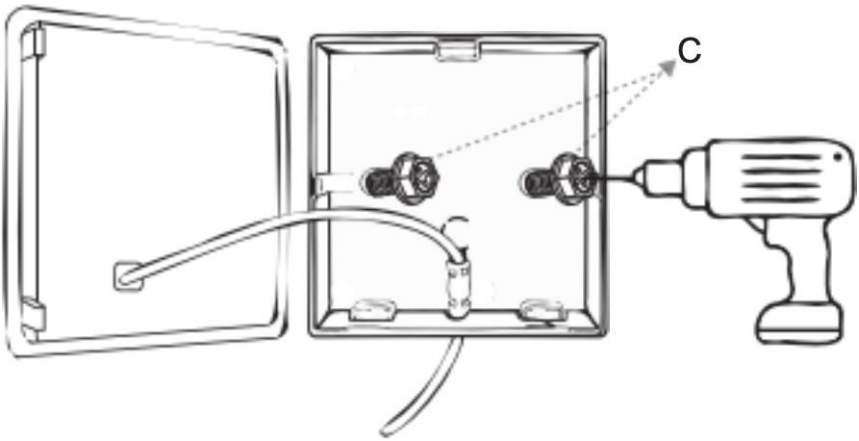
Step 12 – Mount the Wired Control Panel (Optional)

1. Remove the base of the wired control panel by pressing the three clips inward slightly.
2. Position the base at your desired wall location.
3. Secure the base with the two provided screws (washers are not included).
4. Adjust the cables so they are not twisted or pinched.
5. Reattach the wired control panel onto the base to complete the installation.

Tip: Choose a location where the panel is easily visible and accessible. Avoid locations exposed to water or extreme heat.

Part	Description	Picture	Quantity
C	Screw Kit		2





Step 13 – Double-Check Connections

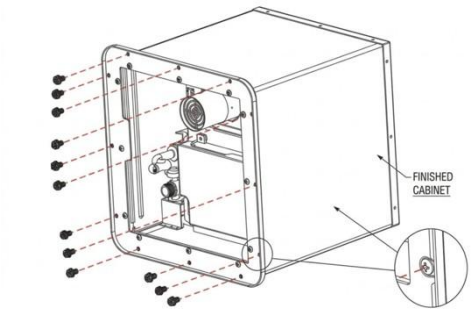
1. **Inspect all connections:**
    - **Water inlet and outlet pipes**
    - **12V DC power supply**
    - **Gas supply connections**
2. **Verify that:**
    - **There are no leaks in water or gas lines**
    - **Electrical connections are secure and correctly polarized**
    - **All fittings are tight but not overtightened**
3. **Once all connections are confirmed safe and secure, fully slide the heater into the cutout.**

Tip: Keep the heater slightly elevated while checking connections to make final adjustments easier.

Step 14 – Secure the Heater to Your RV

1. **Use 12 screws (M4 × 13 mm or longer, not included) to secure the heater to your RV.**
2. **Note: Screw hole depth may vary depending on your RV model.**
3. **Choose suitable screws as needed for a secure installation.**
4. **Mounting hole diameter: 3/16" (5 mm).**

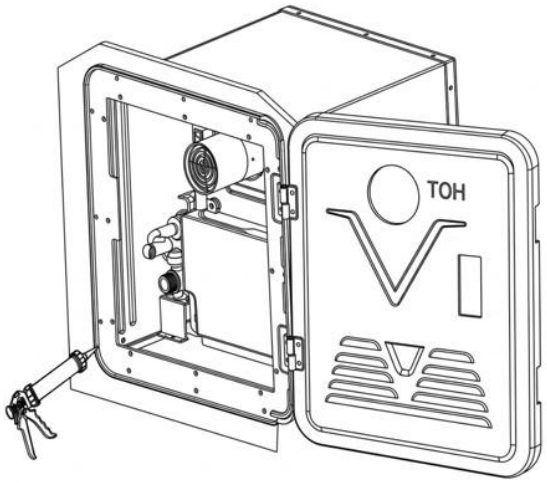
Tip: Ensure all screws are tightened evenly, but do not overtighten to avoid damaging the mounting plate or RV surface.



