



Zoned Comfort Control™

Product Guide



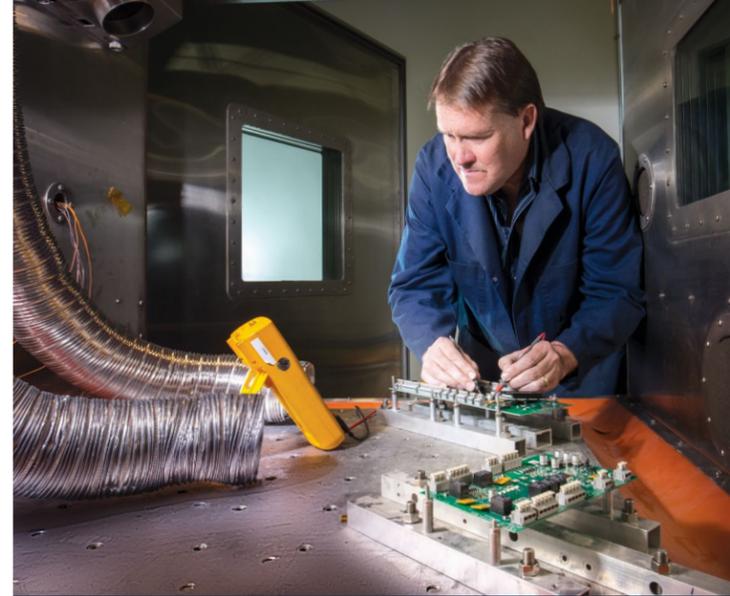
The complete line-up of whole-home residential zoning products; designed for simpler installation, durable operation and more profitable jobs.

YOUR PARTNERS IN COMFORT

Reliable Zoning Solutions for Simpler, More Profitable Installs

OUR STORY

The trusted name in Indoor Air Quality for over 60 years offers state-of-the-art Zoned Comfort Control solutions ideal for all residential zoning applications. Experts in the design and manufacturing of whole-home IAQ solutions, we hold our products to the highest industry standards.



We designed our new line of zone boards and dampers to be tough and stand up to harsh conditions in the most demanding climates. To that end, the zoning product line endures rigorous testing for quality control and reliability.

DAMPER TESTING

- + Failure Mode and Effects Analysis (FMEA) performed to reduce probability and severity of product and product sub-system failures
- + Cycle testing at ambient temperatures and at 140°F to simulate attic conditions*
- + Exceeded five-year 99% and 10-year 95% reliability targets*
- + Functional testing performed at extreme environmental conditions of 0°F/90% RH and 150°F/15% RH

ZONE PANEL TESTING

- + Failure Mode and Effects Analysis (FMEA) performed to reduce probability and severity of product and product sub-system failures
- + EC 61000-4-5; IEC 61000-4-12. Tested and passed 50% beyond International Electro-technical Commission (IEC) Level 4 (the highest threshold). IEC is the world's leading organization for electrical, electronic and related technologies standards
- + EC 6100 EFT & IEC 61000 EDS Level 4
- + Exceeded five-year 99% and 10-year 95% reliability targets

**2-wire dampers only*

MEASURING AND ANALYZING SUCCESS

Our reputation was built on a foundation of comprehensive testing protocol. The skills and equipment we've acquired assure the delivery of consistent, quality product. We look not only at ways to improve our products, but also to expand and perfect the methods used to quality test.

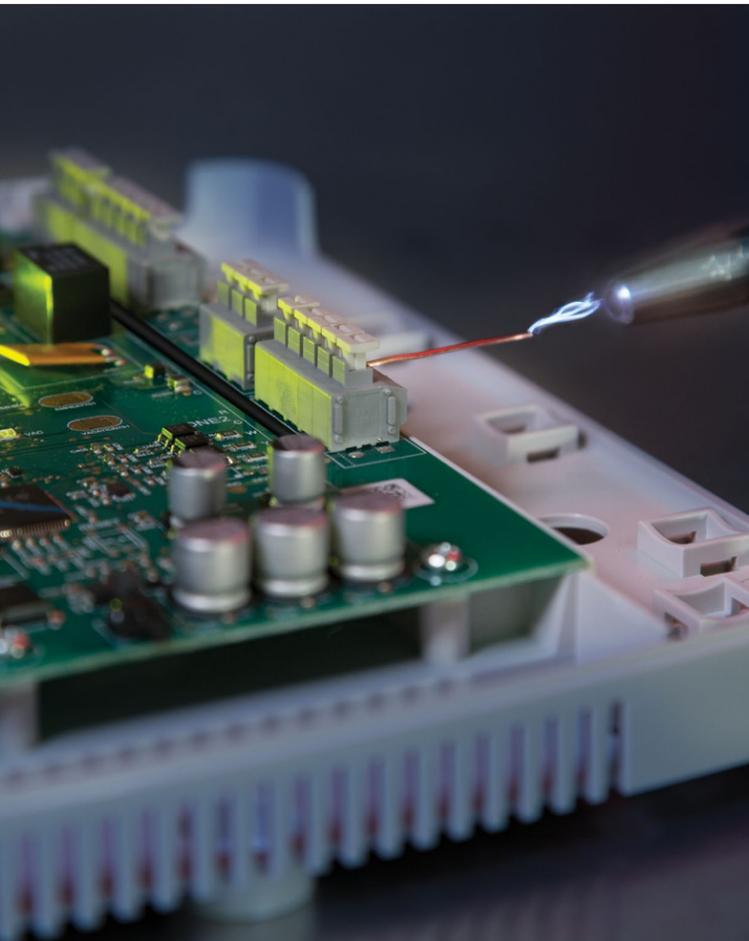
OUR OBJECTIVES

- + Use statistical analysis to baseline, control and improve the quality of the manufacturing process.
- + To achieve a 100% on-time schedule adherence for resolving critical nonconformities.



