



**FIELDCONTROLS**  
VENTILATION



VENTILATION PRODUCTS GUIDE

# TABLE OF CONTENTS



Field Controls is focused on the movement of air inside the home. Since 1927, we have been an HVAC leader in combustion and venting of residential appliances. We are also an innovator in comprehensive indoor air quality. This guide will introduce you to our full line of ventilation options for home builders and HVAC contractors. Our ventilation solutions meet the needs of every home and are compatible with any HVAC system. Our options range from intelligent Supply Systems using central fan integrated ventilation (CFIV) to Balanced Energy Recovery systems.

Thank you for specifying Field Controls.



## SUPPLY VENTILATION

BRINGS FRESH AIR INDOORS



## BALANCED VENTILATION

SUPPLIES FRESH AIR



## COMFORT

BALANCES TEMPERATURE

OVERVIEW

### Overview

Controlled Ventilation	2 -3
Types of Ventilation Systems	4-5

### Supply Ventilation

Fresh Air Ventilation Control	6-9
Fresh Command Multifamily Control	10-11
Fresh Air Dampers	12-15
Fresh Air Power Ventilator	16
SmartExhaust	17
Damper and Control Combo	18
Power Ventilator and Control Combo	19
Spring-Close Fresh Air Damper	20
Backdraft Damper	21
Make-up Air System	22

### Balanced Ventilation

Energy Recovery Ventilator	23-25
----------------------------	-------

### Comfort

EvenAir®2.0	26-27
-------------	-------

### Foundation

Eliminator® Foundation Vent Fan	28
---------------------------------	----

### Replacement Parts

# CONTROLLED VENTILATION

## INDOOR AIR POLLUTANTS

### THE HOME IS A ECO SYSTEM






A home needs to breathe much the way humans do by taking in good air and exhausting bad air. Efforts to make homes more energy efficient - such as weather stripping, sealants, and moisture barriers - have tightened the home, reducing air changes and trapping stale air indoors. Exhaust ventilation, such as bath fans, can make indoor air worse by creating negative pressure and drawing poor or toxic air into the home from the garage or other undesirable locations. Since we spend 90 percent of our time indoors, this compromised air quality can impact our health and safety.

OVERVIEW

### MITIGATING INDOOR POLLUTANTS WITH VENTILATION

Common pollutants in indoor environments include volatile organic compounds (VOCs) from cleaning products, formaldehyde from furniture and building materials, particulate matter from dust and smoke, and biological contaminants like mold and pollen. Efficient ventilation systems help mitigate these pollutants, improving indoor air quality.

#### Common Pollutants

-  *Asbestos, Allergens, Dust, Dander, and Pollen*
-  *Germes, Bacteria, Viruses, Mold, Fungi, Mildew, and Microorganisms*
-  *Volatile Organic Compounds (VOCs), Household Cleaners, Chemicals, Solvents, Personal Hygiene Products, Carpet, Paints, Formaldehyde, Gasoline Fumes, Fertilizers, and Glue*
-  *Odors and Smoke*
-  *Radon, Combustion Fumes, and Carbon Monoxide (CO)*

#### BEDROOMS, BATHROOMS, LIVING ROOMS, & OFFICES

Bad air can enter the home around windows, doors, and electrical outlets and under base mouldings.



#### GARAGES & FURNACE ROOMS

Negative pressure can pull harmful gases from this



#### KITCHENS

Fresh air dilutes odors and VOCs and can balance the effects of range hoods. mouldings.



#### OIL & GAS APPLIANCES

Furnaces, Boilers, and Water Heaters are designed to operate in a neutral-pressure environment. Without proper ventilation and combustion air, flue gases can be pulled into the living room.



#### CRAWL SPACE & BASEMENTS

Negative pressure pulls radon, mold, and other contaminants into the living space. mouldings.



#### LAUNDRY ROOMS

Clothes dry faster with balanced ventilation.



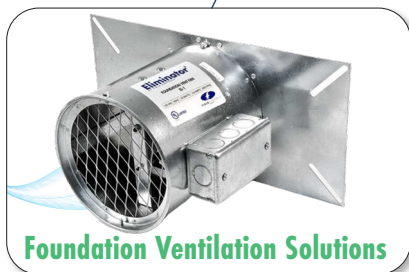
# CONTROLLED VENTILATION

BETTER AIR FOR BETTER LIVING

## CONTROLLED VENTILATION IS THE SOLUTION

Fresh air is vital for the health of the occupants and the health of the home. New energy efficiency requirements have tightened homes to the point that fresh air ventilation must be managed. Our Supply and Balanced ventilation products are designed to automatically provide fresh air ventilation. Our products comply with ASHRAE 62.2 and Title 24 ventilation standards while improving indoor air quality and comfort in the home.

OVERVIEW



# TYPES OF VENTILATION

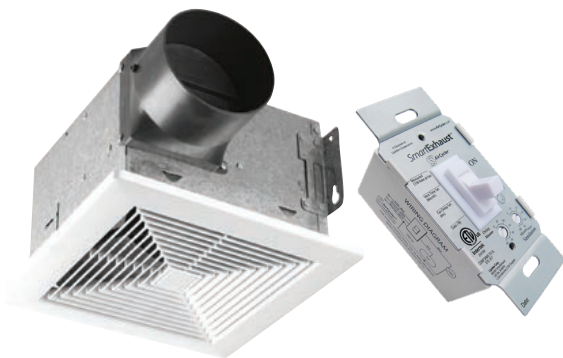
OVERVIEW

Our central fan integrated supply ventilation solutions harness the power of your home's existing HVAC system to efficiently distribute fresh, clean air throughout your entire living space. By seamlessly integrating with your current HVAC setup, CFIV ensures that every room benefits from improved ventilation without the need for additional equipment. This innovative system not only enhanced indoor air quality but also maximizes the use of existing whole house filters and air purifiers, effectively cleaning the incoming air before it circulates through your home.



Our balanced ventilation solutions offer the dual advantages of heat and energy exchange between the exhaust and supply air streams. This innovative process tempers the incoming air, ensuring a comfortable indoor environment while significantly reducing energy consumption. By reducing heat and energy from the exhaust air, our systems provide a more energy-efficient solution, leading to lower utility bills and a smaller carbon footprint. Once conditioned, the tempered air is evenly distributed throughout your home, promoting consistent indoor comfort and superior air quality.




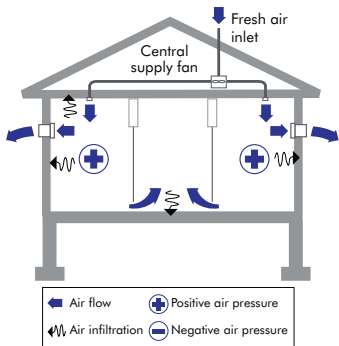
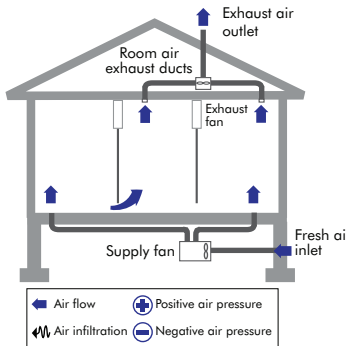
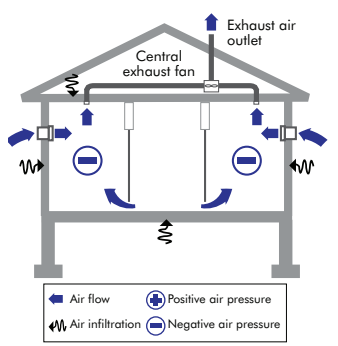
Exhaust ventilation systems, such as those commonly found in bathrooms, are designed to remove air from specific locations within the home. However, these systems often create depressurization in the home, which can lead to unintended consequences. Depressurization occurs when the exhaust system expels more air than the house can naturally replace, causing a negative pressure situation. As a result, replacement air, or make-up air, will infiltrate the home through leaks in the building shell and other uncontrolled sources. This unintentional infiltration can draw air from less desirable locations such as the garage, attic, crawl space, or even from gaps and cracks in the building's envelope.



Go to [fieldcontrols.com/videos](https://fieldcontrols.com/videos) or our YouTube channel to learn more about the different types of ventilation.



# TYPES OF VENTILATION

	SUPPLY	BALANCED	EXHAUST
<b>OVERVIEW</b>	 <p><b>Fresh Air Ventilation</b> Uses the central fan to supply outdoor air through a controlled duct</p>	 <p><b>HRV and ERV</b> Use an internal fan to supply air into the home while simultaneously exhausting amount of incoming air out of the home</p>	 <p><b>Bath Fans</b> Use dedicated fan or bath fan to exhaust air from the home</p>
ASHRAE 62.2 2010 compliant	✓	✓	✓
Efficiency	High	Very High	Low
Effectiveness in Controlling Indoor Air Quality	High	High	Low
Installation Cost	Medium	High	Low
Controls Source of Fresh Air Intake	✓	✓	✗
Integrated with Existing HVAC Central Fan	✓	✓	✗
Distributes Fresh Air Through Home	✓	✓	✗
Operates Intermittently	✓	✓	✗
Operates Continuously	✗	✓	✓
Noise Level When Operating	Low	Low	High
Indoor Humidity Monitoring	✓	✓	✗
Outdoor Temperature Monitoring	✓	✗	✗
Ability to Monitor/Credit Exhausting Air Appliances	✓	✗	✗
Prevents Infiltration During Off Periods	✓	✓	✗
Treats Indoor Air with Use of Media Air Cleaners, UV Air Purifiers, etc.	✓	✓	✗
	 <p> <span>➡ Air flow</span>   <span>⊕ Positive air pressure</span>  <span>⚡ Air infiltration</span>   <span>⊖ Negative air pressure</span> </p>	 <p> <span>➡ Air flow</span>   <span>⊕ Positive air pressure</span>  <span>⚡ Air infiltration</span>   <span>⊖ Negative air pressure</span> </p>	 <p> <span>➡ Air flow</span>   <span>⊕ Positive air pressure</span>  <span>⚡ Air infiltration</span>   <span>⊖ Negative air pressure</span> </p>

# SUPPLY VENTILATION SOLUTIONS

## FRESH AIR VENTILATION CONTROL (FAVC)

A home needs to breathe much the way humans do by taking in good air and exhausting bad air. Efforts to make homes more energy efficient - such as weather stripping, sealants, and moisture barriers - have tightened the home, reducing air changes and trapping stale air indoors. Exhaust ventilation, such as bath fans, can make indoor air worse by creating negative pressure and drawing poor or toxic air into the home from the garage or other undesirable locations. Since we spend 90 percent of our time indoors, this compromised air quality can impact our health and safety.

