



**FIELD** CONTROLS

IAQ  
GUIDE **11**

## *HEALTHY HOME SYSTEM™*



# Healthy Home System™

## Introducing the Healthy Home System™ from Field Controls.

Field Controls has developed the premier system that simply and inexpensively transforms the heating and cooling system in any home into a Healthy Home System. The Healthy Home System goes beyond traditional technology to ensure air that is Fresh, Clean, and Pure.™

Creating a custom Healthy Home System is easy. Start with a Healthy Home System Control and select the appropriate Fresh Air Damper, Media Air Cleaner, and UV-Aire model that's right for your heating and cooling system.



Healthy Home System™ Control



Fresh Air Damper



Media Air Cleaner™



UV-Aire®

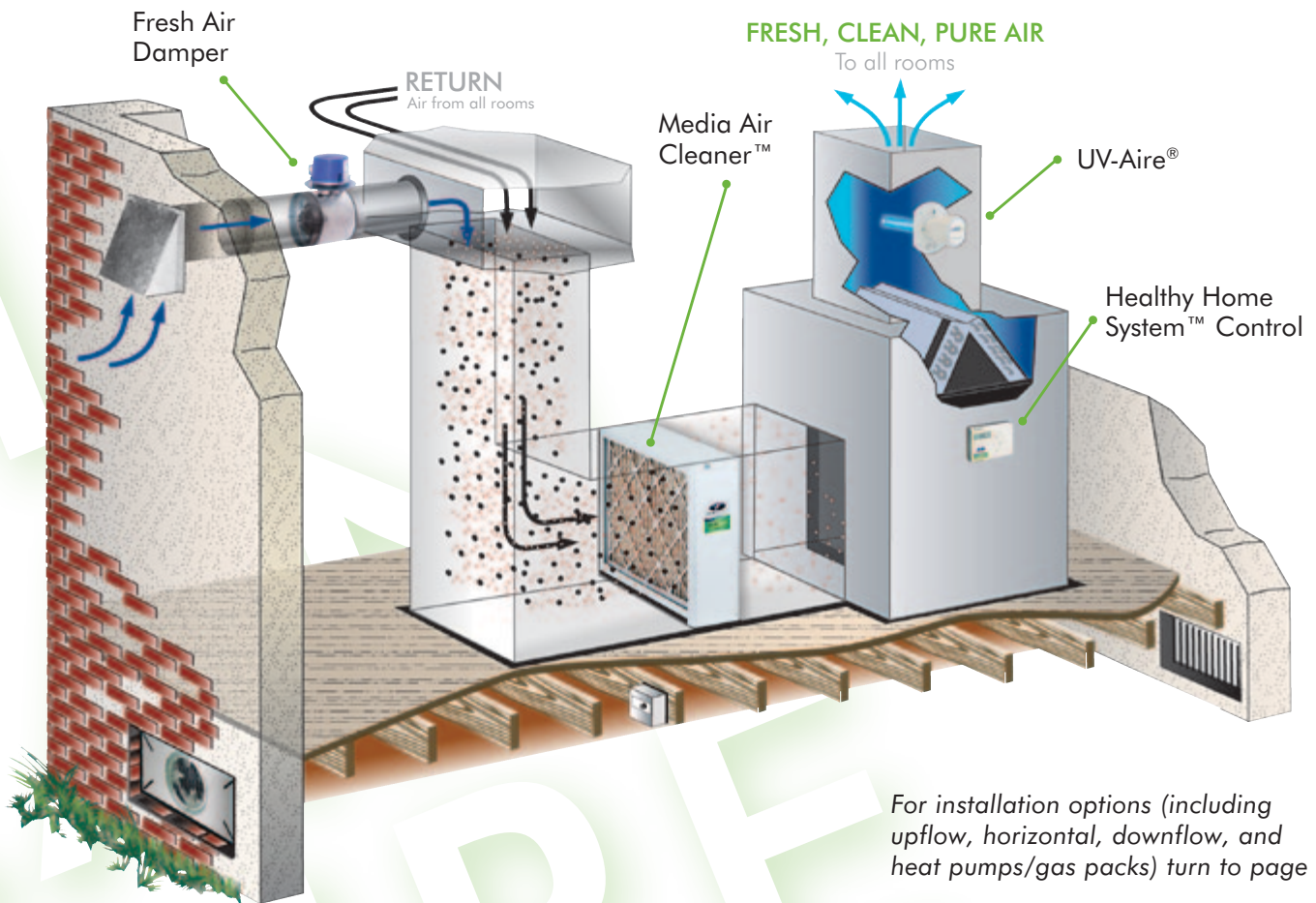
FRESH

CLEAN

PURE

# Healthy Home System™

Upgrade any heating and cooling system with a Healthy Home System delivering air that is **Fresh, Clean, and Pure.**



For installation options (including upflow, horizontal, downflow, and heat pumps/gas packs) turn to page 5.

