

RESIDENTIAL VENTILATION GUIDE



SUPPLY VENTILATION



BALANCED VENTILATION



ACCESSORIES



FIELD CONTROLS



FIELD CONTROLS

Improving Indoor Environments

Field Controls Ventilation

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.

At Field Controls we consider every home a system and every central HVAC system as an opportunity to deliver fresh air exchange. Our intent is to provide reliable, practical, and proven ventilation that meets codes and satisfies homeowner expectations for comfort, safety, and energy efficiency.

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 systems with energy recovery (HRV/ERV).

We would very much like to talk to you about your applications and help you choose the right combination of products to meet your needs.

Sincerely,

Patrick T. Holleran
President
Field Controls, LLC

Overview **2-5**

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

Supply Ventilation Solutions **6-19**

Fresh Air Ventilation Control (FAVC)	6-7
FAVC Features	8-9
Fresh Air Damper (FAD)	10
FAD Sizing & Selection	11-13
FAD Performance Charts	14-15
Fresh Air Ventilation System (FAV)	16
Accessories: Sensors and SmartExhaust™	17
FAVC Installation Options	18-19

Balanced Ventilation Solutions **20-23**

Heat & Energy Recovery Ventilation (w/ FAV Accessory)	20
HRV/ERV How it Works	21
HRV/ERV Features, Models & Specs	22
HRV/ERV Sizing and Selection	23
HRV/ERV Installation options	24-25
MAS Accessory for Depressurization	26

Replacement Parts **27**

Wiring Diagrams **28-32**

Fresh Air Ventilation Control (FAVC)	28-29
Fresh Air Ventilation System (FAV)	30
Heat & Energy Recovery Ventilation (HRV/ERV)	31-32

Controlled Ventilation

OVERVIEW

The Home Is A 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 inside. Exhaust ventilation such as bath fans can make indoor air worse by creating negative pressure and drawing poor or toxic air into the home through from the garage or basement. Since we spend 90 percent of our time indoors, this compromised air quality can impact our health and safety.



Bedrooms, Bathrooms, Living Room & Home Office

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



Laundry Room

Clothes dry faster with balanced ventilation. Fresh air dilutes VOCs.



Kitchen

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



Crawl Space & Basement

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



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 greatly improving the indoor air quality and comfort in the home.



Garage & Furnace Room

Negative pressure can pull harmful gases from this area into the living space.



Oil & Gas Appliances

Furnaces and heaters operate more efficiently with fresh air. Without ventilation, combustion gases may be pulled into the living space.



Common pollutants:

-  Asbestos, Allergens, Dust, Dander, and Pollen
-  Germs, Bacteria, Viruses, Mold, Fungi, Mildew, and Micro-Organisms
-  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)

Types of Ventilation:

OVERVIEW

CFIV Supply Ventilation

Our central fan integrated supply ventilation solutions (CFIV) leverage the home's existing HVAC system to distribute fresh air ventilation throughout the home. Additionally, it takes advantage of existing whole-house filters and air purifiers to clean the incoming air.

Balanced Ventilation

Our balanced ventilation solutions have the added benefits of exchanging energy between the exhaust and supply to temper the air and save energy before it is evenly distributed throughout the home.

Not Exhaust Ventilation

Exhaust ventilation systems, like those in bathrooms, only remove air from a particular location, and often lead to depressurization in the home. Depressurization means replacement air or make-up air will infiltrate through leaks in the building shell and other uncontrolled and undesirable sources like the garage, attic, crawl space, or basement.

SUPPLY

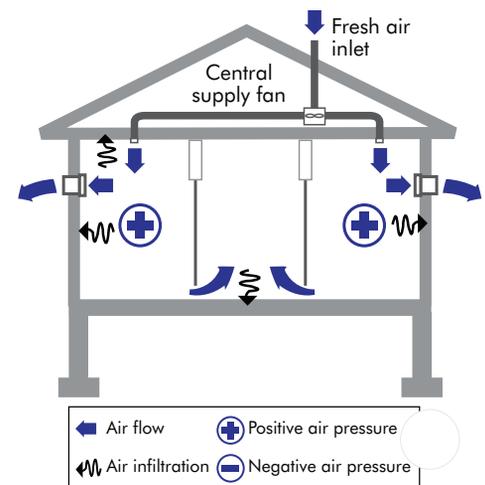
OVERVIEW

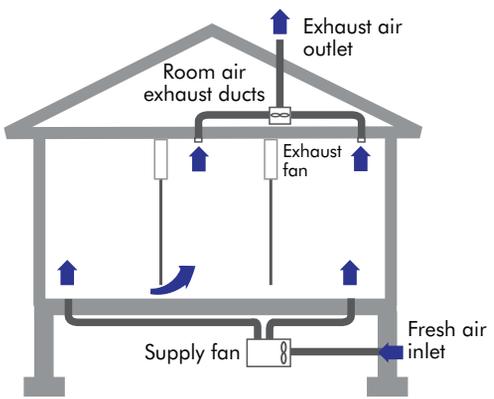
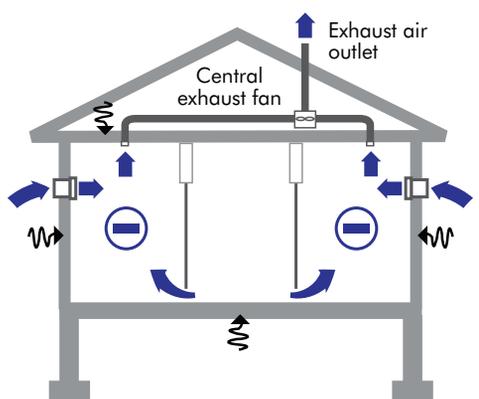


Fresh Air Ventilation (FAV)

Utilizes the central fan to supply outdoor air through a controlled duct

ASHRAE 62.2 Compliant	✓
Efficiency	High
Effective in controlling indoor air quality	High
Installation cost	Medium
Controls source of Fresh Air Intake	✓
Integrates with existing HVAC central fan	✓
Distributes fresh air through home	✓
Operates Intermittently	✓
Operates Continuously	⊘
Noise Level when operating	Low
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.	✓



	BALANCED	EXHAUST
	 <p>HRV and ERV Uses an internal fan to supply air into the home while simultaneously exhausting an equivalent amount of incoming air out of the home</p>	 <p>Bath fans Uses dedicated fan or bath fan to exhaust air from the home</p>
	✓	✓
	Very High	Low
	High	Low
	High	Low
	✓	✗
	✓	✗
	✓	✗
	✓	✗
	✓	✓
	Low	High
	✓	✗
	✗	✗
	✗	✗
	✓	✗
	✓	✗
		
	<p>  Air flow  Positive air pressure  Air infiltration  Negative air pressure </p>	<p>  Air flow  Positive air pressure  Air infiltration  Negative air pressure </p>

Fresh Air Ventilation Control

INTELLIGENTLY MANAGE FRESH AIR

Our new Fresh Air Ventilation Control effectively manages the central fan to deliver required ventilation. While the set-up is simple and intuitive, this new control is brimming with additional capabilities that have contractors and builders truly excited. The control monitors enthalpy conditions and can interface with multiple additional exhaust fans to adjust and deliver ventilation intelligently. It can even respond to the clothes dryer, kitchen exhaust fan, or fireplace to deliver make-up air in the home.



Controls based on timers are inefficient and waste energy since they run on a pre-set time and not actual air flow. 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 the basement or garage may be introduced. The FAVC is different. It powers the central fan for shorter more frequently 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 including dampers, an ERV/HRV, HVAC central blower, clothes dryer, kitchen exhaust fan and various exhaust fans.

SUPPLY

Benefits

- Complies with ASHRAE 62.2 2010, 2013 and 2016
- New or existing single/multi-family operation
- Simple Installation
- Smart Controller
- Controls three (3) appliances (including ventilation damper)
- Monitors four (4) exhaust fan appliances
- Adjustable air flow dial settings for individual exhaust fan appliances
- Individual Heat and Cool air flow settings for HVAC central fan
- Inhibits fresh air ventilation based on outside temperature levels and indoor relative humidity setting

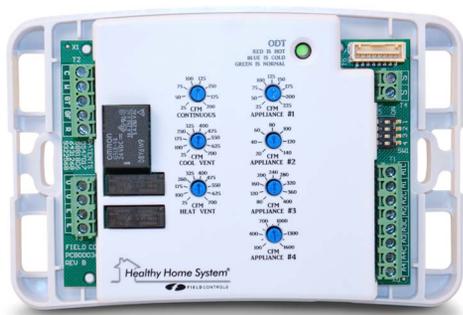
Features

- Factory Pre-set settings
- Normal or Economy Mode of Operation
- Multiple Climate Application Mode: Normal, Hot, Cold or Disabled
- Adjusts ventilation need based on 30-minute time periods
- Simple Fresh Air Ventilation using Fresh Air Damper or HRV/ERV Devices
- Monitoring Capability (up to 4 appliances – multiple bath fans, exhaust fans, clothes dryer, range hood, draft assisted gas log fireplaces, and/or exhaust fan devices)
- Monitoring and Control Capability
- Built-in Selectable Enthalpy Control
- Temperature sensor located in R/A ductwork
- Compatible with any HVAC system having accessible 24VAC -R -W- Y- G terminals
- Conventional Heat/Cool HVAC Systems
- Heat Pump Systems
- Hydronic Air Handlers
- Stand-alone Configuration

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.

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

SUPPLY

EXCLUSIVE FAVC FEATURES

APPLIANCE VENTILATION CREDIT

The FAVC can monitor up to 4 appliances and apply credit from those fans. The FAVC can monitor a variety of fan types and CFM ranges, from bathroom fans and ERV/HRVs (20-225 CFM) and clothes dryers and standard kitchen range hoods (80-400 CFM) to gas fireplace and commercial range hoods (100-1600).

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 the 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.

INDOOR TEMPERATURE/HUMIDITY MONITORING

The FAVC has a built-in Indoor Temperature/Indoor Humidity sensor to continuously sense actual return air duct environmental 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.

30 MINUTE CYCLE PERIOD

With a 30 minute cycle period, the FAVC introduced fresh air more frequently and regularly which means the air is more evenly balanced and HVAC system does not have to work hard to catch up with a wide range temperatures that can occur over a 60 minute time period.

Specifications					
Model	Product	Description	Voltage	Amps	Part #
FAVC	Fresh Air Ventilation Control	Interactively works with thermostat, in conjunction with the central fan air handler system to periodically introduce controlled amounts of fresh air. Fan/Vent ON and OFF delay settings, 1-199 minutes in 1 minute increments, unlimited setting for ON and OFF.	20-30	0.07	602600100

Fresh Air Ventilation Control (FAVC)

FEATURES

CFM Continuous dial

The **CFM Continuous dial** controls the continuous ventilation rate based on size of home and number of bedrooms and is pre-set at 50 CFM.

