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Fasco 1VLD2

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Model: 1VLD2 | CPN: J35-04700

INTRODUCTION

This instruction manual provides essential information for the safe installation, operation, and maintenance of the Fasco Power Venter Assembly, Model 1VLD2. This component is designed as a draft inducer for specific Dayton unit heater models. Please read this manual thoroughly before attempting any installation or service to ensure proper function and safety.

SAFETY INFORMATION

Always observe the following safety precautions:

- **Electrical Hazard:** Disconnect all power to the unit heater before installing, servicing, or performing any maintenance on the power venter assembly. Failure to do so can result in electric shock, injury, or death.
- **Qualified Personnel:** Installation and service should only be performed by a qualified HVAC technician or licensed electrician.
- **Personal Protective Equipment:** Wear appropriate personal protective equipment (PPE) such as safety glasses and gloves during installation and maintenance.
- **Component Integrity:** Do not operate the unit with damaged or missing components. Inspect the assembly for any damage before installation.
- **Ventilation:** Ensure proper ventilation in the work area.
- **Local Codes:** All installations must comply with local and national electrical and building codes.

PRODUCT OVERVIEW

The Fasco Power Venter Assembly 1VLD2 is a draft inducer designed to facilitate the safe and efficient venting of combustion byproducts from a unit heater. It operates at 115V and features a 3.3-inch diameter motor with ball bearings for durability.



Image 1: Fasco Power Venter Assembly 1VLD2. This image shows the complete power venter assembly, including the motor, fan housing, and exhaust outlet. The unit is designed to be mounted to a heating appliance.

Key Features:

- **Voltage:** 115V, 50/60Hz
- **Current:** 0.70 amps
- **Speed:** 1-Speed, 3000 RPM
- **Motor Diameter:** 3.3 inches
- **Bearings:** Ball Bearings
- **Leads:** 36-inch leads for electrical connection
- **Exhaust Outlet:** 2.25 inches O.D.
- **Included Components:** Gasket and mounting plate

Compatible Dayton Unit Heater Models:

This power venter assembly is compatible with the following Dayton unit heater models:

- 4LX54, 4LX53, 4LX56, 4LX55, 4LX48, 4LX47, 4LX52, 4LX51, 4LX46, 4LX45, 4LX44, 4LX43, 4LX42, 4LX41
- 4LX41A, 4LX42A, 4LX43A, 4LX44A, 4LX45A, 4LX46A, 4LX47A, 4LX48A

SETUP AND INSTALLATION

Important: Installation must be performed by a qualified technician. Refer to the specific installation instructions provided with your Dayton unit heater for detailed steps.

1. **Power Disconnection:** Ensure all electrical power to the unit heater is disconnected at the main circuit breaker or fuse box. Verify with a voltage tester.
2. **Access:** Gain access to the existing power ventor assembly on the unit heater. This may involve removing access panels.
3. **Removal of Old Unit:** Disconnect the electrical wiring from the old ventor. Carefully unbolt and remove the old assembly, noting its orientation and connections.
4. **Gasket Placement:** Clean the mounting surface on the unit heater. Place the new gasket (included) onto the mounting surface or the new ventor assembly, ensuring a proper seal.
5. **Mounting New Unit:** Position the new Fasco Power Ventor Assembly 1VLD2 onto the mounting surface. Secure it using the provided mounting plate and appropriate fasteners. Ensure it is firmly seated and aligned.
6. **Electrical Connection:** Connect the 36-inch electrical leads of the new ventor assembly to the unit heater's wiring harness, following the wiring diagram specific to your unit heater model. Ensure all connections are secure and properly insulated.
7. **Vent Pipe Connection:** Reconnect the exhaust vent pipe to the 2.25-inch O.D. exhaust outlet of the new ventor assembly. Ensure a tight, leak-free connection.
8. **Inspection:** Double-check all connections, mounting, and wiring for correctness and security.
9. **Restore Power:** Once installation is complete and verified, restore power to the unit heater.
10. **Test Operation:** Initiate a heating cycle to confirm the proper operation of the new power ventor assembly. Listen for unusual noises and check for proper exhaust venting.

OPERATING INSTRUCTIONS

The Fasco Power Ventor Assembly operates automatically as part of the unit heater's combustion system. It is designed to draw combustion gases from the heat exchanger and expel them through the exhaust vent.

- When the thermostat calls for heat, the unit heater's control board will energize the power ventor.
- The ventor motor will start, creating a negative pressure (draft) within the heat exchanger.
- Once sufficient draft is established (verified by a pressure switch), the control board will allow the main burner to ignite.
- The ventor continues to operate throughout the heating cycle, ensuring proper exhaust of combustion products.
- When the heating cycle ends, the ventor will continue to run for a short post-purge period to clear any remaining gases, then shut off.

No direct user interaction is required for the operation of the power ventor assembly itself, beyond the normal operation of the unit heater.

MAINTENANCE

Regular maintenance helps ensure the longevity and efficient operation of the power ventor assembly. Always disconnect power before performing maintenance.

- **Annual Inspection:** Have a qualified technician inspect the power ventor assembly annually as part of routine unit heater maintenance.
- **Cleanliness:** Ensure the fan blades and housing are free from debris, dust, or obstructions that could impede airflow or cause imbalance. Use a soft brush or vacuum to clean.
- **Wiring Check:** Inspect electrical connections for signs of wear, corrosion, or looseness.
- **Exhaust Path:** Verify that the exhaust vent pipe is clear and free of blockages.
- **Noise Check:** Listen for unusual noises during operation, which could indicate bearing wear or fan imbalance.

TROUBLESHOOTING

If the unit heater is not operating correctly, the power ventor assembly may be a contributing factor. Always disconnect power before inspecting components.

Problem	Possible Cause	Solution
Ventor does not start.	No power, faulty wiring, motor failure, faulty control board.	Check power supply. Inspect wiring connections. Test motor for continuity. Consult a qualified technician for control board diagnosis.
Ventor runs but burner does not ignite.	Faulty pressure switch, blocked exhaust, restricted intake, motor not reaching full speed.	Check pressure switch operation. Clear exhaust/intake. Inspect ventor for obstructions.
Unusual noise from ventor.	Worn bearings, fan imbalance, foreign object in fan housing.	Disconnect power and inspect fan for obstructions. If bearings are worn, replacement of the assembly may be necessary.
Unit heater cycles on and off rapidly (short cycling).	Intermittent pressure switch fault, exhaust blockage, ventor motor issue.	Inspect pressure switch and its hose. Check exhaust for blockages. Ensure ventor operates consistently.

If troubleshooting steps do not resolve the issue, contact a qualified HVAC technician for further diagnosis and repair.

SPECIFICATIONS

Specification	Value
Brand	Fasco
Model Number	1VLD2
Part Number (CPN)	J35-04700
Voltage	115 Volts
Current	0.70 Amps
Frequency	50/60 Hz
Speed	1-Speed, 3000 RPM
Motor Diameter	3.3 inches
Bearings	Ball Bearings
Leads Length	36 inches
Exhaust Outlet O.D.	2.25 inches
Power Connector Type	3-Pin
Item Weight	12 pounds
UPC	663001454229

WARRANTY AND SUPPORT

For warranty information and technical support regarding your Fasco Power Ventor Assembly 1VLD2, please refer to the documentation provided with your original purchase or contact Fasco customer service directly. Keep your purchase receipt as proof of purchase for warranty claims.

Manufacturer: FASCO

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question