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**SUBURBAN TANKLESS WATER HEATERS
OPERATION & MAINTENANCE GUIDE
MODELS IW60 & IW60RL**

Part Number 206245
03-01-2023

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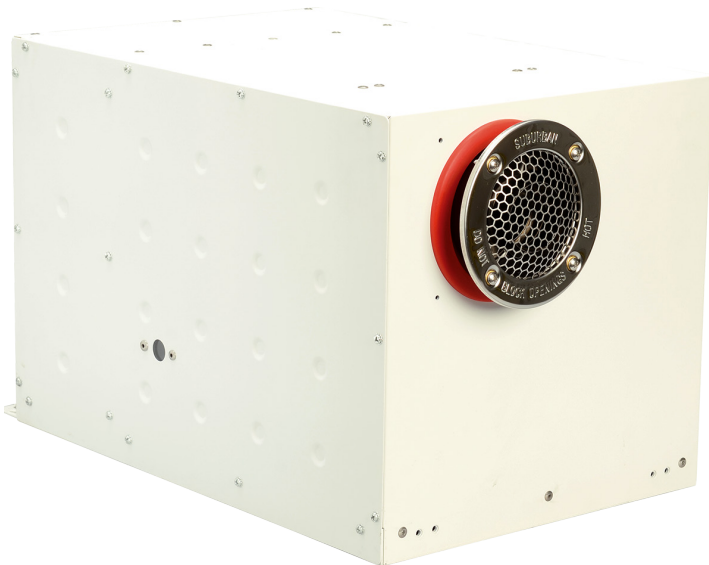
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Suburban Advantage Continuous Water Heater



NOTE: Contact your Authorized Service Center or Suburban RV if you have any questions **before** starting any operation, service, or maintenance.

Service and maintenance must be performed by a qualified installer, service agency, or gas supplier.

Caution Notes

As you read this information, take particular note of the NOTICE, CAUTION, WARNING, and DANGER symbols when they appear. This information is important for safe and efficient use of the Suburban tankless water heater.

NOTICE

NOTICE signals a situation where potential damage to the Suburban tankless water heater could occur.

CAUTION

CAUTION signals a situation where potential harm or risk of minor or moderate injury could occur if you do not follow instructions.

WARNING

WARNING signals a hazardous situation where potential harm, risk of serious injury, or death could result if instructions are not followed.

DANGER

DANGER signals a situation where immediate risk of serious injury or death will result if instructions are not followed.

NOTE: This manual will also use notes sections similar to this one to draw attention to features and practices which must be observed.

Read all instructions before using the Suburban Water Heater. Suburban is not liable for damage resulting from failing to follow instructions contained in this, and any other Suburban documentation relevant to this appliance.

⚠ CAUTION

- Read this user manual before using the Suburban System to reduce the risk of injury to persons or damage to the equipment.
- The product identity label contains specifications of the unit, to what standard it has been tested, and important safety notices.
- For your safety, ALL repairs and/or maintenance of unit should be performed by your dealer or a qualified service technician.

SAFETY INFORMATION

- (If Equipped) Have your dealer show you where the main gas shut-off valve is located and how to shut it off in an emergency.
- When using electrical appliances, safety precautions should always be followed. Only operate this appliance for its intended purpose.
- Failure to follow all instructions and safety warnings exactly as described herein could result in serious injury, death, or property damage.
- If the user of this appliance fails to maintain it in the condition in which it was shipped from the factory, or if the appliance is not used solely for its intended purpose, or if appliance is not maintained properly, then the risk of a fire and/or the production of carbon monoxide increases which can cause personal injury, property damage, or death.

⚠ WARNING

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 any electrical switch or use any phone or radio in the vehicle.
- Do not start the vehicle's engine or electric generator.
- Contact the nearest gas supplier or qualified service technician for repairs.
- If you cannot 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.

⚠ DANGER

FIRE OR EXPLOSION HAZARD

Failure to follow safety warnings exactly could result in property damage, serious personal injury, or death.