# Healthy Home System™



**FIELD** CONTROLS



## For the home, HVAC system, and family



### FRESH

Fresh Air Ventilation



### CLEAN

Media Air Cleaners



### PURE

UV-Aire® Purification



### For the Home

- Creates uniform temperature and humidity throughout the home
- Helps meet residential ventilation standard ASHRAE 62.2
- Enhances whole house filtration and air purification
- Virtually maintenance free
- Utilizes existing air handler and duct system

### For the HVAC system

- Reduces dust and pollen that can damage the air handler
- Eliminates mold growth on air conditioning coils
- Improves efficiency, reduces maintenance, and extends system life

### For the Family

- Reduces indoor air pollution all year round, not just when heating or cooling
- Removes asthma irritants
- Keep air Fresh, Clean, and Pure all year round
- Cost efficient
- Supplies and distributes fresh air

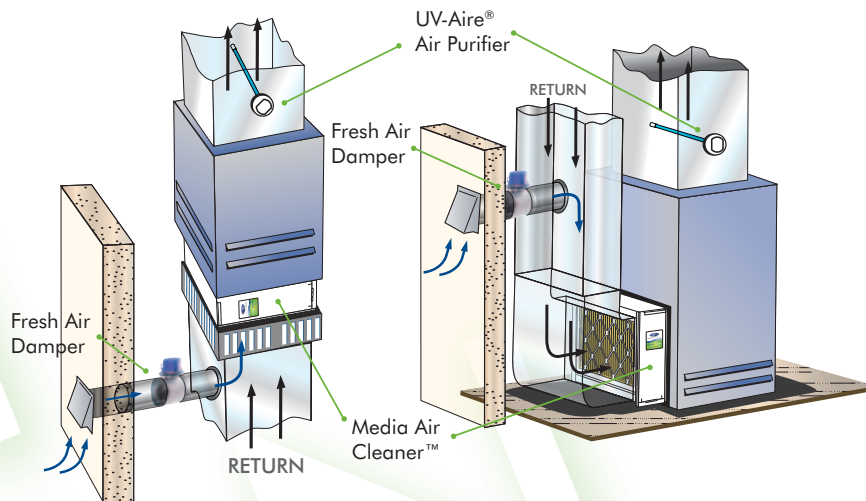
# Healthy Home System™

## INSTALLATION OPTIONS

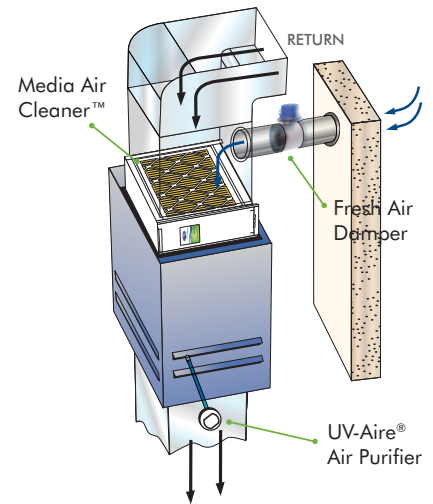
The Healthy Home System works in perfect harmony with virtually ANY forced air heating and cooling system. The Fresh Air Damper connects the outside to the system via the return duct, the Media Air Cleaner is installed before the air handler, and the UV-Aire is installed after or above the A-Coil.

The illustrations below show typical component placement in the most popular types of forced air systems.

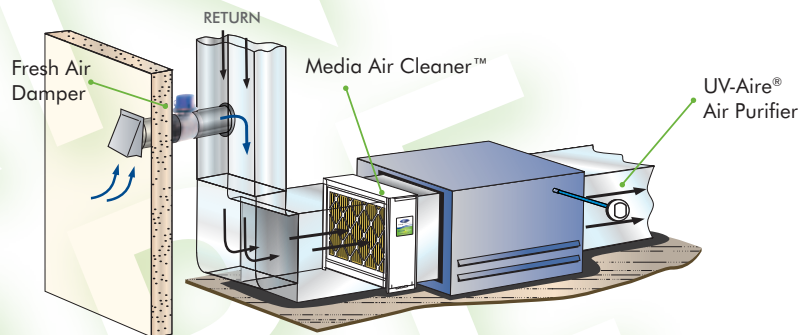
*For illustration only. For detailed installation instructions, refer to the Installation Manual for each component. Manuals are available online at [www.fieldcontrols.com/instructionmanuals](http://www.fieldcontrols.com/instructionmanuals).*