Step 15 – Apply Sealant to the Door Frame

1. **Apply a high-quality sealant (not included) to all gaps around the door frame.**
2. **Ensure the sealant completely fills the gaps to prevent water ingress or air leaks.**
3. **Smooth the sealant for a neat finish and proper adhesion.**
4. **Allow sufficient curing time according to the sealant manufacturer's instructions before operating the heater.**

Tip: Use a non-combustible, weather-resistant sealant suitable for RV exterior applications.

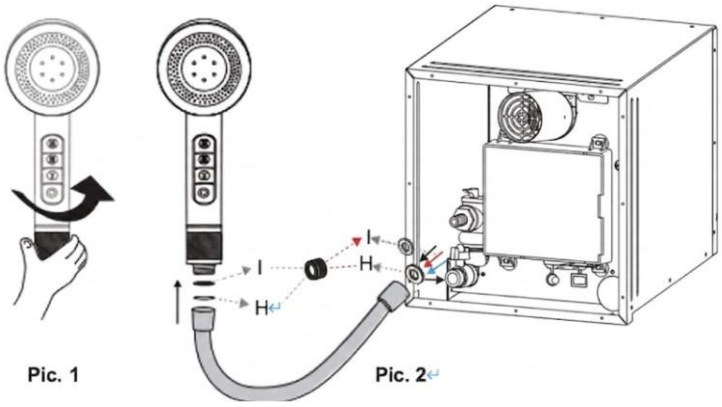


Step 16 – Connect the Shower Head (Optional)

Part	Description	Picture	Quantity
F	Shower Head		1
G	Shower Hose		1
H	Silicone Washer		2
I	Rubber Gasket Filter		2
J	Sealing Tape		1
K	Shower Head Holder		1

1. **Tighten the connection** of the shower head filter to prevent water leakage. *(See Pic. 1)*
2. **Install the silicone washer and gasket filter** into the water pipe.
3. **Attach the shower head** to one end and connect the other end to the front water outlet. *(See Pic. 2)*
4. **Check for leaks** after installation and adjust connections if necessary.

Tip: Ensure all fittings are **secure but not overtightened** to avoid damaging threads or washers.



Pic. 1 Pic. 2

VI. Operation Instructions

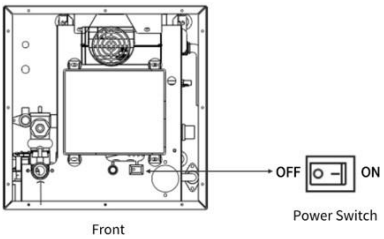
⚠ Important Notes Before First Use

- Ensure the water heater is properly installed.
- Check that all water, gas, and electrical connections are secure and leak-free.

1.Steps to Operate the Water Heater

1. Power On

- Confirm the water heater power switch is ON.
- Close and latch the access door.





2. Turn On Heater

- Press the ON “ ⏻ ” key on the control panel to start the heater.



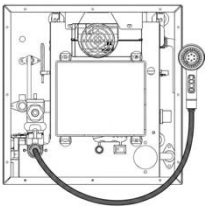
3. Open Water and Gas Supply

- Turn on the water inlet valve.
- Turn on the propane gas valve.

4. Activate Hot Water

- Turn on the hot water tap (front water outlet).
- Hot water will flow once the heater is initiated.