⚠ DANGER

ELECTRIC SHOCK

Before cleaning, make sure the power has been turned off at the circuit breaker panel and the appliance is cool.

GENERAL INFORMATION

- **(IW60 MODELS)** The flow of hot water at the SET point begins approximately 3 seconds after ignition but will not reach the faucet until the hot water lines leading to the faucet are cleared of any remaining water. This time is determined by the length of the hot water line.
- **(IW60RL MODELS)** This water heater is equipped with a recirculation feature to always keep hot water at the faucets. To enable/disable the recirculation feature, press the RECIRC button on the On-Demand Control Center.
- **(IW60RL MODELS)** The recirculation mode on the water heater will occasionally start up and shut down to keep the hot water lines at the set point temperature.
- **LOUD PUMP (IW60RL MODELS)** If the recirculation pump is loud, the root cause is typically air in the pump. Run hot water at multiple faucets for 5 minutes to flush out any air. Propane does not need to be on for this flushing.
- **(IW60RL MODELS)** This water heater has an energy mode circuit that will shut down operation if operating continuously for three (3) hours.

If the water heater fails to light for any reason, a second Trial for Ignition (TFI) will automatically begin. If the second TFI fails, the water heater will automatically begin a third TFI. If the third TFI fails, the water heater will go into a lock-out mode and will not try to light the burner again until it is reset.

RESET AFTER LOCK-OUT

Using the On-Demand Control Center: Turn faucet off, then back on.
 Using the ON/OFF Control Switch: turn switch OFF, then back ON.

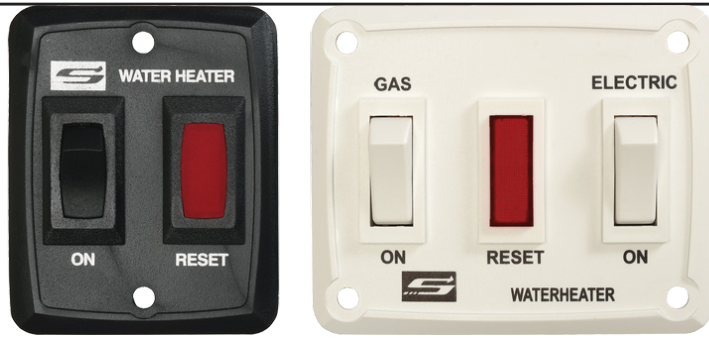
⚠ CAUTION

INJURY/BURNS

The surfaces of this appliance become hot during use, above 90°C (194°F). To prevent burns, ensure that the hot surfaces never contact bare skin.

Suburban Tankless Water Heater Controls

Water Heater Control ON/OFF Switch Plates



Temperature Adjustment

Dip-switches on blue circuit board inside water heater that control the MAXIMUM water temperature with use of the ON/OFF switch plates (shown to the left). Adjustments are only made to D3 & D4.

	D3	D4	Temperature
	ON	ON	108°F
	OFF	OFF	120°F *
	ON	OFF	125°F
	OFF	ON	130°F

DIP SWITCHES (D3 & D4)

* On-Demand Water Heater is factory set at 120°F

Water Heater On-Demand Control Center (optional)



Display Description

1		Recirculation	This icon is displayed when the recirculation feature is ON.
2		Setting Temp Indicator; Outlet Water Temp Indicator	<ul style="list-style-type: none"> When setting the water temperature, the temperature display will flash. After SET Temperature is reached, the display stops flashing after a few seconds. When the demand for hot water has been terminated, the display will return to the SET Temperature. When the water heater is turned off, "OFF" will be displayed.

Button Description

3		ON/OFF	Power button. Switch from turning unit ON or turning unit OFF.
4		Recirculation	Recirculation button. Switch from turning recirculation feature ON or OFF.
5		UP	INCREASE Set Temperature by 1 degree increments. Setting range is 95°F - 130°F. *
6		DOWN	DECREASE Set Temperature by 1 degree increments. Setting range is 95°F - 130°F. *

***NOTE:** To switch between degrees (°) Fahrenheit and degrees (°) Celsius, press and hold both the UP and DOWN buttons until the °F or °C starts blinking. Then press the UP or DOWN button to switch.