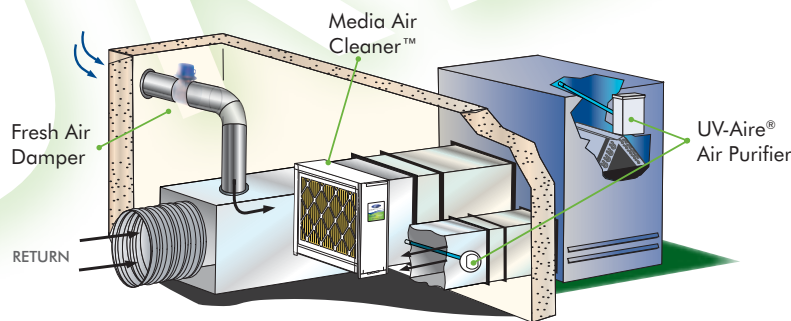
**UPFLOW**



**DOWNFLOW**



**HORIZONTAL**



**EXTERNAL HEAT PUMP or GAS PACK**

# Healthy Home System™

## CONTROL

### Healthy Home System™ Control

#### The heart and brains of the Healthy Home System

The Healthy Home System Control intelligently manages the central fan to maximize the benefits of the Healthy Home System.

It's the easiest, most cost effective way to ensure the air in the home is **FRESH**, **CLEAN**, and **PURE**...even when not heating or cooling.



Healthy Home System™ Control

#### How It Works

Other clean air systems only work when the furnace or air conditioner are operating. The Healthy Home System Control monitors the central fan activity and engages the fan on a regular schedule to keep air that is fresh, clean, and pure circulating throughout the entire home even during times when not heating and cooling. The Healthy Home System Control is set by the contractor and works independently of the thermostat, providing better control and more consistent operation.



The Healthy Home System is a network of components that tie into the existing HVAC ductwork, utilizing the central system fan to keep the air in the home Fresh, Clean, and Pure. The network and central fan are activated by the Healthy Home System Control.

Tempered fresh air is brought into the home as needed via the Fresh Air Damper. When there is a call for fresh air, the controller opens the damper and engages the central fan to pull fresh air into the return air system. It is mixed with heated/cooled air, filtered, purified, and distributed throughout the home.

The Media Air Cleaner is a super efficient filter that traps dust, pollen, and dander as small as 1.0 micron.

The UV-Aire zaps airborne invaders including bacteria, viruses, mold and dust mites. The UV-Aire also keeps the air conditioning coil free of mold, improving appliance efficiency as well as air quality.



#### FRESH

Fresh Air Ventilation



#### CLEAN

Media Air Cleaners



#### PURE

UV-Aire® Purification



### Fresh Air Damper

Weatherization efforts to make homes more energy efficient can often lead to inefficiency and compromised air quality. Weather stripping, caulk, sealants and moisture barriers such as Tyvek® tighten the home and reduce air changes and air quality. When a home can't breathe, laundry dryers, range hood fans, bathroom fans and heating appliances take more time to do their jobs, wasting precious energy. As part of the Healthy Home System, the fresh air damper works with the Healthy Home System Control to provide **FRESH** air in the home all year round... even when not heating or cooling.

To address indoor air quality, fresh air ventilation is recommended by HVAC engineers and is prescribed in ASHRAE standard 62.2. 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 Fresh Air Damper from Field Controls meets these requirements by delivering fresh air automatically and efficiently. The FAD includes proven components for simple, reliable, fresh air delivery for improved indoor air quality.

### Benefits

- Delivers fresh air automatically, year round
- Enables system to meet ASHRAE 62.2 ventilation standard for fresh air
- Creates uniform temperature and humidity throughout the home
- Enhances effectiveness of whole house filtration and air purification

### How It Works

Our Fresh Air Damper remains closed until instructed to open by the Healthy Home System Control. It then opens to allow fresh air to be pulled into the return plenum where it is mixed with conditioned air, filtered, and distributed to the rest of the house.

The Fresh Air System FAS-1 combines the Healthy Home System™ Control with the 6" Fresh Air Damper FAD-6. Other damper sizes are available.

