

Suburban 5239A

Suburban Advantage RV Tank Water Heater SW6DE Instruction Manual

Comprehensive guide for installation, operation, and maintenance of your Suburban 6-gallon RV water heater with Direct Spark Ignition and Incoloy Electric Element.

Product Overview	Safety Information	Installation	Operation Warranty & Support	Maintenance	Troubleshooting
		Specifications			

1. PRODUCT OVERVIEW

The Suburban Advantage RV Tank Water Heater SW6DE is a 6-gallon porcelain-lined steel tank designed for recreational vehicles. It features both Direct Spark Ignition (DSI) for gas operation and an Incoloy Electric Element for electric heating, offering versatile hot water solutions for your RV.

Key features include:

- **Durable Construction:** Engineered with a porcelain-lined steel tank for longevity, similar to residential water heaters.
- **Advanced Corrosion Protection:** Equipped with a replaceable anode rod to protect against tank corrosion. The anode rod also functions as a drain.
- **Flexible Power Options:** Utilizes Direct Spark Ignition for gas heating and an Incoloy Electric Element for electric heating, allowing use with campsite or generator power.
- **Efficient Heat Transfer:** Suburban's exclusive flue tube design optimizes heat transfer for efficient water heating.
- **Fast Recovery Rate:** Offers a recovery rate of 10.1 gallons per hour (gas only) and 6.1 gallons per hour (electric only).



Figure 1: Side view of the Suburban SW6DE RV Water Heater, illustrating the gas burner assembly, control board, and wiring

2. SAFETY INFORMATION

Always adhere to all local codes and regulations when installing and operating this water heater. Failure to do so may result in property damage, personal injury, or death. This appliance must be installed by a qualified service technician.

2.1 General Safety Precautions

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Ensure adequate ventilation when operating the appliance.
- Before servicing, disconnect all power supplies to the unit (gas and electric).
- Never operate the water heater without water in the tank.
- Regularly inspect the pressure relief valve for proper operation.

2.2 Carbon Monoxide Safety

This appliance produces carbon monoxide, which is an odorless, colorless gas that can cause serious injury or death. Ensure proper installation and ventilation. Install a carbon monoxide detector in your RV.

3. INSTALLATION

Installation of the Suburban SW6DE water heater requires careful attention to plumbing, electrical, and gas connections. It is recommended that installation be performed by a certified RV technician.

3.1 Pre-Installation Checks

- Verify that the installation location meets the required cutout dimensions: 12.75" x 12.75" x 19.19".
- Ensure sufficient clearance for ventilation and access for maintenance.
- Confirm that all necessary plumbing, electrical, and gas lines are available and meet local codes.

3.2 Mounting the Unit

The water heater is designed for wall mounting. Secure the unit firmly within the cutout using appropriate fasteners. Ensure a tight seal around the exterior to prevent water intrusion.



Figure 2: Front view of the Suburban SW6DE RV Water Heater, detailing the location of the reset buttons, gas valve, and the cover for the electric heating element.

3.3 Plumbing Connections

- Connect the cold water inlet and hot water outlet lines to the designated ports on the water heater.
- Install a pressure relief valve (T&P valve) as per manufacturer instructions and local codes.
- Ensure all connections are watertight.

3.4 Gas Connections

- Connect the RV's LP gas supply line to the water heater's gas inlet.
- Use appropriate gas-rated sealant on threaded connections.
- Perform a leak test on all gas connections using a non-corrosive leak detection solution.

3.5 Electrical Connections

- Connect the 12V DC power supply for the Direct Spark Ignition system.
- If utilizing the electric heating element, connect the 120V AC power supply. Ensure proper grounding.
- Verify all wiring connections are secure and correctly polarized.

4. OPERATION

The Suburban SW6DE water heater can operate on LP gas, electricity, or both simultaneously for faster recovery.

4.1 Filling the Water Heater Tank

1. Ensure the RV's fresh water tank is filled or connected to a city water supply.
2. Open a hot water faucet inside the RV to allow air to escape from the water heater tank.
3. Turn on the RV's water pump or city water supply.
4. Close the hot water faucet once a steady stream of water flows, indicating the tank is full.

WARNING: Never operate the electric heating element or gas burner without the tank being completely filled with water. This will cause damage to the heating element and tank.

4.2 Gas Operation (Direct Spark Ignition)

1. Ensure the LP gas supply is turned on at the tank.
2. Locate the interior control switch for the water heater (usually labeled "Gas" or "Water Heater").
3. Flip the switch to the "ON" position. The Direct Spark Ignition system will attempt to light the burner.
4. If the burner does not light after three attempts, the system will lock out. Turn the switch "OFF" for a few minutes, then try again. Ensure there is no air in the gas lines by purging other gas appliances first.