Controls based on timers are inefficient and waste energy since they run on a pre-set time and not actual airflow. Exhaust-only fans, like those in bathrooms and kitchens, can remove stale indoor air but can create negative pressure within the home, which means unhealthy air from undesirable spaces like the crawl space or garage may be introduced. The FAVC is different. It powers the central fan for shorter, more frequent airflow cycles every 30 minutes. The FAVC comes pre-set from the factory and is easily adjusted to the square footage and number of bedrooms of the dwelling.

The FAVC also offers the option of monitoring and/or controlling up to four appliances to evenly balance fresh air ventilation. Appliances include damper, HRV/ERV, HVAC central blower, clothes dryer, kitchen exhaust fan, bath fan, central vacuum, and others.



FAVC

### FEATURES

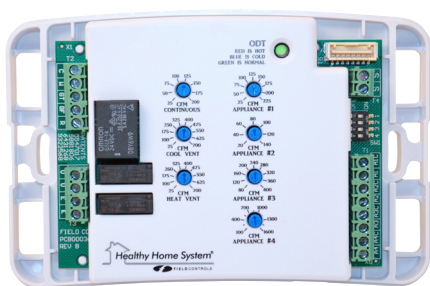
- Complies with ASHRAE 62.2-2010, 2013, and 2016
- New or existing single- or multifamily operation
- Simple installation
- Smart controller
- Controls three (3) appliances (including ventilation damper)
- Monitors up to four exhaust fan appliances
- Individual heat and cool airflow settings for HVAC central fan
- Inhibits fresh air ventilation based on outside temperature levels and indoor relative humidity setting

SUPPLY

A promotional graphic featuring a small image of the FAVC unit on the left. To its right, text reads: 'Go to fieldcontrols.com or our YouTube channel to learn more about the FAVC control.' A large QR code is positioned on the right side of the graphic.

Go to [fieldcontrols.com](http://fieldcontrols.com) or our YouTube channel to learn more about the FAVC control.

## WHEN COMBINED WITH A FRESH AIR DAMPER (FAD), THE FAVC WILL PROVIDE FRESH AIR VENTILATION ON A SCHEDULE TO MEET ASHRAE 62.2



Built-in indoor humidity and temperature sensor works in ducts or in air closets

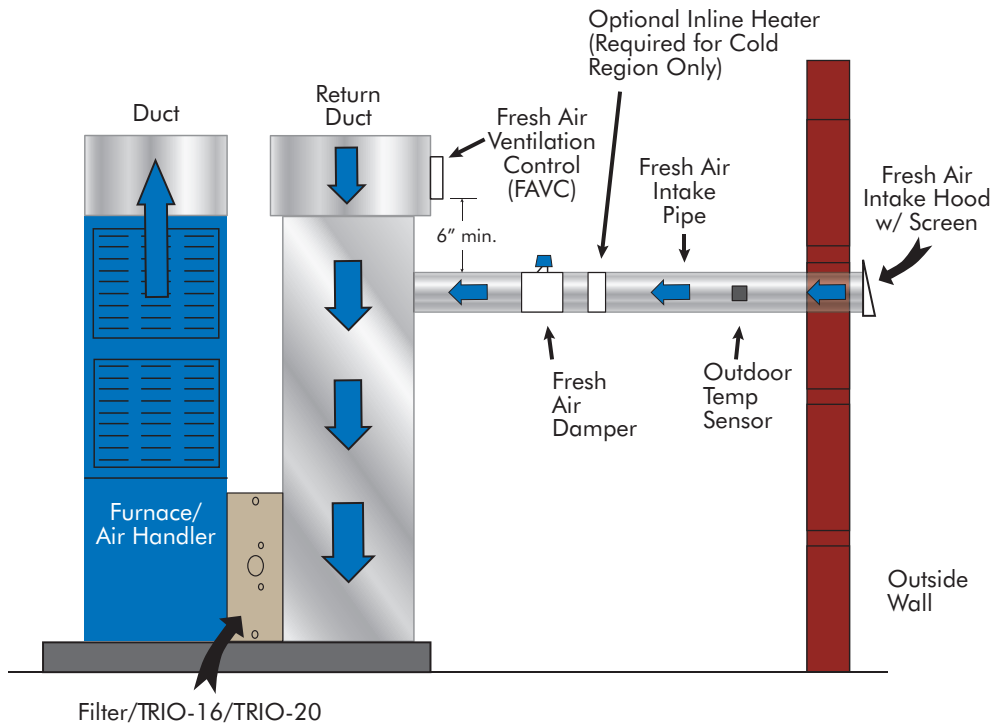
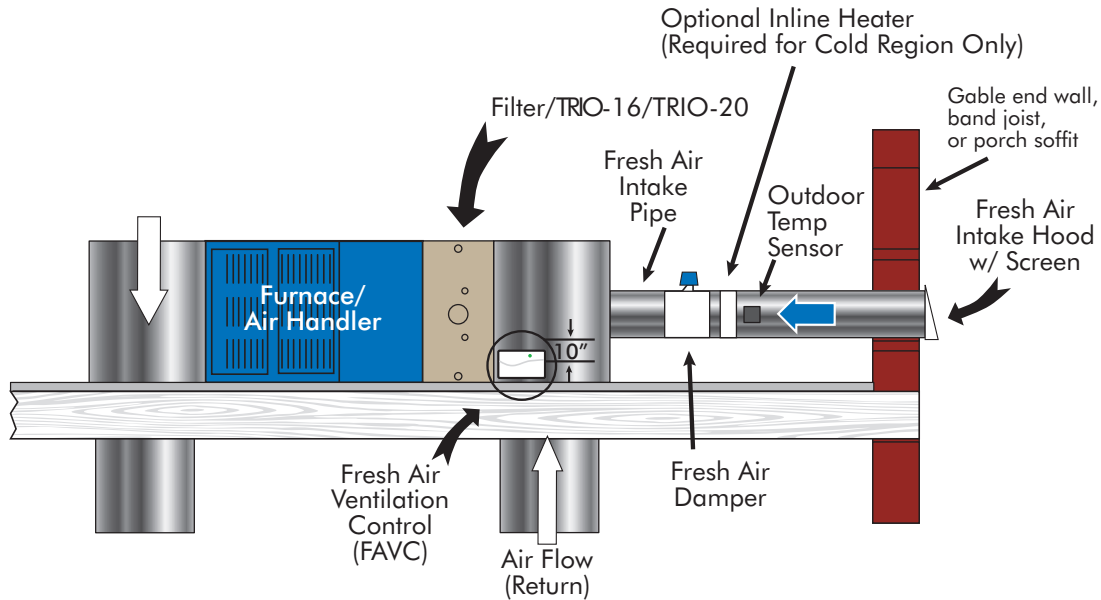
### HOW IT WORKS

The FAVC continuously monitors return air temperature and relative humidity levels, along with actual outside temperature, to ensure healthier air year-round. To conserve energy, the FAVC runs the fan only when needed, unlike controls based on timers. The FAVC controls the amount of fresh air ventilation, regulates humidity in the winter months, and prevents humid conditions in summer months. The FAVC inhibits mold by limiting condensation. It also reduces corrosion of the heat exchanger. Plus, the climate mode feature allows the FAVC to be customized for warm or cold climates, or economy mode.

# SUPPLY VENTILATION SOLUTIONS

## FRESH AIR VENTILATION CONTROL (FAVC)

### INSTALLATION OPTIONS



### FRESH AIR VENTILATION CONTROL SPECIFICATIONS

MODEL	PART NUMBER	PRODUCT	DESCRIPTION	VOLTAGE	AMPS
FAVC	602600100	Fresh Air Ventilation Control	Interactively works with the thermostat, in conjunction with the HVAC appliance central fan to periodically introduce controlled amounts of fresh air. Fan/Vent ON and OFF delay settings, 30-minuted cycle period, unlimited setting for ON and OFF.	20 - 30	0.07

# SUPPLY VENTILATION SOLUTIONS

## FRESH AIR VENTILATION CONTROL (FAVC)

### CFM Continuous Dial

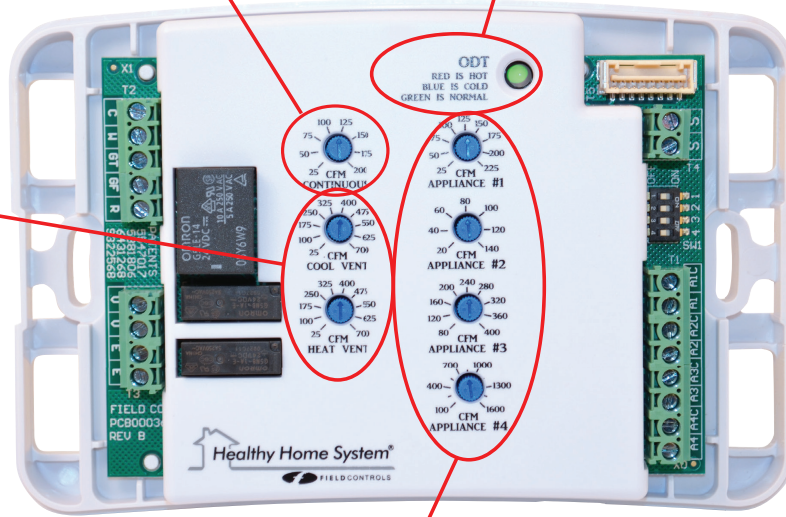
The **CFM Continuous Dial** controls the continuous ventilation rate and is factory pre-set at 50 CFM.

### Outdoor Temperature Light

Three color **ODT light** indicates whether outside air temperature meets ventilation requirement or if ventilation will be limited due to temperature or humidity levels. The control continuously monitors ventilation requirements and conditions.

### CFM Cool/Heat Vent Dial

The **CFM Cool Vent Dial** and **CFM Heat Vent Dial** are each preset at 150 CFM and can be used to set the airflow rate through a Fresh Air Damper or HRV/ERV unit when central fan is running in cooling mode and heating mode.