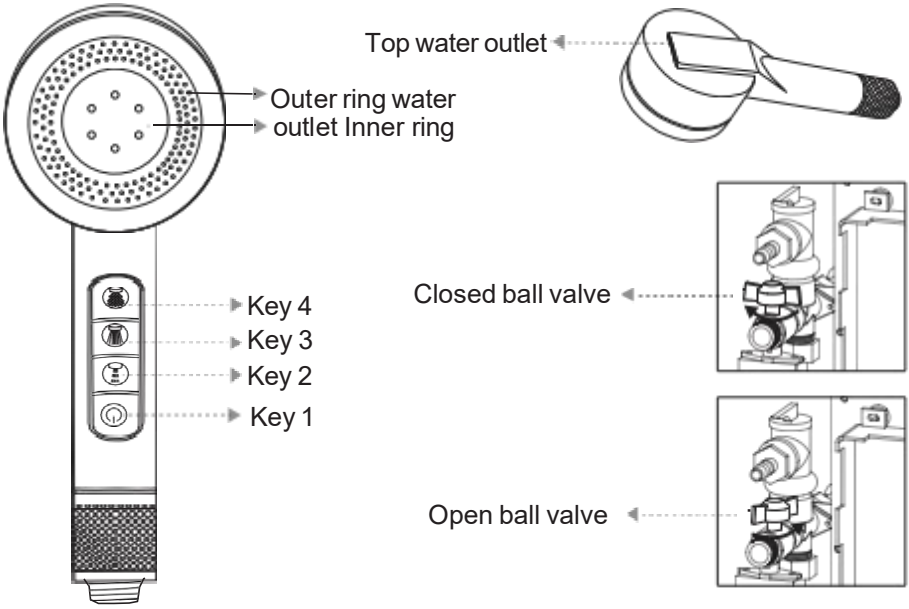
Note: The front water outlet can be used to attach a shower head if desired.



⚠ WARNING

- Minors should not operate the water heater alone.
- Children must be **supervised by an adult** at all times while using the heater.

2. How to use the shower head?



Key	Function	Description
Key 1 – Switch	Stop/Start	Press to **stop the shower spray**.
Key 2 – Top Outlet	Top water flow	Press to direct water to the **top outlet of the shower head**.
Key 3 – Outer Ring	Outer ring water flow	Press to direct water from the **outer ring of the shower head**.
Key 4 – Inner Ring	Inner ring water flow	Press to direct water from the **inner ring of the shower head**.

Tip: Always ensure the shower head is properly attached before operating the control panel.

⚠ **WARNING – Front Water Outlet & Shower Safety**

1. **Ball Valve Operation**
   - Before using the front outlet faucet, ensure the **ball valve is in the OFF position**.
   - After connecting the shower head, **open the ball valve** to start water flow.
   - Always **close the ball valve after use** to prevent leaks and scalding accidents.

2. **Hot Water Temperature**
    - Water temperature above **123°F (50°C)** may cause serious burns or scalds.
    - Before bathing or using hot water, allow the water to **flow until the temperature stabilizes**.
    - Test water temperature before putting a child in the bathtub or before bathing.
3. **Child & Vulnerable User Safety**
    - Children, elderly, or weak individuals **must not use the water heater alone**.
    - Always ensure **adult supervision** during use.
    -

Tip: Always monitor water temperature when using the shower or front outlet faucet. Adjust flow or valve position as needed to prevent accidental scalding.

3. How to Use the Wired Control Panel

When Powered On

1. The controller beeps once.
2. The display shows the gas source code for 3 seconds, then it disappears.
3. The controller indicator light and power switch backlight turn on.

Operating the Heater

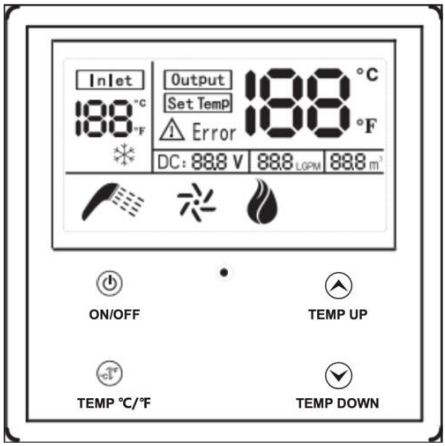
4. Press the power button to view the real-time operating status on the wired control panel.
5. Set the desired water temperature:
    - The set temperature will flash 5 times.
    - Then the display automatically switches to show the current water temperature.
6. Press the temperature unit button to toggle between Celsius (°C) and Fahrenheit (°F).

