Baotree YYJ24046-18

Baotree 18L Tankless Propane Water Heater (Model YYJ24046-18) Instruction Manual

Your guide to safe and efficient operation

1. Important Safety Information

Read all instructions carefully before installation and operation. Failure to follow these instructions could result in property damage, personal injury, or death. Keep this manual for future reference.

- **Ventilation:** Ensure adequate ventilation when operating the water heater. Do not operate in enclosed spaces without proper exhaust.
- **Propane Gas:** Use only propane gas. Check for gas leaks using a soapy water solution at all connections before operation. Never use an open flame to check for leaks.
- **Water Connections:** Ensure all water connections are secure and leak-free. Verify that the pipe threads are compatible with your plumbing system (refer to Section 2.1 for details).
- **Overheat Protection:** The unit is equipped with overheating protection. If the water temperature exceeds safe limits, the unit will shut off automatically.
- **Dry Combustion Protection:** Prevents the burner from igniting if there is no water flow.
- **Low-Flow Protection:** The burner will not ignite unless the minimum working water pressure (3.6 PSI) is reached.
- **Flame Fault Protection:** Automatically shuts off the gas supply if the flame extinguishes unexpectedly.
- **High Water Pressure Protection:** Protects the unit from damage due to excessive water pressure.
- **Anti-Freezing Protection:** Take appropriate measures to prevent freezing in cold weather conditions (refer to Section 4.2).
- **20-Minute Timer:** For safety, the unit features an automatic shut-off after 20 minutes of continuous operation. To continue heating, simply restart the unit.

For additional safety information, please consult local codes and regulations.

2. Product Overview and Setup

2.1 What's in the Box

- Baotree 18L Tankless Propane Water Heater Unit
- Shower head
- Stainless steel water hose
- Plated shower head base
- CSA gas regulator