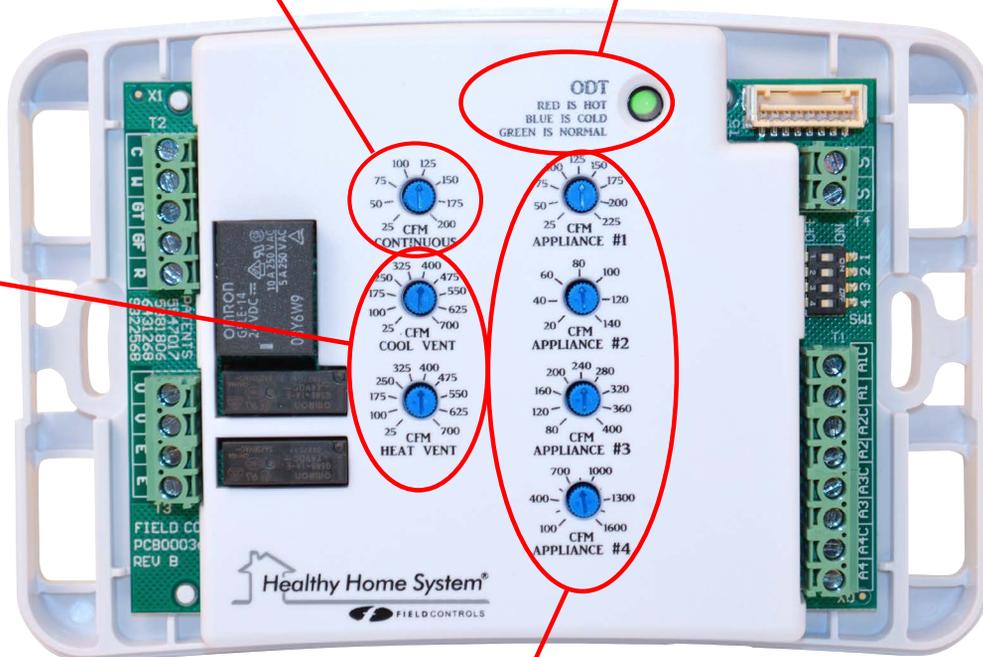
Outdoor Temperature Light

3 color **ODT light** indicates whether outside air temperature meets ventilation requirements or if ventilation will be limited due to temperature or humidity levels.

CFM Cool/Heat Vent dial

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

SUPPLY



Optional Appliance Monitoring Controls

Appliance Dial	Appliance Type	Appliance CFM	Standard Configuration	Optional Configuration
#1	Bathroom 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 Saving Mode <ul style="list-style-type: none"> • Can drive appliance #1 fan in lieu of central fan • Takes credit for ventilation with damper when heating or cooling • Drives appliance #1 fan when additional ventilation is required within the heating/cooling cycle • Gets energy credit when bathroom fan is used (non ECM central fan blower)
#2	Bathroom Fan	20-140	Monitors appliance #2	
#3	Clothes Dryer, Standard Range Hood	80-400	Passive MakeUp Air Mode - Opens damper when appliance #3 is on	Active MakeUp Air Mode <ul style="list-style-type: none"> • Turns on central fan and opens damper when appliance #3 runs
#4	Fireplace, Commercial Range Hood	100-1600	Monitors appliance #4	Active MakeUp Air Mode <ul style="list-style-type: none"> • Turns on central fan and opens damper when appliance #4 runs

Fresh Air Ventilation Control (FAVC)

COMPETITIVE COMPARISON



EXCLUSIVE FAVC FEATURES

APPLIANCE VENTILATION CREDIT	The FAVC can monitor up to 4 appliances and apply credit from those fans. The FAVC can monitor a variety of fan types and CFM ranges, from bathroom fans and ERV/HRVs (20-225 CFM) and clothes dryers and standard kitchen range hoods (80-400 CFM) to fireplace and commercial range hoods (100-1600).
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 the 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 introduced fresh air more frequently and regularly which means the air is more evenly balanced and HVAC system does not have to work hard to catch up with a wide range temperatures that can occur over a 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

	Dial Settings/Simple	Dial Settings/Simple	Dial Settings/Simple	Hidden, Menu Driven/Complex	Dial Settings/Simple
CONTROL SETTINGS TYPE/EASE OF SET UP	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 W/ INHIBIT OPTIONS	4	3	✗	✗	✗
INDOOR HUMIDITY MONITORING	✓	✓	✗	✗	✗
OUTDOOR TEMPERATURE MONITORING	✓	✓	✗	✗	✗
HIGH AND LOW TEMPERATURE LIMITS	✓	✓	✗	✗	✗
PROTECTIVE COVER	✓	✗	✓	✗	✓

Damper Features

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

Fresh Air Damper

YEAR ROUND VENTILATION

The Fresh Air Damper (FAD) is a 24VAC power-open, power-close motorized air damper designed for installation in a fresh air duct connected to an outdoor air intake hood and a duct fan or the HVAC return plenum, to control the flow of fresh air into the home. The FAD is typically controlled by the FAVC Ventilation Control to meet ASHRAE 62.2 and other fresh air ventilation codes and standards, but may also be used in a stand-alone application for either passive or fan-induced fresh air for ventilation or makeup air applications.



FAD – Fresh Air Damper

Features

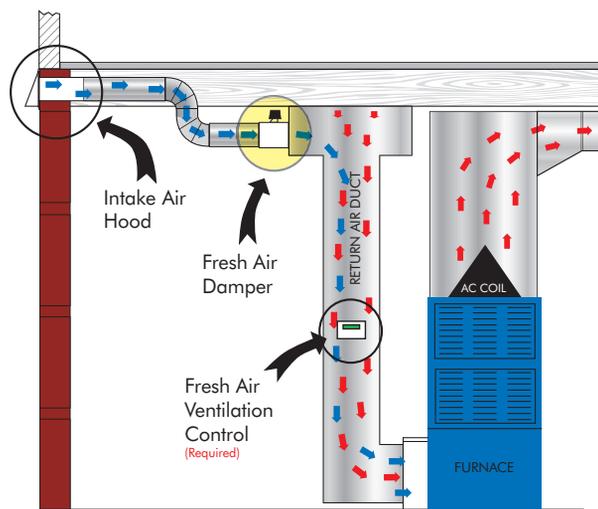
- Power-Open, Power Close
- Very low power requirement and air flow resistance
- Stainless steel body and gate
- Tear-resistant closed-cell foam rubber seal tested 500K+ cycles
- Seal flammability meets FMVSS-302
- Gas Vent Damper motor and circuit board certified 100K+ cycles
- Patented Damper Monitor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

How It Works

The Fresh Air Damper (FAD) is a motor driven damper activated by the Fresh Air Ventilation Control. When there is a call for fresh air, the FAVC opens the damper allowing fresh air to enter the HVAC return. When the FAVC is satisfied, the damper is closed.

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
- Can help reduce humidity
- Helps reduce heating and cooling costs



Specifications

Model	Product	Description	Voltage	Amps	Watts
FAD-4	Fresh Air Damper	Power open/close, fits 4" duct or pipe	24	–	3
FAD-5	Fresh Air Damper	Power open/close, fits 5" duct or pipe	24	–	3
FAD-6	Fresh Air Damper	Power open/close, fits 6" duct or pipe	24	–	3
FAD-7	Fresh Air Damper	Power open/close, fits 7" duct or pipe	24	–	3
FAD-8	Fresh Air Damper	Power open/close, fits 8" duct or pipe	24	–	3
FAD-10	Fresh Air Damper	Power open/close, fits 10" duct or pipe	24	–	3



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 system to operate 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 square feet), number of bedrooms, and applicable ASHRAE62.2 code year using [Tables 1 or 2](#) on page 12.

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 12.
- Calculate the total feet for the straight lengths of pipe.
- Add the equivalent feet of the fittings to the total amount of straight feet pipe. 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 13 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 13.

Rule of Thumb Method

These may be appropriate for homes with average duct runs up to 15 ft. with mid-range static pressure. We recommend that you double check your results using the standard method illustrated on the previous page. It's important to size the damper and system to meet ASHRAE 62.2. If you have additional 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

Locate the air intake hood at least 3 feet (36 inches) from the ground and 10 feet horizontally from any gas or oil burner or any source of combustion gases or fumes. Locate at least 10 feet horizontally from garbage cans or other sources of odors. Always use an intake vent hood with an integrated grate to prevent birds and small animals from entering the duct.

Fresh Air Damper

SIZING & INSTALL

Table 1:

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

Table 2:

Continuous Ventilation Rate in CFM per ASHRAE 62.2-2013/2016 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 assumes 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									
Large Pipe Size	Small Pipe Size								
	3"	4"	5"	6"	7"	8"	9"	10"	
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

Example of Fresh Air Damper Sizing using the Design Method:

Step 1: 1500 sq. ft. home, 3 bedrooms, ASHRAE62.2-2010 standard. From [Table 1](#), continuous ventilation required is 45 CFM. For damper sizing multiply continuous ventilation value by 3 equates to 135 CFM for fresh air damper size.

Step 2: Static pressure in 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 inch Fresh Air Damper delivers 136 CFM in smooth duct at 30 equivalent feet and would be the appropriate damper for this system.

Table 5:

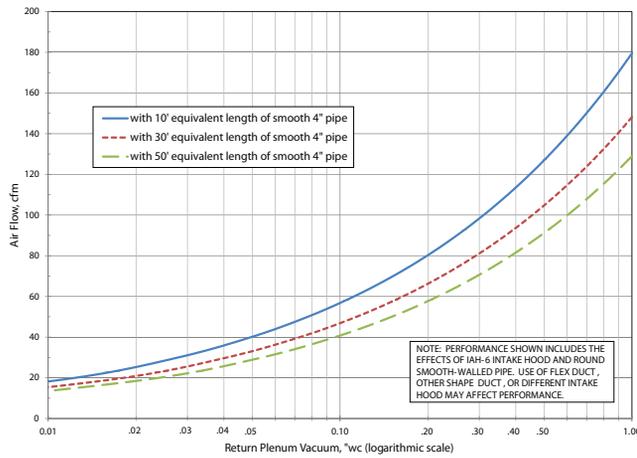
Damper Air Flow based on Pressure Measurement (in CFM)									
Return Air Static Pressure ("WC)		0.05*		0.1*		0.15		0.2	
Damper & Intake Hood	Equivalent Feet of Duct Length	Flex	Smooth	Flex	Smooth	Flex	Smooth	Flex	Smooth
4" FAD Damper	10	40	32	57	45	70	56	80	64
	30	33	26	47	37	57	46	66	53
	50	29	23	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
10" 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

*.05 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.