Fault and Alarm Indicators

7. In the event of a fault, the display shows the corresponding error code. *(See Pages 24–25)*
8. The buzzer beeps once on power-on or during normal operation.
9. When a fault occurs, the buzzer emits three consecutive beeps, repeating 10 times with a 1-second interval between each set.

Power Off

10. After using the water heater, press the power button to turn off the heater.
11. Ensure the water and gas supply are turned off simultaneously.



Tip: Familiarize yourself with the error codes on Pages 24–25 for quick troubleshooting.

	Power Indicator
	Inlet Temperature
	Outlet Temperature
	Set Temperature
	Error Code
	Flashing when the anti-freeze function is activated
DC:888V	Real-Time Voltage
	Real-Time Water Flow
	Cumulative Gas Consumption (resets to 0 upon power loss)
	Shower function is activated
	Blower function is activated
	Flame function is activated
	Power Button
	Fahrenheit / Celsius Switch
	Adjust Temperature

4. How to set the temperature?

1) Press the " ⌃ " key, the temperature will increase.
2) Press the " ⌄ " key, the temperature will reduce.
3) Hold the button for 2 seconds to adjust rapidly.

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

⚠ WARNING

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

5. How to Use the Anti-Freeze System

Purpose:

If the heater will **not be used for an extended period**, or if the **ambient temperature may fall below 32°F (0°C)** and the unit cannot remain powered with electricity and gas, the water heater must be **drained to prevent freeze damage**.

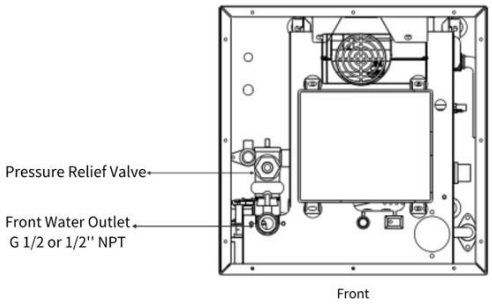
Drain Procedure

1. **Turn off the propane shut-off valve.**
2. **Turn off the RV tankless water heater** and **disconnect the power supply.**
3. **Close the water inlet valve.**
4. **Open the hot water faucet or shower** connected to the water outlet.
5. **Open the Front Water Outlet or Pressure Relief Valve** (see figure below) to allow the water inside the heater to **drain completely**.
6. After the water has fully drained, **close the Front Water Outlet or Pressure Relief Valve**.

Component Reference

- **Pressure Relief Valve**
- **Front Water Outlet**

(See installation diagram for locations.)



⚠ Important:

Failure to drain the heater in freezing conditions may cause **permanent damage to the heat exchanger**.

Ⅶ. Maintenance and Care

⚠Important Before Maintenance

- **Disconnect the power supply** and allow the unit to **cool down** before performing any maintenance.
- **Do not disassemble** gas passages or safety devices.
- Avoid opening the unit's electronic components or exposing them to **any type of liquid**.

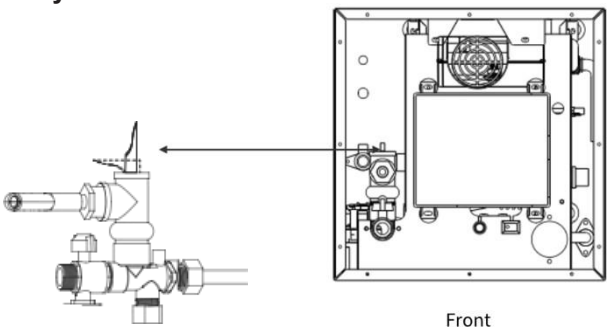
Recommended Maintenance (Monthly)

