

Suburban 2391A

Suburban Dynatrail SF-30FQ 30,000 BTU 12V RV Furnace Instruction Manual

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation, installation, maintenance, and troubleshooting of your Suburban Dynatrail SF-30FQ 30,000 BTU 12V RV Furnace. Please read all instructions carefully before attempting installation or operation.

2. 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.

- Ensure all gas connections are properly sealed and leak-tested.
- Always turn off the gas supply and disconnect electrical power before performing any service or maintenance.
- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Never obstruct the air intake or exhaust vents of the furnace.
- Regularly inspect the furnace for signs of wear, damage, or blockages.

3. PRODUCT FEATURES

- **BTUH Input:** 30,000
- **Voltage:** 12 VDC
- **Amp. Draw:** 8.0

- **Special Feature:** Overheat Protection
- **Form Factor:** Cabinet
- **Indoor/Outdoor Usage:** Indoor

4. SETUP AND INSTALLATION

Installation of the Suburban Dynatrail SF-30FQ furnace should be performed by a qualified service technician to ensure proper function and safety. Refer to the detailed installation diagrams provided with your unit for specific mounting and connection procedures.

The furnace is designed for indoor use and typically mounts as a cabinet unit. Ensure adequate clearance for ventilation and maintenance access.



Figure 1: The Suburban Dynatrail SF-30FQ RV Furnace unit, showing its compact design and external vents.

Key Installation Steps (General):

1. **Mounting:** Secure the furnace in its designated cabinet space, ensuring it is level and stable.
2. **Gas Connection:** Connect the gas supply line to the furnace's gas valve. Use appropriate gas-rated sealant (e.g., yellow Teflon tape for propane) and ensure all connections are leak-tested with a soap solution.
3. **Electrical Wiring:** Connect the 12 VDC power supply and thermostat wiring according to the wiring diagram. Ensure correct polarity and secure all connections.
4. **Ductwork:** Connect the warm air discharge and cold air return ductwork to the furnace. Ensure ducts are sealed to prevent air leakage.
5. **Exhaust/Intake:** Install the exterior exhaust and intake vents, ensuring they are clear of obstructions.

5. OPERATING INSTRUCTIONS

Your Suburban Dynatrail furnace is controlled by a wall-mounted thermostat. Follow these general steps for operation:

1. **Ensure Gas Supply:** Verify that the propane tanks are open and there is sufficient gas.
2. **Power On:** Ensure the 12V DC power supply to the RV and furnace is active.
3. **Set Thermostat:** Turn the thermostat to the "HEAT" mode and set the desired temperature above the current ambient temperature.
4. **Ignition Sequence:** The furnace blower will start, followed by the ignition sequence. You may hear a clicking sound as the igniter attempts to light the burner. Once ignited, the burner will operate until the set temperature is reached.
5. **Shutdown:** To turn off the furnace, set the thermostat to the "OFF" position or lower the temperature setting below the ambient temperature.

6. MAINTENANCE

Regular maintenance ensures the longevity and safe operation of your furnace. Perform these checks periodically:

- **Clean Exterior Vents:** Keep the exterior intake and exhaust vents clear of debris, insects, or obstructions.
- **Inspect Burner Orifice:** Periodically inspect the burner orifice for blockages (e.g., insect nests). If clogged, carefully remove the orifice and clean it using a vacuum cleaner and a fine pick, ensuring not to enlarge the opening.
- **Check Electrical Connections:** Ensure all electrical connections are secure and free from corrosion.
- **Gas Line Inspection:** Annually inspect gas lines for leaks using a soap solution. Apply the solution to all gas connections; the appearance of bubbles indicates a leak.
- **Professional Servicing:** Have your furnace inspected and serviced by a qualified technician at least once a year.

7. TROUBLESHOOTING

If your furnace is not operating correctly, consider the following common issues before contacting a service technician:

- **No Ignition/No Heat:**
 - Check propane supply: Ensure tanks are full and valves are open.
 - Verify 12V DC power: Check RV battery levels and furnace fuse.
 - Inspect igniter and burner orifice: A dirty or blocked igniter/orifice can prevent ignition. Clean as described in the Maintenance section.
 - Check for proper spark: If you have a non-contact AC voltage detector, you can test for

spark at the igniter electrodes.

- **Blower Runs, No Ignition:** This often indicates a problem with the gas supply or ignition system. Check gas pressure, igniter, and gas valve operation.
- **Furnace Cycles On/Off Rapidly:** This could be due to restricted airflow (blocked vents or ducts) or a faulty high-limit switch.
- **Unusual Noises:** Any unusual sounds should be investigated by a qualified technician.

If basic troubleshooting does not resolve the issue, contact a certified RV technician for further diagnosis and repair.

8. SPECIFICATIONS

Attribute	Value
Brand	Suburban
Model Number	2391A (SF-30FQ Dynatrail)
BTUH Input	30,000
Voltage	12 VDC
Amperage Draw	8.0 Amps
Special Feature	Overheat Protection
Form Factor	Cabinet
Product Dimensions	20 x 29 x 7.5 inches
Item Weight	34.9 pounds

9. WHAT'S IN THE BOX

The Suburban Co 2391A Sf-30Fq Dynatrail 30M Btu 12V package typically includes:

- Suburban Mfg Co 2391A Sf-30Fq Dynatrail 30M Btu 12V Furnace Unit
- Installation and Operation Manual
- Mounting hardware (may vary)

10. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the documentation included with your product or contact Suburban customer service directly. Keep your purchase receipt for warranty

claims.