

Lomanco MODEL PCV1 POWERED CRAWLSPACE VENT **VENTS**

INSTALLATION INSTRUCTIONS

READ AND SAVE THESE INSTRUCTIONS

WARNING - TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

- Use this unit only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer.
- Unplug or disconnect the fan from the power supply before servicing. Also switch power off at service panel and lock service panel 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.
- Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated constructions.
- 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 guide lines 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.
- When cutting or drilling into wall or ceiling, do not damage electrical wiring or other hidden utilities.
 - Ducted fans must always be vented to the outdoors.
 - NEVER - place a switch where it can be reached from a tub or a shower.

CAUTION - For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.

CAUTION - Do not use in locations readily accessible to people or animals. This fan is intended for use facing an unoccupied space only. Be sure your fan is properly installed. Your fan is designed to operate on 120 VAC 60 Hz.

WARNING - To reduce the risk of fire or electric shock, do not use this fan with any solid state speed control.

PCV1 - INSTALLATION

- The Lomanco Powered Crawspace Vent will assist with the air movement in an under ventilated home by providing 110 CFM.
- The fan is controlled by a humidistat which will operate the fan if the relative humidity is above the set point. The fan also has a built in thermostat, which will shut the fan off if the temperature is below 40° F. The fan will operate if the temperature is above 50° F and the humidistat is in the closed position. This unit has been preset at 60% RH.

To aid natural crawspace ventilation, mechanical ventilation should exchange the crawspace air at least four times an hour or every 15 minutes. To determine this, multiply the square footage of the crawspace by the height to calculate the cubic feet of the crawspace and then divide by 15 to determine the CFM needed.

EXAMPLE:

Home with 1500 square foot crawspace 2 feet tall.

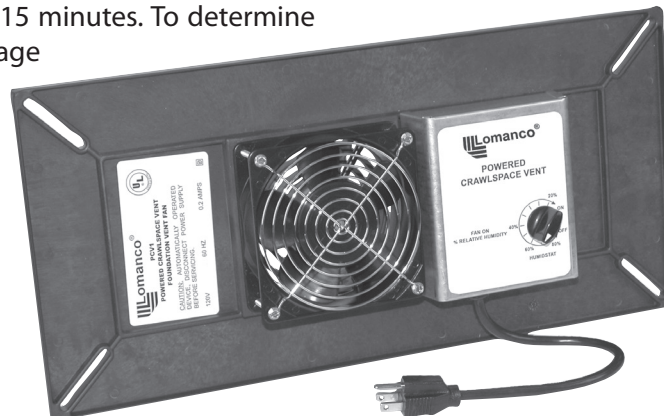
$$(1500) (2) = 3000 \text{ cubic feet}$$

$$3000 / 15 = 200 \text{ cfm required}$$

Each fan provides 110 CFM so one should use two fans.

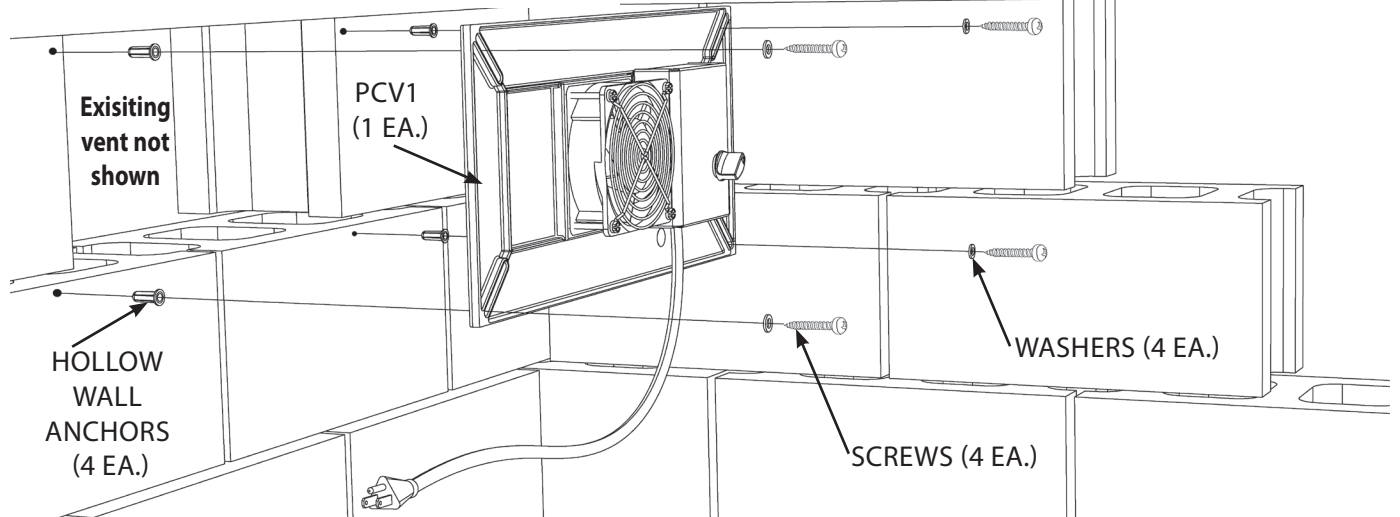
There should be a grounded electrical outlet within 12" of the control box.