1. **Clean air intake and exhaust grilles**
    - Open the access door and clean regularly to prevent obstruction of combustion and airflow for optimal performance.
2. **Clean water inlet pipe and gasket filter**
    - Turn off the water inlet, remove the pipe, clean the rubber gasket filter, and reinstall.
3. **Drain and flush water**
    - Regularly drain water from the RV and flush the heat exchanger with clean water.
4. **Clean display**
    - Wipe with a damp cloth only.
    - **Do not use gasoline, grease, or harsh detergents**, which can deform surfaces.
5. **Keep area clean and safe**
    - Ensure the appliance area is free from **combustible materials, gasoline, and other flammable vapors**.
6. **Check for abnormal noises** during operation.
7. **Check for water and gas leaks**.

Pressure Relief Valve Maintenance (Annually)

1. **Check the valve at least once a year**.
2. Turn off the **water heater, power supply, and gas** before inspection.
3. Turn on a **water supply valve** to pressurize the system.
4. Gently open the **pressure relief valve handle** until water flows, then gently close.
5. If no water flows, the valve may be **defective** — turn off the water supply and contact **AVOYTE service personnel**.
6. Before operating the handle, **ensure the discharge line** is correctly routed to a suitable drain.

Tip: Regular maintenance ensures **longer heater life, optimal performance, and user safety**.



Lift The Stem to Manually Open

VIII. FAQs and Troubleshooting

If the water heater encounters a malfunction, the wired control panel will display an error code, and the buzzer will sound three consecutive beeps ("**Beep, Beep, Beep**").
This alarm sequence will repeat up to **10 times** to alert the user.
Refer to the troubleshooting table below to identify the error code and follow the recommended solution.
Tip: Most issues can be resolved by checking the power supply, water supply, and gas supply connections before contacting service support

.⚠ Warning: If the problem persists after troubleshooting, **stop using the heater and contact qualified service personnel**.

Problem Description	Possible Causes	Solutions
No hot water after turning on the hot water faucet	Gas valve and water inlet valve are closed	Open the **gas valve** and **water inlet valve**
	Water supply has stopped	Wait until the **water supply is restored**
	Water inlet and outlet pipes are reversed	Reconnect the **inlet and outlet pipes correctly**
	The appliance is frozen	Use again after the **unit has thawed**
	Propane gas cylinder is empty	Replace the **propane cylinder**
Water temperature is not hot enough	Gas valve or inlet valve not fully open	Fully open the **gas valve and water inlet valve**
	Set temperature exceeds heater capacity	Lower the **temperature setting** or reduce water flow
	Water demand is too high	Reduce water usage or partially close the water valve
Cold water flows intermittently when using hot water	Water flow is below **0.7 GPM (2.5 L/min)**, causing the heater to shut off automatically	Increase the **hot water flow rate** to maintain stable heating
Hot water does not come out immediately after turning on the faucet	Distance between heater and faucet causes delay	Wait **3–5 seconds** for hot water to reach the faucet

Normal Operating Conditions

The following situations are **normal during operation** and do not indicate a malfunction.

Situation	Explanation	Action
Hot water appears white or cloudy	Tiny air bubbles form when dissolved air in the water is rapidly heated and released under atmospheric pressure.	This is **normal**. The water will become clear after a few seconds.
White vapor from the exhaust vent in cold weather	Water vapor forms when hot exhaust gases meet cold outside air.	This is **normal**.
Water flows from the pressure relief valve	The incoming water pressure exceeds the safety pressure limit of the appliance.	This is **normal**. Reduce the **water inlet pressure** by partially closing the inlet valve if necessary.
Fan continues running after the heater stops	The fan operates for **10–20 seconds** to expel residual gas and heat from the unit.	This is **normal**.

