

## DVK DRYER BOOSTER KIT WITH CURRENT SENSOR

READ AND SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE



### DVK100B-C KIT INCLUDES:

- DVK100B Fan with Mounting Brackets
- CS120V Current Sensor

**Note:**

The DVK100B-C kit cannot be used in systems where the duct length is 25' or less. The DVK100B-C 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

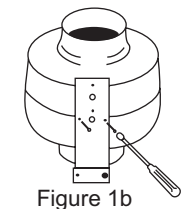
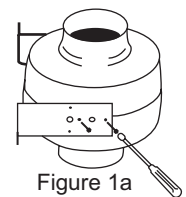
#### STEP 1. FAN LOCATION

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 90'. 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, however, the fan may be mounted in any position. 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.



#### 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.



## CURRENT SENSOR

The **CS120V** current sensor provides a compact and low cost method of detecting AC current [GO/NO GO]. It senses whether an electrical function is occurring or has ended, and is well suited for activating remote equipment. The **CS120V** is constructed with a factory fixed actuation point, and has the capability of sensing AC currents from 2 to 45 amperes, in 1-ampere increments.



## CURRENT SENSOR INSTALLATION

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.

### AT PLUG OUTLET

1. To house the current sensor, attach an approved electrical outlet box to the plug outlet box.
2. From inside the plug outlet box, disconnect and loop the neutral (white) power supply wire through the center of the current sensor and then back to the plug outlet box and reconnect.
3. Securely mount the current sensor in the electrical outlet box.
4. Connect the **DVK100B** fan 115VAC power supply to the top (relay) terminals of the current sensor.

Note: The current sensor may also be mounted at the breaker panel. Consult a qualified electrician.

## WIRING PROCEDURES

Refer to wiring diagram.

## 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 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 sensor.
6. Turn on the electrical supply and restart.
7. Check to be certain that fan starts.
8. If fan fails to start:
  - a) Ensure that the electrical service to the fan is locked in the "OFF" position.
  - b) Remove the current sensor from the circuit.
  - c) Connect the incoming power supply directly to the fan motor.
  - d) Turn on power to fan.
9. 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 obstruction from the impeller.
  - 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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