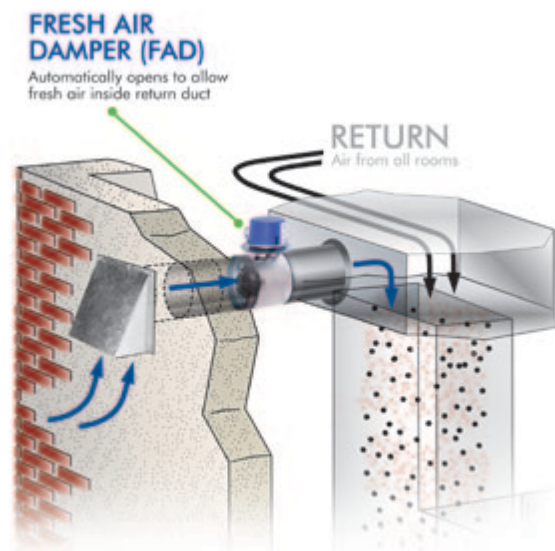
The Healthy Home System™ Control intelligently manages the central fan, allowing the Fresh Air Damper to provide **FRESH** air in the home all year round... even when not heating or cooling.



The Fresh Air Damper

### Features

- Durable, stainless steel construction
- Energy efficient operation
- Reliable, proven design



# Healthy Home System™

CLEAN

COMING  
SOON  
20" x 20" Cabinet and Filters

## Media Air Cleaner™

The Media Air Cleaner is a whole house air filtration system that combines minimum maintenance with maximum air cleaning capacity. As part of the Healthy Home System, the media air cleaner works with the Healthy Home System Control to **CLEAN** the air in the home all year round...even when not heating or cooling.

### Whole house air filtration

Field Controls Media Air Cleaners install in the return duct of virtually any forced air heating or cooling system...gas, oil or electric. As air flows through the system, the Media Air Cleaner traps particles as small as 1.0 micron\*, including pollen, dust, and dander.

### High capacity

#### Minimum resistance

Field Controls MERV\*\* pleated media filter contains enough air cleaning capacity to clean air for months without restricting air flow or putting a strain on the air handling system. Our filter media is electrostatically "supercharged" for better efficiency and longer service life. It is moisture resistant and will not support the growth of bacteria or other microbes.



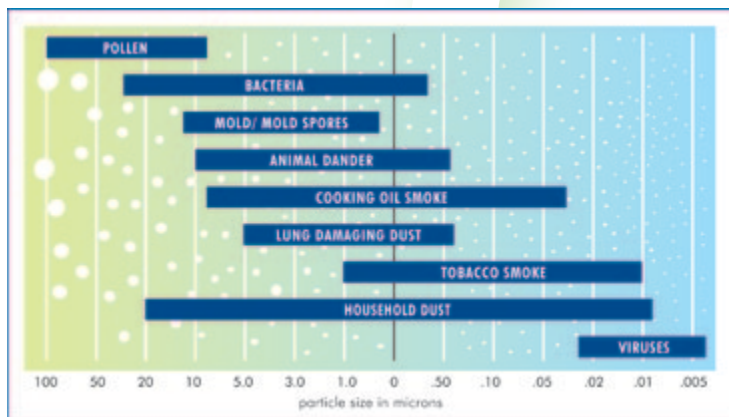
FC11-1400

FC11-2000

### Features

- Easy installation and media replacement
- Mounts directly to heating and cooling systems
- High efficiency MERV filter traps particles as small as 1.0 micron, including pollen, dust, and dander
- Meets ANSI/ASHRAE 52.2 standards
- Heavy duty construction
- Perfect for any residential or commercial forced air heating or cooling system up to five tons

Indoor Air Pollution Particle Sizes



#### FCRM8-1400 & 2000 Filter Pack

- 3 high-efficiency MERV 8 filters
- 18 month supply

#### FCRM11-1400 & 2000 Filter Pack

- 3 high-efficiency MERV 11 filters
- 18 month supply

\* One micron = .000039 inches

\*\* MERV (Minimum Efficiency Reporting Value)