### Optional Appliance Monitoring Controls

Monitoring additional exhaust devices minimizes costly overventilation, keeping the home more efficient and comfortable.

APPLIANCE DIAL	APPLIANCE TYPE	APPLIANCE CFM	STANDARD CONFIGURATION	OPTIONAL CONFIGURATION
#1	Bath Fan, HRV/ERV Unit	25 - 225	Offers balanced ventilation by monitoring the appliance and takes credit for ventilation requirement when appliance # 1 fan runs	Energy-Savings Mode <ul style="list-style-type: none"> <li>Can drive appliance # 1 fan in lieu of central fan</li> <li>Takes credit for ventilation with damper when heating or cooling</li> <li>Drives appliance # 1 fan when additional ventilation is required within the heating/cooling cycle</li> <li>Gets energy credit when bathroom fan is used (non-ECM central fan blower)</li> </ul>
#2	Bathroom Fan	20 - 140	Monitors appliance # 2	
#3	Clothes Dryer, Standard Range Hood	80 - 400	Passive Make up Air Mode <ul style="list-style-type: none"> <li>Opens damper when appliance # 3 is on</li> </ul>	Active Make-up Air Mode <ul style="list-style-type: none"> <li>Turns on central fan and opens damper when appliance # 3 runs</li> </ul>
#4	Fireplace, Commercial Range Hood	100 - 1600	Monitors appliance # 4	Active Make-up Air Mode <ul style="list-style-type: none"> <li>Turns on central fan and opens damper when appliance # 4 runs</li> </ul>

# SUPPLY VENTILATION SOLUTIONS

## FRESH AIR VENTILATION CONTROL (FAVC)



### EXCLUSIVE FAVC FEATURES

APPLIANCE VENTILATION CREDIT	The FAVC can monitor up to four appliances and apply credit from those fans. The FAVC can monitor a variety of fan types and CFM ranges, from bathroom fans and HRV/ERVs (20-225 CFM) and clothes dryers and standard kitchen range hoods (80-400 CFM) to fireplace and commercial range hoods (100-1600 CFM).
INDOOR TEMPERATURE/HUMIDITY MONITORING	The FAVC has a built-in Indoor Temperature/Humidity sensor to continuously sense actual return air duct conditions. The FAVC can be installed directly to the return air plenum of the HVAC system, or it can also be installed on the wall in air closet application.
PLENUM PROTECTION & WINTER DEHUMIDIFICATION	The FAVC continuously monitors indoor Relative Humidity in the return plenum to regulate humidity in the winter months, and to prevent humid conditions in summer months by reducing the ventilation during periods of high dew points. The FAVC also monitors outdoor air temperature. The FAVC inhibits condensation, reducing mold and corrosion of the heat exchanger.
30-MINUTE CYCLE PERIOD	With a 30-minute cycle period, the FAVC introduces fresh air more frequently and regularly, which means the air is more evenly balanced and the HVAC system does not have to work hard to catch up with a wide range of temperatures that can occur over 60-minute time period.

### CODE COMPLIANCE

	Field Controls FAVC Fresh Air Ventilation Control	APRILAIRE 8120A/8126A LENNOX LVCS	HONEYWELL Y8150	LIPIDEX G2/G2-K	JACKSON SYSTEMS VCS IO-FAV-06
ASHRAE 62.2 2010 compliant	✓	✓	✓	✓	✗
ASHRAE 62.2 2013 compliant	✓	✗	✗	✓	✓
ASHRAE 62.2 2016 compliant	✓	✗	✗	✓	✗
ASHRAE CONTINUOUS CFM	✓	✗	✗	✓	✗

### CONTROL FEATURES

CONTROL SETTINGS TYPE/ EASE OF SETUP	Dial Settings/Simple	Dial Settings/Simple	Dial Settings/Simple	Hidden, Menu Driven/ Complex	Dial Settings/Simple
ENERGY-SAVING MODE	✓	✗	✗	✓	✗
COMPATIBLE WITH AN HRV/ERV	✓	✓	✓	✗	✗
25% VENTILATION REDUCTION BASED ON OUTDOOR TEMPERATURE	✓	✓	✗	✓	✗
REMOTE INPUTS	2	✗	1	✗	1
CLIMATE ZONE MODES WITH INHIBIT OPTIONS	1	3	✗	✗	✗
INDOOR HUMIDITY MONITORING	✓	✓	✗	✗	✗
OUTDOOR TEMPERATURE MONITORING	✓	✓	✗	✗	✗
HIGH AND LOW TEMPERATURE LIMITS	✓	✓	✗	✗	✗
PROTECTIVE COVER	✓	✗	✓	✗	✓

### DAMPER FEATURES

DAMPER DESIGN	Stainless with seal	Stainless with seal	Stainless with seal	Stainless with seal	Stainless with seal
DAMPER ACTUATION	Power open Power close	Power open Spring close	Power open Spring close	Power open Spring close	Power open Spring close
DAMPER SIZES AVAILABLE	4" to 20"	6" or 8"	6" only	4" to 10"	6" only

# SUPPLY VENTILATION SOLUTIONS

## FRESH AIR VENTILATION CONTROL (FAVC)

The Field Controls Fresh Command Multifamily Control (FCMC) is meticulously crafted to ensure a continuous supply of fresh air throughout the year, prioritizing energy efficiency, optimal indoor air quality, and occupant well-being. By incorporating FCMC into your ventilation system, you not only save significantly on energy costs but also minimize maintenance interventions, enhancing overall system reliability.

Compliant with multifamily ventilation standards and up-to-date building energy codes, the FCMC simplifies operation with a single dial, allowing seamless adjustment between intermittent and constant ventilation modes. Its straightforward installation and configuration process ensures hassle-free integration into your existing setup, guaranteeing consistent and dependable performance across all seasons.



FCMC

SUPPLY

### BENEFITS

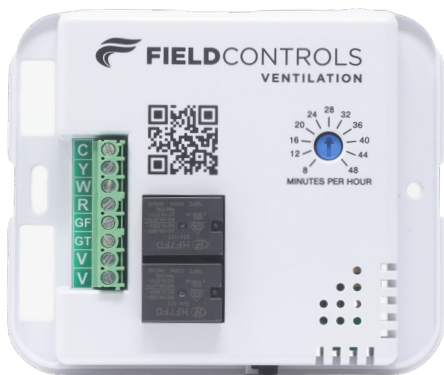
- Meets multifamily ventilation requirements
- Conforms to the latest building and energy codes
- One dial to adjust intermittent or constant ventilation, easy install and setup
- Energy efficient with occupant comfort in mind
- Reduces callbacks for comfort issues compared to digital vent T-stats, which encourage over ventilation
- Easy wiring and dependable performance

Go to [fieldcontrols.com](https://www.fieldcontrols.com) or our YouTube channel to learn more about the FCMC Multifamily Control.

### HOW IT WORKS

The FreshCommand operates on a 30-minute cycle period with dynamic dwell time to allow for synchronizing with the equipment when heating or cooling becomes active (W and Y terminals). If the equipment is active, the FreshCommand will initiate a ventilation call once the period counter has completed. If the equipment is not active, the FreshCommand will hold off on starting the next call for ventilation by using a dynamic off timer function that is based on the control set point. Dwell time = 30 minutes - Control run time (100%, 75%, 50%, 25%). The wait period following the Dwell time is the full control set point time + 15 minutes. If the heat or cool signal become active anytime after the initial Dwell time has lapsed, there will not be an extended wait for the equipment to turn on before another ventilation cycle begins.

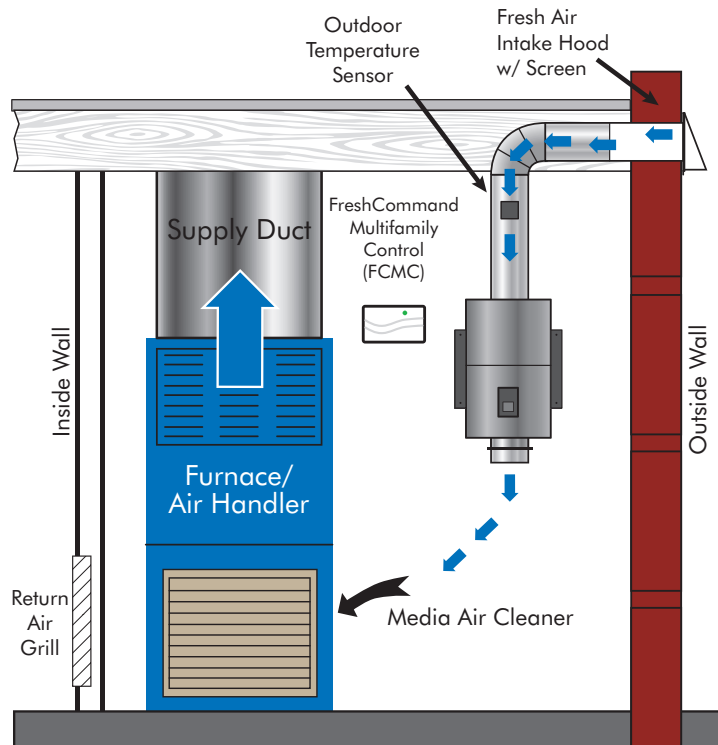
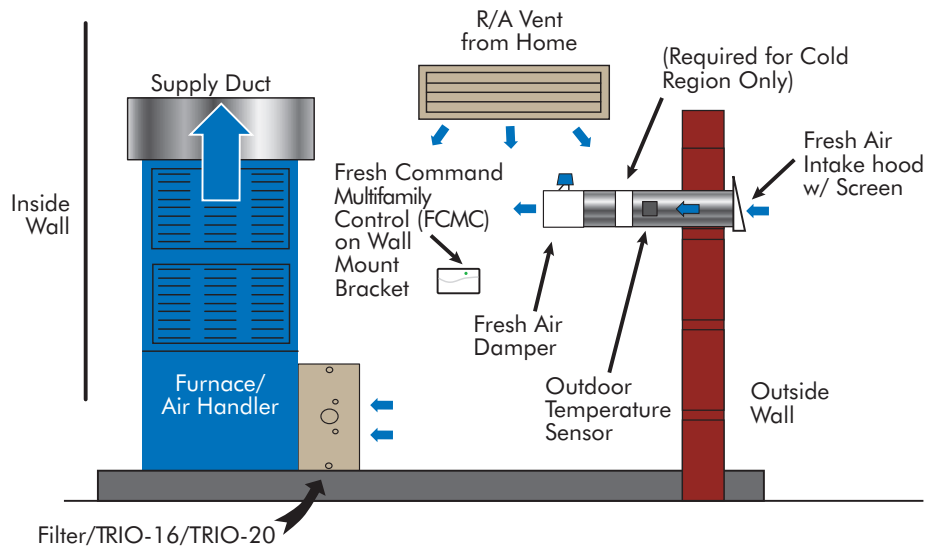
### WHEN COMBINED WITH A FRESH AIR DAMPER (FAD), THE FCMC WILL PROVIDE FRESH AIR VENTILATION ON A SCHEDULE TO MEET ASHRAE 62.2