Fresh Air Damper

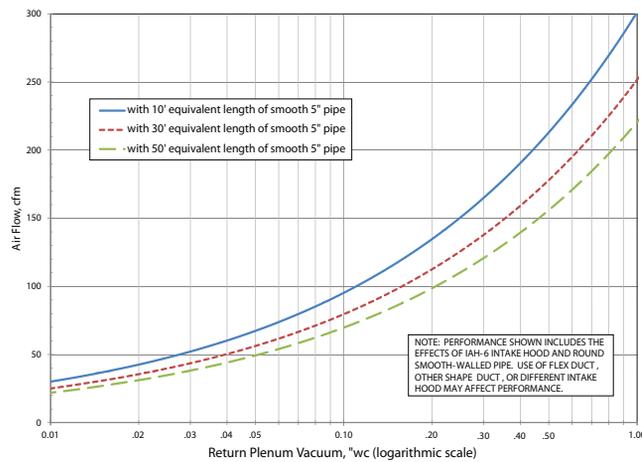
PERFORMANCE CHARTS

FAD-4 Performance: IAH-4 Intake Air Hood, FAD-4 Damper, and 4" Duct

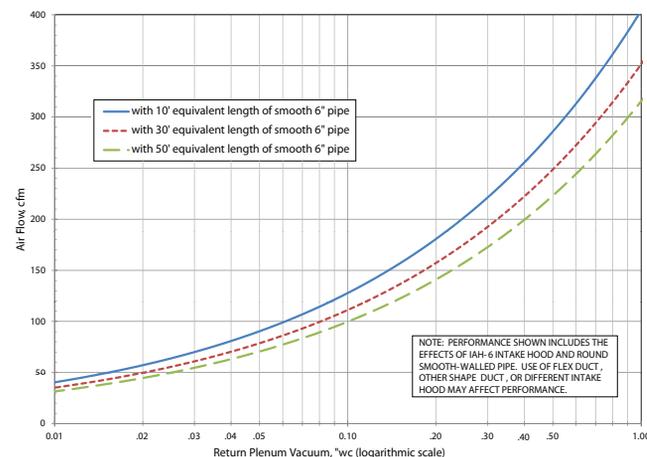


SUPPLY

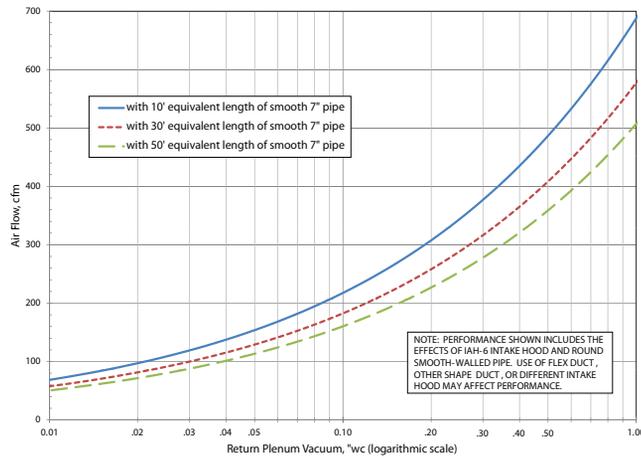
FAD-5 Performance: IAH-6 Intake Air Hood, 6-5 Reducer, FAD-5 Damper, and 5" Duct



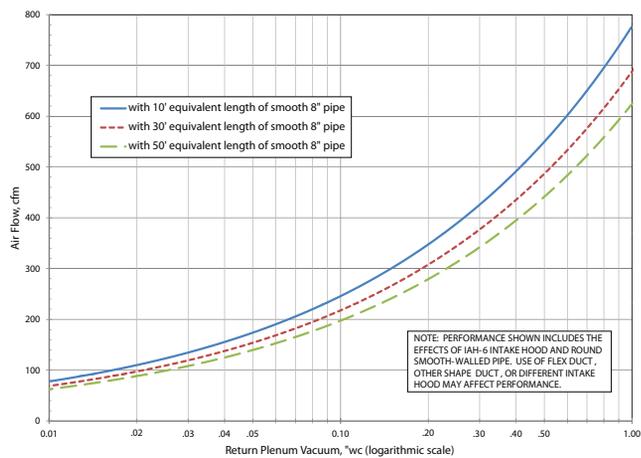
FAD-6 Performance: IAH-6 Intake Air Hood, FAD-6 Damper, and 6" Duct



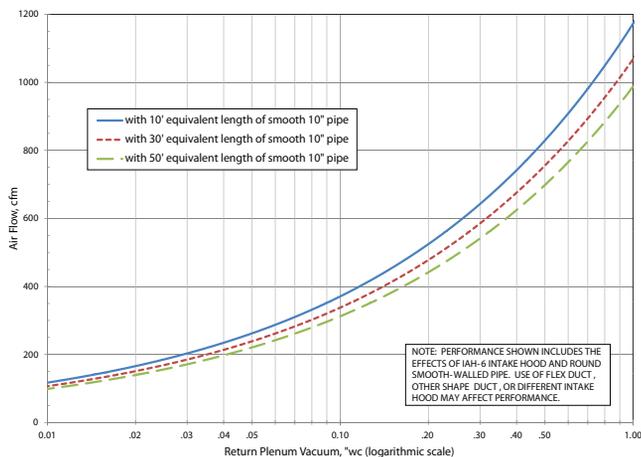
FAD-8 Performance: Generic 8" Intake Air Hood, FAD-8 Damper, and 8" Duct



FAD-7 Performance: Generic 8\" Intake Air Hood, 8-7 Reducer, FAD-7 Damper, and 7\" Duct



FAD-10 Performance: Generic 10\" Intake Air Hood, FAD-10 Damper, and 10\" Duct



SUPPLY

FAV Fresh Air Ventilation System

DAMPER AND CONTROL COMBO

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 for improved indoor air quality.

Features

- Utilizes the central fan to supply outdoor air through a controlled duct
- Operates intermittently
- Automatic fresh air damper (FAD) prevents infiltration during off periods
- Lamp and filter replacement alerts
- Easy to install and program
- Choice of FAVC or HHSC+ for complete control of IAQ

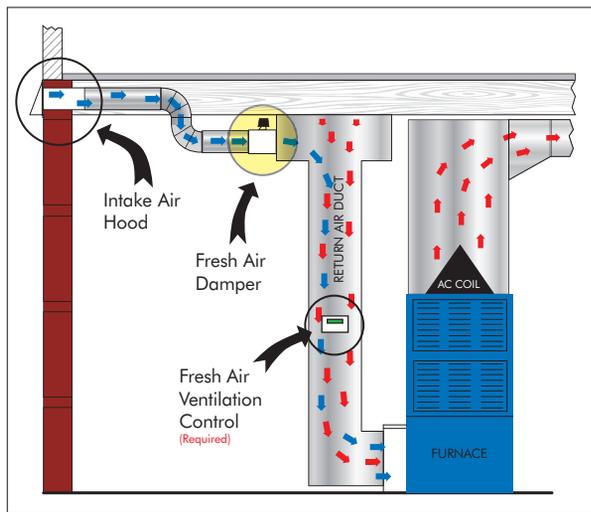


Benefits

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

How It Works

The Fresh Air System (FAV) is a motor driven damper activated by the Fresh Air Ventilation Control (FAVC). 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.



Specifications

Model	Product	Description	Voltage	Amps	Watts
FAV-4	FAVC and FAD	Motorized, stainless steel, power open/close in 15 sec. increments, fits 4" duct or pipe	24	0.07	3
FAV-5	FAVC and FAD	Motorized, stainless steel, power open/close in 15 sec. increments, fits 5" duct or pipe	24	0.07	3
FAV-6	FAVC and FAD	Motorized, stainless steel, power open/close in 15 sec. increments, fits 6" duct or pipe	24	0.07	3
FAV-7	FAVC and FAD	Motorized, stainless steel, power open/close in 15 sec. increments, fits 7" duct or pipe	24	0.07	3
FAV-8	FAVC and FAD	Motorized, stainless steel, power open/close in 15 sec. increments, fits 8" duct or pipe	24	0.07	3
FAV-10	FAVC and FAD	Motorized, stainless steel, power open/close in 15 sec. increments, fits 10" duct or pipe	24	0.07	3

SUPPLY

Better Control in Any Environment

The Fresh Air Ventilation Control (FAVC) can monitor up to four exhaust fan appliances like a bathroom fan, range hood, clothes dryer and gas fireplace. Our C-Sensor and P-Sensor relays data back to the FAVC which can then adjust fresh air intake. Each sensor works independently or in concert with the others to monitor environmental changes, providing increased or decreased ventilation as needed.

Current Sensor

The C-Sensor senses the operation of air-exhausting devices, such as range hoods, clothes dryers, bathroom fans, central vacuum systems, etc. It acts as a switch to provide a 24 VAC input signal to the Fresh Air Ventilation Control, which then operates the fresh air damper (FAD) and activates the HVAC central fan. Fresh, outside air is then drawn into the house, providing make-up air for the exhausting device(s).



The C-Sensor may also be used in a stand-alone make-up air system to control a 24V fresh air damper.

Pressure Sensor

The P-Sensor senses a change in air pressure within the exhaust duct of an exhausting device, such as a kitchen range hood, clothes dryer, central exhaust system, etc. It transmits a signal to a make-up air system, such as the Fresh Air Ventilation Control ventilation device. The P-Sensor may also be used in a stand-alone passive make-up air system to control a 24V fresh air damper (FAD) that is ducted to the exterior of the structure. The P-Sensor may also be used in a stand-alone makeup air system to control a 24V fresh air damper and/or fan that is ducted to the outdoors.



Specifications

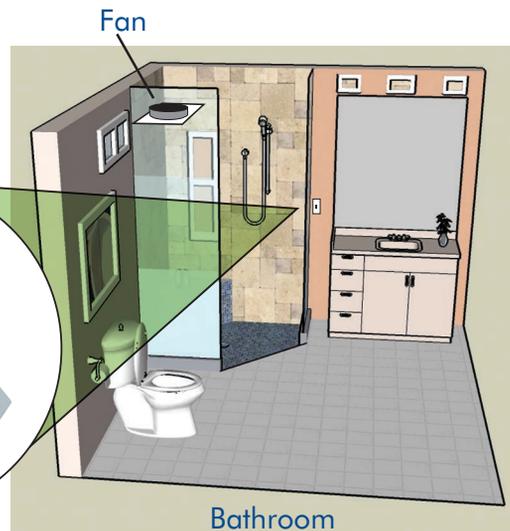
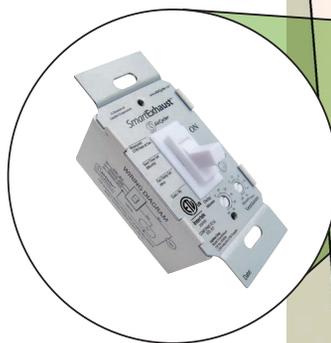
Model	Product	Description	Voltage	Watts	Part #
C-Sensor	Current-Sensing Makeup Air Sensor Damper Control	Senses the operation of air-exhausting devices and acts as a switch to provide a 24 VAC input signal to the FAVC Ventilation Control, which then operates the FAD fresh air damper and activates the HVAC central fan.	24	3	46676500
P-Sensor	Pressure-sensing Makeup Air Sensor Damper Control	Senses a change air in pressure within the exhaust duct of an exhausting device and sends a signal to a makeup air system, such as the FAVC in order to provide makeup air for the exhausting device.	24	3	46676500

The SmartExhaust™ Smart Switch

The easiest, most cost efficient way to help make a home ASHRAE 62.2 compliant. The SmartExhaust turns the bathroom fan into an automatic exhaust system that helps eliminate stale air from the home.

