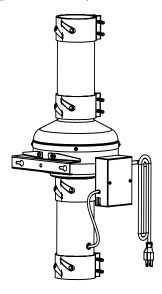


# MODEL PV-DEDPV



Dryer Exhaust Duct Power Ventilator

INSTALLATION, OPERATION AND MAINTENANCE MANUAL



### WARNINGS

READ AND SAVE THESE INSTRUCTIONS (LIRE AND CONSERVE INSTRUCTIONS). FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE! IMPORTANT SAFETY INSTRUCTIONS (INSTRUCTIONS IMPORTANTES POUR LA SÉCURITÉ) SAVE THESE INSTRUCTIONS (CONSERVEZ CES INSTRUCTIONS).

WARNING (AVERTISSEMENT): TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING (AVERTISSEMENT — POUR REDUIRE LE RISQUE D'INCENDIE, DE CHOC ELECTRIQUE OU DE BLESSURE, RESPECTER LES CONSIGNES QUI SUIVENT):

- (1) Your clothes dryer installation incorporates a dryer exhaust power ventilator (DEDPV) which may be in a different location than your dryer, such as in an attic, crawl space or basement (Votre secheuse est equipee d'un ventilateur auxiliaire qui peut etre installe loin de la secheuse, comme dans un grenier, un vide sanitaire ou un sous-sol).
- (2) Your clothes dryer depends on the DEDPV for its safe and efficient operation. Operating your dryer without a functional DEDPV will result in inefficient dryer operation, excess energy consumption and a possible fire hazard. See warning on the alarm notification panel (Le ventilateur auxiliaire est essentiel au fonctionnement securitaire de la secheuse. Desactiver ce ventilateur nuira au fonctionnement de la secheuse, entrainera un augmentation de la consummation d'electricite et possiblement un risque d'incendie. Lire la mise en garde sur le panneau d'indication d'alarme).
- (3) The notification/annunciator panel shall be permanently installed within the space in which the clothes dryer is installed. In the case of a dryer installed in an alcove provided with a door or doors the notification/annunciator panel shall be installed within the alcove or be installed immediately adjacent to the doors of the alcove. The notification/annunciator panel shall be located where it will be readily visible after the dryer is installed without having to open any doors other than those necessary to access the dryer (Le panneau d'alarme doit etre installe de facon permanente dans l'espace ou se trouve la secheuse. Si la secheuse est installee dans une alcove fermee par une porte, le panneau d'alarme doit etre installe dans l'alcove ou a proximite immediate de la porte de l'alcove. Le panneau d'alarme doit etre visible une fois la secheuse installee sans avoir a ouvrir une porte autre que celle donnant acces a la Secheuse).
- (4) LED Indicator Light: A flashing light or no light indicates failure of the DEDPV. Immediately stop using clothes dryer until DEDPV has been serviced, repaired or replaced. A constantly illuminated light indicates normal DEDPV operation.
- (5)RISK OF FIRE. This Clothes Dryer installation includes a Dryer Exhaust Duct Power Ventilator (DEDPV).
- (6) NE PAS UTILISER LA SECHEUSE SI UNE ALARME RETENTIT OU UN MESSAGE D'ERREUR VISUEL S'ALLUME, APPELEX UN REPARTEUR.
- (7) RISQUE D'INCENDIE. CETTE SECHEUSE EST DOTEE D'UN VENTILATEUR AUXILIAIRE. UN SIGNAL LUMINEUX CLIGNOTANT OU L'ABSENCE DE SIGNAL LUMINEUX INDIQUE UNE DEFAILLANCE DU VENTILATEUR AUXILIAIRE. CESSER IMMEDIATEMENT D'UTILISER LA SECHEUSE JUSQU'A CE QUE LE VENTILATEUR AIT ETE REPARE. UN SIGNAL LUMINEUX PERMANENT INDIQUE QUE LE VENTILATEUR AUXILIAIRE FONCTIONNE CORRECTEMENT. NE PAS RETIRER NI COUVRIR CE PANNEAU.
- (8) Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- (9) Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
- (10) Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable electrical and mechanical building codes and standards, including fire-rated construction.