# SUPPLY VENTILATION SOLUTIONS

## FRESH AIR VENTILATION CONTROL (FAVC)

### INSTALLATION OPTIONS



### FRESH COMMAND MULTIFAMILY CONTROL SPECIFICATIONS

MODEL	VOLTAGE	FULL LOAD POWER	IDLE POWER	WIRING REQUIREMENT	OPERATING TEMPERATURE RANGE	OPERATING HUMIDITY RANGE
FCMC	16 - 32 VAC	1.28W	27.0mW @ 27.4 VAC	20 - 30	0.07	5 to 95% RH (non-condensing)

# SUPPLY VENTILATION SOLUTIONS

## FRESH AIR DAMPER (FAD)

The Field Controls Fresh Command Multifamily Control (FCMC) is meticulously crafted to ensure a continuous supply of fresh air throughout the year, prioritizing energy efficiency, optimal indoor air quality, and occupant well-being. By incorporating FCMC into your ventilation system, you not only save significantly on energy costs but also minimize maintenance interventions, enhancing overall system reliability.

Compliant with multifamily ventilation standards and up-to-date building energy codes, the FCMC simplifies operation with a single dial, allowing seamless adjustment between intermittent and constant ventilation modes. Its straightforward installation and configuration process ensures hassle-free integration into your existing setup, guaranteeing consistent and dependable performance across all seasons.



FAD - Fresh Air Damper

### BENEFITS

- Delivers fresh air automatically, year-round
- Creates uniform temperature and humidity throughout the home
- Enhances effectiveness of Media Air Cleaner and UV air purifiers
- Helps reduce humidity
- Helps reduce heating and cooling costs

### FEATURES

- Power open, power close
- Very low power requirement and airflow resistance
- Stainless steel body and gate
- Tear-resistance closed-cell foam rubber seal tested 500K+ cycles
- Seal flammability meets FMVSS-302
- Gas Vent Damper motor and circuit board certified 100K+ cycles
- Patented Damper Monitor feature detects and diagnoses failure

### HOW IT WORKS

The Fresh Air Damper is a motor-driven damper activated by the Fresh Air Ventilation Control or the Fresh Command Multifamily Control. When there is a call for fresh air, the FAVC or FCMC opens the damper, allowing fresh air to enter the HVAC return. When the FAVC is satisfied, the damper is closed.

### FRESH AIR VENTILATION CONTROL SPECIFICATIONS

MODEL	DESCRIPTION	VOLTAGE	AMPS	WATTS
FAD-4	Power open/close, fits 4" duct or pipe	24	0.07	3
FAD-5	Power open/close, fits 5" duct or pipe			
FAD-6	Power open/close, fits 6" duct or pipe			
FAD-7	Power open/close, fits 7" duct or pipe			
FAD-8	Power open/close, fits 8" duct or pipe			
FAD-9	Power open/close, fits 9" duct or pipe			
FAD-10	Power open/close, fits 10" duct or pipe			
FAD-12	Power open/close, fits 12" duct or pipe			
FAD-14	Power open/close, fits 14" duct or pipe			
FAD-16	Power open/close, fits 16" duct or pipe			
FAD-18	Power open/close, fits 18" duct or pipe			
FAD-20	Power open/close, fits 20" duct or pipe			

# SUPPLY VENTILATION SOLUTIONS

## FRESH AIR DAMPER (FAD)

### HOW TO SIZE A FRESH AIR DAMPER

Select the size of the Fresh Air Damper (FAD) based on the continuous ventilation CFM requirement multiplied by 3 and adjusted for the actual fresh air ductwork installation parameters to allow the FAVC or FCMC to operate for 10 minutes on every 30 minutes.

#### DESIGN METHOD FOR FAD SIZING

**Step 1:** Select the continuous ventilation CFM figure according to size of home in (sq. ft.), number of bedrooms, and applicable ASHRAE 62.2 code year using Table 1 or 2 on page 14.

**Step 2:** Measure static pressure at the return intake in (inches WC).

**Step 3:** Calculate equivalent feet of duct between fresh air inlet and the central fan.

- Determine the total equivalent feet for each type of fitting used in the system from Tables 3 and 4 on page 14.
- Calculate the total feet for straight lengths of pipe.
- Add the equivalent feet of the fittings to the total amount of straight pipe feet. This figure becomes the total equivalent feet of duct length.

**Step 4:** With the values determined in Steps 1 through 3, use Table 5 on page 15 to select the Fresh Air Damper size. Find your static pressure across the top of Table 5, and match your CFM rate under your static pressure value. Move left to match your equivalent feet of duct, and your damper size will be listed in the far left column. When in doubt, use the next larger damper size. See the example on page 15.

### RULE OF THUMB METHOD

These may be appropriate for homes with average duct runs up to 15 feet with mid-range static pressure. We recommend that you double check your results using the standard method. It's important to size the damper and system to meet ASHRAE 62.2. If you have questions, contact technical service.

1,500 to 2,000 sq. ft. = FAD-6  
2,500 to 3,000 sq. ft. = FAD-7  
3,000 to 3,500 sq. ft. = FAD-8

### LOCATING THE FRESH AIR INLET

ASHRAE recommends that the fresh air intake be located at least 10 feet from any source of pollutants such as auto exhaust, dryer exhaust, exhaust from any fuel-burning appliance, etc. Avoid installation near odor sources such as garbage bins or barbecue grills. A minimum of 3 feet above ground is recommended to avoid ingress of leaf litter, grass clippings, etc. Do not use a crawl space, basement, or attic as a source of intake air. Always be sure to comply with local building code requirements regarding fresh air inlets. Exterior intake hood must be weather resistant and must have a screen with a minimum 1/4 Sq. In. opening to prevent debris, animals, and insects from entering ductwork.

# SUPPLY VENTILATION SOLUTIONS

## FRESH AIR DAMPER (FAD)

SUPPLY

Continuous Ventilation Rate in CFM per ASHRAE 62.2-2010 Standard						
Number of Bedrooms						
Sq. Ft.	1	2	3	4	5	6
500	20	28	35	43	50	58
600	21	29	36	44	51	59
700	22	30	37	45	52	60
800	23	31	38	46	53	61
900	24	32	39	47	54	62
1000	25	33	40	48	55	63
1100	26	34	41	49	56	64
1200	27	35	42	50	57	65
1300	28	36	43	51	58	66
1400	29	37	44	52	59	67
1500	30	38	45	53	60	68
1600	31	39	46	54	61	69
1700	32	40	47	55	62	70
1800	33	41	48	56	63	71
1900	34	42	49	57	64	72
2000	35	43	50	58	65	73
2100	36	44	51	59	66	74
2200	37	45	52	60	67	75
2300	38	46	53	61	68	76
2400	39	47	54	62	69	77
2500	40	48	55	63	70	78
2600	41	49	56	64	71	79
2700	42	50	57	65	72	80
2800	43	51	58	66	73	81
2900	44	52	59	67	74	82
3000	45	53	60	68	75	83
3100	46	54	61	69	76	84
3200	47	55	62	70	77	85
3300	48	56	63	71	78	86
3400	49	57	64	72	79	87
3500	50	58	65	73	80	88

Continuous Ventilation Rate in CFM per ASHRAE 62.2-2013/2016/2019/2022 Standard						
Number of Bedrooms						
Sq. Ft.	1	2	3	4	5	6
500	30	38	45	53	60	68
600	33	41	48	56	63	71
700	36	44	51	59	66	74
800	39	47	54	62	69	77
900	42	50	57	65	72	80
1000	45	53	60	68	75	83
1100	48	56	63	71	78	86
1200	51	59	66	74	81	89
1300	54	62	69	77	84	92
1400	57	65	72	80	87	95
1500	60	68	75	83	90	98
1600	63	71	78	86	93	101
1700	66	74	81	89	96	104
1800	69	77	84	92	99	107
1900	72	80	87	95	102	110
2000	75	83	90	98	105	113
2100	78	86	93	101	108	116
2200	81	89	96	104	111	119
2300	84	92	99	107	114	122
2400	87	95	102	110	117	125
2500	90	98	105	113	120	128
2600	93	101	108	116	123	131
2700	96	104	111	119	126	134
2800	99	107	114	122	129	137
2900	102	110	117	125	132	140
3000	105	113	120	128	135	143
3100	108	116	123	131	138	146
3200	111	119	126	134	141	149
3300	114	122	129	137	144	152
3400	117	125	132	140	147	155
3500	120	128	135	143	150	158

- ASHRAE 62.2 Standards assume one person for each bedroom, plus one more. If the fan is engaged 20 minutes per hour, multiply this number by 3.

**Table 3**  
Equivalent Feet for Vent Pipe Fittings

Vent Pipe Fittings	Vent Pipe Diameter							
	3"	4"	5"	6"	7"	8"	9"	10"
Tee	19	25	31	38	44	50	56	63
Y-Connection	10	13	16	20	23	26	29	32
90° Elbow	5	7	9	11	12	14	16	18
45° Elbow	3	4	4	5	6	7	8	9

**Table 4**  
Equivalent Feet for a Reducer/Incraser Pipe Fitting

		Small Pipe Size							
		3"	4"	5"	6"	7"	8"	9"	10"
Large Pipe Size	3"	0							
	4"	2	0						
	5"	4	2	0					
	6"	5	4	2	0				
	7"	6	5	4	1	0			
	8"	7	7	6	3	2	0		
	9"	7	8	7	5	4	2	0	
	10"	8	8	8	6	6	4	2	0
12"	8	10	10	8	9	8	6	4	

# SUPPLY VENTILATION SOLUTIONS

## FRESH AIR DAMPER (FAD)

### DESIGN METHOD FOR FAD SIZING

**Step 1:** 1500 sq. ft. home, 3 bedrooms, ASHRAE 62.2-2010 Standards. From Table 1, continuous ventilation required in 45 CFM. For damper sizing, multiply continuous ventilation value by 3 equates to 135 CFM for Fresh Air Damper size.