Operating Instructions

To Turn ON Water Heater:

1. Turn on gas supply.
2. Turn on electrical power to the appliance.
3. Locate the control panel/switch plate that operates the water heater - generally somewhere inside the RV.
4. (If equipped) Press the power button on the On-Demand Control Center (located inside the RV) If the burner does not light, the system will automatically attempt two more tries for ignition, before lock-out.

NOTE: Units not equipped with the On-Demand Control Center:

Locate the ON/OFF switch plate that operates the water heater (located inside the RV). Your switch may have a different appearance. Once the switch is located and depending on the switch plate - press the rocker switch marked "GAS" or the single rocker switch to the ON position.

Reference the water heater control images on page 4.

5. If lockout occurs before the burner lights, the red "RESET" light on the switch plate remains illuminated to indicate ignition did not occur. To reset the system and attempt ignition again, press the rocker switch marked "GAS", or the plain rocker switch, or the power button on the On-Demand Control Center so that it is in the "OFF" position and wait five seconds before returning the switch to the "ON" position. The first start-up of the water heater may require several ignition cycles before all the air is purged from the gas lines.
6. If the burner still fails to light, call a Suburban authorized service center or a local RV service agency.

To Turn OFF the On-Demand Water Heater:

Locate the switch plate that operates the water heater which is somewhere inside the RV. Your switch may have a different appearance. Once the switch is located and depending on the switch plate; Press the rocker switch marked "GAS", or the plain rocker switch so that it is in the "OFF" position. If using the On-Demand Control Center press the power button. Refer to page 4 for more information.

1. Turn off gas supply.
2. Turn off electrical power to the appliance.
3. If vehicle is to be stored or heater is going to be turned off while subject to freezing temperature, drain water heater. (See "Draining and Storage Instructions.")

Temperature Adjustment

This On-Demand Water Heater is factory set to 120°F. To change the water temperature settings:

1. Press the UP or DOWN arrows on the On-Demand Control Center to increase or decrease the SET water temperature in single degree increments. The water temperature set range is 95°F - 130°F.
2. To switch between Fahrenheit and Celsius, press and hold both the UP and DOWN buttons until the °F or °C starts blinking. Then press the UP or DOWN button to select.

If your application does NOT have the On-Demand Control Center, temperature settings can be adjusted by alternating the position of the Dip Switches. These are located on the blue module which is behind the service panel in between the cold water inlet and hot water outlet inside the water heater. Reference page 4 for more information.

Operating Instructions & Maintenance

Operating Faucets and Showers:

All faucets must be operated the same as you would in your home.

Unit thermostat is set at 120°F at the factory. Cold water must be added to achieve the desired hot water temperature.