# Healthy Home System™

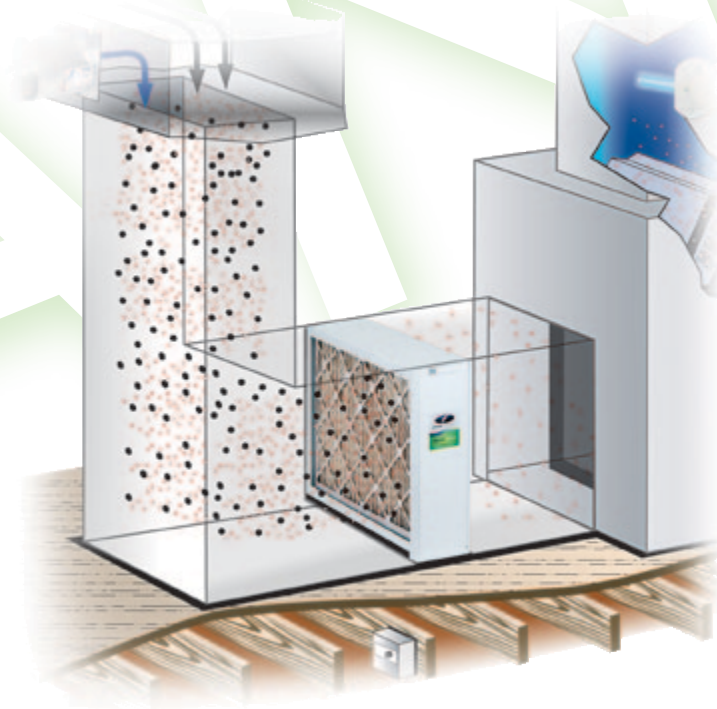
## CLEAN

### How it works

The Field Controls Media Air Cleaner cabinet is installed in the return air duct of the forced air system prior to the furnace and air handler. As air passes through the system, airborne particles are trapped within the filter media.

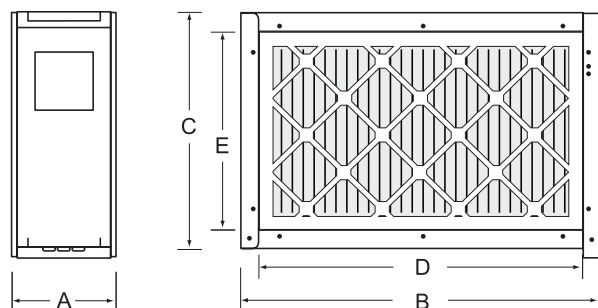
Unlike traditional filters, our Media Air Cleaner is able to trap up to 100 times more while maintaining efficiency and arrestance ratings in compliance with ASHRAE Standard 52.2.

The Healthy Home System™ Control intelligently manages the central fan, allowing the Media Air Cleaner to **CLEAN** the air in the home all year round...even when not heating or cooling.



### Dimensions

Cabinet	A	B	C	Duct Opening	
				D	E
1400	7 1/8"	24 7/8"	16 1/4"	22 1/2"	13 7/8"
2000	7 1/8"	24 7/8"	20 1/4"	22 1/2"	17 7/8"



# Healthy Home System™

PURE

## In-Duct UV-Aire® models for forced air systems

Field Controls offers a complete line of UV-Aire products for any home or business, with a variety of duct-mounted models designed for forced-air heating and cooling systems. UV-Aire germicidal lamps continuously attack airborne mold, bacteria and viruses as they circulate through your duct work. As part of the Healthy Home System, the In-duct UV-Aire works with the Healthy Home System Control to ensure **PURE** air in the home all year round...even when not heating or cooling.

Fifteen models of the UV-Aire in-duct models are available from Field Controls. A dual lamp model provides increased potency, useful for larger applications. There are also 240V models designed specifically for heat pumps, and a model for outdoor installations. The two newest models, the UV-16/24 and UV-16/120, fit in tight spaces due to their compact design, and include a built-in safety switch to enable the light only inside the duct.



UV-12

UV-16



### UV-12, UV-18, UV-28, UV-12HP, UV-18HP, UV-28HP

- Hinged cover for easy accessibility
- Includes patented angle bracket and duct board mounting kit
- Installs easily and plugs into a standard 120V outlet
- All UV-HP (heatpump) models are 240V



### UV-12E, UV-18E, UV-28E External

- For external package systems and rooftop applications
- Hard wired for 120V, 208V, or 240V



### UV-16 Remote

- 120 volt or 24 volt with plug-in transformer
- Compact design
- Built-In safety switch
- E-Z lamp replacement



### UV-18X Dual Lamp

- Double lamp maximizes intensity and effectiveness up to 4000 sq. ft.



### PATENTED ANGLE BRACKET

- Angle allows longer lamps to fit into smaller ductwork, maximizing effectiveness
- Ensures the entire cross section of the duct is irradiated
- Swivel arm allows for easy lamp replacement



### DUCT BOARD MOUNTING KIT

- Makes mounting to duct board simple
- Designed to increase stability on the duct board



# Healthy Home System™

## PURE

### How it works

UV-Aire uses the energy from a specially designed, high-intensity UV-C lamp to reduce microorganisms in the entire home as they cycle through the HVAC system. Mounted inside the duct work, the UV-Aire sterilizes or kills most contaminants as they pass the lamp.