Error Codes

If an **error code appears on the display**, follow the steps below:

1. Press the **Power Button** –- “ ⏻ ” to turn off the water heater.
2. Check the **water supply, power supply, and gas supply** according to the displayed error code.
3. After confirming the issue has been resolved, **restart the water heater**.

Refer to the **Error Code Table below** for detailed explanations and recommended solutions.

⚠**Warning:** If the error persists after troubleshooting, stop using the water heater and contact **qualified service personnel**.

Display	Cause	Solution
E0	**Water temperature sensor error** 1. Connector loose or poor contact. 2. Sensor open circuit or short circuit, or sensor touching the housing. 3. Main controller circuit board malfunction.	1. Secure the connector or replace a faulty connector. 2. Replace the temperature sensor. 3. Replace the main control board or repair the circuit.
E1	**Ignition or flame failure** 1. Ignition or flame detection wiring is loose or poorly connected. 2. Gas valve closed. 3. Ignition unsuccessful.	1. Reconnect wiring and repair faulty components. 2. Open the gas valve. 3. Check gas pressure and confirm the gas supply is normal.
E2	**False flame detection** Flame signal detected before ignition. Possible causes: 1. Flame sensor failure. 2. Controller malfunction.	1. Replace the flame sensor. 2. Replace the controller.
E3	**Overheat protection activated** Possible causes include prolonged high-load operation, low water pressure, or excessive gas pressure.	Check the air supply system and correct pressure issues. Increase water pressure if possible or slightly reduce the hot water temperature setting.
E4	**Thermostat sensor failure** 1. Loose connector or poor contact. 2. Sensor open/short circuit. 3. Controller malfunction.	1. Reconnect or replace the connector. 2. Replace the thermostat sensor. 3. Replace the main control board.

Display	Cause	Solution
E5	**Fan or air pressure system failure** 1. Low power supply causing slow fan speed. 2. Debris blocking the fan. 3. Fan power module damaged. 4. Connector loose or poor contact.	1. Check the power supply voltage. 2. Remove debris and clear the blockage. 3. Replace damaged components (power board or controller). 4. Reconnect or replace the connector.
E6	**Overheat protection activated**	This is a normal protection function. Allow the unit to cool down before restarting.
E7	**Gas valve malfunction** 1. Loose or damaged wiring. 2. Solenoid valve stuck.	1. Reconnect or replace wiring. 2. Remove and clean the solenoid valve.
E8	**Fan speed exceeds limit / flue blocked**	Remove debris from the exhaust flue and clear the blockage.
En	**Timed shutdown**	Normal safety protection. Restart the appliance if needed.
Ec	**Communication failure** 1. Poor communication cable connection. 2. Remote controller damaged. 3. Controller damaged.	1. Reconnect the communication cable. 2. Replace the remote controller. 3. Replace the controller.
EE	**Internal control system failure** 1. Voltage too high or too low. 2. Insufficient power supply. 3. Current lower than 5A.	1. Replace the controller if necessary. 2. Use a proper power supply with adequate capacity.
Ed	**Anti-freeze protection active**	The burner operates automatically to prevent freezing when ambient temperature is low. This is normal operation.