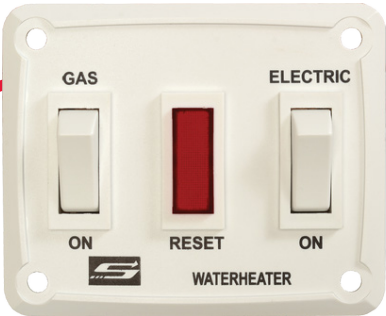
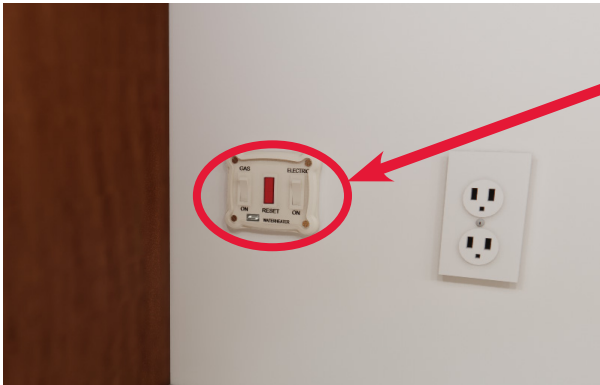
1. If this is the first use of the unit, turn water supply on and open each faucet and allow all air to be purged from the water lines.
2. Turn on main power supply.
3. Turn on the main propane supply. Hot water faucets may have to be cycled several times to purge gas supply.
4. The water heater only heats when there is a call for water (open hot water faucet).
5. A minimum of 0.5 gallons per minute is required for water heater to operate.
6. Faucet should be turned on and adjusted to desired temperature and flow before entering shower.
7. Shower-head button should not be used. Using the shower-head button will create a drop in temperature by reducing or stopping the flow of water through the water heater causing the water heater to shut down.
8. Flow restrictors in faucets and shower-heads should be removed for best performance.
9. **(IW60RL MODELS)** If recirculation mode is enabled, the water heater will cycle on and off periodically to keep the hot water lines throughout your RV at the desired set point temperature. If recirculation mode is disabled, the hot water lines will cool between uses, leading to a delay in hot water at the faucet or shower-head.

Maintenance:

Periodically inspect unit for soot. If soot is present anywhere on the water heater, immediately shut unit down. Soot is a sign of incomplete combustion and must be corrected before operating water heater. Areas to check for soot:

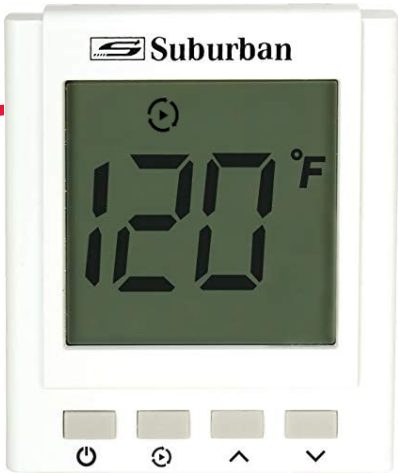
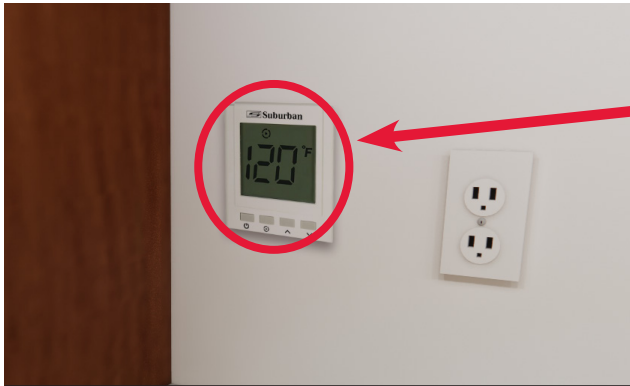
1. Check for an obstruction in vent cap.
2. Check vent to see that no foreign material has accumulated to prevent flow of combustion and ventilating air.

Suburban Tankless Water Heater Controls



NOTE: The control switch location may be different. This is just a sample image for the location of a typical control switch. Actual placement may vary.

OR



NOTE: The control switch location may be different. This is just a sample image for the location of the On-Demand Control Center. Actual placement may vary.

Water Heater Location In Trailer Bay



NOTE: The Water Heater location may be different. This is just a sample image for the location of the wall heater. Actual placement may vary.

Draining and Storage

Draining & Storage

If RV is to be stored during winter months, the water heater system must be drained to prevent damage from freezing.