The process requires very little maintenance and costs just pennies a day to operate. The UV-Aire could be one of the best health and comfort investments a homeowner ever makes.

UV's effectiveness in killing bacteria is directly related to the microorganism's exposure time. Indoor air in a typical residential forced-air HVAC system will be recirculated 40-75 times a day. With a UV generating lamp mounted in the HVAC duct, cumulative exposure can be very effective in controlling indoor bacteria and other airborne contaminants. UV rays will also kill germs and mold that breed in drain pans and A-coils. Properly positioned, an ultraviolet system can significantly reduce indoor air contamination and prevent the growth of new microorganisms.

### Installation Options

The UV-Aire can be installed in ducts nine inches and larger. Each unit comes with a duct board mounting kit and a patented angle bracket. A dual lamp model is available for commercial applications and/or increased potency. There is also a model designed specifically for heat pumps and a model for outdoor installations.

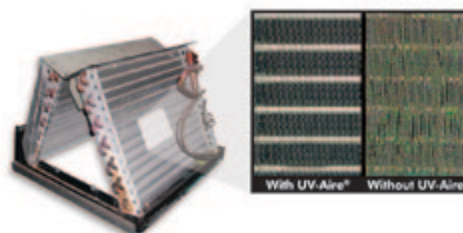
The Healthy Home System™ Control intelligently manages the central fan, allowing the UV-Aire to ensure **PURE** air in the home all year round...even when not heating or cooling.



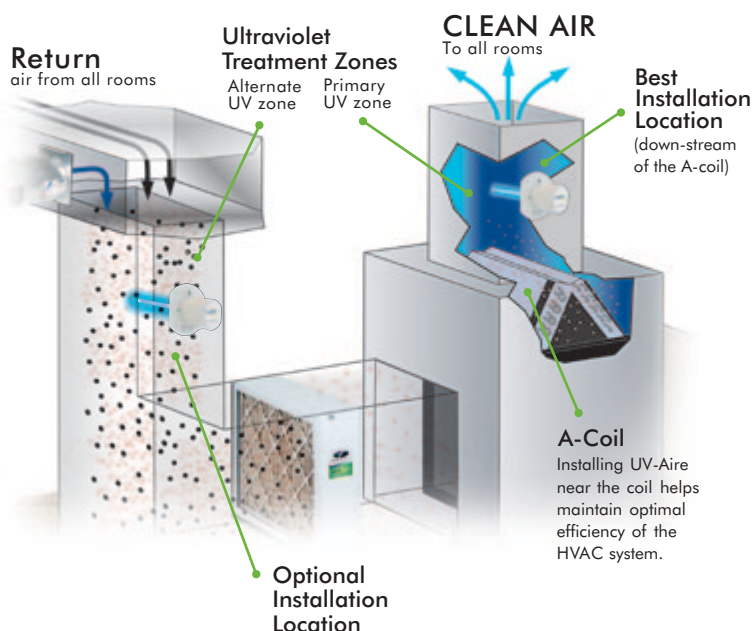
### UV-Aire in the Lab

We have three independent studies on the efficiency and effectiveness of the UV-Aire. For complete details, download "How Effective is UV for Air Purification?" at [fieldcontrols.com/tech](http://fieldcontrols.com/tech).

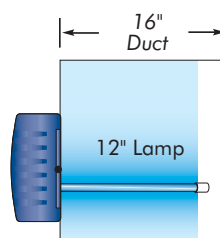
### Surface Test Results



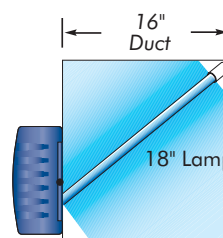
A-Coil



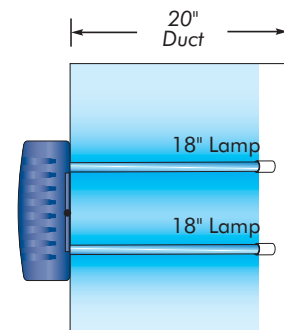
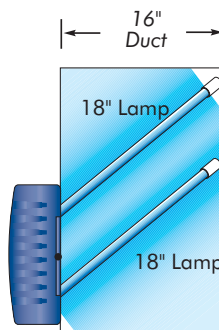
**Good:**  
Standard installation



**Better:**  
Patented angled installation single lamp



**Best:**  
Two angled lamps or two lamps perpendicular





# Healthy Home System™

## PORTABLES

### Portable UV-Aire® models

#### Portable air purification

The portable UV-Aire models combine the purifying power of UV with high efficiency and carbon filtration to reduce dust, pollen, odors and VOCs. The UV-Aire portables are recommended for anyone with allergies, a respiratory illness, or a compromised immune system.