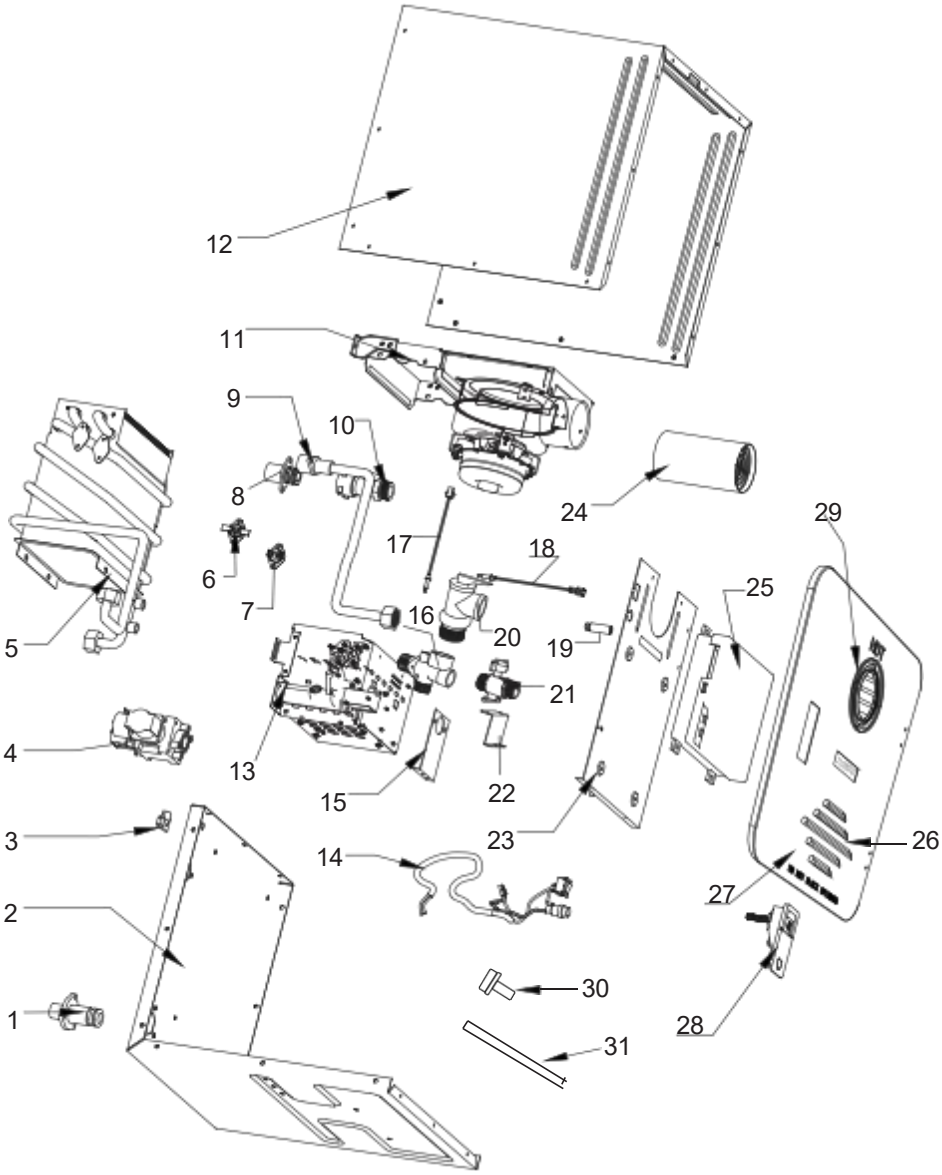
⚠ **Note:**
If the same error code continues to appear after troubleshooting, stop using the appliance and contact **qualified service personnel**.

Customer Support Priority Statement

We recommend contacting **AVOYTE Customer Support** before initiating a return. （support@avoyte.com）
Many issues can be resolved quickly with **troubleshooting or replacement parts**, without the need to return the entire unit.

If replacement parts are required, we will **ship them directly to you at no additional cost**.

Components


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Serial Number	Name
1	Gas Inlet Connector
2	Bottom Shell
3	Power Cord Fixer
4	Gas Proportional Valve
5	Heat Exchanger
6	Antifreeze Thermostat
7	Overheat Protection Thermostat
8	Water Inlet Connector
9	Outlet Pipe
10	Water Flow Sensor
11	Fan
12	Main Body Shell
13	Burners
14	Power Cord
15	Stent 1
16	Conversion Head