Installation work and electrical wiring must be inspected and accepted by local authorities having jurisdiction.

- (11) Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.
- (12) When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- (13) Ducted fans must always be vented to the outdoors.
- (14) To avoid motor bearing damage and noisy and/or unbalanced impellers, keep drywall spray, construction duct, etc. off power unit.
- (15) Not for Use in Kitchens.

# **CAUTION (ATTENTION):**

- (1) For General Ventilating Use Only. Do Not Use To Exhaust Hazardous Or Explosive Materials and Vapors.
- (2) Do not exhaust air in excess of 75 C(167 F).
- (3) Do not install less than 5 linear feet (1.52 linear meters) or more than 40 linear feet (12.2 linear meters) from clothes dryer exhaust outlet.
- (4) A secondary lint trap must be installed between the clothes dryer and the (DEDPV) is located less than 15 linear feet (4.6 linear meters) from the exhaust of the clothes dryer.
- (5) This fan is suitable for operation within indoor environments only.
- (6) Do not install in an exhaust duct of a clothes dryer whose instructions prohibit the installation of a clothes dryer (DEDPV) (NE PAS INSTALLER DANS LE CONDUIT D'EVACUATION DE LA SECHEUSE SI LES INSTRUCTIONS INTERDISENT L'INSTALLATION D'UN VENTILATEUR AUXILIAIRE).
- (7) Do not install in an exhaust duct where the equivalent duct length is < 25 feet (7.62 meters) (NE PAS INSTALLER DANS UN CONDUIT D'EVACUATION MESURANT 7,62 METRES (25PI) DE LONGUEUR OU MOINS.
- (8) The PV-DEDPV is suitable to overcome a maximum equivalent duct length of 120 feet (36.58 meters) of 4 inch diameter galvanized steel duct, and to maintain an air velocity of 1200 fpm (6.10 m/s).
- (9) The PV-DEDPV is suitable to overcome a minimum equivalent duct length of 30 feet (9.14 meters) of 4 inch diameter galvanized steel duct, and to maintain an air velocity of 2200 fpm (11.2 m/s).
- (10) The PV-DEDPV is suitable for use with gas or electric clothes dryers.
- (11) Insulated dryer duct shall not be used upstream of the ventilator.
- (12) The ventilator must NOT be used in conjunction with high output dryers.

#### PRE-INSTALLATION INSPECTION

The PV-DEPV has been manufactured in accordance with rigorous standards of production. All the components have been checked and tested at the end of the manufacturing process. We recommend that you check the following after receiving this product:

- (1) The correct size has been received.
- (2) The correct model has been received.
- (3) The details on the rating label correspond to the electrical supply: voltage, frequency etc.

Remove the unit from packaging and inspect for shipping damage within FIVE (5) days of receipt. If

the product is found to be damaged, immediately contact your local authorized supplier. DO NOT OPERATE THE UNIT IF DAMAGED. These instructions should be considered as a supplement to EPA standard practices, as well as all state and local building code regulations.

Before installing the product check the following points:

- (1) The fan impeller turns freely.
- (2) There are no obstructions to the airflow.