**Step 2:** Static pressure on the return is 0.15 inches WC (measured).

**Step 3:** Ductwork system design consists of:

- From Table 3, two 6" diameter 45° elbow (10 equivalent feet)
- 10 feet of straight 6" smooth diameter ductwork (10 equivalent feet)
- The system has 20 equivalent feet of smooth duct (10 feet + 10 feet = 20 feet)

**Step 4:** From Table 5, the 6" Fresh Air Damper delivers 136 CFM in smooth duct at 30 equivalent feet and would be the appropriate damper for this size.

### DAMPER AIRFLOW BASED ON PRESSURE MEASUREMENT (IN CFM)

RETURN AIR STATIC PRESSURE ("WC)		0.05*		0.1*		0.15		0.2	
DAMPER & INTAKE HOOD	EQUIVALENT FEET OF DUCT LENGTH	SMOOTH	FLEX	SMOOTH	FLEX	SMOOTH	FLEX	SMOOTH	FLEX
4" FAD DAMPER	10	40	32	57	45	70	56	80	64
	30	33	26	47	37	57	46	66	53
	50	29	23	41	33	50	40	58	46
5" FAD DAMPER	10	67	54	95	73	117	94	135	108
	30	56	45	80	64	97	78	113	90
	50	49	39	70	56	85	68	99	79
6" FAD DAMPER	10	90	72	128	102	157	126	181	145
	30	79	63	111	89	136	109	157	126
	50	71	57	100	80	122	98	141	113
7" FAD DAMPER	10	154	123	218	174	266	213	308	246
	30	129	103	183	146	224	179	258	207
	50	113	91	160	128	196	157	227	181
8" FAD DAMPER	10	174	139	246	197	301	241	348	278
	30	154	123	218	174	267	214	308	246
	50	140	112	197	158	242	194	279	223
9" FAD DAMPER	10	262	210	371	297	454	363	525	420
	30	239	191	338	270	414	331	478	382
	50	221	177	312	250	383	306	442	354

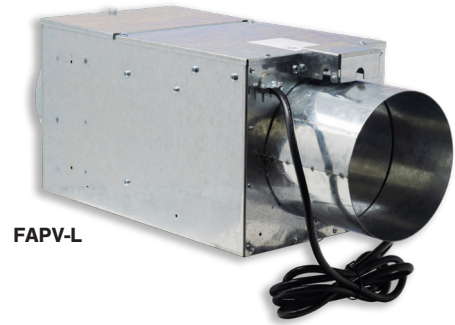
\* 0.5 are new modulating appliance parameters. 0.1 are the traditional appliances. Once the design gets out of range, additional electrical consumption begins to take place.

# SUPPLY VENTILATION SOLUTIONS

## FRESH AIR POWER VENTILATOR LITE (FAPV-L)

### FRESH AIR POWER VENTILATOR LITE (FAPV-L)

The Fresh Air Power Ventilator Lite (FAPV-L) is the most compact and powerful in-line duct fan available. Designed for both multi-family and single-family ventilation, its small size fits tight spaces like mechanical closets or between ceiling joists. With flexible mounting in any orientation, it delivers high-performance ventilation for even the largest apartments and



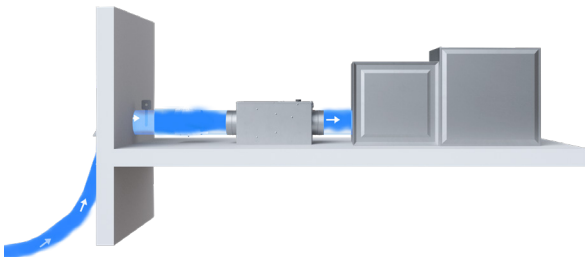
FAPV-L

### FEATURES

- Delivers fresh air automatically, year-round
- Creates uniform temperature and humidity throughout the home
- Enhances effectiveness of Media Air Cleaner and UV air purifiers
- Helps reduce humidity
- Helps reduce heating and cooling costs

### BENEFITS

- Utilizes the central fan to supply outdoor air through a controlled duct
- Operates intermittently
- Automatic Fresh Air Damper (FAD) prevents infiltration during off periods



### HOW IT WORKS

The Fresh Air Power Ventilator Lite (FAPV-L) delivers continuous ventilation with electronic speed control ranging from 28 to 160 CFM. It can also operate intermittently when paired with a ventilation controller such as the Field Controls Fresh Command Multifamily Control (FCMC). Designed to meet ASHRAE 62.2 standards, it efficiently regulates outdoor air intake to enhance HVAC system performance and energy efficiency.

### FRESH AIR POWER VENTILATOR SPECIFICATIONS

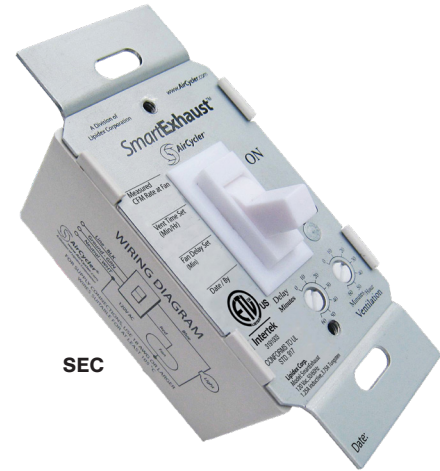
MODEL	POWER SUPPLY	WATTS (MAX SPEED)	AMPS (MAX SPEED)	TEMPERATURE RANGE	CONTROL VOLTAGE (OPTIONAL)	AIRFLOW RANGE	FILTRATION
FAPV-L*	120 VAC, 60Hz	34W	0.55	-22 to 140°F Ambient Outdoor Temperature	24 VAC	50 to 140 CFM @ 0.20 Static Pressure	MERV 8 or MERV 13

# SUPPLY VENTILATION SOLUTIONS

SMARTEXHAUST™

## REVOLUTIONIZING BATHROOM VENTILATION

The SmartExhaust™ Control is an innovative switch designed to seamlessly transform your bathroom fan into a powerful automatic exhaust system. Utilizing cutting-edge microprocessor technology, the SmartExhaust provides precise control over ventilation times, ensuring optimal performance. By operating both the bathroom fan and light, it effectively eliminates stagnant air, reducing humidity and preventing the development of mold and mildew. This intelligent system not only ensures compliance with ventilation standards but also promotes a healthier indoor environment for you and your family. With SmartExhaust, enjoy the peace of mind that comes with advanced ventilation control, safeguarding your home against air quality issues and enhancing overall comfort.



SEC

## EFFICIENT VENTILATION CONTROL

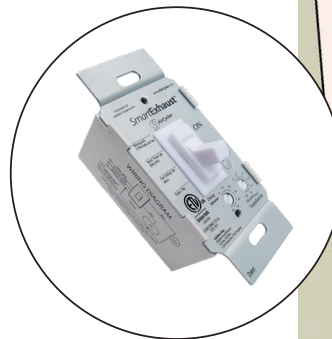
Your home, much like a living organism, needs a balanced system for breathing. It should intake clean air and expel the stale or contaminated air. Modern home efficiency measures, like weather stripping, sealants, and moisture barriers, have made homes airtight, reducing the natural air exchange and trapping stagnant air indoors. Considering that we spend 90 percent of our time indoors, compromised air quality can significantly impact our health and safety. It's essential to address this issue with a holistic ventilation approach to create a healthier and more comfortable living environment.

## FEATURES

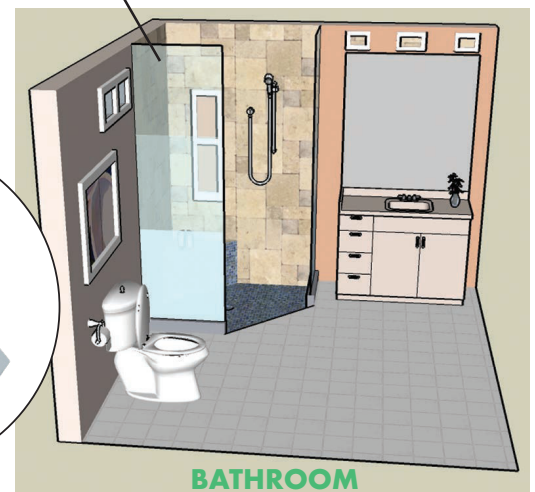
- Makes standard bathroom fans ASHRAE 62.2 compliant
- Microprocessor technology provides precise ventilation times
- Fan runs every hour set ventilation period
- Controls the fan and light in one switch
- Helps prevent mold and mildew
- Helps meet ventilation codes

## HOW IT WORKS

The SmartExhaust™ automatically activates the fan every hour for a set duration between 1 to 60 minutes, expelling stale indoor air and bringing in fresh air. When the fan is manually turned on, it tracks the usage time and adjusts the scheduled hourly operation accordingly. It offers two settings: Ventilation, which specifies how many minutes per hour the fan runs for consistent air exchange, and Delay, which determines how long the fan continues to run after the bathroom light is turned off, ensuring thorough post-use ventilation.



FAN



BATHROOM

## SMARTEXHAUST™ SPECIFICATIONS

MODEL	PRODUCT	DESCRIPTION	VOLTAGE	WATTS
SEC	SmartExhaust™	Programmable control for exhaust fans	120	-

# SUPPLY VENTILATION SOLUTIONS

## DAMPER AND CONTROL COMBO

### FRESH AIR SYSTEM (FAV)

The Fresh Air System™ (FAV) from Field Controls meets ASHRAE 62.2 standards by delivering fresh air automatically and efficiently. The FAV includes proven components for simple, reliable, fresh air delivery from improved indoor air quality.

