



Premium *Choice* Series Ventilation Fans



Premium Choice Ventilation Fans Featuring

IAQsense

*Fans That Sense & Extract
Volatile Organic Compounds and Humidity*

Indoor Air Quality Concerns

Today's homes are built to be tighter and more energy efficient than ever before. Builders and homeowners use vapor barriers, caulking, and better sealed doors and windows to reduce energy loss caused by air infiltration. Tighter homes also mean that pollutants are trapped indoors. Poor indoor air quality, caused by trapped pollutants, is not only uncomfortable to the occupants, but also a health hazard. The EPA has stated that indoor air quality is often two to five times worse than outdoor air, and that indoor air pollution is among today's top 5 most significant risks to public health.



Most people don't even know when they have an air quality problem because the pollution is subtle or unnoticeable, but the health effects can be major. Volatile Organic Compounds (VOCs) are found in many household goods including carpet, adhesives, paints, electronics, varnishes, upholstery, and more. They are also released by cooking, smoking, storing chemicals, and cleaning among other things. Specifically, carbon monoxide can be emitted from heating systems; propane and methane can be present from the use of space heaters; iso-butane can be in heating fuels; and ammonia is in many cleaning products. Whether you are in your garage changing the oil or in your bathroom cleaning the shower tile, it's important to ventilate the VOCs.

In addition to VOCs, excessive humidity can have a negative effect on air quality. Everyday activities such as showering, cooking, doing laundry, even breathing are just a few ways that moisture is generated in your home (one gallon per person, everyday). Moisture that is trapped in your home can lead to structural damage. Signs of structural damage include heavy condensation on windows, water damage on window sills and molds forming in corners of the home.



Indoor Air Quality Concerns... Solved!

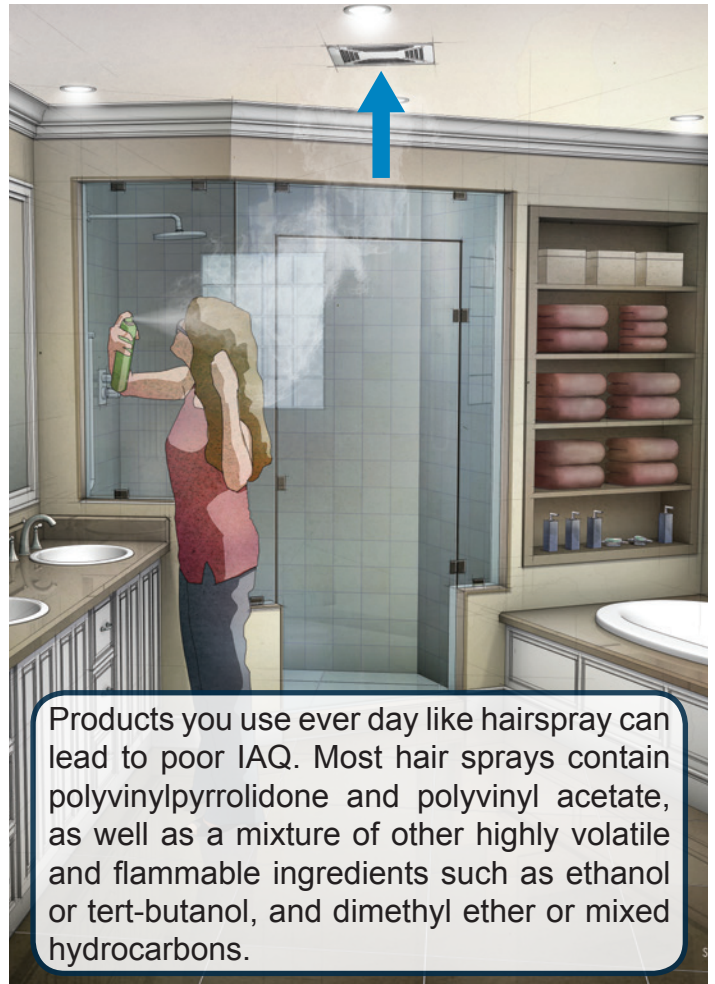
The products in your home, even the building materials inside your house, likely contain harmful chemicals. For example, the antifreeze and windshield washer fluid in your garage contain ethylene glycol which can cause respiratory issues if inhaled. Formaldehyde is in a wide range of products including some furniture, composite core doors, laminate floors, foam insulation, disinfectants, cleaners, air fresheners, carpets, toothpaste, body wash, and more. Oils, furniture refinisher, paint, varnish, car and floor polish, pesticides, herbicides, insect repellent, plastics, leather, and many other products contain harmful vapors like the chemicals listed below. It's important to ventilate these chemicals to reduce acute and long term health risks.