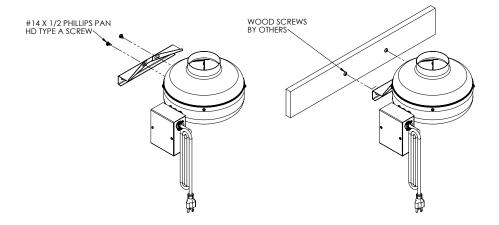
### **ENVIRONMENT**

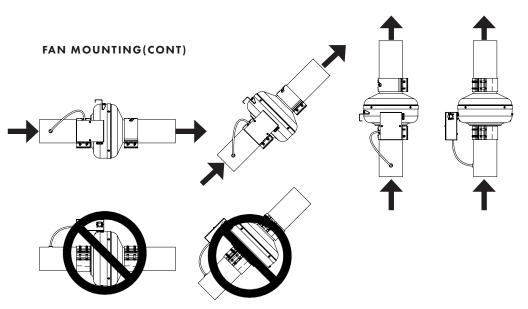
The PV-DEDPV is suitable for operation within indoor environments only. It is suitable for environments within the temperature ranges of  $-40^{\circ}F$  up to  $+140^{\circ}F$  ( $-40^{\circ}C$  up to  $+60^{\circ}C$ ).

#### **FAN MOUNTING**

Choose a mounting location which allows maintenance accessibility and ensure the fan is oriented so that air flows in the correct direction (exhaust).

The PV-DEDPV must be mounted per the orientation diagrams below to ensure proper operation. A robust mounting bracket is included and enables easy and quick installation of the fan. Install headers (not included) between the joists if necessary. Locate the fan so that the mounting bracket is centered on the headers or joists and secure with properly sized screws (not included). A minimum of 2 screws are required to mount the DEDPV.





## **DUCTING**

All duct and duct termination construction/location must comply with local and national building codes. The PV-DEDPV comes with (2) 8" long, 4" diameter duct cleanout sections and (4) band clamps. Ensure the duct system is designed for these components for planning and maintenance purposes.

Determine the total length of duct by adding all of the straight pieces of duct together (this includes all duct between the dryer exhaust outlet and the dryer vent cap). Then add 5 feet for every 90 degree elbow/bend, 2.5 feet for every 45 degree elbow/bend, and 5 feet for the dryer vent cap to determine the total equivalent duct length.

Example: The dryer exhaust system consists of 50 feet of straight duct, 2 90 degree elbows, and 1 dryer vent cap.

MOUNTING JOIST

BAND CLAMPS

BAND CLAMPS

LED INDICATOR LIGHT
SO COMMINICATION

CABLE

LIST INDICATOR LIGHT
SO COMMINICATION

CABLE

LIST TEAP

(OPTIONAL)

FRESURE SENSOR TURING

COPTIONAL)

COPTIONAL

COPTION

Ø4" RIGID DUCT

50 feet of straight duct + [5 feet x 2 elbows (90 deg) = 10 equivalent feet] + 5 feet for the dryer vent cap = 65 feet, total equivalent duct length

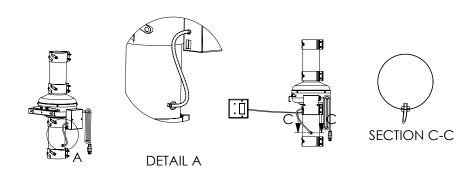
Ensure the total equivalent duct length is within the minimum and maximum allowable values below.

- MINIMUM allowable equivalent duct length: 30 feet (9.14 meters)
- MAXIMUM allowable equivalent duct length: 120 ft (36.58 meters)
- Do NOT install the DEDPV less than 5 linear ft (1.52 linear meters) or more than 40 linear feet (12.2 linear meters) from clothes dryer exhaust outlet.
- A secondary lint trap MUST be installed between the clothes dryer and the DEDPV if the DEDPV is located less than 15 linear feet (4.6 linear meters) from the clothes dryer exhaust outlet.
- A secondary lint trap SHOULD be installed between the clothes dryer and the DEDPV if the DEDPV is located less than 25 linear feet (7.6 linear meters) from the clothes dryer exhaust outlet.

S&P recommends round 4" rigid duct for best air performance and code compliance. Keep the length of duct and number of elbows to a minimum for best air performance. Duct connections and penetrations should be sealed with duct tape, duct fast-clamps, or caulk (available through your local distributor) to create an air-tight path from the clothes dryer to the building exterior.