#### FEATURES

- Delivers fresh air automatically, year-round
- Creates uniform temperature and humidity throughout the home
- Enhances effectiveness of Media Air Cleaner and UV air purifiers
- Helps reduce humidity
- Helps reduce heating and cooling costs



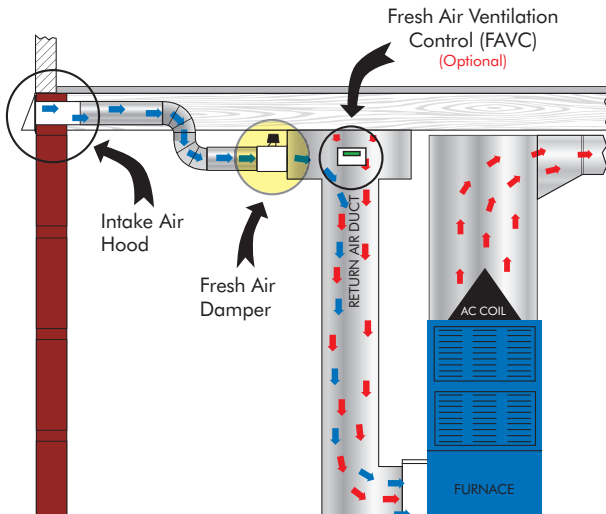
FAV

#### BENEFITS

- Utilizes the central fan to supply outdoor air through a controlled duct
- Operates intermittently
- Automatic Fresh Air Damper (FAD) prevents infiltration during off periods

#### HOW IT WORKS

The Fresh Air Systems are motor-driven dampers activated by the Fresh Air Ventilation Control (FAVC) or the FreshCommand Multifamily Control (FCMC). When there is a call for fresh air, the control opens the damper, allowing fresh air to enter the HVAC return. When the control is satisfied, the damper is closed.



### FRESH COMMAND VENTILATION SYSTEM (FCD)

The Fresh Command Ventilation System (FCD) is an intelligent, automatic year-round ventilation system that seamlessly integrates with your existing HVAC system and thermostat. Designed to meet ASHRAE 62.2 requirements, it ensures optimal indoor air quality and ventilation efficiency throughout the HVAC return. When the FAVC is satisfied, the damper is closed.

#### FEATURES

- Delivers fresh air automatically, year-round
- Very low power requirement
- Very low airflow resistance
- Easy wiring and integration with existing systems
- Helps reduce humidity
- Helps reduce heating and cooling costs
- Enhances effectiveness of Media Air Cleaners and UV air purifiers



FCD

#### BENEFITS

- Utilizes the central fan to supply outdoor air through a controlled duct
- Operates intermittently
- Automatic Fresh Air Damper (FAD) prevents infiltration during off periods

# SUPPLY VENTILATION SOLUTIONS

## POWER VENTILATOR AND CONTROL COMBO

### FRESH COMMAND VENTILATION SYSTEM WITH FCMC CONTROL (FCPV-L)

The FCPV-L takes the guesswork out of fresh air ventilation by automatically monitoring and adjusting airflow to maintain healthier indoor environments. Powered by the advanced Fresh Command Multifamily Control (FCMC), the system uses intelligent auto-sensing technology and built-in calculation to simplify installation, optimize performance, and deliver reliable comfort and energy\*efficient ventilation year-round.



### FEATURES

- Auto-senses 8 startup factors for balanced ventilation
- Built-in temperature and humidity sensors
- Quick-start test mode for fast setup
- Fast-click lock cover deters tampering
- Ventilates with heating or cooling calls
- Simple one-dial ventilation adjustment
- Easy-access on/off switch without cover removal

### BENEFITS

- Improves indoor air quality with automated fresh air ventilation
- Helps maintain healthier, more comfortable living spaces
- Optimizes comfort with temperature and humidity balancing

SUPPLY

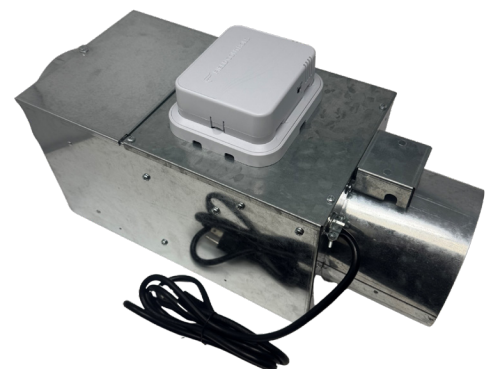


### FRESH COMMAND VENTILATION SYSTEM WITH FAVC CONTROL (FVPV-L)

The FAVP-L delivers powerful fresh air ventilation in compact, space-saving design. Ideal for single family applications. Flexible multi-position mounting allows for easy installation in tight mechanical spaces while providing dependable airflow performance for homes of virtually any size.

### FRESH COMMAND VENTILATION SYSTEM WITH MOUNTED CONTROL (FCPV-M)

The FCPV-M delivers intelligent, energy-efficient fresh air ventilation designed to improve indoor air quality and simplify ASHRAE 62.2 compliance. Engineered to integrate seamlessly with existing HVAC systems and thermostats, The FCPV-M automatically balances ventilation, temperature, and humidity for enhanced indoor comfort in virtually any climate.



# SUPPLY VENTILATION SOLUTIONS

## SPRING-CLOSE FRESH AIR DAMPER

### SPRING-CLOSE FRESH AIR DAMPERS (FSD)

The Field Controls Spring Close Fresh Air Damper (FSD) is a durable, motorized fresh air damper designed to provide controlled ventilation for residential and light commercial HVAC systems. Featuring a 24VAC power-open, spring-close design, the FSD delivers dependable airflow management while supporting compliance with ASHRAE 62.2 and other ventilation standards.

The FSD is commonly paired with the Field Controls Fresh Air Ventilation Control (FAVC) or Fresh Command Multifamily Control (FCMC), but it can also be used in standalone ventilation applications.



SUPPLY

### FEATURES

- Power-open, spring-close functionality
- Stainless steel body and gate
- Low airflow resistance
- Seal flammability meets FMVSS-302 standards

### APPLICATIONS

- Whole-house ventilation systems
- Fresh air intake applications
- Residential HVAC systems
- Controlled make-up air applications

### HOW IT WORKS

The FSD operates using a 24VAC power-open, spring-close design. When energized by a ventilation control or zone panel, the damper opens to allow fresh outdoor air into the ventilation system. When power is removed, the spring-loaded mechanism automatically closes the damper to help prevent unwanted airflow, drafts, and energy loss. Its low-resistance design supports efficient airflow while maintaining dependable system operation.

### SPRING CLOSE FRESH AIR DAMPER SPECIFICATIONS

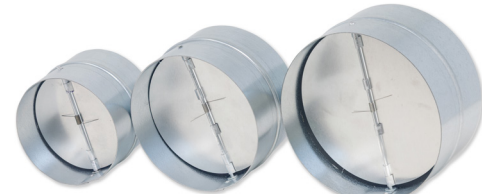
MODEL	POWER SUPPLY	MAXIMUM OPERATING CURRENT	GAUGE MATERIAL	AMBIENT TEMPERATURE	NOISE LEVEL	AMBIENT HUMIDITY
FSD-4	24VAC ± 20%, 60Hz	0.4 AMPS	24 Gauge 304 SS	32°F TO 165°F AT 50% DUTY CYCLE	40 dBA max @ 36"	5% to 95% non-condensing
FSD-5						
FSD-6						
FSD-8						

# SUPPLY VENTILATION SOLUTIONS

## BACKDRAFT DAMPER

### BACKDRAFT DAMPER (BD)

Field Controls Backdraft Dampers are designed to prevent unwanted reverse airflow in HVAC and ventilation systems. Constructed with galvanized steel and lightweight aluminum damper blades, these dampers provide reliable airflow control while minimizing leakage and maintaining system efficiency.



BD-4

BD-5

BD-6

### BENEFITS

- Helps improve indoor comfort
- Reduces unwanted drafts and backflow
- Supports energy-efficient ventilation systems
- Simple installation and maintenance-free operation
- Reliable performance in residential ventilation systems

### APPLICATIONS

- Bathroom exhaust systems
- Kitchen ventilation
- Dryer vent systems
- Fresh air intake applications
- Inline duct systems
- Residential and light commercial HVAC ventilation

### HOW IT WORKS

The Backdraft Damper automatically opens when airflow is present, allowing fresh air to move freely through the duct system during ventilation operation. When airflow stops, the spring-loaded aluminum blades close tightly to help prevent unwanted backdrafts, outside air infiltration, and energy loss. Designed for both horizontal and vertical installations, the damper provides dependable airflow control while helping maintain overall ventilation system efficiency.

### FEATURES

- Spring-loaded damper blades prevent unwanted backdraft airflow
- Lightweight aluminum blades with durable galvanized construction
- Compatible with horizontal and vertical duct installations
- Foam seal for minimal leakage
- Opens automatically with normal airflow and spring loaded closure

# SUPPLY VENTILATION SOLUTIONS

## MAKE-UP AIR SYSTEM (MAS)

### ENHANCE ENERGY EFFICIENCY

Efforts to make your home more energy efficient prevents fresh air from entering the home and can lead to compromised air quality and appliance inefficiency. Weather stripping, caulk, sealants, and moisture barriers such as Tyvek® tighten the home, reducing air changes, which can lock stale air inside. Exhaust ventilation like bathroom fans and exhausting appliances like clothes dryers, range hood fans, and gas fireplaces can create negative pressure, causing heating appliances to take more time to do their jobs and wasting energy.

These problems can be solved with the installation of a Make-Up Air System (MAS). The MAS delivers fresh air automatically, improving indoor air quality and appliance efficiency and saving energy.



MAS-1

### USE THE MAS TO:

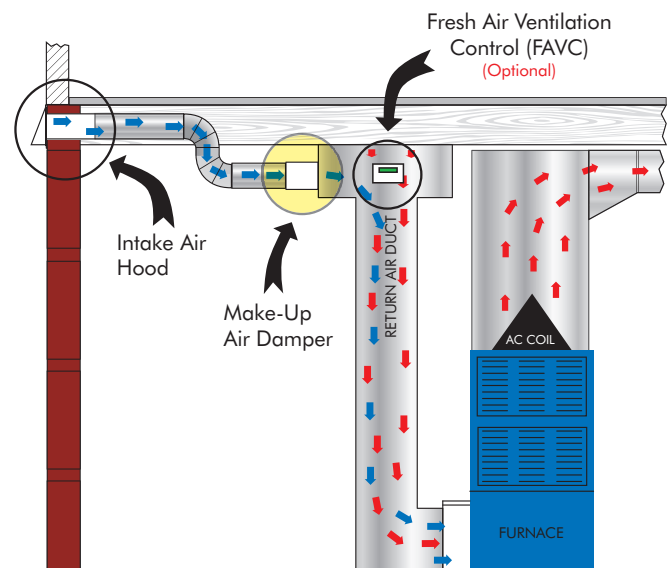
- Improve appliance efficiency
- Improve Indoor Air Quality
- Conserve energy
- Increase fresh air changes
- Replace air exhausted by bathroom fans, clothes dryer, range hood fans, and other exhaust devices

### FEATURES

- Adjustable gate provides precise airflow control
- Pressure-activated
- Easy to read airflow gauge
- No electricity required
- 24-gauge aluminum coated steel
- Corrosion-resistant
- Intake air hood included
- Quiet operation

### HOW IT WORKS

The Make-up Air system connects the HVAC system to the outside to allow controlled amounts of fresh air to enter the system when needed. The system automatically senses pressure changes and a need for airflow and opens to bring a precise, metered amount of fresh air into the air handler. Here, the cold air is tempered as it mixes with warm air in the return duct. The air is then heated and distributed through the home via the central duct system. When the need for air is fulfilled, the system closes to prevent further air infiltration. The system must be installed by a qualified heating and air conditioning professional and is adjustable for homes from 1,000 to 4,000 square feet. It does not require electricity or maintenance.