Features

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



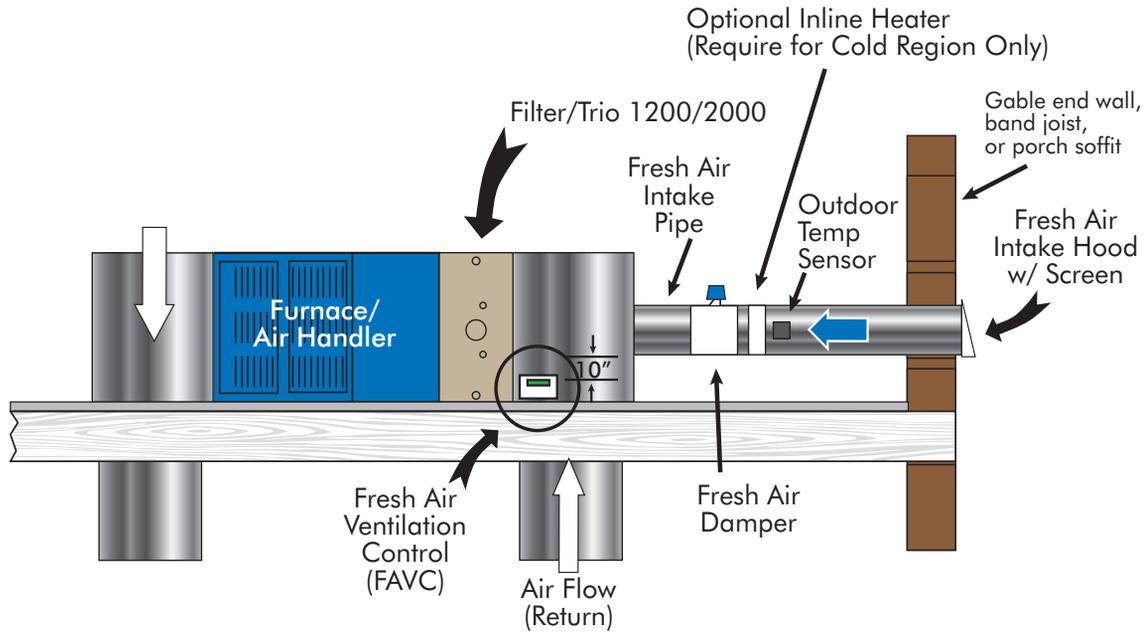
Specifications

Model	Product	Description	Voltage	Watts	Part #
SEC	SmartExhaust™	Programmable control for exhaust fans	120	—	46591000

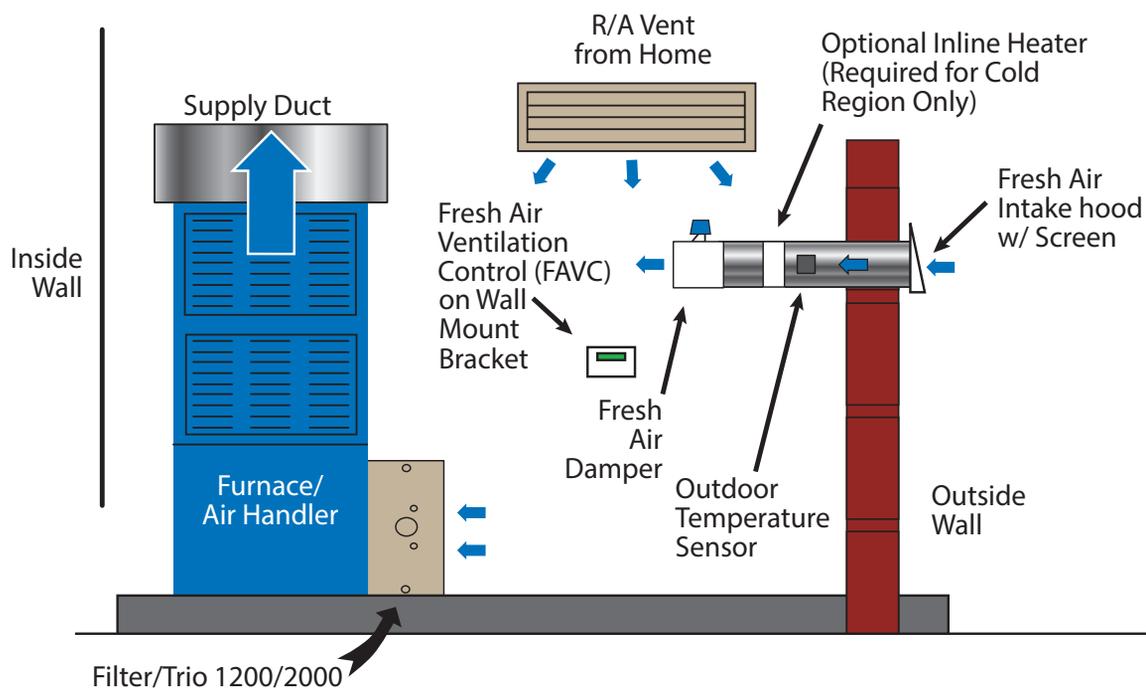
Fresh Air Ventilation Control (FAVC)

INSTALLATION OPTIONS

Attic/Horizontal Air Handler Installation



Return Air Closet Installation



HRV/ERV Systems

BALANCED FRESH AIR SOLUTION

Field Controls Heat Recovery Ventilators (HRVs) and Energy Recovery Ventilators (ERVs) are balanced ventilation systems and have the lowest operating cost of ventilation options. The purpose of an HRV or an ERV is to deliver fresh air into your home. Our systems are designed for optimal ventilation, and quiet, dependable operation.

HRV/ERV systems offer a balanced approach to fresh air, maximum energy efficiency and additional benefits like humidity control. HRV systems are recommended for colder climates and ERV systems are recommended for hot, humid climates. Both are integrated into the ductwork of the forced hot air system—new or retrofit—and both work 24/7 to ensure fresh air changes up to eight times per day.

Field Controls HRV or ERV systems are available six models that range from 40 cfm to 250 cfm to ensure energy efficiency with optimal effectiveness.



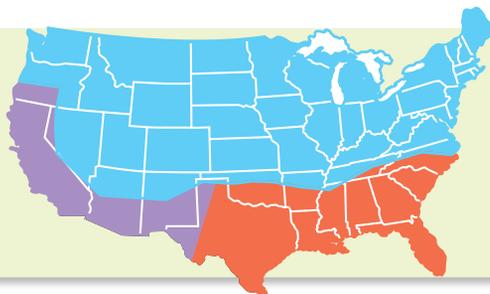
BALANCED

Benefits

- Automatically replaces stale air with fresh air
- Meets or exceeds ventilation standard ASHRAE 62.2
- Low maintenance
- Reduces energy consumption

Efficient in Any Climate

The HRV is ideal for colder, northern climates. The ERV is designed for the hot, humid southern climates. Either can be used in the southwest and California, depending on local conditions.



- HRV
- ERV
- HRV or ERV

Combine an FAVC...

The exhaust appliance monitoring and controlling capabilities of the Fresh Air Ventilation Control (FAVC) mean it is compatible with HRV and ERV systems as well as bathroom fans, clothes dryers, kitchen range hood or gas log fireplaces.



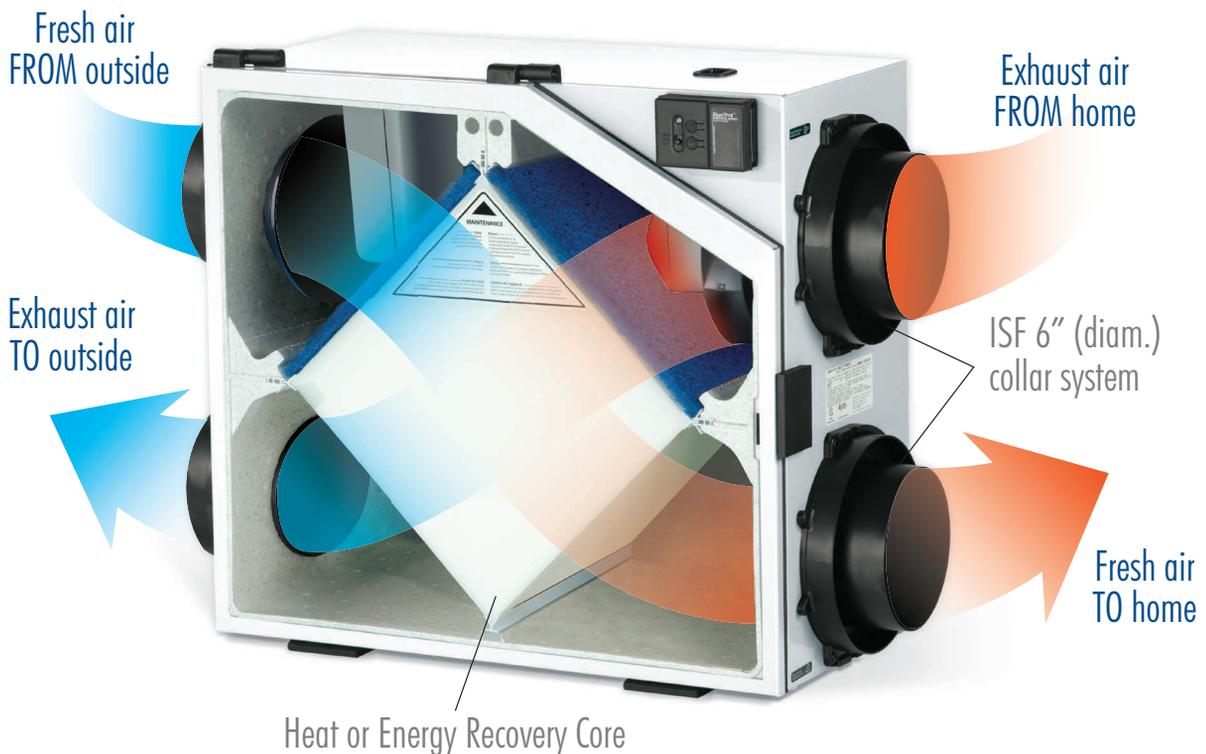
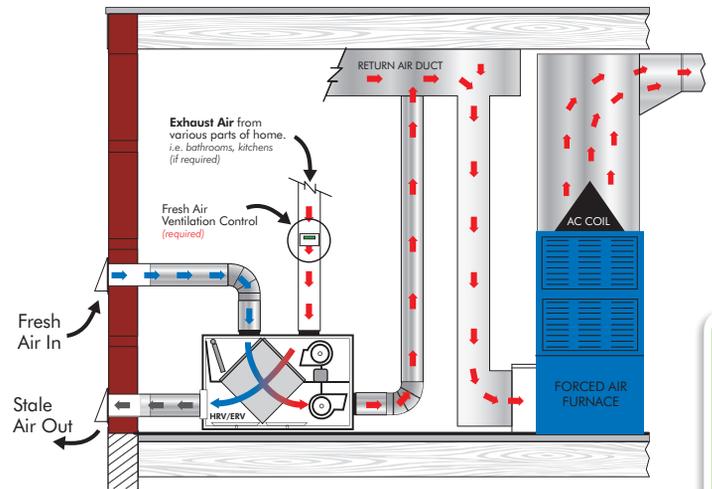
FRESH AIR

How it Works

The fans of an HRV will pull fresh air into a home while simultaneously exhausting stale air from the home. In most installations, the fresh air is delivered to the living room and bedrooms, while the stale air is removed from bathrooms, laundry rooms, and sometimes the kitchen.