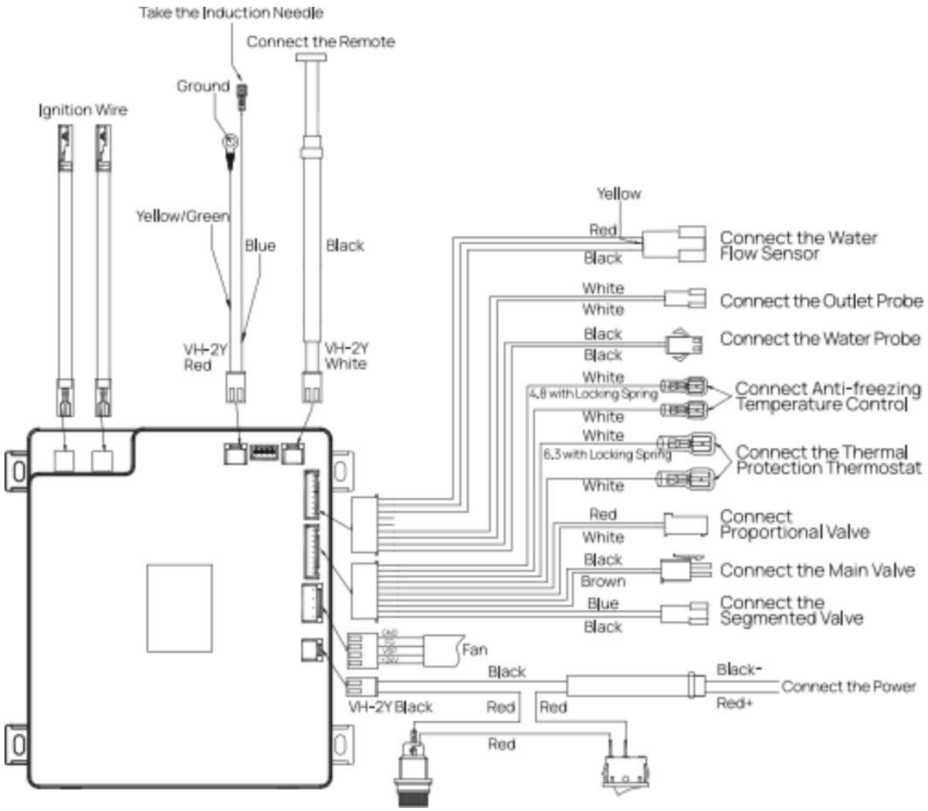
Serial Number	Name
17	Water Outlet Temperature Probe
18	Water Inlet Temperature Probe
19	Pressure Relief Valve
20	Cock
21	Front Outlet Valve
22	Stent 2
23	Stent 3
24	The Chimney
25	Controller
26	Air Intake Grille
27	Door
28	Door Lock
29	Exhaust Grille
30	Drainage Connector
31	Drainpipe

Wiring Diagram

⚠ Service Notice

Label all wires before disconnecting them when servicing the control system. Incorrect wiring during reassembly may cause improper operation or serious safety hazards.

Important: Wiring errors may result in equipment damage, malfunction, or unsafe operation.



IX. Customer Service and Warranty Policy

If you need assistance, please contact us through the marketplace where you purchased the product.

When contacting customer support, include:

- A description of the issue
- Clear photos of the product
- Photos of the model label or markings on the packaging

This information allows us to identify your product quickly and provide faster support.

Returns or Replacements

If you need to return or replace the item, please indicate the reason for the request in the comments section when submitting the return.

Your feedback is valuable and helps us improve our products and services.

To ensure a smooth return process:

- Please keep the original packaging
- Include all accessories and components

⚠Returns without the original packaging or missing parts may not be accepted.

Replacement Parts

If you require replacement parts, please provide:

- Clear photos of the damaged or faulty part
- Photos of the product label or box markings

This helps our service team accurately identify your model and supply the correct replacement parts.

Defective Product

If you receive a defective or damaged item, please:

1. Take clear photos of the damaged area or part
2. Take a photo of the model label or packaging markings

Our support team will review the information and provide the best solution as quickly as possible.

If a return or replacement is required, please retain the original packaging and include all components.

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