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› Suburban RV Tankless 42,000 BTU Water Heater (ST-42) Instruction Manual

Suburban ST-42

Suburban RV Tankless 42,000 BTU Water Heater (ST-42) Instruction Manual

Model: ST-42 | Brand: Suburban

1. INTRODUCTION

This manual provides essential instructions for the safe and efficient operation, installation, and maintenance of your Suburban ST-42 RV Tankless Water Heater. Please read this manual thoroughly before installation and use to ensure proper function and to prevent potential hazards. Retain this manual for future reference.

2. SAFETY INFORMATION

Your safety and the safety of others are paramount. This water heater incorporates several safety features. Adhere to all warnings and instructions provided.

Key Safety Features:

- **Flame Out Protection:** This system automatically cuts the gas supply if low propane pressure or a burner malfunction is detected, enhancing operational safety.
- **Scald Protection:** An internal high-temperature kill switch prevents water temperature from exceeding 131°F (55°C), protecting against scalding.
- **Child Lock Feature:** Prevents outlet temperatures from exceeding 113°F (45°C) when activated, providing additional safety for children.
- **Active Freeze Protection:** When power and propane are available, this feature activates in low temperatures to prevent freeze damage to the unit.
- **Voltage Protection:** The unit will shut down in cases of low, high, or overcurrent voltage to prevent electrical damage.

Important: Installation and service must be performed by a qualified installer, service agency, or gas supplier. Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death. Read the installation and operating instructions thoroughly before using this

equipment.

3. PRODUCT OVERVIEW

The Suburban ST-42 Tankless Water Heater is designed to provide an on-demand supply of hot water for recreational vehicles. It operates by heating water only when needed, contributing to energy efficiency.

Components:



Figure 3.1: The Suburban ST-42 Tankless Water Heater unit, showing internal components and the included digital control center.

- **Water Heater Unit:** The main appliance containing the burner, heat exchanger, and control systems.
- **Digital Control Center:** A wall-mountable unit for setting desired water temperature and accessing system information.
- **Exterior Door (Sold Separately):** Required for installation, available in various styles (e.g., 6285APW or 6285AEB).

WATER HEATER DOOR SOLD SEPARATELY



Figure 3.2: Example of an exterior water heater door, which is sold separately and necessary for installation.

REMOTE INCLUDED

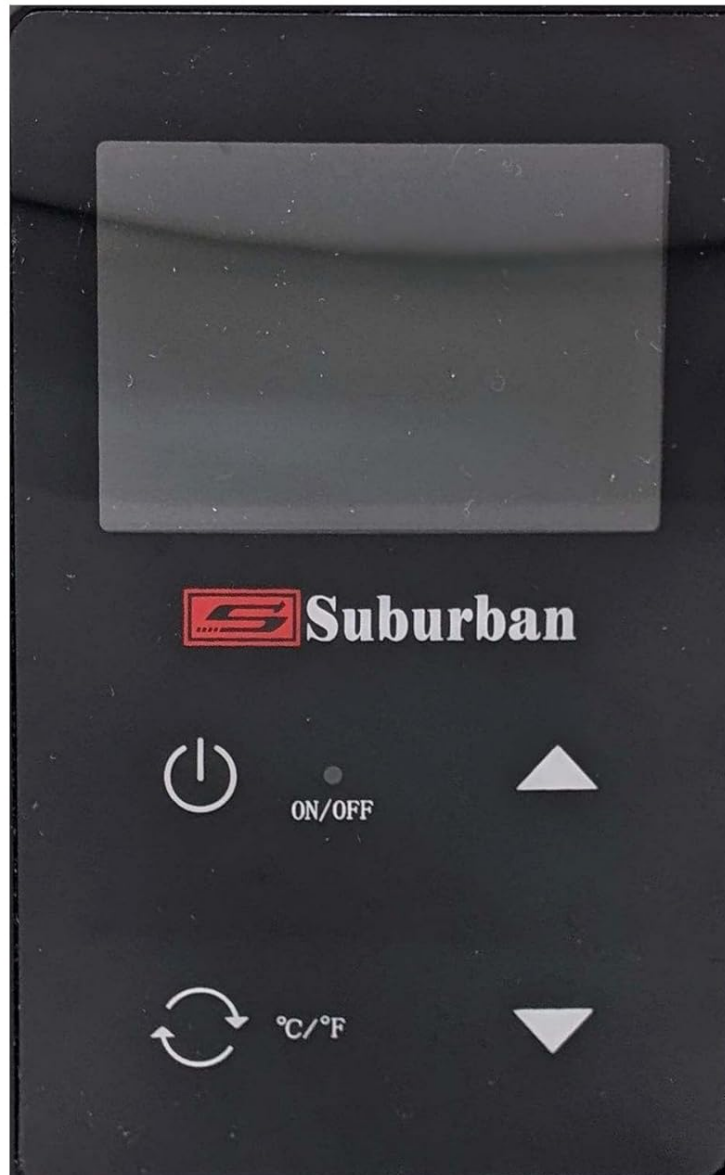


Figure 3.3: Close-up of the digital control center, used for power and temperature adjustments.

4. SETUP AND INSTALLATION

Installation of the Suburban ST-42 Tankless Water Heater requires knowledge of RV plumbing, electrical, and gas systems. It is strongly recommended that installation be performed by a certified RV technician or a qualified professional to ensure safety and compliance with all local codes and regulations.

