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Suburban Manufacturing 2588A

Suburban Manufacturing SF-35VHQ Furnace User Manual

Model: 2588A

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your Suburban Manufacturing SF-35VHQ 35,000 BTU Furnace. Please read this manual thoroughly before installation or operation to ensure proper use and to prevent potential hazards.

The Suburban SF-35VHQ furnace is designed to provide superior and dependable heating for recreational vehicles, built with versatility for various installation orientations.

2. IMPORTANT SAFETY INFORMATION

WARNING: Improper installation, adjustment, alteration, service, or maintenance can cause property damage, personal injury, or loss of life. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.

- Always ensure adequate ventilation when operating the furnace.
- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Keep the area around the furnace clear of combustible materials, gasoline, and other flammable vapors and liquids.
- Ensure all gas connections are properly sealed and leak-tested before operation.
- Only qualified service personnel should install, service, or repair this appliance.
- Turn off the gas supply and electrical power before performing any maintenance or service.

3. PRODUCT OVERVIEW AND COMPONENTS

The Suburban SF-35VHQ furnace is a low-profile, ducted unit designed for efficient heating. Key components include:

- **Heat Exchanger:** Transfers heat from combustion gases to the circulating air.
- **Blower Motor:** Circulates air through the heat exchanger and into the RV's ductwork.

- **Burner Assembly:** Where the LP gas is ignited and combustion occurs.
- **Direct Spark Ignition (DSI):** Electronically ignites the gas.
- **Control Board:** Manages the furnace's operation.
- **Gas Valve:** Controls the flow of LP gas to the burner.
- **Duct Connections:** Points for connecting the RV's heating ducts.
- **Exterior Access Door (Sold Separately):** Required for outside service access.



Figure 3.1: Main view of the Suburban SF-35VHQ Furnace, showing the air intake, exhaust, and duct connections.

Furnace Series SF-35VHQ

Features // // // //

- ✓ **Provides maximum heating performance in a ducted unit for increased design flexibility**
- ✓ **Feature top or side rear gas and electrical connections with an exterior access door for installation and service access**



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Figure 3.2: Diagram highlighting key features of the SF-35VHQ series, including maximum heating performance and flexible gas/electrical connections.

4. SETUP AND INSTALLATION

The Suburban SF-35VHQ furnace offers versatile installation options, allowing for either vertical or horizontal orientation to suit various RV layouts.

4.1 Pre-Installation Checks

- Verify that the furnace model matches your RV's heating requirements. This model provides 35,000 BTU/h.
- Ensure you have the necessary Suburban #6258xxx exterior access door, as it is required for proper installation and outside service access.
- Confirm that an interior mounted wall thermostat is available, as it is required for furnace operation and is sold separately.
- Inspect the furnace for any shipping damage.



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35,000 BTU/h
LP Gas Furnace Model

Figure 4.1: Visual representation emphasizing the 35,000 BTU/h heating capacity of the LP Gas Furnace Model.

4.2 Installation Steps (Summary)

Note: Detailed installation instructions are provided in a separate installer's guide. This section provides a general overview.

1. **Mounting:** Securely mount the furnace in the chosen vertical or horizontal orientation, ensuring proper clearances as specified in the detailed installation guide.
2. **Ductwork Connection:** Connect the RV's heating ductwork to the furnace's duct outlets. Ensure all connections are sealed to prevent air leaks.
3. **Gas Connection:** Connect the LP gas supply line to the furnace's gas inlet. Perform a thorough leak test using a non-corrosive leak detection solution.
4. **Electrical Connection:** Connect the furnace to the RV's 12V DC power supply and the thermostat wiring. Ensure correct polarity.
5. **Exterior Access Door:** Install the Suburban #6258xxx exterior access door, providing necessary ventilation and service access.

6. **Thermostat Installation:** Install the wall thermostat in a suitable location away from direct heat sources or drafts.



Figure 4.2: Image illustrating the low-profile design of the ducted furnace, featuring Direct Spark Ignition.

5. OPERATING INSTRUCTIONS

The Suburban SF-35VHQ furnace operates via an interior mounted wall thermostat (sold separately).