### MAKE-UP AIR SYSTEM SPECIFICATIONS

MODEL	PRODUCT	DESCRIPTION	PART NUMBER
MAS-1	Make-Up Air System	MUA Device w/6" Intake Air Hood	46231900

# BALANCED VENTILATION SOLUTIONS

## ENERGY RECOVERY VENTILATOR (ERV)

### ENHANCE COMFORT AND EFFICIENCY

Our Energy Recovery Ventilator (ERV) is designed to provide a continuous supply of fresh, filtered air into your home while expelling stale indoor air. By transferring heat and moisture between the incoming and outgoing air streams, the ERV enhances indoor air quality, increases comfort, and reduces energy costs.

The ERV significantly enhances indoor air quality by continuously removing stale, polluted air and replacing it with fresh, filtered air, thereby reducing the concentration of indoor pollutants and allergens. It manages humidity levels to maintain a comfortable indoor environment throughout the year. By recovering heat and moisture from outgoing air, the ERV reduces the workload on your heating and cooling systems, leading to lower energy bills. This process also reduces the risk of mold growth and other moisture-related issues, promoting a healthier home. Additionally, lower energy consumption contributes to a reduced carbon footprint, supporting environmental sustainability.



FC-150EC-ERV

BALANCED

### BENEFITS

- Automatically replaces stale air with fresh air
- Meets or exceed ventilation standard ASHRAE 62.2
- Required little maintenance
- Reduced energy consumption

### WHY FRESH AIR VENTILATION

Modern homes are built for energy efficiency, but tight construction can trap stale, polluted air. Field Controls ERV systems provide balanced ventilation, removing odors, VOCs, and germs while maintaining comfort. With automatic controls, they improve air quality without wasting energy on open doors or windows.

### WALL CONTROL

The FC-HERV-2 is designed to manage your Energy Recovery Ventilator (ERV), offering simple, precise control for optimal air quality and energy efficiency. With easy integration into your ERV system, it allows quick adjustment of air exchange rates and system monitoring. Its sleek design fits any space, and its reliable performance ensures long-term use. Perfect for residential and light commercial applications, the FC-HERV-2 helps maintain a healthy, comfortable, and

### FEATURES

- Meets multifamily ventilation requirements
- Conforms to the latest building and energy codes
- One dial to adjust intermittent or constant ventilation, easy install and setup
- Energy efficient with occupant comfort in mind
- Reduces callbacks for comfort issues compared to digital vent T-stats, which encourage over ventilation
- Easy wiring and dependable performance



### ENERGY RECOVERY VENTILATOR SPECIFICATIONS

MODEL	POWER SUPPLY	RATED POWER INPUT	RATED CURRENT	AIRFLOW RATE	NOISE	AMPS
FC-150EC-ERV	120V/60HZ	150W	1.39A	150 CFM	66dB	1.60A

# BALANCED VENTILATION SOLUTIONS

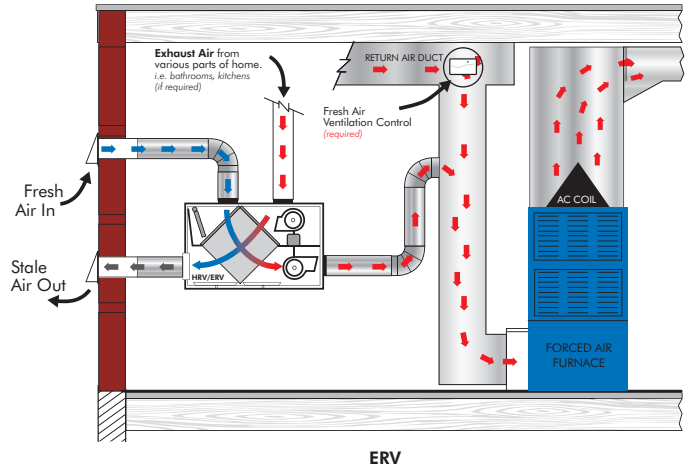
## ENERGY RECOVERY VENTILATOR (ERV)

### HOW IT WORKS

The ERV draws in fresh outdoor air and expels stale indoor air through intake and exhaust vents. Inside, a heat exchanger core transfers heat and moisture from outgoing to incoming air, conserving energy and balancing humidity. High-efficiency filters remove dust, pollen, and contaminants, ensuring clean air enters your home. The pre-conditioned fresh air is distributed via the HVAC system, while stale air is expelled, maintaining a balanced cycle.

The ERV manages humidity by retaining moisture in colder months and expelling excess in warmer months, ensuring a comfortable indoor environment year-round. Intuitive controls and optional sensors allow for easy schedule setting and performance optimization, enhancing efficiency and comfort.

By continuously exchanging indoor and outdoor air while recovering heat and moisture, the ERV system improves indoor air quality and enhances energy efficiency, creating a healthier, more comfortable living environment.



BALANCED

**Go to [fieldcontrols.com](http://fieldcontrols.com)**  
or our YouTube channel to  
learn more about the  
ERV Systems.

**Exhaust air  
FROM home**

**Fresh air  
FROM outside**

**Fresh air  
TO home**

**Exhaust air  
TO outside**



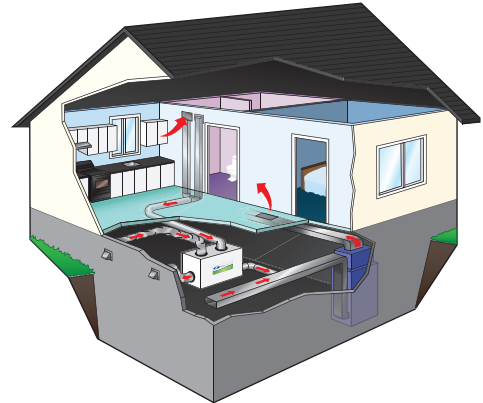
**Energy Recovery Core**

# BALANCED VENTILATION SOLUTIONS

## ENERGY RECOVERY VENTILATOR (ERV)

### SIZING THE DUCTWORK

It is the responsibility of the installer to ensure all ductwork is sized and installed as designed to ensure the system will perform as intended. The amount of air (CFM) that an HRV/ERV will deliver is directly related to the total external static pressure (ESP) of the system. Static pressure is a measure of resistance imposed on the blower by the length of ductwork plus the number of fittings used in the ductwork.



### DETERMINE YOUR VENTILATION REQUIREMENTS

Good air quality is based in part on the capacity of the home's ventilation system. Residential ventilation requirements are determined by ASHRAE 62.2. Look to your local code for specific ventilation requirements.

Usually, the ERV capacity is measured in CFM (Cubic Feet per Minute) or L/s (Liters per Second) of fresh air being distributed in the living space. The Room Count Calculation or the Air Change per Hour Method will show you how to determine your ventilation needs.

#### A. ROOM COUNT CALCULATION

LIVING SPACE	NUMBER OF ROOMS	CFM(L/S)		CFM REQUIRED
Master Bedroom	_____	x 20 cfm (10 L/s)	=	_____
With Basement	_____	x 20 cfm (10 L/s)	=	_____
Single Bedroom	_____	x 10 cm (5 L/s)	=	_____
Living Room	_____	x 10 cm (5 L/s)	=	_____
Dining Room	_____	x 10 cm (5 L/s)	=	_____
Family Room	_____	x 10 cm (5 L/s)	=	_____
Recreation Room	_____	x 10 cm (5 L/s)	=	_____
Other	_____	x 10 cm (5 L/s)	=	_____
Kitchen	_____	x 10 cm (5 L/s)	=	_____
Bathroom	_____	x 10 cfm (5 L/s)	=	_____
Laundry Room	_____	x 10 cm (10 L/s)	=	_____
Utility Room	_____	x 10 cm (10 L/s)	=	_____
TOTAL ventilation requirement (add last column)			=	_____
		1 CFM 0.47189 L/s		
		1 L/s 3.6 m3/hr		

#### B. AIR CHANGE PER HOUR (ACH) METHOD

TOTAL cu. ft. X 0.35 per hr = total

Take total and divide by 60 to get CFM

##### Example: A 25' x 40' house with basement

1,000 Sq. ft. x 8' high x 2 (1st floor + basement) = 16,000 cu. ft.

16,00 cu. ft. x 0.35 ACH = 5,600 cu. ft.

5,600 cu. ft. / 60 Minutes = 93.3 CFM

93.3 CFM IS YOUR VENTILATION NEED

# COMFORT SOLUTIONS

## EVENAIR® 2.0

### THE COMFORT PROBLEM

Multi-level homes find discomfort due to uneven temperatures from the heating and cooling system. Rising heat, sun exposure, and windows can cause the living and bedroom (sleeping) areas to be uncomfortably warm or uncomfortably cool.

The upper-level sleeping area of a two-story home during the summer cooling season will feel too warm. The lower-level living area during the winter heating season will feel too cool. The sleeping area and living area of a single-story home can be too warm or too cool, depending on exposure.



