



INSTALLATION, MAINTENANCE & WARRANTY INSTRUCTIONS

DVK DRYER BOOSTER KIT WITH PRE-MOUNTED POSITIVE PRESSURE SWITCH

READ AND SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE



DVK100B-PM KIT INCLUDES:

- DVK100B Fan with Mounting Brackets
- PST120V Pressure Switch with 10 minute integral time delay/2 mounting screws
- 36" length of clear tubing x 3/8"OD / 1/4 " ID
- One probe assembly/2 mounting screws

Note:

The DVK100BPM cannot be used in systems where the duct length is 25' or less. The DVK100BPM is suitable to overcome an equivalent of 90' of 4" rigid duct.

BEFORE INSTALLATION

IMPORTANT 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. **CAUTION:** For general ventilation use only. Do not use to exhaust hazardous or explosive materials and vapors.
5. **WARNING:** 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. **WARNING:** Check voltage at the fan to see that it corresponds to the motor nameplate.

FAN INSTALLATION

STEP 1. FAN LOCATION

In order to perform recommended maintenance, sufficient access to the fan should be allowed at its location. Fan should be mounted a minimum of 15' from the dryer outlet, up to a maximum of 25'. As the pressure switch is mounted to the fan, the fan must not be mounted a distance greater than 25' from the dryer outlet. Select a location that is free from vibration. To calculate the length of the duct, measure the length from the dryer outlet to the termination point; add 5' of duct for each bend or elbow.

Note: An auxiliary lint trap (LT100) may be used to minimize lint build up in the system.

STEP 2. MOUNT FAN

Attach mounting brackets to the fan housing as shown in Figure 1a or Figure 1b. Attach the fan to a support beam at selected location. Vertical mounting is recommended to reduce condensation build-up in the fan. As the pressure switch is mounted to the fan, the fan must be mounted in such a way that the diaphragm is in a vertical plane (see Figure 2) in order to maintain the specified operating set point. The terminal box (wiring box) should be positioned for easy access. The airflow direction arrow located on the junction box cover shows the direction of the airflow, which cannot be reversed.

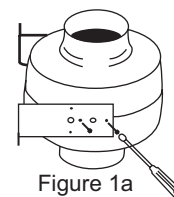


Figure 1a

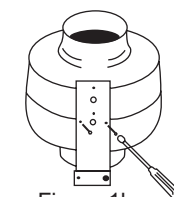
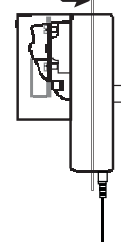


Figure 1b

Figure 2
Diaphragm



STEP 3. CONNECT DUCT

Connect the duct to the inlet and outlet ends of the fan housing (by means of mounting clamps or duct tape). The duct connection should be properly sealed to prevent air leakage and loss of fan performance. Rigid duct is recommended and should be installed as straight as possible. If using flex duct, it should be stretched as smooth as possible.



PRESSURE SWITCH

The **PST120V** is an air pressure sensing switch with an integral 10 minute time delay. Cycle will reinitiate after 15 seconds if the dryer is still in operation. It is especially suitable for surface mounting in areas where internal access is limited.

PROBE INSTALLATION

The probe should be installed in the duct as close to the pressure switch as possible (36" maximum) and inserted into the duct no less than 16 inches from the air entering side of the fan. (Whenever possible, the probe should be inserted into rigid duct.)

1. **For proper operation of the system, the probe must be located between the dryer and the fan.**
2. Drill a 1/4" hole in the duct.
3. Insert the beveled open end of the probe shaft into the duct. The arrow on the fixing plate must point in the direction of the airflow for positive pressure sensing. Arrow must align parallel to the duct.
4. Secure the probe in the duct using the two small screws provided. Seal area around probe fixing plate using duct tape (or equivalent) to prevent air leakage.
5. Cut tubing to required length. Attach one end of the tubing to the exposed probe post, and the other to the nipple on the sensor switch.

WIRING PROCEDURE

Refer to the wiring diagram.

Ensure that the electrical service to the fan is locked in the "OFF" position. Wiring must be done in accordance with all applicable codes and standards. The unit must be properly grounded. Ensure the supply voltage corresponds to the voltage listed on the name plate.

TROUBLESHOOTING

WARNING:

If the fan fails to start, please follow the procedure listed below:

1. Check the incoming supply for proper voltage.
2. Ensure that the electrical service to the fan is locked in the "OFF" position.
3. Consult the wiring diagram to ensure proper connection.
4. Use a meter to test for continuity across the fan motor leads.
5. If motor leads show continuity, rewire the fan and pressure switch.
6. Turn on electrical supply and restart.
7. Check to be certain that fan starts.
8. If fan still fails to start:
 - a) Verify that the pressure switch diaphragm is vertical as illustrated in Figure 2.
 - b) Verify that the tubing is not crimped.
 - c) With the electrical supply on, remove the probe from the duct, clear any obstructions, and blow gently into the probe.
9. If fan fails to start after blowing into the probe:
 - a) Ensure that the electrical service to the fan is locked in the "OFF" position.
 - b) Remove the pressure switch from the circuit.
 - c) Connect the incoming power supply directly to the fan motor.
 - d) Turn on power to fan.
10. If fan fails to start, please contact technical support @ 1-800-779-4021.

RECOMMENDED MAINTENANCE

CAUTION:

1. Before servicing or cleaning, ensure that the electrical service to the fan is locked in the "OFF" position.
2. Fan bearings are sealed. No additional lubrication is necessary.
3. 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.
4. Excessive fan noise or vibration may indicate an obstructed impeller.
5. To inspect and clean impeller:
 - a) Ensure that the electrical service to the fan is locked in the "OFF" position.
 - b) Remove the duct from the fan inlet and remove any obstructions from the impeller and probe.
 - c) Reconnect the duct to the fan.
 - d) Turn power supply on.