1. Turn off electrical power to water heater using the On-Demand Control Center, switch plate, or by removing the fuse.
2. Shut off gas supply to water heater.
3. Turn off pressure pump on water system.
4. Open both hot and cold-water faucets.
5. **(IW60 MODELS)** Locate the water heater unit inside the coach. Remove the service panel to access the drain valve. The drain valve is a red knob located on the rear of the water heater where plumbing enters the water heater.
 - **(IW60RL MODELS)** Locate the water heater unit inside the coach. Remove the service panel to access the drain valve. The drain valve is a red knob located on the rear of the water heater where plumbing enters the water heater. Turn the drain valve clockwise one quarter turn and leave in this position. Behind the drain valve, locate the black drain handle. Turn the drain handle one quarter turn counterclockwise, which will allow the full system to begin draining. Once the full system draining is complete, turn the black drain handle one quarter turn clockwise, returning it to the closed position. Turn the red drain valve knob one quarter turn counterclockwise, returning it to the closed position. Finally, replace the service panel.
6. Follow RV manufacturer's instructions for draining entire water system.

NOTE: The water heater system will have to be refilled with water and all air removed from lines before the unit will relight.

WARNING

FREEZE WARNING

Drain or fill with RV approved antifreeze if subject to freezing temperatures when storing for winter.

Winterizing

1. Follow RV manufacturer's instructions for draining the entire water system.
2. Once drained, RV NON-TOXIC antifreeze can be added if recommended by your coach manufacturer.

WARNING

It is imperative that the water heater tank be filled with water before operating the water heater. Operation of the water heater without water in the tank may result in damage to the tank and/or controls. This type of damage is not covered by the limited warranty.

Freeze Protection

The NAUTILUS RL (IW60RL) On-Demand Water Heater has built-in FREEZE PROTECTION and will intermittently cycle the burner when the water temperature has fallen below 40°F. This intermittent cycling will continue until the water temperature has risen above 50°F. To provide this freeze protection, the gas supply must be on and available, and electrical power must be on and available. If the On-Demand Water Heater is dripping water into the drain line, in cold weather when the water supply temperature is below 38°F and does not stop when the water temperature rises above 38°F, call your local service center. The valve may be disabled by turning the needle valve located on the front of the On-Demand Water Heater 5 and ½ turns clockwise. Closing the valve will disable the mechanical freeze protection feature. The water system must be drained when not in use to avoid damage caused by ice expanding in water lines if valve is closed.

Pressure Relief Valve and Descaling

Pressure Relief Valve

The temperature and pressure relief valve is designed to open if the temperature of the water within the heater reaches 210°F, or if the water pressure in the heater reaches 145 PSI. 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.

WARNING

Do not place a valve between the relief valve and the unit.

Do not plug the relief valve under any circumstances.

Odor From Hot Water System

Each year, drain the water from the system (see **DRAINING AND STORAGE INSTRUCTIONS**) and flush the heat exchanger with an approved descaling solution.

Suburban offers a kit with detailed instructions on how to properly “DESCALE” your water heater (Part # **521163**).

Suburban recommends that you descale your water heater once a year. Contact your local RV service center, dealer, or your local agency for pricing and ordering.

TWO YEAR LIMITED WARRANTY SUBURBAN RECREATIONAL VEHICLE WATER HEATER

TWO YEAR LIMITED WARRANTY

This Suburban product is warranted to the original purchaser to be free from defects in material and workmanship under normal use and maintenance for a period of two years from date of purchase whether or not actual use begins on that date. It is the responsibility of the consumer/owner to establish the warranty period. Suburban does not use warranty registration cards for its standard warranty. You are required to furnish proof of purchase date through a Bill of Sale or other payment records.

Suburban will replace any parts that are found defective within the first two years and will pay a warranty service allowance directly to the recommended Suburban Service Center at rates mutually agreed upon between Suburban and its recommended service centers. Replacement parts will be shipped FOB the shipping point within the Continental United States, Alaska and Canada to the recommended service center performing such repairs. All freight, shipping and delivery costs shall be the responsibility of the owner. The exchanged part or unit will be warranted for only the unexpired portion of the original warranty. Before having warranty repairs made, confirm that the service agency is a recommended service center for Suburban. DO NOT PAY THE SERVICE AGENCY FOR WARRANTY REPAIRS; SUCH PAYMENTS WILL NOT BE REIMBURSED.