IAQsense

S&P's IAQ sensor (PCIAQS) detects and extracts both Volatile Organic Compounds (VOCs) and humidity when installed with a Premium CHOICE (PC) Series fan.

The VOC sensor has an adjustment knob to set the sensing range based on the concentration of particles (ppm). The humidity sensor detects rapid increases in moisture at the ceiling level where steam and humidity naturally rise, and automatically turns on the fan. You can set the IAQ sensor run the fan at high speed if it senses VOCs or humidity, then after a specified amount of time it will automatically adjust to run at low speed. The IAQ sensor also includes a speed control to adjust the fan at a percentage of full speed so the fan can be run continuously to meet code requirements.

A PC fan with a PCIAQS is a fan you can trust to keep you, your family and your home safe.



Products you use every day like hairspray can lead to poor IAQ. Most hair sprays contain polyvinylpyrrolidone and polyvinyl acetate, as well as a mixture of other highly volatile and flammable ingredients such as ethanol or tert-butanol, and dimethyl ether or mixed hydrocarbons.



PC fans with IAQ Sense detect & extract:

- Humidity
- Carbon Monoxide (CO)
- Ammonia
- Acetone
- Benzene
- Ethylene glycol
- Formaldehyde
- Methylene chloride
- and other harmful VOCs

PCIAQS

Plug-&-Play Module

The PCIAQS is a Plug-&-Play module and it can be installed in several different PC fans. The module easily mounts inside the PC fan housing utilizing 2 pre-drilled holes and receptacle.

The PCIAQS is compatible with the PC80X, PC110X, and PC150. The PCIAQS can be used with the optional PC Metal Grille (PCMG) or an optional PC Lighted Grille Kit (PCLK or PCLEDK).



Features of PCIAQS:

- Easy Plug-&-Play design
- Detects VOCs and/or rapid rise in humidity
- Semiconductor gas sensor, detecting a wide range of VOCs
- Monitoring range is 100-1000 ppb VOC (400-2000 ppm equivalent CO₂). Factory setting is 300ppb
- Senses humidity at ceiling level
- Field adjustable humidity sensitivity with 50-100% range. Factory setting is 75%
- Speed control to run fan continuously
- Integrated control switch to turn features on and off
- Can be installed with new fan or as an add-on later
- Meets CALGreen Bathroom Fan Requirements

Compatible PC Models with AC Motors

Performance and Dimensions

	PC80X*	PC110X*	PC150
CFM @ 0.1/0.25" SP	80/58 80/63	96/70 110/87	150/110
Sones	0.4 <0.3	1.1 0.6	1.1
Watts	32	36	41
Energy Efficiency (CFMs/Watts)	3.0	3.2	3.8
Amps	.27	.30	.34
ENERGY STAR® Qualified	Yes	Yes	Yes
Duct Connector Diameter (in)	4" or 6"		6"
Grille Size (in)	13" x 14"		
Dimensions	11-3/8" x 10-1/2" x 7-5/8"		
Warranty (in years)	5		

*Air Performance test performed with 4 and 6" duct:

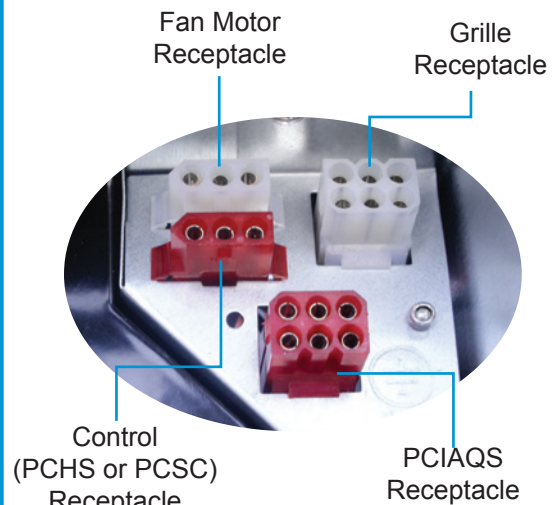
4" duct
6" duct



Plug-&-Play Flexibility

S&P's unique Plug-&-Play option makes your CHOICE easy. There is a receptacle to plug in the control of your CHOICE. Whether it's a PCSC-Speed Control or a PCHS-Humidity Sensor the control connects to the dedicated receptacle or use the PCIAQS - VOC/Humidity Sensor for the smartest CHOICE fan available.

There is also a receptacle for your grille CHOICE. Need a lighted fan? Choose the PCLK-CFL Lighted Grille Kit or PCLEDK-LED Lighted Grille Kit. Need a motion sensing fan? Choose the PCMK-Motion Sensing Grille Kit or the PCLMK-Lighted Motion Sensing Grille Kit. All grilles easily plug into the grille receptacle to give you the fan of your CHOICE!



PCD110IAQS

Premium Choice with DC Motor and Built-in IAQ Sense

The PCD110IAQS comes standard with the VOC and Humidity Sensor built-in. The DC motor comes with a 6 year warranty and the balance of the unit has a 5 year warranty.



PCD110IAQS Features and Construction:

- Extremely quiet operation 0.5 Sones
- Brushless DC motor for long life
- Motor rated for 60,000 hours continuous on
- High/Low speed delay timer
- Built-in backdraft damper
- Robust steel housing
- Attractive, sturdy grille
- Semiconductor gas sensor, detecting a wide range of VOCs
- Monitoring range is 100-1000ppb VOC (400-2000 ppm equivalent CO2). Factory setting is 300ppb
- Senses humidity at ceiling level
- Field adjustable humidity sensitivity with 50-100% range. Factory setting is 75%
- Speed control to run fan continuously
- Integrated control switch to turn features on/off
- Meets CALGreen Bathroom Fan Requirement
- ETL Listed
- ENERGY STAR® qualified
- HVI Certified

You CHOOSE Your Airflow!

The built-in **Toggle Switches** and duct connector options allow you to set the PCD110IAQS to the needed airflow:

Integrated Controls



Switch position								
Airflow (CFM)	80	90	110	120	90	110	120	140
Duct diameter (inches)	4"	4"	4"	4"	6"	6"	6"	6"

1 & 2: Airflow • 3: Duct size
Factory setting is 110 CFM with 6" duct

Performance and Dimensions

PCD110IAQS					
CFM @ 0.1" SP	4" Duct	80	90	110	120
	6" Duct	90	110	120	140
CFM @ 0.25" SP	4" Duct	50	63	77	87
	6" Duct	64	77	89	100
Sones @ 0.1" SP	4" Duct	0.7	0.7	1.0	1.2
	6" Duct	0.3	0.5	0.8	1.1
Watts @ 0.1" SP	4" Duct	5.5	7	11.5	13
	6" Duct	5.5	10	11.5	14.5
Energy Efficiency (CFM/Watt)	4" Duct	14.5	12.9	9.6	9.2
	6" Duct	16.4	11	10.4	9.7
Amps		.16	.18	.22	.23
Energy Star Qualified	Yes				
Duct Connector Diameter (in)	4" or 6"				
Grille Size	13" or 14"				
Dimensions	11-3/8" x 10-1/2" x 7-5/8"				



Intertek