Fans should be placed near the corners of the home and towards the top of the foundation wall. The fans may be attached directly to the concrete blocks or the wood top plate. Hollow wall mounting screws are provided with the PCV1.



INSTALLATION INSTRUCTIONS

INSTALLATION - MODEL PCV1



The PCV1 requires a 8" x 16" opening which is typically the size of a standard concrete block. Normally there is a brick veneer with a foundation vent installed in front of the wall (existing outside vent is not shown in drawing). Instead of an outside vent, bricks may have been 'soldiered' in the front.

From within the crawlspace, hold the PCV1 in place over the opening and mark a place to drill the holes in the block at the upper mounting holes. The motor and control box should be

facing the installer in the crawlspace. Drill a hole at each location using a 1/4" masonry bit. Install the hollow wall anchors and attach the PCV1 to the wall using the screws provided. Mark the location for the lower two holes and remove the PCV1. Repeat the drilling and anchor installation for the lower two holes. Install the PCV1 with the four screws and washers, securing the four corners of the PCV1 to the foundation wall. Plug the unit into an grounded outlet.

Setting Adjustments on the PCV1

If the surrounding air is damper than the lumber, moisture will migrate into the wood; if the air is drier than the wood, moisture will migrate out of the wood. Outdoor lumber normally has an equilibrium moisture content (EMC) of 12-18%. When the EMC reaches 19-20%, decay can occur. This table lists EMCs for various temperatures and relative humidities (RH). For Example: When the temperature is 80°F and the RH is 60%, the EMC is 10.8 %. This unit has been preset at 60% RH; but, should be adjusted to accommodate local conditions.

EMC Table										
RH %	OUTSIDE AIR TEMPERATURE									
	30°F	40°F	50°F	60°F	70°F	80°F	90°F	100°F	110°F	120°F
10	2.6	2.6	2.6	2.5	2.5	2.4	2.3	2.3	2.2	2.1
20	4.6	4.6	4.6	4.6	4.5	4.4	4.3	4.2	3	3.9
30	6.3	6.3	6.3	6.2	6.2	6.1	5.9	5.8	5.6	5.4
40	7.9	7.9	7.9	7.8	7.7	7.6	7.4	7.2	7	6.8
50	9.5	9.5	9.5	9.4	9.2	9.1	8.9	8.7	8.4	8.2
60	11.3	11.3	11.2	11.1	11	10.8	10.5	10.3	10	9.7
70	13.5	13.5	13.4	13.3	13.1	12.9	12.6	12.3	12	11.7
80	16.5	16.5	16.4	16.2	16	15.7	15.4	15.1	14.7	14.4
90	21	21	20.9	20.7	20.5	20.2	19.8	19.5	19.1	18.6
100	29	29.1	29.1	29	28.8	28.6	28.3	27.9	27.5	27

LIMITED WARRANTY

Lomanco, Inc. Warrants this product for one (1) year against any defects due to workmanship, parts or mechanical failure. For warranty service the defective part must be sent, freight prepaid to Lomanco Inc. P.O. Box 519, 2101 West Main Street, Jacksonville, Arkansas 72076. If the part is found to be defective it will be replaced with a new part at no charge and returned, freight prepaid. This warranty does not include replacement due to destructive storms or labor cost incurred in the removal of any defective part/product or installation of the new part/product. Online registration of the product at www.lomanco.com within ten (10) days of the initial installation of the product is a condition precedent to warranty coverage. ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE ALSO LIMITED IN DURATION TO FIVE (5) YEARS. CONSEQUENTIAL DAMAGES TO PROPERTY RESULTING FROM A BREACH OF ANY WARRANTY MENTIONED HEREIN ARE EXPRESSLY EXCLUDED. Some states do not allow limitations on how long an implied warranty lasts or do not allow exclusion or limitation of consequential damages, so the above limitation may not apply to you. The warranty gives you specific legal rights and you may also have other rights which vary from state to state.



ONLINE WARRANTY REGISTRATION

Please fill out the online form at lomanco.com to complete your warranty registration. If for any reason you are unable to register your product online please call 800-643-5596 and we will assist you. Purchase and install date information will be required.