4.3 Electric Operation (Incoloy Electric Element)

1. Ensure the water heater tank is full of water.
2. Connect the RV to shore power or activate the generator.
3. Locate the interior control switch for the electric heating element (usually labeled "Electric" or "120V AC").
4. Flip the switch to the "ON" position. The electric element will begin heating the water.

For faster hot water recovery, both gas and electric heating can be operated simultaneously.

5. MAINTENANCE

Regular maintenance ensures the longevity and efficient operation of your Suburban water heater.

5.1 Anode Rod Inspection and Replacement

The porcelain-lined steel tank is protected by an anode rod, which corrodes sacrificially to prevent tank corrosion. Inspect the anode rod annually or more frequently depending on water conditions.

1. Turn off all power (gas and electric) to the water heater.
2. Drain the water heater tank (refer to Winterization section).
3. Remove the anode rod, which also serves as the drain plug, using a 1-1/16 inch socket.
4. Inspect the rod. If it is less than 1/4 inch in diameter or heavily pitted, replace it with a new Suburban anode rod.
5. Reinstall the anode rod (or new one) with Teflon tape on the threads, tightening securely.

Figure 3: Rear view of the Suburban SW6DE RV Water Heater tank, highlighting the water inlet and outlet connections.

5.2 Draining and Winterization

To prevent freeze damage, the water heater must be completely drained and bypassed during winterization.

1. Turn off all power (gas and electric) to the water heater.
2. Turn off the RV's water pump or disconnect from city water.
3. Open all hot and cold water faucets in the RV to relieve pressure.
4. Open the pressure relief valve on the water heater.
5. Remove the anode rod/drain plug to allow the tank to drain completely.
6. Ensure the water heater bypass valve is engaged to prevent RV antifreeze from entering the tank.

5.3 Exterior Maintenance

- Keep the exterior vent and combustion chamber free of obstructions (e.g., insect nests, debris).
- Periodically clean the exterior access panel.

6. TROUBLESHOOTING

This section provides solutions to common issues. For complex problems, contact a qualified service technician.

Problem	Possible Cause	Solution
No hot water (Gas)	LP gas supply off; Air in gas lines; Ignition lockout; Thermostat/ECO tripped.	Check LP gas supply; Purge gas lines by lighting stove burners; Reset gas control switch; Press reset buttons behind the exterior access panel.
No hot water (Electric)	No shore power/generator; Electric switch off; Heating element failure; Thermostat/ECO tripped.	Verify AC power; Turn on electric switch; Consult technician for element replacement; Press reset buttons behind the exterior access panel.
Water not hot enough	Thermostat setting; Excessive hot water use; Both gas and electric not engaged.	Allow more recovery time; Use both gas and electric for faster heating.
Water leaking from T&P valve	Normal expansion; Faulty T&P valve; Excessive water pressure.	This can be normal during heating; If continuous, check RV water pressure regulator or replace T&P valve.
Foul odor from hot water	Bacterial growth in tank; Anode rod issue.	Sanitize water system; Inspect/replace anode rod.

7. SPECIFICATIONS

Feature	Detail
Model	SW6DE (5239A)

Feature	Detail
Capacity	6 Gallons
Product Dimensions (W x H x D)	12.69" x 12.69" x 19.19"
Cutout Dimensions (W x H x D)	12.75" x 12.75" x 19.19"
Gas Input (BTU/h)	12,000
Electric Element Input (Watts)	1,440
Recovery Rate (Gas Only)	10.1 Gallons/Hour
Recovery Rate (Electric Only)	6.1 Gallons/Hour
Voltage	12V DC (Ignition), 120V AC (Electric Element)
Tank Material	Porcelain-lined Steel
Ignition Type	Direct Spark Ignition (DSI)
Item Weight	32.9 pounds
UPC	755790706297

8. WARRANTY & SUPPORT

8.1 Warranty Information

The Suburban SW6DE RV Tank Water Heater is backed by a **2-year limited warranty** on components and a **3-year limited warranty** on the porcelain-lined steel tank. Please retain your proof of purchase for warranty claims. For full warranty terms and conditions, refer to the documentation included with your product or contact Suburban customer service.

8.2 Customer Support

For technical assistance, parts, or warranty inquiries, please contact Suburban customer support. Contact information can typically be found on the manufacturer's website or in the packaging materials.

You can also visit the official Suburban brand store for more information and product resources [Suburban Brand Store](#)

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