2.2 Component Identification

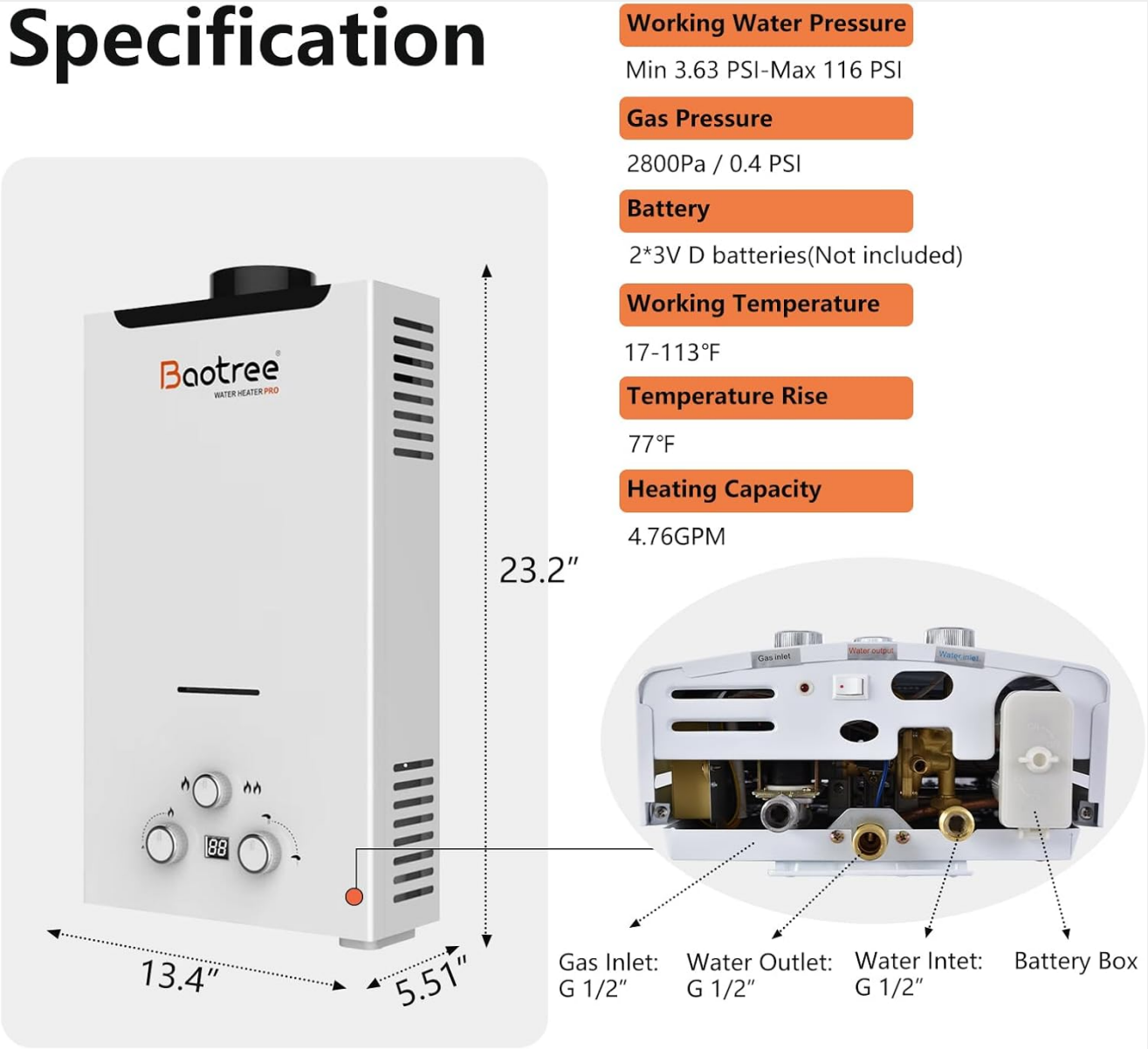


Image Description: This image displays the Baotree 18L Tankless Propane Water Heater from the front and a cutaway view of the bottom connections. Key components are labeled: Gas Inlet (G 1/2"), Water Outlet (G 1/2"), Water Inlet (G 1/2"), and Battery Box. Dimensions are also shown: 23.2" height, 13.4" width, and 5.51" depth. Specifications like Working Water Pressure (Min 3.63 PSI - Max 116 PSI), Gas Pressure (2800Pa / 0.4 PSI), Battery (2*3V D batteries, not included), Working Temperature (17-113°F), Temperature Rise (77°F), and Heating Capacity (4.76GPM) are listed.

- **Gas Inlet:** Connect the provided CSA gas regulator and propane tank here.
- **Water Inlet:** Connect the cold water supply hose here.
- **Water Outlet:** Connect the shower head or other hot water output here.
- **Battery Box:** Located at the bottom right. Requires 2x 'D' cell batteries (not included) for ignition.
- **Digital Display:** Shows the current water temperature in Celsius.

- **Gas Input Regulator Knob:** Adjusts the gas flow to control heating intensity.
- **Water Output Regulator Knob:** Adjusts the water flow rate.
- **Summer/Winter Mode Switch:** Selects between partial (Summer) and full (Winter) burner operation for energy efficiency.

2.3 Installation Steps

1. **Mounting:** The unit is designed for portable use. Ensure it is placed on a stable, non-combustible surface or securely mounted in a well-ventilated outdoor area.
2. **Battery Installation:** Open the battery box and insert two 'D' cell batteries, ensuring correct polarity.
3. **Gas Connection:** Connect the provided CSA gas regulator to the gas inlet on the water heater and then to your propane tank. Tighten all connections securely. Perform a leak test with soapy water.
4. **Water Inlet Connection:** Connect your cold water supply hose to the water inlet (G 1/2" thread). Ensure a tight, leak-free connection. **Important Note:** Some users have reported that the water inlet and outlet connections may be British pipe threads, which are not compatible with standard American plumbing without adapters. Verify thread type before making permanent connections.
5. **Water Outlet Connection:** Connect the shower head or desired hot water output hose to the water outlet (G 1/2" thread).
6. **Water Flow:** Turn on the cold water supply to allow water to flow through the unit. Check for any leaks at all water connections.