Both the fresh air stream and the stale air stream flow through the HRV. The System Core allows some of the heat from the warmer air stream (the stale air in winter, the fresh air in summer) to be transferred to the cooler air stream. In winter, the System "recovers" some of the heat that would have otherwise been exhausted. This heat transfer occurs without any mixing of the two air streams.

An ERV does everything that an HRV does. In addition, an ERV allows some of the moisture in the more humid air stream (usually the stale air in winter and the fresh air in summer) to be transferred to the air stream which is dryer. This transfer of moisture – called enthalpy transfer – occurs with very little mixing of the two air streams.



HRV/ERV Systems

FEATURES, MODELS & SPECS

Field Controls Heat Recovery Ventilators and Energy Recovery Ventilators feature high quality components that are designed for optimum airflow and performance.

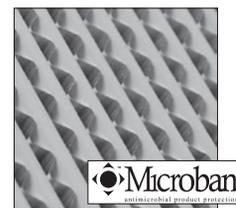
DuoTrol™ Balancing System

Silent and economical... By reducing motor speed to balance the unit, you avoid the noise that would be produced by balancing dampers. In addition, with this technology the unit will consume less energy.



Enthalpy Core (ERV)

Advanced Heat and Humidity Exchanger superior to existing paper based cores, dPoint's ERV Core is manufactured from a durable polymer membrane that enables energy recovery systems to increase their total efficiency, operate in extreme climates, and ensure the cleanest air possible.



ISF™ 5" Oval Collar System with integrated balancing taps

Quick and simple to install thanks to our revolutionary collar system. The 5" (diam.) oval collar system enables you to manipulate duct within your reach and then insert by sliding it in place, for a better and quicker installation and balancing.



High Performance Engineered Motor

All Field Controls products are designed with high-performance, reliable motors for your comfort and peace of mind. Factory sealed and dynamically balanced, our motors are maintenance-free for years to come.



SPM™ Attachment System

The entire line of Field Controls HRV/ERV products is designed for installation by a single person. "Single Person Mounting" will enable you to save time and effort by offering you a variable attachment system.



Polypropylene HRV Core

Designed to maximize airflow and performance. The core is constructed from a composite of polypropylene materials that allows latent heat transfer from one airstream to another while preventing cross-contamination.



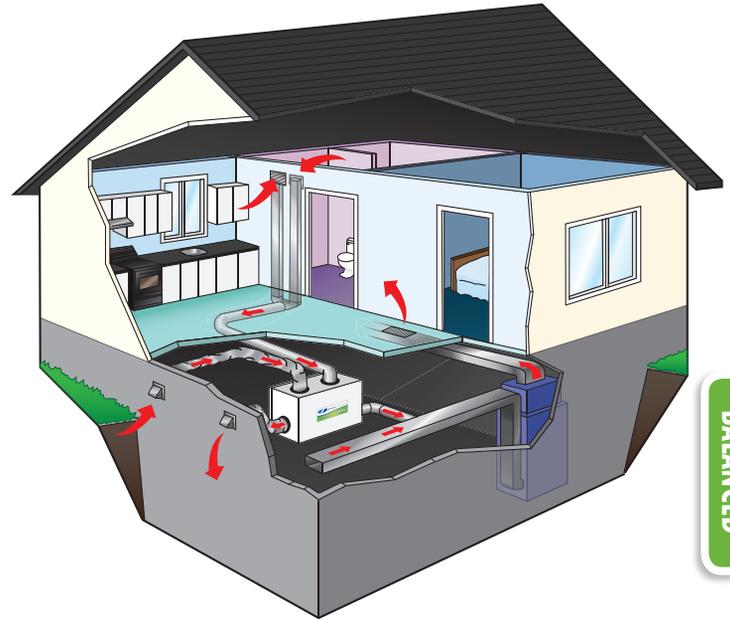
Specifications

Model	Product	Dimensions (inches)	Airflow cfm					Effectiveness @ 32° F	Voltage	Amps	Hz	Watts
			.1	.2	.3	.4	.5					
FC80HRV	Heat Recovery Ventilator	22 H x 19.8 W x 14.6 D	99	93	83	75	65	72%	120	0.85	60	66
FC150HRV	Heat Recovery Ventilator	29.5 H x 22.5 W x 11.4 D	193	178	163	150	133	75%	120	1.5	60	142
FC200HRV	Heat Recovery Ventilator	29.5 H x 22.5 W x 16.5 D	248	229	218	200	181	71%	120	1.5	60	142
FC80ERV	Energy Recovery Ventilator	22 H x 19.8 W x 14.6 D	105	97	92	80	73	74%	120	0.85	60	66
FC150ERV	Energy Recovery Ventilator	29.5 H x 22.5 W x 11.4 D	207	189	187	159	148	76%	120	1.5	60	142
FC200ERV	Energy Recovery Ventilator	29.5 H x 22.5 W x 16.5 D	244	225	208	188	173	81%	120	1.5	60	142

BALANCED

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 length of ductwork plus the number of fittings used in the ductwork.



Delivered Air Temperature from HRV

Outdoor Temperature + Effectiveness x (Indoor Temperature – Outdoor Temperature) = Delivered Air Temperature

Indoor Temperature = 70° F

Outdoor Temperature = 32° F

FC200HRV Example:

74% Effectiveness @ 32° F
 $32^{\circ} F + (.74 \times 38) = 60^{\circ} F$

FC80HRV Example:

88% Effectiveness @ 32° F
 $32^{\circ} F + (.88 \times 38) = 65^{\circ} F$

A huge difference versus open window/draft ventilation

Determine Your Ventilation Needs Installation

Simplified Installations How much fresh air do I need? Good air quality is based in part on the capacity of the home's ventilation system.

Usually, the HRV's/ERV's capacity is measured in CFM (Cubic Feet per Minutes) or L/s (Liters per Seconds) of fresh air being distributed in the living space. The Room Count Calculation or the Air Change per Hour Method shows you how to determine your ventilation needs. See chart below.

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 cfm (5 L/s)	= _____
Living Room	_____	x 10 cfm (5 L/s)	= _____
Dining Room	_____	x 10 cfm (5 L/s)	= _____
Family Room	_____	x 10 cfm (5 L/s)	= _____
Recreation Room	_____	x 10 cfm (5 L/s)	= _____
Other	_____	x 10 cfm (5 L/s)	= _____
Kitchen	_____	x 10 cfm (5 L/s)	= _____
Bathroom	_____	x 10 cfm (5 L/s)	= _____
Laundry Room	_____	x 10 cfm (5 L/s)	= _____
Utility Room	_____	x 10 cfm (5 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 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.
 16,000 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

HRV/ERV Systems

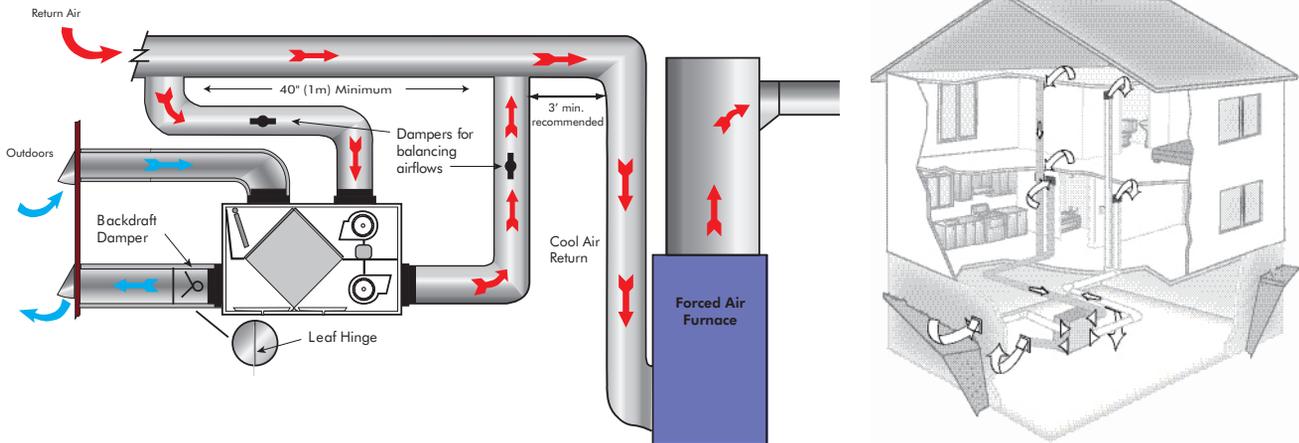
INSTALLATION OPTIONS

Simplified Independent System Installation

This application uses a devoted duct system for the supply and the exhausting of stale air accumulated in the home.

The Simplified Installation draws stale air from the cold air return duct of the air handler/furnace and introduces an equal amount of fresh air farther downstream into the cold air return. The air handler/furnace blower must be running when the unit is operating for this system to be effective. It is recommended to install fresh air grilles in all bedrooms and living areas. Exhaust the stale air from the bathroom, kitchen and laundry room.

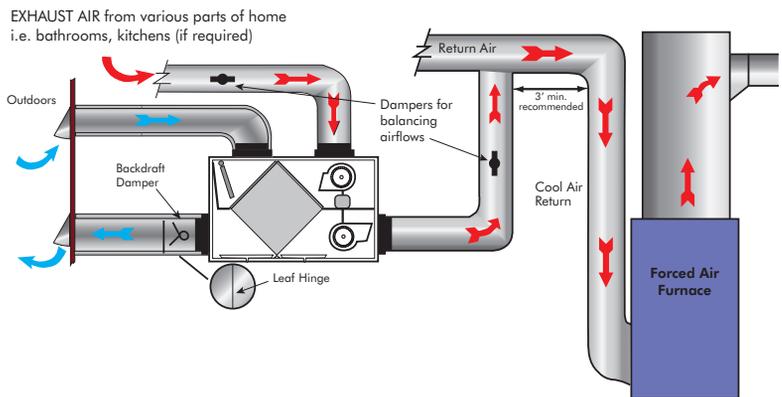
BALANCED



IMPORTANT: For optimal performance of your HRV or ERV, the installation of an optional 6" round galvanized backdraft damper is required on the fresh air to home duct work.