WARRANTY

This warranty supersedes all prior warranties.

DVK100B fans are warranted against defects in material and workmanship for a period of five years from date of purchase. All other products are warranted for a period of one year from date of purchase.

WARRANTY DOES NOT APPLY TO:

- Shipping damage, whether concealed or visible. Claims must be filed with the carrier.
- Damage caused by improper installation, wiring, or incorrect electrical voltage.
- Materials that have been modified, altered or disassembled.
- Damage caused by corrosion, abrasion or severe temperature.
- Materials that have had the identification labels removed or altered.
- Materials that have been subjected to improper maintenance, abuse, misuse, abnormal usage or accident.

No other warranties, expressed, implied or written shall apply to this product. Vendor will not be responsible for any consequential or incidental damages, loss of property, revenues or profit, cost of removal, installation, or reinstallation, personal damage or loss of life, or for any breach of warranty, regardless of how caused.

All warranty claims must be processed through point of purchase.

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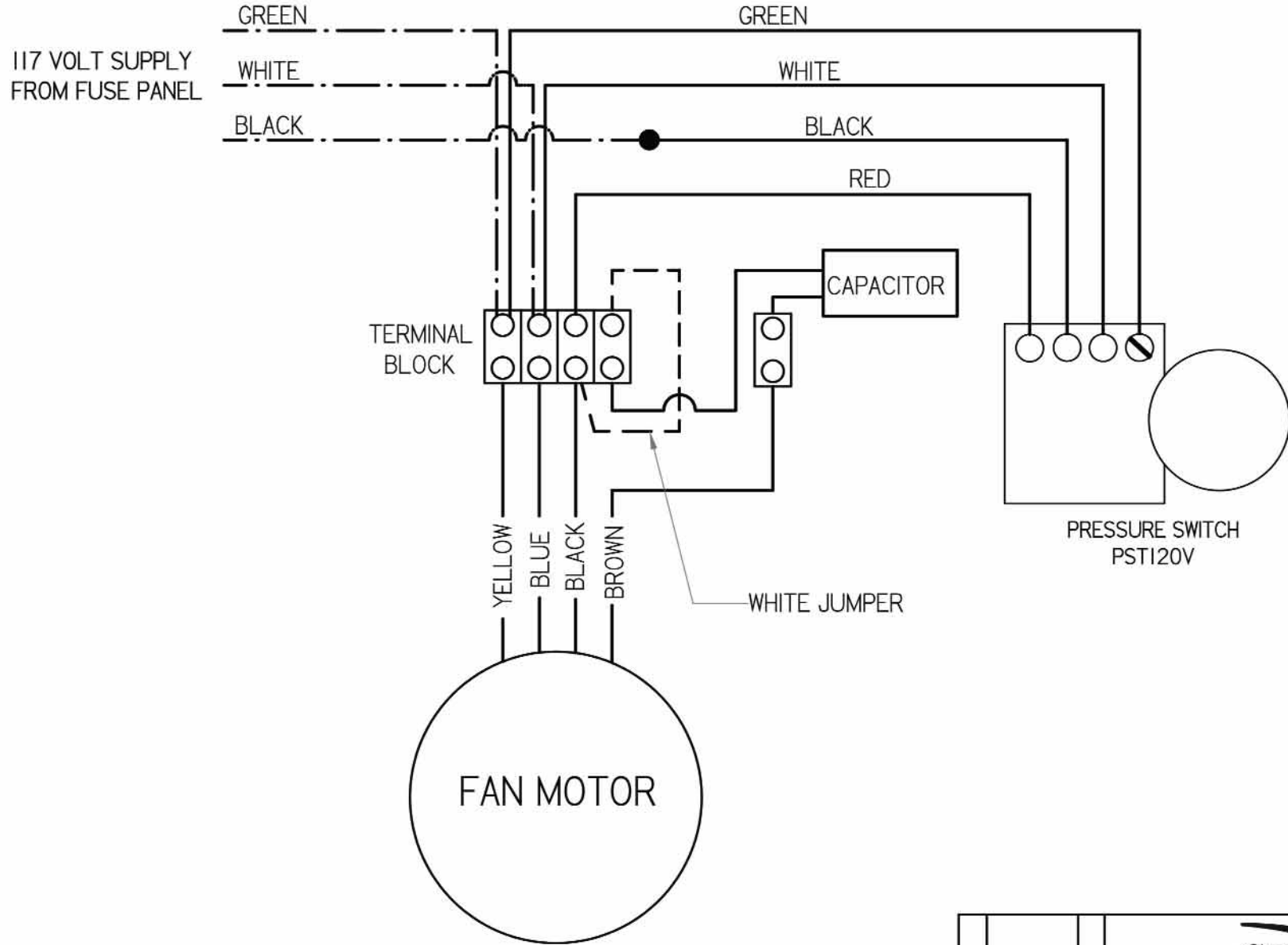
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NOTE:
 JUMPER MUST BE USED WHEN MOTOR IS OPERATED WITH PRESSURE SWITCH
 DASHED LINE DENOTES FIELD WIRING BY OTHERS

DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.
 DRAWING NOT TO BE USED FOR CONSTRUCTION

		CFM	
		Better Airflow By Design	
ELECTRICAL CONNECTION LAYOUT			
AXC FANS c/w FACTORY MOUNTED PRESSURE SWITCH			
REV.	DATE	BY J. E. EVANS	DATE 05 APR 2006
			A-103281.dft