3. Operating Instructions

3.1 Initial Start-up

1. Ensure all connections (gas and water) are secure and leak-free.
2. Open the propane tank valve.
3. Turn on the cold water supply. Ensure sufficient water pressure (minimum 3.6 PSI).
4. Open the hot water faucet or shower head. The unit will automatically ignite, and the digital display will show the water temperature.

3.2 Temperature Control



Image Description: This image highlights the control panel of the Baotree water heater. It points out the 'Summer & Winter Mode' switch, the 'Gas Input Regulator' knob, and the 'Water Output Regulator' knob. The digital display is visible in the center. The background shows the water heater in an outdoor setting next to an RV.

- **Digital Display:** The display shows the current water temperature in Celsius. There is no Fahrenheit option.
- **Gas Input Regulator:** Rotate this knob to increase or decrease the gas flow, which directly affects the water temperature. Higher gas flow results in hotter water.
- **Water Output Regulator:** Rotate this knob to adjust the water flow rate. A lower flow rate generally allows for hotter water, as the water spends more time in the heat exchanger.
- **Summer/Winter Mode:**
    - **Summer Mode:** One-quarter of the burner is off, saving energy. Suitable for warmer ambient temperatures or when less hot water is needed.
    - **Winter Mode:** All burners are active for full heating capacity. Recommended for colder ambient temperatures or when maximum hot water temperature is desired.

3.3 Shutting Down the Unit

1. Close the hot water faucet or shower head. The flame will extinguish.
2. Close the propane tank valve.

3. Turn off the cold water supply.

4. Maintenance

4.1 General Cleaning

- Wipe the exterior of the unit with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- Periodically check the gas and water connections for any signs of wear or leaks.

4.2 Winterization and Storage

To prevent damage from freezing temperatures:

1. Disconnect the water inlet and outlet hoses.
2. Drain all water from the unit by tilting it or using the drain valve if available. Ensure no water remains inside the heat exchanger.
3. Store the unit in a dry, frost-free location.
4. Remove the 'D' cell batteries if storing for an extended period to prevent corrosion.

5. Troubleshooting

If you encounter issues, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No ignition/No hot water	No gas supply, low water pressure, dead batteries, flame fault protection activated.	Check propane tank, ensure minimum 3.6 PSI water pressure, replace 'D' batteries, check gas connections.
Water not hot enough	Low gas flow, high water flow, Summer mode selected in cold conditions.	Increase Gas Input Regulator, decrease Water Output Regulator, switch to Winter mode.
Unit shuts off unexpectedly	Overheat protection, 20-minute timer, low water flow, flame fault.	Check water flow, restart unit after 20 minutes, ensure proper ventilation.
Water leaks at connections	Loose connections, incompatible pipe threads.	Tighten connections. If threads are incompatible (e.g., British vs. American), acquire appropriate adapters.
Error code on display	Internal fault or sensor issue.	Refer to specific error code in a more detailed service manual or contact customer support.

6. Specifications

Feature	Specification
Brand	Baotree
Model	YYJ24046-18 (18L)

Feature	Specification
Product Dimensions (W x H)	13.4" x 23.2" (approx. 5.51" depth)
Item Weight	17.71 pounds
Power Source	Liquid Propane
Maximum Output Power	115,425 BTU/hour
Heating Capacity	4.76 Gallons Per Minute (GPM)
Working Temperature Range	17°F - 113°F (approx.)
Minimum Starting Water Pressure	3.6 PSI
Maximum Water Pressure	116 PSI
Efficiency	High Efficiency
Mounting Type	Portable
Special Features	Advanced Combustion Technology, Overheating Protection, Dry Combustion Protection, Low-Flow Protection, Flame Fault Protection, High Water Pressure Protection
UPC	631060198545

7. Warranty and Support

For warranty information, technical support, or to inquire about replacement parts, please contact Baotree customer service directly. Refer to the product packaging or the Baotree official website for contact details.