Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 09/12/17

Crawl Space & Reversible Basement Ventilation Fans

Fan-powered ventilation improves indoor air quality, reduces moisture to help eliminate odors, reduces radon and protects both home and occupants.

Simple Plug-In Electrical

UnderAire™
Crawl Space Ventilators

- Excess moisture can cause mold, mildew and wood rot. UnderAire fans increase air circulation to fight condensation.
- Constant operation helps vent radon, treated wood off-gassing and odors that might otherwise migrate into living areas.

XchangeR™
Reversible Basement Ventilation Fans

Many basements are stale, musty or smelly because of:

- Seasonal water issues, sump pits & floor drains.
- Off-gassing of molds that thrive when humidity is in excess of 60% RH.
- General lack of air exchange or ventilation.

Proudly Made in the U.S.A.

UnderAire™

Crawl Space Ventilators

CITY OF PORTLAND, MAINE
RESURGAM
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Model V1

One fan and small faceplate for ventilation openings through brick foundations. (Requires switch or dehumidistat to activate. Multiple ventilators may be controlled by a single switch or dehumidistat). Includes thermostat.

Model V1D

One fan and large faceplate sized for ventilation openings through block foundations. Includes thermostat, dehumidistat and pre-wired 6' power cord.

Model V2D

Two fans and large faceplate sized for ventilation openings through block foundations. Includes thermostat, dehumidistat and pre-wired 6' power cord.

Easy to Install

Ventilators are installed inside crawl space behind existing ventilation opening. Screws and masonry wall anchors are included.

Models V1D & V2D

Model V1

Designed and Engineered for Years of Service

Galvanized face plate may be trimmed if necessary

Models V1D and V2D include adjustable dehumidistat

Thermostat deactivates fan below 40ºF to avoid freeze-ups

Sealed bearing motor(s)

Models V1D and V2D have 6' grounded power cord

Suitable for Damp locations

UnderAire™ Crawl Space Supply Fans (Models CS1 & CS2)

Pair with V-Series fans to boost the supply of outdoor air into crawl spaces with too few or undersized passive vents or stagnant areas around knee walls or corners. Mounting plate can be trimmed for smaller opening.

CS1

CS2

Facts to Know About Crawl Space Ventilation

From Mississippi State University Extension Service:

If soil is damp, as much as 20 gallons of water per 24 hours can evaporate into the air in a 1,400 sq. ft. crawl space.

Primary causes of excess moisture include:

- Surface runoff water
- Poor ventilation
- No or poor ground vapor barrier

Signs of excess moisture in crawl space:

- Soil is wet
- Surface organism growth on floor joists
- Wet insulation
- Musty odors in crawl space or living areas
- Excessive moisture in living areas tending to migrate towards windows

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XchangeR™

Reversible Basement Ventilation Fans

Fans use only 40 watts compared to over 1,000 watts for the typical dehumidifier. Save over $100 per year in electrical costs.

Model X2D

Model X2R

Also use XchangeR Fans to:

- Comply with residential ventilation requirements
- Dehumidify and freshen non-ventilated crawl spaces
- Supply make-up air for stoves or fireplaces
- Ventilate hot garages, storage areas & workshops
- Keep closed up cabins or vacation homes fresh
- Dilute basement radon levels

Three Air Flow Options

Easily reverse the direction of the airflow to:

Exhaust musty air

Supply fresh air

Or position one fan in each direction for balanced air exchange with no bypass from either air stream

To Reverse Air Flow

(Model X2D shown)

Pull Fan Out

Rotate Fan 180⁰

Push Fan Back In

Simple Installation

Model X2D

Use X2D in applications with rooms located along an exterior wall. Includes dehumidistat control and magnetic draft stops. Install X2D through a 12 1/4 x 5 1/4 inch opening in a basement rim joist or any outside wall. Plug the XchangeR fans into included dehumidistat control and plug the control into a standard outlet.

Model X2R

Use X2R in applications where outside hood must be ducted to the room X2R is installed in. Mount X2R below or between floor joists / trusses or secure to wall in any orientation for installation flexibility. Install hood through 13 3/4 x 6 1/2 inch oval opening. The X2R includes magnetic draft stops but does not include a dehumidistat control so that it can be paired with the control best suited for the application.

Between joist/truss mount

Wall mount

Easy Maintenance

Rugged outdoor hood with easy to remove and clean screen.

UnderAire™ Crawl Space Ventilators

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Specifications

Model	V1	V1D	V2D
Performance	110 CFM	110 CFM	220 CFM
Motor	115/1/60 0.30 amps	115/1/60 0.30 amps	2 @ 115/1/60 0.60 amps
Dehumidistat	Optional Model DH10 dehumidistat available separately	OFF/ON or 20-80% RH	OFF/ON or 20-80% RH
Thermostat	Opens at 40ºF	Opens at 40ºF	Opens at 40ºF
Dimensions	14 3/8" x 6 7/8" x 2"	18" x 9" x 2"	18" x 9" x 2"
Trim Dimensions	9 3/8" x 5 3/8"	9 3/4" x 6"	14" x 6"

How to determine t number of *UnderAi* Ventilators needed.

Calculate the cubic area of the crawl space by multiplying the length x width x height. Divide this number by 15 to determine the minimum CFM necessary to fully ventilate the space in 15 minutes. Example: 20' wide x 40' long x 3' high crawl space = 2,400 cubic ft. 2400 cubic ft. ÷ 15 minutes = 160 CFM of ventilation. Choose two V1 or V1D ventilators or one V2D ventilator.

XchangeR™ Ventilation Fans

Dimensions

Optional Accessories

Add the SCP plug-in speed control for variable performance or use any plug-in timer to cycle as desired.

Model SCP

If using the XchangeR in an enclosed utility room with chimney-vented heating equipment, use the optional DT2-6 6" duct take-off and G-6 diffusers to pull exhaust air from an adjacent room.

Model DT2-6

- SWR Switch-It Wireless 120v Outlet
- G-6 6" White Plastic Exhaust / Intake Grille
- BD-6 6" Spring Return Back Draft Damper (for use with X2R)

Specifications

Model X2D & X2R

	1 Fan	*2 Fans*
Voltage	120	120
Watts	20	40
Amps	0.3	0.6
CFM	90	180

For Dehumidification

The X2D includes a Dehumidistat control to automatically cycle based on user set RH (Relative Humidity) level. The model X2R requires the DH2P plug-in Dehumidistat for automatic RH based operation.

For Timer Based Air Exchange

.33 Air Change / Hour (ACH) recommended

Basement FT^2 (8 foot ceiling)	XchangeR Run Time/Hour	
	1 Fan (90 CFM)	*2 Fans (180 CFM)*
500	15 min	7.5 min
750	22 min	11 min
1000	30 min	15 min
1250	37 min	18.5 min

Model X2D Includes Automatic Dehumidistat Control

Turn either fan on or off and automatically operate your basement fan by adjusting the dehumidistat control to the level needed. Rotate the dial fully clockwise for constant operation. **For X2R models, order optional DH2P Control.**

Available From:

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