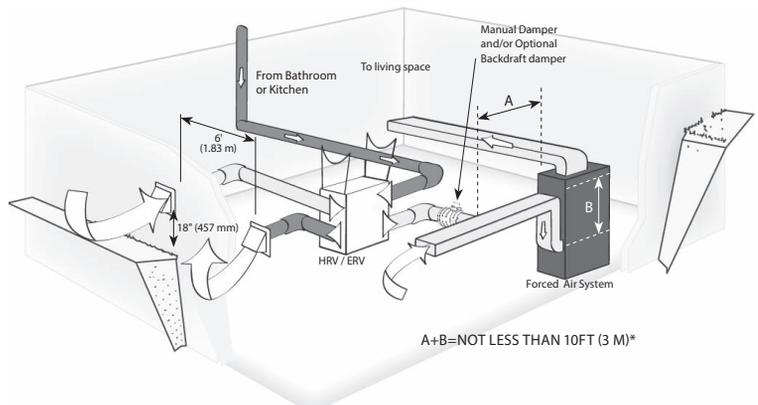
Partially Dedicated Installations (exhaust at the source and supply in the return)

This installation draws stale air from specific points in the house and introduces an equal amount of fresh air into the cold air return. Stale air ducts should be installed in areas of the home where the poorest indoor air quality exists (bathrooms and kitchen). Each location with a stale air duct should have a timer to initiate high speed ventilation. The air handler/furnace blower should be running when the HRV is operating to evenly distribute the fresh air throughout the house.



This application uses a devoted duct system for the exhausting of stale air accumulated in the home. The fresh air is dumped into the return air duct and is distributed thru the home by the existing supply air ductwork of the forced air system.

Make sure when using this application that your fresh air duct connection to the forced air system return air duct is not less than 10ft (3 m) upstream of the return plenum connection to the forced air system. Check with your local code or the forced air system's manufacturer. The HRV and forced air system must be in continuous mode, to achieve maximum comfort and to avoid cross-contamination.

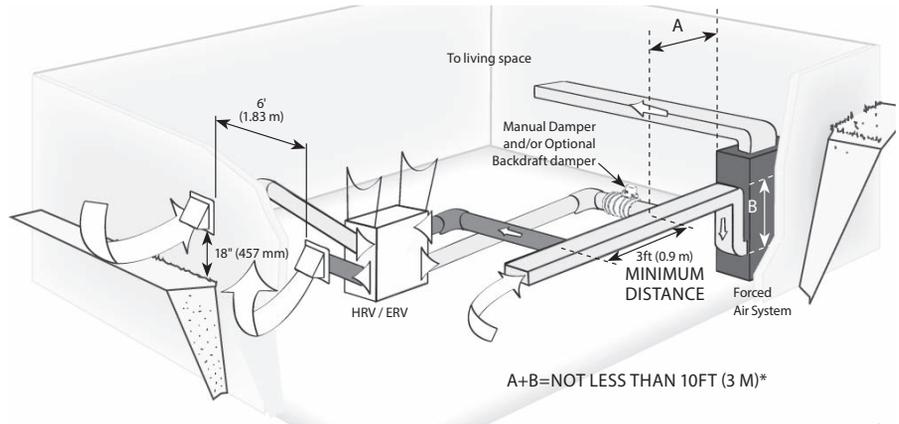


NOTE: Dwellings with multiple forced air systems requires one HRV/ERV per system. Insure the unit runs in conjunction with forced air system.

Exhaust and supply in the return installations

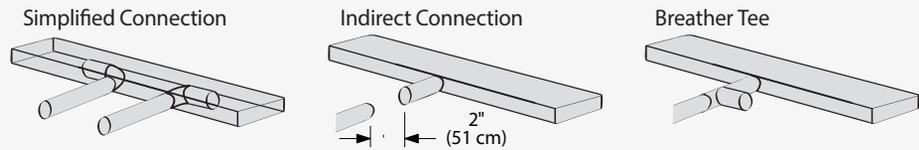
When using this application make sure that there is minimum 3 ft (0.9 m) between the fresh air and exhaust air connections of the HRV/ERV in the return air duct.

Make sure when using this application that your fresh air duct connection to the forced air system return air duct is not less than 10 ft (3 m) upstream of the return plenum connection to the forced air system. Check with your local code or the forced air system's manufacturer. The HRV and forced air system must be in continuous mode, to achieve maximum comfort and to avoid cross-contamination. NOTE: Dwellings with multiple forced air systems requires one HRV/ERV per system. Insure the unit runs in conjunction with forced air system.



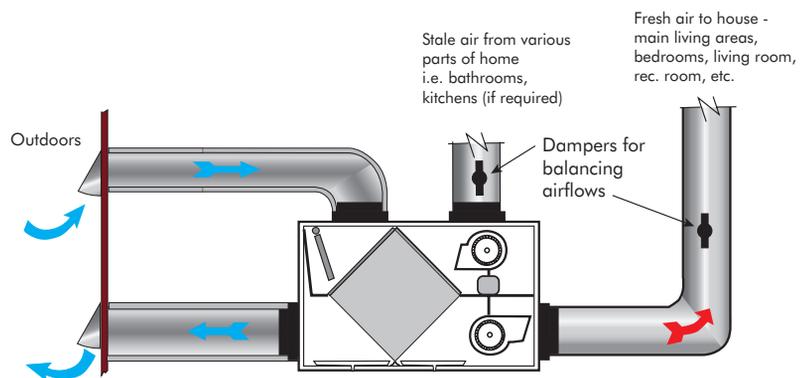
IMPORTANT: The duct bringing outdoor air to the return air plenum must be equipped with a manual damper to balance the outdoor airflow.

* For minimum distance between return and forced air system, check with your local building codes and forced air system manufacturer. **IMPORTANT:** Building and combustion appliance installation codes do not allow return air grilles or openings such as "breather tee" or indirect connections in an enclosed room that is susceptible to spillage of combustion appliances.



Fully Dedicated Installations

The Fully Dedicated Installation draws stale air from specific points in the house and delivers fresh air to specific locations of the house. This system is not connected to an air handler/furnace. Stale air ducts should be installed in areas of the home where the poorest indoor air quality exists (bathrooms and kitchen). Each location with a stale air duct should have a timer which will initiate high speed ventilation. Fresh air ducts should be installed in all bedrooms and living areas, excluding bathrooms, kitchen and utility areas.



Grilles should be located high on a wall or in ceiling locations. Grilles that diffuse the air comfortably are recommended.

Special care should be taken in locating grilles if the floor is the only option available. Areas such as under baseboard heaters will help to temper the air. Optional in-line duct heaters are available for mounting in the supply ductwork to add heat if required.

Fully Dedicated System

A stand alone HRV/ERV system not connected to a forced air system. Stale air is drawn from key areas of the home (bathroom and kitchen) while fresh air is supplied to main living areas.

BALANCED

Make-Up Air System

DEPRESSURIZATION SOLUTION

Efforts to make your home more energy efficient prevent 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 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 take more time to do their jobs and wasting energy.



Includes Intake Air Hood IAH-6

BALANCED

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, improving appliance efficiency, and saving energy.

Features

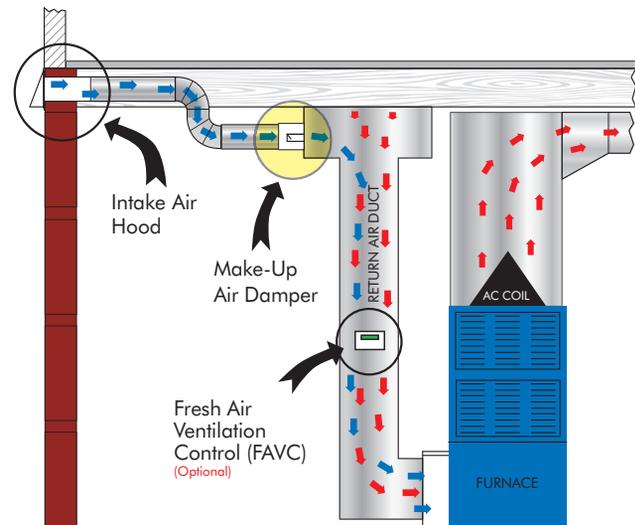
- Adjustable gate provides precise air flow control
- Pressure Activated
- Easy to read air flow gauge
- No electricity required
- 24 gauge aluminum coated steel
- Corrosion resistant and paintable
- Intake air hood included
- Quiet operation

How the MAS 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 air flow 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 1000 to 4000 square feet. It does not require any electricity or maintenance.

When to use the MAS

- To improve appliance efficiency
- To improve Indoor Air Quality
- To conserve energy
- To increase fresh air changes
- To replace air exhausted by bathroom fans, laundry dryers, range hood fans, and other exhaust devices



Specifications

Model	Product	Description	Part #
MAS-1	Make-Up Air System (MAS-1)	MUA Device w/ 6" Intake Air Hood	46231900