#### For ductless systems and extra protection

The UV-500C and UV-1500C provide concentrated UV power in bedrooms, living rooms, and offices... where it's needed most. Each portable model utilizes a high efficiency fan with multi-speed control to circulate and treat indoor air. The UV-500C is recommended for rooms up to 500 square feet while the UV-1500C can purify areas up to 1500 square feet. Enhance your UV protection by combining the concentrated power of the UV-Aire portable units with one of the Field UV-Aire in-duct models. The combined use of portable and in-duct models is an extremely effective whole house solution.



#### UV-500C Portable

- Uses UV germicidal light, carbon, and high efficiency filtration
- Quiet fan with three speed control
- Purifies air in areas up to 500 square feet
- Circuit board monitors lamp and filter life
- Visible lamp and filter replacement alerts
- Plugs into any standard 120V outlet



#### UV-1500C Portable

- Purifies air in areas up to 1500 square feet
- Sits on the floor, hangs on the wall, or installs in drop ceiling
- Built-in fan with adjustable speed control
- Circuit board technology monitors lamp life
- Audible and visible lamp replacement alerts
- Plugs into any standard 120V outlet
- Uses UV germicidal light, carbon, and high efficiency filtration

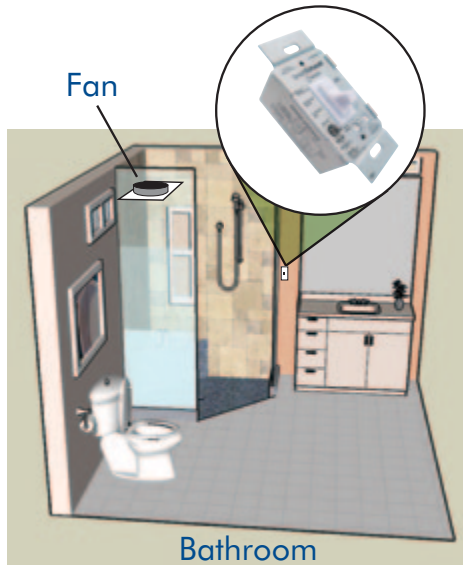


Drop ceiling installation

## SmartExhaust™

### The Smart Switch for Smart Houses

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.



SmartExhaust™

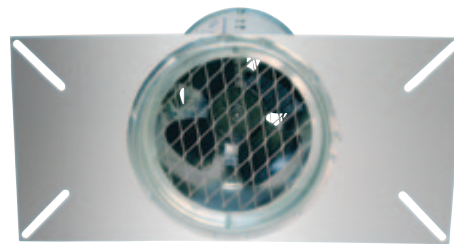
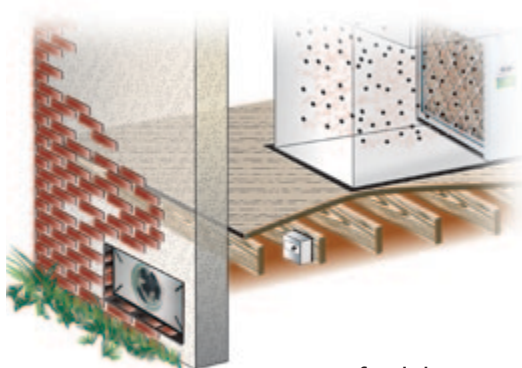
### How it works

The SmartExhaust™ is set by the installer to automatically turn the fan on once per hour for a set amount of time (1-60 minutes). While running, the SmartExhaust is sending stale air outside. The stale air is replaced by fresh air via a Fresh Air System, a Make-Up Air System, or another inlet. When the fan is turned on manually, the SmartExhaust automatically counts that time used and deducts it from the amount scheduled for that hour.

## Eliminator® Foundation Vent Fan

### Eliminate moisture in 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 humidity exceeds the owner-determined setting (20%–80%) in conjunction with the built-in temperature control.