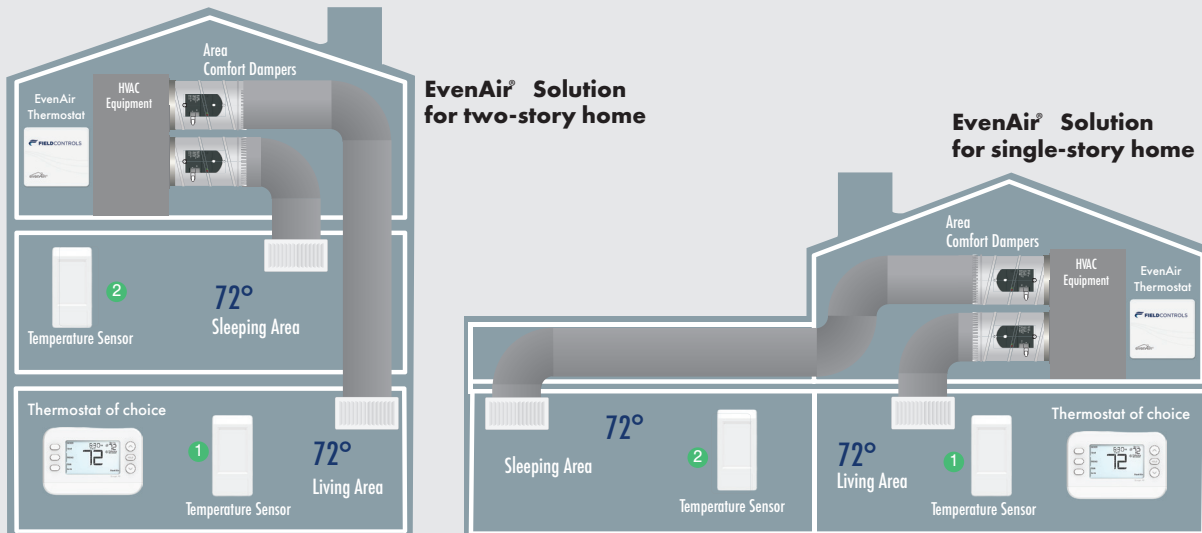
COMFORT



### DISCOVERING THE EVENAIR ADVANTAGE

The EvenAir®2.0 temperature balancing system is not a zoning system. It is a simplified comfort solution that allows a single HVAC system to cost-effectively balance temperatures throughout the home; solving common discomfort issues when areas in the home are too hot in summer and too cold in winter.

### SINGLE- AND TWO STORY HOME SOLUTIONS



# COMFORT SOLUTIONS

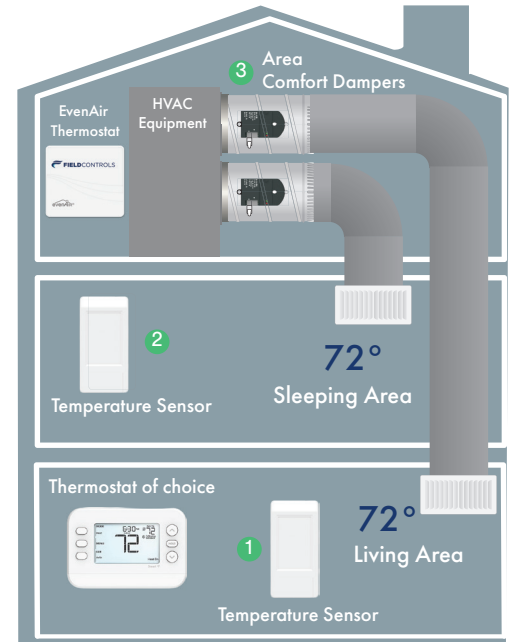
EVENAIR® 2.0

## HOW IT WORKS

EvenAir temperature sensors monitor the area temperatures in up to three living areas (living area, sleeping area, and home office) to maintain even temperatures throughout the areas.

Temperature readings are checked every 5 seconds during heating and cooling cycles and every 2 minutes during idle periods.

When the temperature differs by more than a few degrees, the airflow to each area is automatically adjusted. Each EvenAir damper is adjusted between 0-5° in the appropriate direction to increase/decrease airflow where it is needed. Thus modulating air delivery to balance temperatures throughout the areas.



COMFORT

## UNIVERSAL THERMOSTAT COMPATIBILITY

Works with any conventional 24 VAC thermostat, so homeowners can interface with the thermostat they like most including WiFi enabled or smartstats.

## PREMIUM WHOLE HOUSE COMFORT

Take the EvenAir® Comfort Control System to the next level of whole house comfort by integrating whole house ventilation, fresh air control and humidity control – All controlled using your EvenAir® Thermostat.



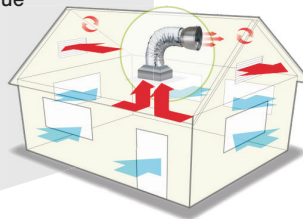
### FRESH AIR CONTROL

In many states, fresh air ventilation is required to meet building codes for new construction or to obtain energy tax credits in existing homes. The EvenAir® thermostat, along with a Fresh Air Damper, can meet these requirements by delivering fresh air automatically and efficiently.



### WHOLE HOUSE VENTILATION

Whole house fan control brings in cool outdoor air, reducing energy costs and enhancing indoor air quality. The EvenAir® thermostat controls whole house ventilation either manually using a 1 to 12 hour timer set at the thermostat or by true temperature control for total comfort and convenience.



### HUMIDITY CONTROL

The EvenAir® thermostat displays the humidity level and controls a humidifier and/or dehumidifier for a more comfortable home during the heating and cooling season.

# FOUNDATION SOLUTIONS

## ELIMINATOR® FOUNDATION VENT FAN (EL-1)

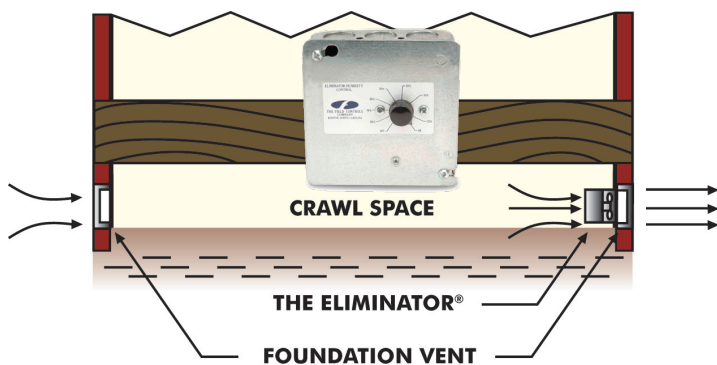
### HELPS ELIMINATE MOISTURE, MOLD, AND RADON GAS FROM CRAWL SPACES

The Eliminator Foundation Vent Fan is a motorized fan designed to circulate fresh air in a home or building crawl space to eliminate cancer-causing radon gas and reduce moisture that can lead to mold formation and termite infestation. It is wired for automatic operation when the temperature exceeds 50°F. An optional de-humidistat activates the fan when the humidity exceeds the owner's determined setting (20% to 80%) in conjunction with the built-in temperature control.

What is a crawl space fan? A crawl space is designed to circulate fresh outdoor air underneath homes and porches. Excessive humidity levels in crawl spaces can cause premature rotting of support columns, joists, floors, and beam supports. Humidity can promote fungus growth and increased termite activity. Humidity may also cause plumbing failures due to rust and corrosion. Constant operation of a crawl space fan also helps vent radon gases, treated wood off-gassing, and other odors that can migrate into living spaces.



FOUNDATION



Radon gas is a radioactive gas that is considered to be a health hazard affecting indoor air quality worldwide. Radon gas is the second most common cause of lung cancer in the United States.

According to a study by the Mayo Clinic, nearly all chronic sinus infections are a result of mold. Since up to 40% of the air we breathe in the home can come from the crawl space, mold in the crawl space means mold in the home. The EPA recommends keeping humidity levels in the crawl space to 40%-50% to reduce the likelihood of mold formation.

Excess moisture in a crawl space can have serious consequences. Not only can it lead to mold formation, it also increases termite potential and can increase the potential for rot in floor joists, cross members, and subflooring. Moisture levels in wood should be less than 20%. In high-humidity areas, that number can easily exceed 30%. To maintain safe moisture levels, experts recommend plastic moisture barrier on the ground in combination with a vent fan such as the Eliminator.

### ELIMINATOR FOUNDATION VENT FAN SPECIFICATIONS

MODEL	VOLTAGE	AMPS	CUBIC FT. PER MIN.	HOUSING MATERIAL	# OF UNITS REQUIRED	TEMP. SWITCH OPERATION	DE-HUMIDISTAT (OPTIONAL)	MOUNTING PLATE DIMENSIONS
EL-1	120VAC	0.6	100 CFM	Galvanized Steel	1 per 1000 sq. ft. of crawl space	Above 50°F	Above 50°F	Adjust from 20% - 80%

# REPLACEMENT PARTS

FAPV-L REPLACEMENT PARTS		
MODEL	DESCRIPTION	PART NO.
FAPV-L-MERV8	MERV 8 Filter	602619208
FAPVL-MERV13	MERV 13 Filter	602619213

ERV ACCESSORIES		
MODEL	DESCRIPTION	PART NO.
MERV 8 FILTER	MERV 8 Filter	730009100
MERV 13 FILTER	MERV 13 Filter	730009300
FC-HERV-C2	Wall Controller	602613200



FC-HERV-C2

# GET ALL THE FIELD CONTROLS PRODUCT GUIDES at [fieldcontrols.com](https://fieldcontrols.com)

or contact us at 252.522.3031 or [sales@fieldcontrols.com](mailto:sales@fieldcontrols.com)

## Commercial Products Guide

The Commercial Products Guide showcases the industry's most comprehensive lineup of IAQ products and solutions. From cutting-edge air purification to technology, our solutions enhance indoor air quality, energy efficiency, and occupant comfort. Whether you're addressing air exchange, filtration, or purification, this guide provides the essential tools and expertise to create healthier indoor environments



## Air Treatment Products Guide

The Air Treatment Products Guide features the industry's most complete line of IAQ products and solutions. Included in the guide are specifications on media filters, UV air purifiers, PRO-Cell technology, and fresh air controls, plus wiring diagrams, installation options, and replacement parts.



## Combustion Products Guide

Our Combustion Products Guide provides essential information, specifications, and a complete range of solutions for oil, gas, and coal heating appliances. It covers everything from power venters and vent dampers to draft controls, with detailed insights on sizing, system setup, and maintenance. The guide also highlights our specialized combustion air systems and innovative solutions such as the Flue Sentinel and Hearth Combustion Air systems.



### Digital Products Guide



Scan Here