

Fasco A977

Fasco A977 Bradford White Water Heater Draft Inducer Motor User Manual

Model: A977 | Replacement for Bradford White 119388-00, 265-45583-00

1. INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of the Fasco A977 Draft Inducer Motor. This unit is designed as a replacement component for specific Bradford White water heater models. Please read all instructions carefully before proceeding with any installation or service.

2. SAFETY INFORMATION

WARNING: Risk of Electric Shock and Fire. Installation and servicing must be performed by a qualified technician. Disconnect all electrical power and gas supply to the water heater before installation or maintenance.

- Always ensure the water heater's power supply is disconnected at the circuit breaker before beginning any work.
- Verify that the gas supply to the water heater is shut off.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Ensure proper grounding of the motor in accordance with local and national electrical codes.
- Do not operate the water heater if the draft inducer motor is damaged or not functioning correctly.

3. PRODUCT OVERVIEW

The Fasco A977 is a critical component in the venting system of compatible Bradford White water heaters, responsible for drawing combustion gases out of the unit. It features a robust design for reliable performance.



Figure 1: Front-side view of the Fasco A977 Draft Inducer Motor. This image shows the main housing, the exhaust port with a clamp, and the electrical connection area.



Figure 2: Rear-side view of the Fasco A977 Draft Inducer Motor. This image highlights the motor's electrical connections and the product label with specifications.

4. SPECIFICATIONS

Parameter	Value
Model Number	A977
Replacement For	Bradford White 119388-00, 265-45583-00
Voltage	120V
Frequency	60 Hz
Amperage	3.1A
Speed	3000 RPM
Rotation	CCW (OSE)
Bearing Type	Ball Bearing
Mounting Type	Internal

5. SETUP AND INSTALLATION

Installation of the Fasco A977 Draft Inducer Motor should only be performed by individuals with appropriate technical knowledge and experience in HVAC or plumbing systems. Incorrect installation can lead to serious hazards.

1. **Preparation:** Disconnect electrical power to the water heater at the main circuit breaker. Turn off the gas supply to the water heater. Allow the water heater to cool if it has been recently operating.
2. **Access:** Locate the existing draft inducer motor on your Bradford White water heater. This is typically found near the top of the unit, connected to the exhaust venting.
3. **Disconnection:** Carefully disconnect the electrical wiring from the old motor. Note the orientation and connection points for reinstallation. Disconnect any pressure sensing tubes. Loosen the clamps or fasteners securing the motor to the exhaust vent and the water heater housing.
4. **Removal:** Remove the old draft inducer motor. Be mindful of any gaskets or seals that may need to be replaced.
5. **Installation of New Motor:** Position the new Fasco A977 motor in the same location and orientation as the old unit. Ensure any new gaskets or seals are properly seated. Secure the motor to the water heater housing and exhaust vent using the appropriate clamps or fasteners.
6. **Electrical and Tube Connections:** Reconnect the electrical wiring to the new motor, ensuring all connections are secure and match the original configuration. Reattach any pressure sensing tubes.
7. **Final Checks:** Double-check all connections for tightness and proper seating. Ensure no tools or debris are left inside the water heater compartment.
8. **Restore Power:** Restore the gas supply and then the electrical power to the water heater.
9. **Test Operation:** Initiate a heating cycle on the water heater and observe the new draft inducer motor's operation. Listen for unusual noises and check for proper exhaust venting.

6. OPERATING INSTRUCTIONS

The Fasco A977 Draft Inducer Motor operates automatically in conjunction with your water heater's control system. When the water heater calls for heat, the control system activates the draft inducer motor. The motor creates a negative pressure (draft) to pull combustion gases through the heat exchanger and out of the exhaust vent. Once the heating cycle is complete, or if a safety condition is detected, the motor will shut off.

Proper operation is indicated by a consistent, relatively quiet hum during the heating cycle and effective expulsion of exhaust gases. Any significant change in noise level or failure to vent properly requires immediate attention.

7. MAINTENANCE

Regular maintenance helps ensure the longevity and safe operation of your draft inducer motor and water heater. It is recommended that a qualified technician perform annual inspections.

- **Visual Inspection:** Periodically inspect the motor for any visible signs of wear, damage, or corrosion. Check electrical connections for tightness and integrity.
- **Ventilation Check:** Ensure the exhaust vent connected to the motor is clear of obstructions and properly sealed.
- **Noise Monitoring:** Pay attention to any changes in the motor's operating sound. Excessive noise, grinding, or squealing may indicate a failing bearing or impeller.
- **Cleaning:** If accessible and safe to do so, gently clean any dust or debris from the exterior of the motor housing and fan blades (with power disconnected). Do not use liquids directly on electrical components.

8. TROUBLESHOOTING

If you experience issues with your water heater's venting or the draft inducer motor, consult this section. For complex problems, contact a qualified service technician.

Problem	Possible Cause	Solution
Motor does not start	No electrical power, faulty wiring, motor failure, control board issue	Check circuit breaker. Verify wiring connections. Consult a technician for motor or control board diagnosis.
Motor is excessively loud	Worn bearings, obstructed impeller, loose mounting	Inspect for obstructions. Check mounting screws. If bearings are worn, motor replacement may be necessary.
Water heater not venting properly	Blocked vent, motor not running at full speed, pressure switch issue	Inspect vent for blockages. Verify motor operation. Consult a technician for pressure switch testing.

9. WARRANTY AND SUPPORT

For warranty information and technical support regarding your Fasco A977 Draft Inducer Motor, please refer to the documentation provided with your purchase or contact Fasco customer service directly. Keep your purchase receipt for warranty claims.

Contact information for Fasco can typically be found on their official website or on the product packaging.