Suburban reserves the right to examine the alleged defect in the water heater or component parts, and it is the owner's obligation to return the water heater and/or component parts to Suburban or its representative. When returning a water heater, it must include all component parts and the serial number plate. Returned component parts must be individually tagged and identified with the water heater's model number, serial number and date of installation.

For warranty service, the owner/user should contact the nearest recommended Suburban Service Center, advising them of the model and serial numbers (located on the water heater) and the nature of the defect. Transportation of the RV to and from the Service Center and/or travel expenses of the Service Center to your location is the responsibility of the owner/user. A current listing of recommended service center may be obtained from Suburban's website: www.Airxcel.com. If you cannot locate a recommended service center locally, the service agency chosen to perform warranty repairs must contact our Service Department at 423-775-2131 for authorization before making repairs. Unauthorized repairs made will not be paid by Suburban.

LIMITATION OF WARRANTIES

ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY) ARE HEREBY LIMITED IN DURATION TO THE PERIOD FOR WHICH EACH LIMITED WARRANTY IS GIVEN. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER OR OTHER PERSON WHOMSOEVER.

SUBURBAN WILL NOT BE RESPONSIBLE FOR:

1. Normal maintenance as outlined in the installation, operating and service instructions owner's manual including cleaning of component parts and cleaning or replacement of the burner orifice. Any water damage arising, directly or indirectly, from any defect in the water heater or component parts or from its use.
2. Initial checkouts and subsequent checkouts which indicate the water heater is operating properly, or diagnosis without repair.
3. Damage or repairs required as a consequence of faulty or incorrect installation or application not in conformance with Suburban instructions.
4. Failure to start and/or operate due to loose or disconnected wires; water or dirt in controls, fuel lines and gas units; improper gas pressure; low voltage.
5. Cleaning or adjustment of components; electrode, burner tube, pilot and thermocouple.
6. Costs incurred in gaining access to the water heater.
7. Parts or accessories not supplied by Suburban.
8. Freight charges incurred from parts replacements.
9. Damage or repairs needed as a consequence of any misapplication, abuse, unreasonable use, unauthorized alteration, improper service, improper operation or failure to provide reasonable and necessary maintenance.
10. Suburban products whose serial number has been altered, defaced or removed.
11. Suburban products installed or warranty claims originating outside the Continental U.S.A., Alaska, Hawaii and Canada.
12. Damage as a result of floods, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Suburban.
13. ANY SPECIAL, INDIRECT OR CONSEQUENTIAL PROPERTY, ECONOMIC OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER

Some states do not allow the exclusion of incidental or consequential damages, so the above limitation may not apply to you.

NO REPRESENTATIVE, DEALER, RECOMMENDED SERVICE CENTERS OR OTHER PERSON IS AUTHORIZED TO ASSUME FOR SUBURBAN MANUFACTURING COMPANY ANY ADDITIONAL, DIFFERENT OR OTHER LIABILITY IN CONNECTION WITH THE SALE OF THIS SUBURBAN PRODUCT.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

IF YOU HAVE A PRODUCT PROBLEM

FIRST: If your RV has its original water heater and is still under the RV manufacturer's warranty, follow the steps suggested by your dealer or manufacturer of the RV.

SECOND: Contact a conveniently located recommended Suburban Service Center. Describe to them the nature of your problem, make an appointment, if necessary, and provide for delivery of your RV to the selected service center.

THIRD: For the location of the nearest Service Center, refer to the listing provided or contact:

AIRXCEL, INC. - SUBURBAN DIVISION
Customer Service Department
676 Broadway Street
Dayton, Tennessee 37321
(423) 775-2131, Ext. 7101
www.Airxcel.com

FOR FUTURE REFERENCE, YOU SHOULD RECORD THE FOLLOWING INFORMATION:	
MODEL NUMBER:	_____
SERIAL NUMBER:	_____
STOCK NUMBER:	_____
DATE OF PURCHASE:	_____





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