Connect the duct to the fan with the provided band clamps and rated tape as necessary. Do NOT use screws to connect the duct and fan. Ensure that the outlet duct is properly connected to a properly sized, low restriction dryer vent cap with weather hood and backdraft damper. Dryer vent caps shall NOT include a screen as this will cause lint buildup and fan blockage.

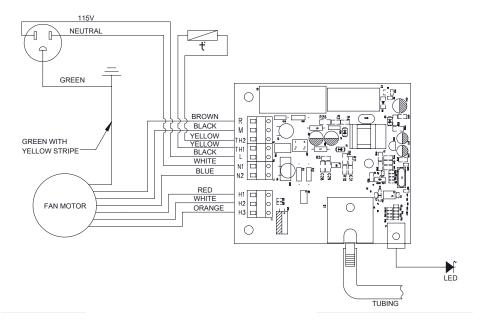
Drill a 3/8" hole in the duct adjacent to the fan (4-5") between the fan inlet and the clothes dryer. Insert the provided grommet taking care to avoid burrs. Connect one end of the 1/4" OD clear tubing to the pressure sensor on the fan housing and insert the other end into the grommet.



## WIRING

CAUTION: Ensure that power is turned off and locked out before making any wiring connections. The PV-DEDPV operates on a standard 120V 50/60Hz AC electrical supply. All wiring must be carried out by a qualified electrician in accordance with National Electrical Code and all applicable state and local buildings codes. Electrical connections are made at the factory per the wiring diagram below.

The PV-DEDPV is provided with a factory-wired 6' power cord and ready to be plugged into a standard 120V receptacle. The unit is provided with a LED indicator light panel and 50 feet of 2-wire communication cable. Connect the communication cable plug to the DEDPV control board and route the cable from the unit to the LED indicator light panel mounting location (in the laundry room).



Terminal	Description	
R	Fan Motor Capacitor	
М	Fan Motor Capacitor / Fan Power	
TH2	Temperature Sensor Lead 2	
TH1	Temperature Sensor Lead 1	
L	Voltage Hot (120Vac)	
N1	Voltage Neutral (120Vac)	
N2	Fan Motor Neutral	
Н1	Hall Sensor Voltage	
H2	Hall Sensor Signal Output	
Н3	Hall Sensor Ground	

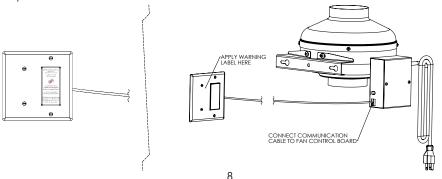
## **OPERATION**

The PV-DEDPV is a pressure sensing fan and operates automatically once positive pressure (0.08" w.g. from the clothes dryer) is sensed for more than 10 seconds. Once activated, the DEDPV will continue operating until positive pressure from the clothes dryer is no longer present. The DEDPV will then continue operating for 5 minutes in a "cool down" period. The ventilator includes a "one shot" thermal fuse (196 F, 91 C) located inside the fan to immediately shut off power to the motor in case of a dryer fire. The PV-DEDPV is equipped with a low voltage LED indicator light panel. This panel indicates whether the fan is operating correctly. Ensure that the panel is connected to the fan PCB with the 50' of communication wire provided. See table below for fan operation indicators. If further assistance is required, please contact our Support Services department.

**WARNING:** A flashing red light or no light indicates failure of the DEDPV. Immediately stop using clothes dryer until DEDPV has been serviced, repaired or replaced. A constantly illuminated green light indicates normal DEDPV operation.