EL-1



Optional  
De-Humidistat

### Features

- Reduces moisture content and mold potential in crawl spaces, floor joists, flooring, and other support wood
- Circulates air in crawl space
- Removes radon gas
- Temperature or humidity activated
- Reduces potential for airborne mold infiltration into home
- Reduces termite potential

# Healthy Home System™

## REPLACEMENT PARTS

### Media Air Cleaner™ Replacement Kits

Model	Ref. No.	Description	Part No.
FCRM8-1400	A	3 Pack Filter Kit-MERV 8	46585900
FCRM8-2000	B	3 Pack Filter Kit-MERV 8	46586000
FCRM11-1400	A	3 Pack Filter Kit-MERV 11	46568500
FCRM11-2000	B	3 Pack Filter Kit-MERV 11	46568600

- A 1400 Filter Pack**
- 3 high-efficiency filters
  - 18 month supply



- B 2000 Filter Pack**
- 3 high-efficiency filters
  - 18 month supply



### UV-Aire® Air Purification Lamps

Model	Ref. No.	Description	Part No.
UV-12, UV-1500C	C	Lamp 12"	46365401
UV-16/120, UV-16/24	C	Lamp 16"	46511200
UV-18	C	Lamp 18"	46365402
UV-28	C	Lamp 28"	46365403
UV-500C	C	Lamp 8"	46508000

- C UV-Aire Germicidal Lamps**
- 8", 12", 16", 18" and 28"



To maintain maximum benefits, lamps should be replaced annually.

It is important that lamps be replaced when the ultraviolet output falls below minimum requirements for protection. Even though a lamp will appear to be operating effectively because it still maintains the visible blue glow, the ultraviolet output will be significantly reduced after 9000 hours of use.

### Portable UV-Aire® Annual Replacement Kits

Model	Ref. No.	Description	Part No.
UV-1500RK	D	Annual Replacement Kit	46453600
UV-500RK	E	Annual Replacement Kit	46474500
UV-1500RF	F	4 Pack Filter Kit	46508300
UV-500RF	G	4 Pack Filter Kit	46507900

- D UV-1500C Replacement Kit**
- 1 carbon filter
  - 4 high-efficiency/ carbon filters
  - 1 UV lamp



- E UV-500C Replacement Kit**
- 4 high-efficiency/ carbon filters
  - 1 UV lamp



- F UV-1500C Filter Kit**
- 4 high-efficiency/ carbon filters
  - A one year supply



- G UV-500C Filter Kit**
- 4 high-efficiency/ carbon filters
  - A one year supply





# Healthy Home System™

## MODEL SPECIFICATIONS



FRESH					
Model	Product	Description	Voltage	Amps	Watts
FAS-1	Healthy Home System™ Control	Fan/Vent ON and OFF delay settings, 1-199 minutes in 1 minute increments, unlimited setting for ON and OFF	24	0.07	–
	Fresh Air Damper	Stainless steel, power open/close in 15 sec. increments, fits 6" duct or pipe size	24	–	3
FAC	Healthy Home System Control	Programmable control for central system fan	24	0.07	–
FAD-4	Fresh Air Damper	Fits 4" duct or pipe size	24	–	3
FAD-6	Fresh Air Damper	Fits 6" duct or pipe size	24	–	3
FAD-8	Fresh Air Damper	Fits 8" duct or pipe size	24	–	3
FAD-10	Fresh Air Damper	Fits 10" duct or pipe size	24	–	3



CLEAN			
Media Air Cleaners™			
Model	Rated Air Flow	MERV Rating	Media Size
FC8-1400	1400 cfm	8	16" H x 25" W x 5" D
FC8-2000	2000 cfm	8	20" H x 25" W x 5" D
FC11-1400	1400 cfm	11	16" H x 25" W x 5" D
FC11-2000	2000 cfm	11	20" H x 25" W x 5" D



PURE					
UV-Aire® In-Duct Models					
Model	Minimum Duct Width (Inches)	Voltage	Amps	Watts	Recommended Max. Sq. Ft.
UV-12	9	120	0.5	30	1500
UV-18	14	120	0.5	30	2000
UV-28	22	120	1.1	60	3000
UV-12E	9	120/240	0.5	30	1500
UV-18E	14	120/240	0.5	30	2000
UV-28E	22	120/240	1.1	60	3000
UV-12HP	9	240	0.5	30	1500
UV-18HP	14	240	0.5	30	2000
UV-28HP	22	240	1.1	60	3000
UV-18X	14	120	1.0	60	4000
UV-16/120	16	120	0.5	30	2000
UV-16/24	16	24	1.3	30	2000
UV-Aire® Portable Models					
UV-500C	NA	120	0.4	36	500
UV-1500C	NA	120	0.5	30	1500



MORE					
Model	Product	Description	Voltage	Amps	Watts
SEC	SmartExhaust™	Programmable control for exhaust fans	120	–	–
EL-1	Eliminator® Foundation Vent Fan	Fits any crawl space vent	120	0.6	35



**FIELD** CONTROLS  
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