CFM
CONTINENTAL FAN

better AIRFLOW *by* DESIGN™

Installation & Maintenance

DVK-PM DRYER BOOSTER KIT W/ PRE-MOUNTED PRESSURE SWITCH

READ AND SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

SAFETY INSTRUCTIONS

NOTICE **DVK100B** fans are not explosion proof and should not be used when a potentially explosive situation exists. Do not use where temperatures will exceed 140 F/60 C.

1. Ensure that the electrical service to the fan is locked in the "OFF" position. Do not re-establish power supply until fan and activation device are completely installed.
2. **DVK100B** fans are not suitable for outdoor use.
3. This unit has rotating parts! Safety precautions must be exercised during installation, operation and maintenance. Turn centrifugal impeller by hand to make sure it rotates freely.
4. For general ventilation use only. Do not use to exhaust hazardous or explosive materials and vapors.
5. To reduce the risk of fire, electric shock, or injury to persons — observe the following:
   a. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the factory.
   b. A qualified person(s) must perform installation work and electrical wiring in accordance with all applicable codes and standards, including fire-rated construction.
   c. The combustion airflow needed for safe operation of fuel burning equipment may be affected by this unit's operation. Follow the heating equipment manufacturer's guidelines and safety standards as published by the National Fire Protection Association (NFPA), the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), and local code authorities.
   d. When cutting or drilling into walls or ceilings, take care not to damage electrical wires or other hidden utilities.
   e. Ducted fans must always be vented to the outdoors when used to exhaust moist/humid air.
6. Check voltage at the fan to see that it corresponds to the motor nameplate.

DVK100B-PM KIT

Kit includes:

Part #	Description
AXC100B	In-Line Fan
MB150	Mounting Brackets (Set of 2)
PST120V-M	Pressure Switch w/Probe, 36" Clear Tubing, Mounting Hardware
DVK-NTC	Fan Location Label
DVK-P-I&M	Installation & Maintenance Manual

PRESSURE SWITCH

The PST120V is an airflow proving switch. It initiates the booster fan when it senses positive air pressure from an operating dryer, and has an integral timer with a 10 minute ON - 15 second OFF cycle, enabling the fan to restart as long as the dryer is operating.

FAN INSTALLATION

⚠ WARNING Disconnect and lock out power supply before performing any installation work. Working on or near energized equipment could result in death or serious injury.

NOTE: The DVK100B dryer booster fan is designed for use in duct runs with an equivalent length between 25 and 110 feet.

NOTE: An auxiliary lint trap (LT100) may be installed between the dryer and the booster fan.

STEP 1. FAN LOCATION
Fan should be mounted between 15' and 25' from the dryer outlet. Allow sufficient access to the fan for recommended maintenance. Affix 'Fan Location Label' in a visible place.

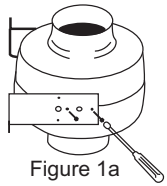


Figure 1a

STEP 2. INSTALL FAN
Attach mounting brackets to the fan housing as shown in Figure 1a or Figure 1b. Please note the airflow direction arrow located on the box cover. Secure the fan to a support at the selected location with the diaphragm in a vertical plane as shown in Figure 2. The sample line nipple connection must be in the 'down' position. The terminal box should be positioned for easy access.

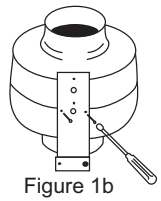


Figure 1b

STEP 3. CONNECT DUCT
Rigid duct is recommended to optimize fan performance. If using flex duct, it should be stretched as smooth as possible. For duct runs in unheated spaces, insulated duct is recommended to reduce the effects of condensation.

Connect duct to the inlet and outlet ends of the fan housing by means of mounting clamps or duct tape and seal to prevent air leakage and loss of fan performance.

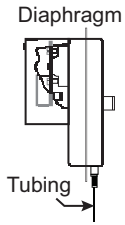


Figure 2

PROBE INSTALLATION

STEP 4. INSTALL PROBE
Position the probe in the duct within 36" of the pressure switch, and greater than 16" from the fan inlet. Drill a 1/4" hole in the duct and insert the beveled open end of the probe shaft. The arrow on the fixing plate must point in the direction of the airflow and align parallel to the duct. Secure the probe in the duct using the two small screws provided. Seal area around probe fixing plate to prevent air leakage. Cut tubing to required length and attach one end of the tubing to the exposed probe post, and the other to the nipple on the pressure switch.

STEP 5. CONNECT WIRING
Refer to wiring diagram below. Reattach all electrical box covers before applying power.

TROUBLESHOOTING

⚠ WARNING Only qualified personnel should work on electrical equipment. Working on or near energized equipment could result in death or serious injury.

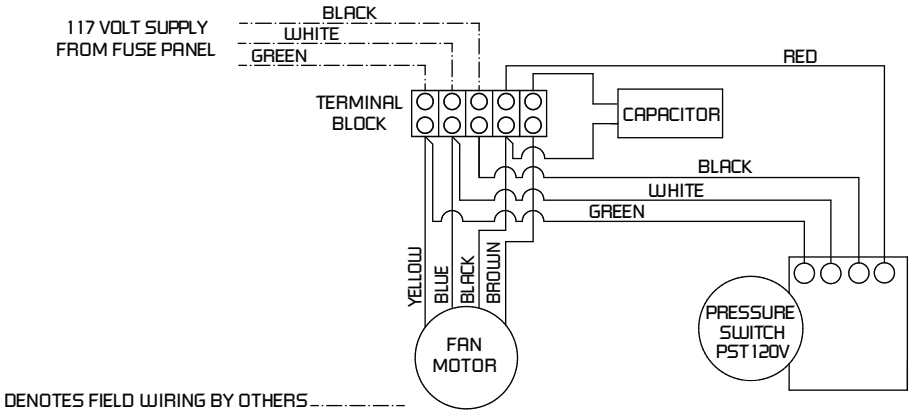
1. If the fan fails to start, consult wiring diagram to ensure proper connection.
2. Check the incoming supply for proper voltage.
3. Verify that pressure switch diaphragm is vertical and tubing is not crimped.
4. Remove the probe from duct, clear any obstructions and blow gently into it. Reconnect probe.
5. If fan fails to start, lock electrical service to the fan in the "OFF" position.
6. Remove pressure switch. Use a meter to test for continuity across the fan motor leads.
7. Connect the incoming power supply directly to the fan motor. Turn on power to fan.
8. If fan fails to start, please contact factory.

RECOMMENDED MAINTENANCE

⚠ WARNING Disconnect and lock out power supply before performing any maintenance. Working on or near energized equipment could result in death or serious injury.

1. Fan bearings are sealed. No additional lubrication is necessary.
2. Periodic inspection, based upon usage, should be performed to ensure that the fan impeller is not obstructed. The fan should be inspected a minimum of every six (6) months.
3. Excessive fan noise or vibration may indicate an obstructed impeller.
4. To inspect and clean impeller:
   a) Remove the duct from the fan inlet and remove any obstruction from the impeller.
   b) Reconnect the duct to the fan.
   c) Turn power supply on.

WIRING DIAGRAM



DVK-PM-I&M-1603

Continental Fan Manufacturing Inc.
203 Eggert Road
Buffalo, New York 14215

Continental Fan Canada Inc.
12-205 Matheson Blvd E
Mississauga, Ontario L4Z 3E3

Continental Fan Manufacturing Inc.
6274 Executive Blvd.
Dayton, Ohio 45424

1-800-779-4021 • www.continentalfan.com