LED Color	LED Light Function	Fan Operation
Green	Solid	Normal operation
Red	Flashing, once every 5 seconds	Fan speed is below normal indicating possible lint buildup causing the impeller to drag. Inspect the fan immediately.
Red	Flashing, twice every 5 seconds	Fan speed is above normal indicat- ing possible duct blockage due to lint buildup. Inspect the fan and duct system immediately.
Red	Flashing, three times every 5 seconds	Fan speed is zero indicating a locked rotor condition. Inspect the fan immediately.
Red	Flashing, once every 1 second	Fan temperature has exceeded the max allowable temperature (196 F, 91 C), removing the electrical power supply to the fan permanently. Inspect the fan, duct system, and dryer immediately.  Replace thermal fuse.

Mount the LED indicator light panel in the 2 gang wall plate provided and mount the wall plate so that it can be seen in the dryer area (refer to page 5-7 for mounting location requirements). Ensure the wiring connections are correct. The panel can be mounted directly to the wall. Ensure that the WARNING label is applied to the open area on the wall plate.

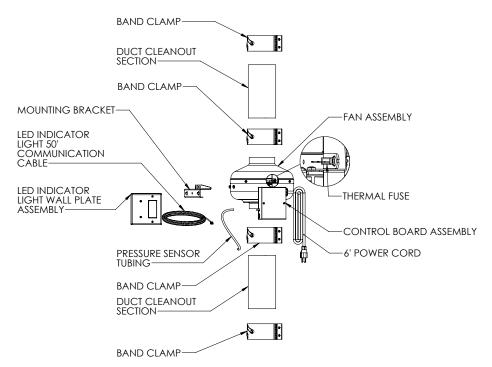


## **MAINTENANCE**

CAUTION: BEFORE CARRYING OUT ANY MAINTENANCE OR SERVICING, ENSURE THE UNIT IS DISCONNECTED FROM THE MAIN ELECTRICAL SUPPLY.

All PV-DEDPV fans incorporate sealed for life bearings and therefore do not require any lubrication. S&P recommends inspection of the fan at least once every six (6) months to avoid excessive accumulation of lint, duct, or dirt on the impeller, but this can vary depending on clothes dryer usage. To inspect and maintain/clean the unit disconnect from the electrical supply. Loosen the band clamps and remove the fan from the duct. Compressed air or a vacuum can be used to remove any lint buildup from the fan. If any debris is evident on the impeller clean with a damp (not wet) cloth. DO NOT USE any detergents or abrasive materials for cleaning. Reinstall the fan and tighten the band clamps, ensuring the fan is properly oriented and the duct connections are sealed.

## **EXPLODED VIEW**



## WARRANTY

S&P USA - S&P Canada warrant that the PV-DEDPV fan will be free from defective materials and workmanship for the period of (5) years from the date of original purchase. In the event that we find any part is defective the product will be repaired or, in the Company's discretion, replaced without charge provided that the product has been installed in accordance with the enclosed instructions and all applicable EPA Standards and state and local building codes.

IF CLAIMING UNDER WARRANTY: Please return the complete product, freight paid, to your local authorized distributor. All returns must be accompanied by a valid Bill Of Sale. **All** returns must be clearly marked "Warranty Claim," with an accompanying description stating the nature of the fault.

THE FOLLOWING WARRANTIES DO NO APPLY: Damages from shipping, either concealed or visible. Claim must be filed with the carrier. Damages resulting from improper wiring or installation Damages caused by acts of nature, or resulting from improper consumer procedures such as: Improper Maintenance; Misuse; Negligence; Alteration; Abuse; Abnormal Use; or Accident or Incorrect Electrical Voltage and Current. Removal or alteration to the S&P USA - S&P Canada data plate label.

WARRANTY VALIDATION: The end user must keep a copy of the Bill of Sale to verify purchase date.

THE ABOVE (5) YEAR WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED, WRITTEN OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE. IN NO EVENT SHALL Soler & Palau USA - Soler & Palau CANADA

BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING LOSS OF PROPERTY, REVENUES, LOST PROFITS, COSTS OF REMOVAL, INSTALLATION OR REINSTALLATION



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