General Installation Considerations:

- **Location:** The unit must be installed in a location that allows for proper ventilation and access for maintenance.
- **Mounting:** Securely mount the unit according to the manufacturer's instructions, ensuring it is level and stable.

- **Plumbing Connections:** Connect the cold water inlet and hot water outlet lines. Ensure all connections are watertight.
- **Gas Connection:** Connect the propane gas supply line. All gas connections must be leak-tested.
- **Electrical Connection:** Connect the 12-volt DC power supply. Ensure correct polarity.
- **Digital Control Center:** Install the digital control center in an accessible location inside the RV and connect it to the water heater unit using the provided wiring.
- **Exterior Door:** An appropriate exterior door (e.g., 6285APW or 6285AEB) is required for installation and must be purchased separately.

Refer to the detailed installation guide included with your product packaging for specific diagrams and step-by-step instructions.

5. OPERATING INSTRUCTIONS

The Suburban ST-42 Tankless Water Heater is operated via the digital control center. Ensure the propane supply is open and the 12V DC power is connected before operation.

Initial Startup:

1. Ensure all water and gas connections are secure and leak-free.
2. Open a hot water faucet in your RV to purge air from the water lines. Close the faucet once water flows steadily.
3. Turn on the 12V DC power supply to the water heater.
4. Press the **ON/OFF** button on the digital control center to power on the unit.
5. The unit will perform a self-check and then display the current water temperature or a default setting.

Setting Water Temperature:

- Use the **Up** and **Down** arrow buttons on the digital control center to adjust the desired water temperature. The maximum temperature is 131°F (55°C).
- To switch between Celsius and Fahrenheit, press the **°C/°F** button.

Hot Water Delivery:

To obtain hot water, simply open any hot water faucet in your RV. The unit will detect water flow and automatically ignite to heat the water to the set temperature. Close the faucet to stop the heating process.

Note on Flow Rate: This tankless water heater requires a minimum water flow rate to activate and maintain heating. If the flow rate is too low (e.g., mixing too much cold water with hot, or using low-flow fixtures), the unit may cycle off. For consistent hot water, it is recommended to set the desired temperature on the control center and use only the hot water faucet.

Child Lock Activation:

Consult your full product manual for specific instructions on activating the child lock feature, which limits the maximum outlet temperature to 113°F (45°C).

6. MAINTENANCE

Regular maintenance ensures the longevity and efficient operation of your Suburban ST-42 Tankless Water Heater. Always disconnect power and shut off the propane supply before performing any

maintenance.

Seasonal Maintenance:

- **Winterization:** Proper winterization is crucial to prevent freeze damage. This typically involves draining all water from the unit and plumbing lines. Refer to your RV's winterization guide and the water heater's specific instructions.
- **Active Freeze Protection:** Remember that the Active Freeze Protection feature requires both 12V DC power and propane to function. If the RV is stored without power or propane, manual winterization is essential.

General Maintenance:

- **Exterior Cleaning:** Keep the exterior of the unit and the vent free from obstructions and debris.
- **Inspection:** Periodically inspect gas and water connections for any signs of leaks or wear.
- **Professional Service:** It is recommended to have the unit inspected and serviced by a qualified technician annually.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter. For complex problems or if an issue persists, contact a qualified service technician.

Problem	Possible Cause	Solution
No hot water / Unit not igniting	No propane supply No 12V DC power Low water flow rate Air in gas lines Error code displayed	Check propane tank level and ensure valve is open. Verify 12V DC power connection and fuse. Ensure adequate water flow by opening hot water faucet fully. Avoid mixing with cold water initially. Purge air from gas lines by operating other gas appliances. Refer to the full manual for specific error code interpretations and solutions.
Water temperature fluctuates	Inconsistent water flow Inlet water temperature changes	Maintain a consistent water flow rate. Set desired temperature on the control center and use only the hot water faucet.
Unit shuts off unexpectedly	Low water flow Safety feature activation (e.g., Flame Out, Voltage Protection)	Increase water flow. Check for error codes. If a safety feature activated, address the underlying cause (e.g., propane supply, voltage).

For a comprehensive list of error codes and advanced troubleshooting, please consult the complete user manual provided with your product.

8. SPECIFICATIONS

Technical specifications for the Suburban ST-42 Tankless Water Heater.

Feature	Specification
Model	ST-42 (5381A)
BTU Rating	42,000 BTU
Power Source	Propane Gas, 12V DC Electrical
Product Dimensions	12.5"W x 12.5"H (Unit only)
Maximum Temperature	131°F (55°C)
Mounting Type	Wall
UPC	755790717903
Item Weight	Approximately 1 pound (Note: This seems low for a water heater, likely shipping weight or partial component weight. Refer to full product documentation for accurate weight.)

9. WARRANTY AND SUPPORT

For warranty information, technical support, or to locate an authorized service center, please refer to the official Suburban documentation included with your product or visit the Suburban website. Keep your purchase receipt as proof of purchase for warranty claims.

Contacting Support: When contacting support, please have your model number (ST-42 or 5381A) and serial number readily available.

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This manual is for informational purposes only. Specifications are subject to change without notice.