5.1 Initial Startup

1. Ensure the RV's LP gas supply is turned on and the gas tank has sufficient fuel.
2. Verify that the RV's 12V DC power supply is active.
3. Set the wall thermostat to the "HEAT" mode and adjust the temperature setting above the current ambient temperature.
4. The furnace blower will typically start first, followed by the ignition sequence. You may hear a clicking sound as the Direct Spark Ignition attempts to light the burner.
5. Once ignited, the burner will operate, and warm air will begin to flow from the registers.

6. If the furnace does not ignite after several attempts, the control board may enter a lockout mode. Turn the thermostat off for a few minutes, then try again. If issues persist, refer to the Troubleshooting section.

5.2 Normal Operation

- The furnace will cycle on and off as needed to maintain the temperature set on the thermostat.
- Ensure that all air registers are open and not obstructed to allow for proper airflow and heating efficiency.
- Avoid blocking the furnace's return air grille.

5.3 Shutting Down the Furnace

- To turn off the furnace, set the thermostat to the lowest temperature setting or switch it to the "OFF" position.
- For extended storage or maintenance, turn off the LP gas supply at the tank and disconnect the 12V DC power to the furnace.

Travel in Comfort.



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Figure 5.1: An RV parked in a natural setting, illustrating the comfort provided by the furnace during travel.

6. MAINTENANCE

Regular maintenance ensures the longevity and efficient operation of your Suburban furnace. Always turn off the gas supply and electrical power before performing any maintenance.

6.1 Annual Inspection

- **Clean Blower Wheel:** Annually inspect and clean the blower wheel for dust and debris accumulation, which can reduce airflow and efficiency.
- **Check Combustion Air Intake/Exhaust:** Ensure these openings on the exterior of the RV are clear of obstructions (e.g., insect nests, leaves).
- **Inspect Ductwork:** Check all heating ducts for leaks or damage. Seal any leaks with appropriate duct tape.
- **Gas Line Inspection:** Visually inspect gas lines for any signs of wear or damage. Perform a leak test on all connections.
- **Electrical Connections:** Check all electrical wiring and connections for tightness and signs of corrosion.

6.2 Filter Maintenance

The SF-35VHQ furnace typically does not use a replaceable air filter. The return air grille should be kept clean and free of obstructions.



Figure 6.1: People inside an RV, demonstrating the comfortable indoor environment maintained by the furnace.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your furnace. For complex problems, contact a qualified service technician.

Problem	Possible Cause	Solution
Furnace does not start.	No 12V DC power; LP gas supply off; Thermostat set too low; Furnace in lockout mode.	Check RV battery and fuses; Turn on LP gas; Increase thermostat setting; Turn thermostat off for 5 minutes, then on again.
Blower runs, but no heat.	No LP gas; Ignition failure; Sail switch issue.	Check LP gas level and supply; Cycle thermostat off/on; Contact service technician if issue persists.
Furnace cycles on and off too frequently.	Restricted airflow (blocked registers/return); Overheating.	Ensure all registers are open; Check return air grille for obstructions; Clean blower wheel if necessary.
Unusual noises from furnace.	Loose components; Blower motor issue; Debris in blower.	Inspect for loose parts; Clean blower area; Contact service technician.

8. SPECIFICATIONS

Attribute	Detail
Model Number	2588A (SF-35VHQ)
Heating Capacity	35,000 BTU/h
Fuel Type	LP Gas
Ignition Type	Direct Spark Ignition (DSI)
Dimensions (L x W x H)	20 x 17 x 7.5 inches
Item Weight	30.6 pounds
Manufacturer	Suburban Manufacturing

9. WARRANTY AND SUPPORT

9.1 Limited Warranty

The Suburban Manufacturing SF-35VHQ Furnace comes with a **2-Year Limited Warranty**. This warranty covers defects in materials and workmanship under normal use and service. Please retain your proof of purchase for warranty claims. For full warranty terms and conditions, refer to the documentation included with your product or visit the manufacturer's official website.

9.2 Customer Support

For technical assistance, parts, or warranty service, please contact Suburban Manufacturing customer support. When contacting support, please have your model number (2588A) and serial number ready.

Suburban Manufacturing Contact Information:

(Please refer to the product packaging or official website for the most current contact details.)

Website: www.suburbanmfg.com

Phone: *(Consult website for phone number)*