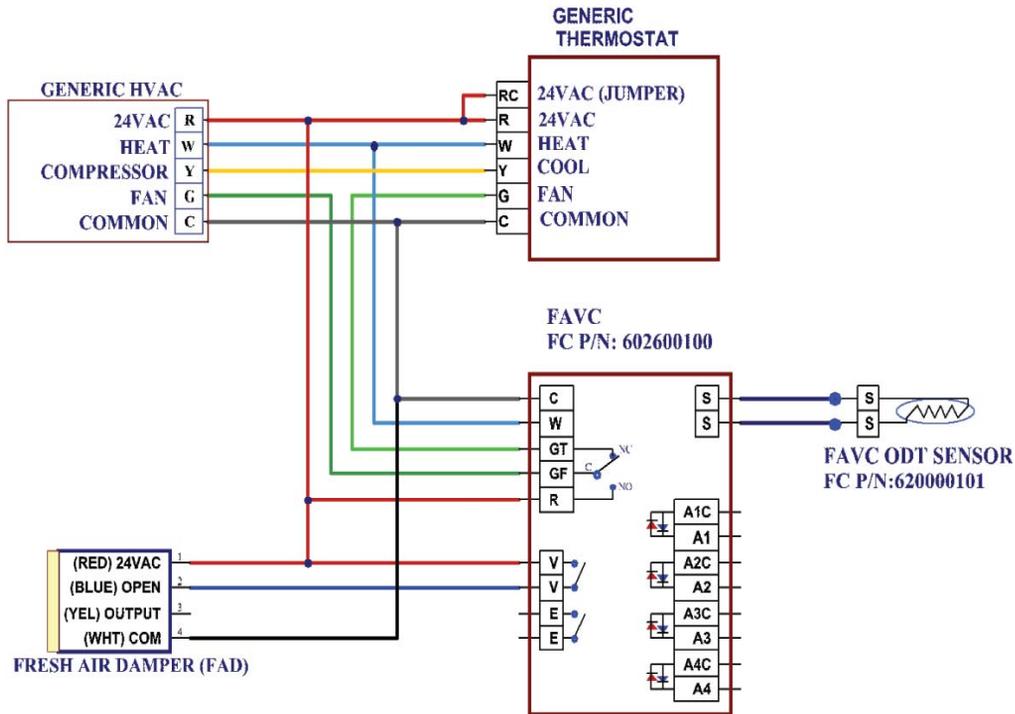
Accessories			
Model	Product	Description	Part #
EHC1	Digital Ventilation Control	7 operating modes	60510010010
EHC1.5	Digital Ventilation Control	12 operating modes	60510010011
RD1	Residential Basic De-Humidistat	Basic de-humidistat for Field Controls HRV and ERV units	60510010030
RD4P	Residential Deluxe De-Humidistat	Deluxe de-humidistat for Field Controls HRV and ERV units	60510010031
T-3	Timer 20/30/60	Push button timer	60510010050
R2-VH4	4" Outdoor Vent Hood	Two - 4" hoods and 1/4" mesh screen	60510010070
R2-VH5	5" Outdoor Vent Hood	Two - 5" hoods and 1/4" mesh screen	60510010071
R2-VH6	6" Outdoor Vent Hood	Two - 6" hoods and 1/4" mesh screen	60510010072
MTX-HD	Single Port Vent Hood	Vent hood for Field Controls HRV and ERV units	60510010075
VT0110	5" Diffuser	replaces EAG5 and EAG4	46612805
VT0111	6" Diffuser	replaces EAG6	46612806

Replacement Filters	
FLTR-80KIT	HRV/ERV Replacement Filter Kit for FC80
FLTR-150KIT	HRV/ERV Replacement Filter Kit for FC150
FLTR-200KIT	HRV/ERV Replacement Filter Kit for FC200

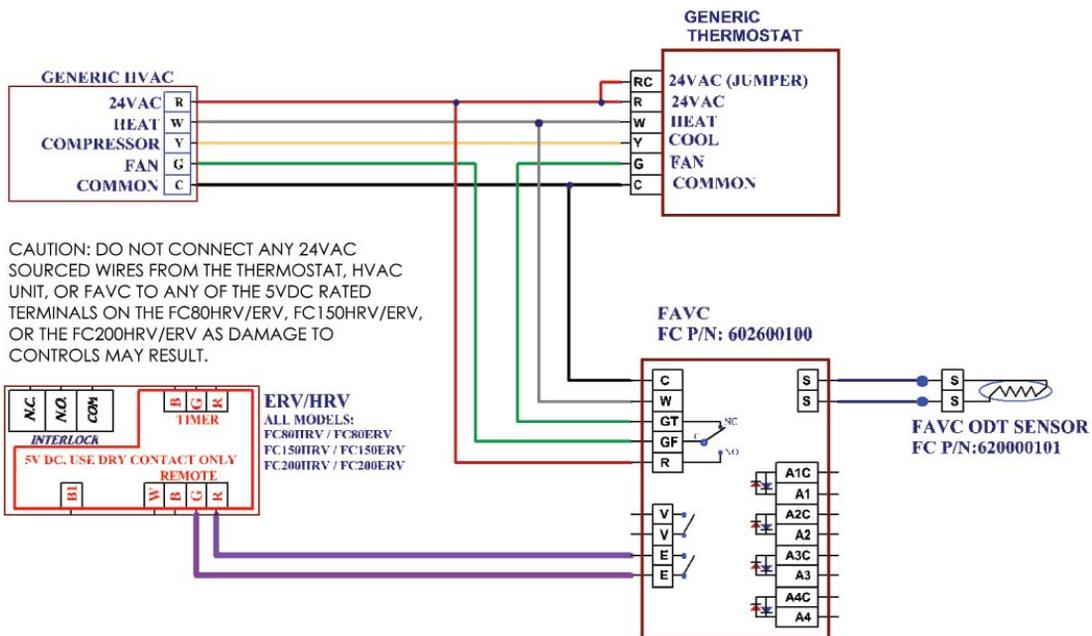
Wiring Diagrams

FOR FAVC

Thermostat, Air Handler, FAVC, ODT Sensor and Fresh Air Damper



Thermostat, Air Handler, FAVC, ODT Sensor and HRV/ERV Device

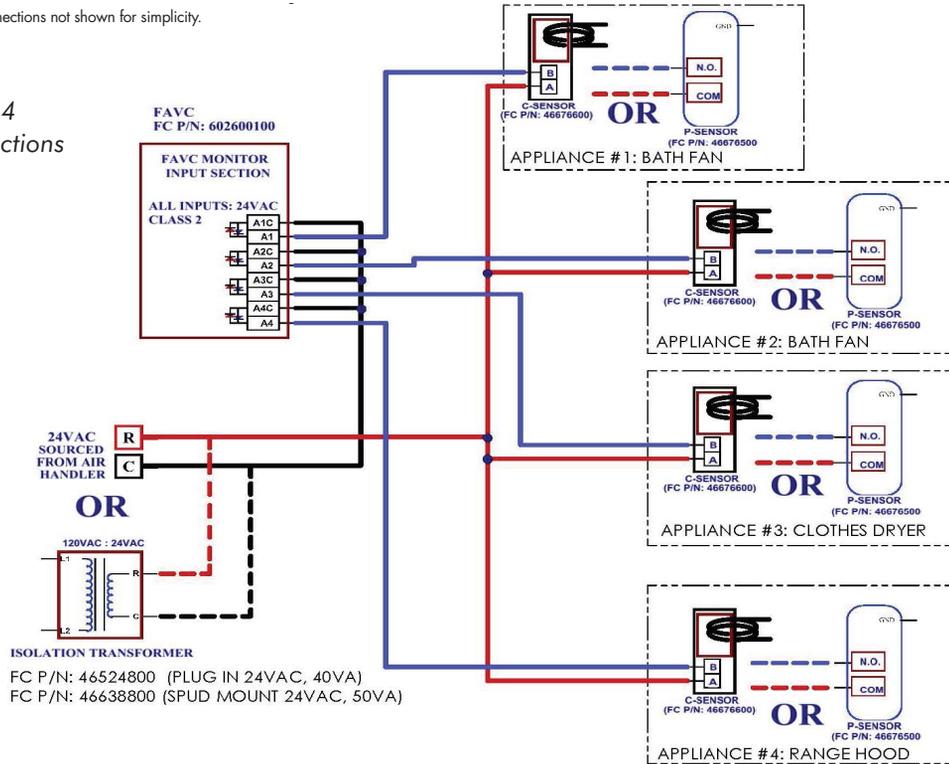


WIRING

HVAC, Thermostat, Outdoor Sensor Wiring and FAD/HRV/ERV

Connections not shown for simplicity.

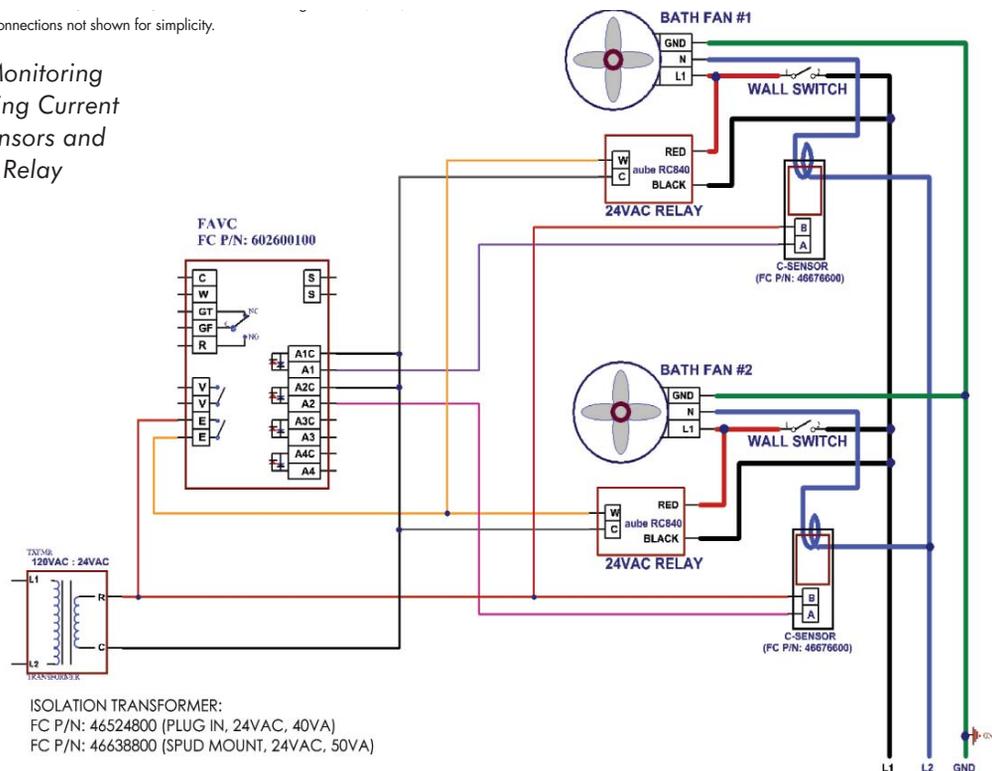
Appliances 1 thru 4
Monitoring Connections
using Current or
Pressure Sensors



HVAC, Thermostat, Outdoor Sensor Wiring and FAD/HRV/ERV

Connections not shown for simplicity.

Control and Monitoring
Appliances using Current
or Pressure Sensors and
External Aube Relay

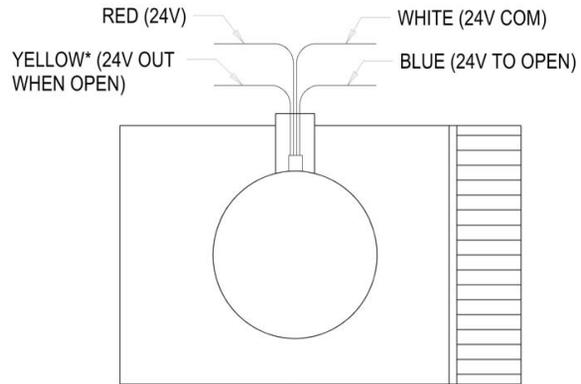


WIRING

Wiring Diagrams

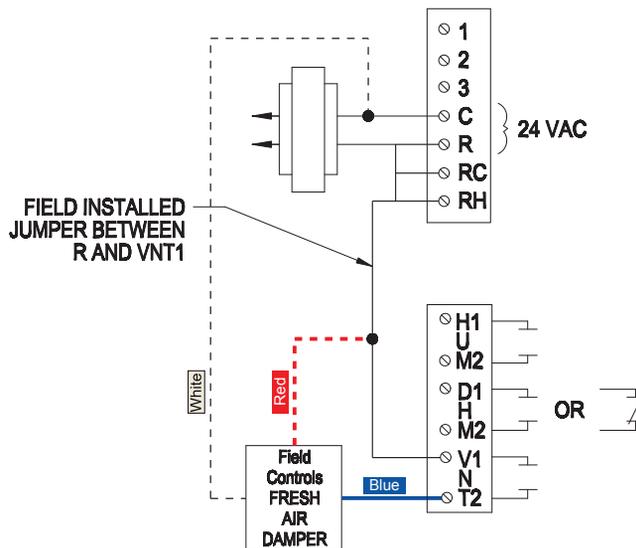
FOR FAD/FAV

FAD DAMPER CONTROL WIRING

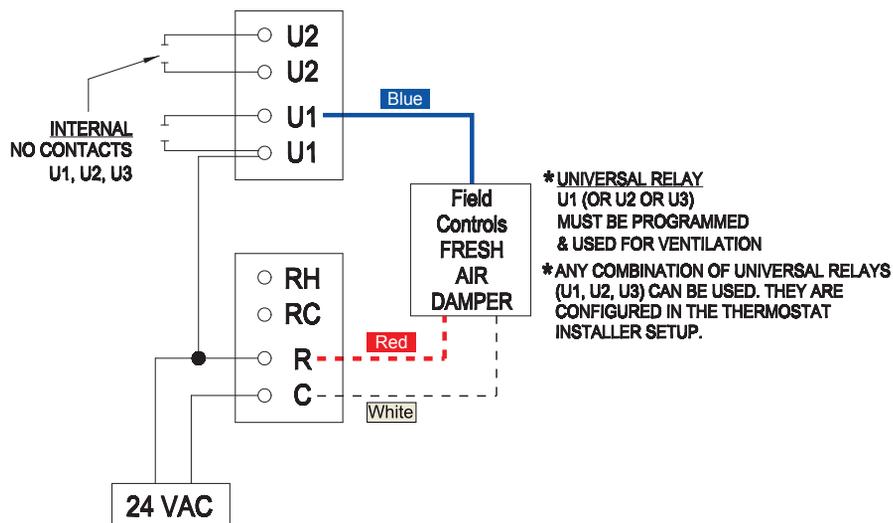


*4-WIRE HARNESS ONLY, INCLUDED WITH HHSC+ CONTROL

FAD to Honeywell® VisionPro® Total Home Comfort System



FAD to Honeywell® THX9321/9421 Prestige IAQ and RF EIM



WIRING

Wiring Diagrams

FOR HRV/ERV CONTROL

RD1 (2 wires)

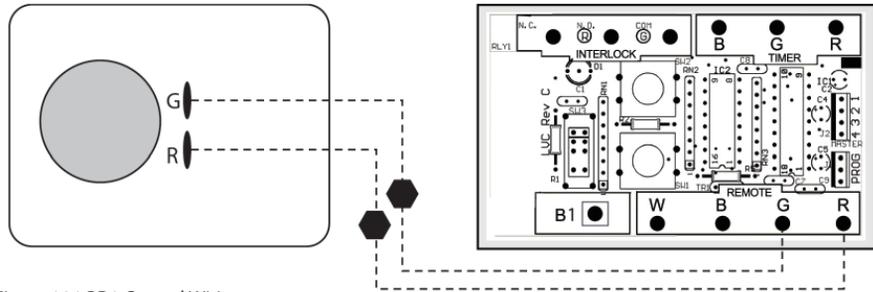


Figure 14.1 RD1 Control Wiring

RD4P (4 wires)

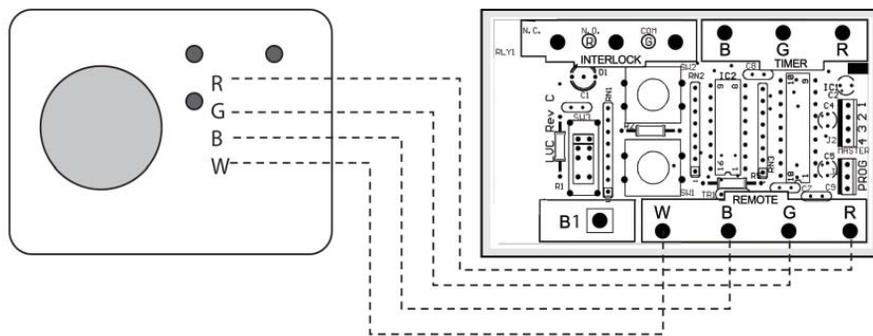


Figure 14.2 RD4P Control Wiring

T-3 TIMER

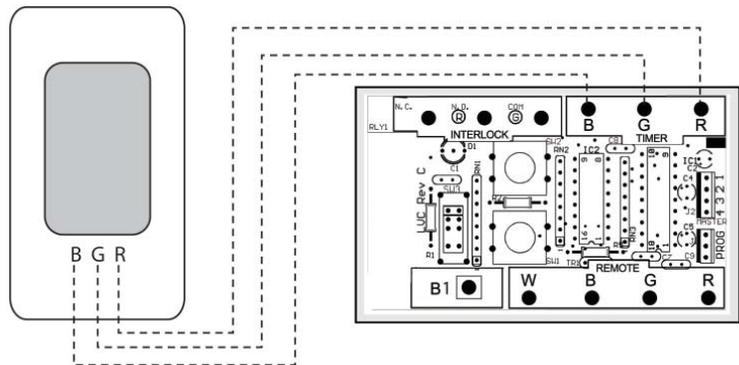


Figure 14.3 T-3 Control Wiring

EHC 1.0, EHC 1.5

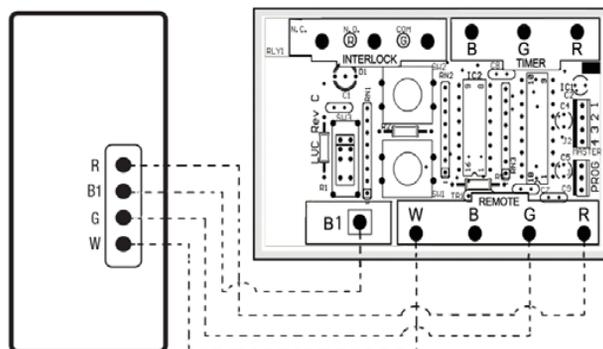


Figure 14.4 EHC Control Wiring

Legend: ----- Field Installed Low Voltage

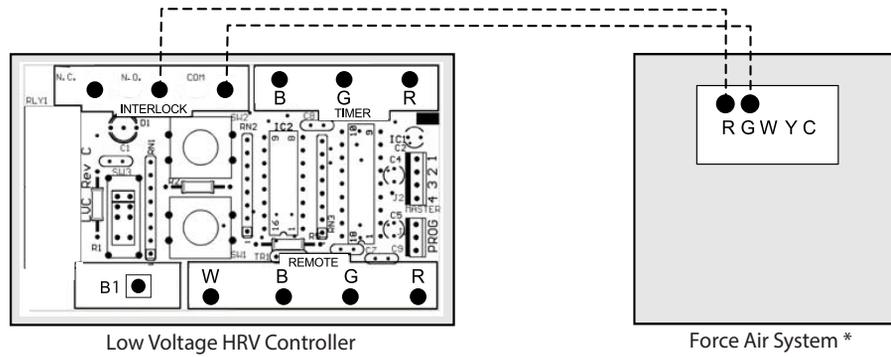
WIRING

Wiring Diagrams

FOR HRV/ERV

STANDARD FORCED AIR INTERLOCKING WIRING

A relay is normally used when tying a ventilation system to the forced air distribution system. Our control system is equipped with an internal relay that will activate the forced air system's ventilator when there is a demand from the HRV/ERV. The control system will activate the INTERLOCK relay during the following modes: Continuous, Override, Recirculation and Defrost. (See wiring diagram, Figure 15.1)



Legend: ----- Field Installed Low Voltage

Figure 15.1 Standard forced air wiring diagram

ALTERNATE FORCED AIR INTERLOCKING WIRING

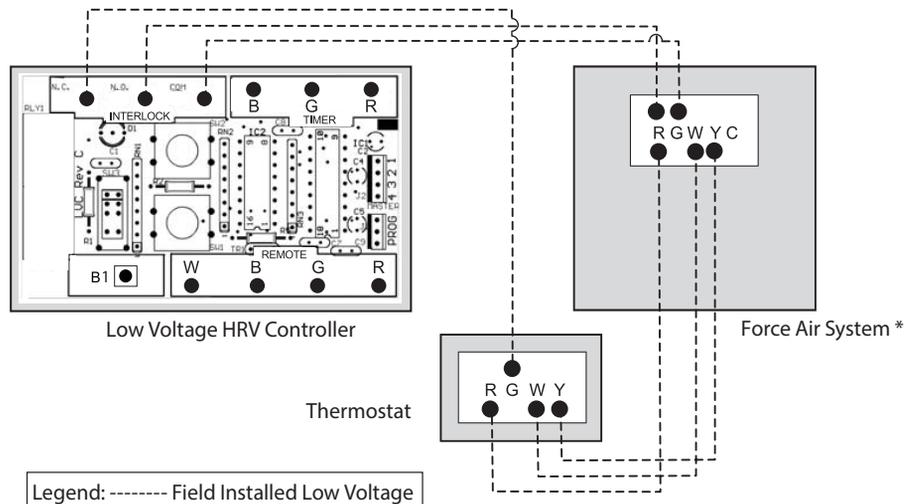
Some forced air system thermostat will activate the cooling system when tied using the «Standard forced air interlocking wiring».

If you have identify this type of thermostat you must proceed with the «Alternate Forced Air Wiring».

LOCATING THE WIRING DIAGRAM

NOTE: Wiring Diagram for the entire line of HRV/ERV models are placed on the back of each exhaust motor bracket.

CAUTION: Thermostat that control A/C system must use the Alternate Interlock Wiring Diagram. (Figure 15.2)



Legend: ----- Field Installed Low Voltage

Figure 15.2 Alternate forced air wiring diagram

*Before tying the HRV/ERV to a forced air system, always refer to system's manual or manufacturer.

Get all of the Field Controls Reference Guides online at fieldcontrols.com

or contact us at 252.522.3031 or sales@fieldcontrols.com.

Contractor Reference Guide

Since 1927, the focus of Field Controls has been the control and movement of air. We lead the industry in venting, combustion, and draft control. For the latest in venting, combustion, and draft control, ask for the Field Contractor Reference Guide. Your guide for product information, specifications, installation, wiring, and replacement parts.



Healthy Home System® Guide

The Healthy Home System reference 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.

Healthy Hearth Guide

Field Controls expertise in air movement and control allowed us to develop the Flue Sentinel® line of products for a home's hearth. Flue Sentinel products operate automatically with any gas log system to ensure proper and safe venting. This guide will introduce you to our full one of hearth options.