The Need and Solution

One of the largest issues confronted by homeowners is uneven temperatures throughout the house. Zoning is an essential component of today's energy efficient homes. Well-designed zoning systems provide reliable operation and years of optimal comfort and energy efficiency for your customers.



APRILAIRE SOLUTION

Aprilaire Zoned Comfort Control™ is designed for residential new construction and provides the components needed for simple, reliable and profitable installs.

- + **Simple:** Aprilaire zone panels feature simple layouts for fast and easy installation, wiring and set up. This reduces errors and minimizes the amount of time your crews spend on each job.
- + **Reliable:** Aprilaire zone panels and dampers are designed to withstand the temperature extremes of attic installations. Rigorous testing of all components assures that your company is able to concentrate on new business and not on call backs.
- + **Profitable:** Easy installations mean less training needed for your install crews. Faster and more accurate installations mean greater profits for your business.

Any Application

Aprilaire Zoned Comfort Control™ offers a complete line of zone panels, dampers and controls to provide the exact solution for any application. Switching to Aprilaire is easy and our zoning solutions work with all major industry thermostats.

ZONE OPTIONS:

2-, 3- and 4-zone panels allow you to purchase the exact number of zones needed for each job.

FUNCTION OPTIONS:

Single stage heat/cool, universal multi-stage and heat pump options available.

APPLICATION	PART #	CAPABILITY	# OF ZONES	NOTES
Single Stage Heat/Cool	6202	1 Heat 1 Cool	Up to 2 Zones	New Design
Single Stage Heat/Cool	6203	1 Heat 1 Cool	Up to 3 Zones	New Design
Single Stage Heat Pump	6302	2 Heat 1 Cool	Up to 2 Zones	New Design, New Addition to Product Line-up
Single Stage Heat Pump	6303	2 Heat 1 Cool	Up to 3 Zones	New Design
Multi-Stage Universal	6403	2 Heat 2 Cool H/C or 4 Heat 2 Cool Heat Pump	Up to 3 Zones	New Design, New Addition to Product Line-up
Multi-Stage Universal	6404	2 Heat 2 Cool H/C or 4 Heat 2 Cool Heat Pump	Up to 4 Zones	New Design, Expandable Up to 12 Zones (Using 6401)

APRILAIRE EXCLUSIVE ZONE PANEL FEATURES

- + Compatible with Model 8056 wireless outdoor temperature and RH sensor (Models 6403 & 6404 only)
- + Controls high and low balance point from one outdoor sensor
- + Time delay override to simplify check out and troubleshooting
- + Resettable fuses for each zone's dampers
- + Multiple mounting and wire run options
- + Short cycle protection
- + Built-in fan purge
- + Five-year warranty



Zone Panels

Intuitive Design

- + Visual indicators and clear terminal designations allow installers to easily understand how to wire and set up the system with minimal training

Wiring Simplicity

- + Push terminals for quick connections
- + Wire openings on back and side provide simple organization and tracking of wires to each zone (dampers and thermostat)

Visible Terminal Designations

- + Large, easy-to-see terminal designations
- + Zones delineated with color, clearly indicating damper and thermostat combinations

Expandable Zones (up to 12)

Simply add the Model 6401 Expansion Panel (2-zone panel) and expand the number of zones (Model 6404)

Vacation Mode

Press button and automatically manage all zones to preset vacation schedule

Emergency Heat

Automatically engage emergency heat across all zones in heat pump system

Outdoor Sensors (optional)

Wired temperature only (Model 8052)
Wireless temperature and RH (Model 8056)



Visual Indicators

- + LED indicators provide status of equipment and zones (green=open, red=closed)
- + Compare the zone calling LED light to the damper blade position indicator for quick and easy troubleshooting

Dampers

- + Normally Open and Normally Closed dampers can be controlled (2-wire and 3-wire dampers)

Zone Weighting

- + Zone Weighting allows more control when staging based on the number of zones calling. Each zone can be assigned a weight. For example, a zone can be weighted to count as 2 zones when deciding to stage up.

Simple Set Up and Check Out

- + LED lights validate zone calling and operation of heating/cooling equipment
- + LCD screen and push buttons step through set up; eliminating hard-to-see jumpers (universal panels only)

Enclosure and Mounting

- + Robust mounting plate can be installed easily on stud wall or flat surface (including return plenum)
- + Cover snaps on/off, providing access without exposing PCB

Model 6404 Shown: 4-Zone Universal Multistage

Zone Dampers

PROVEN RELIABILITY

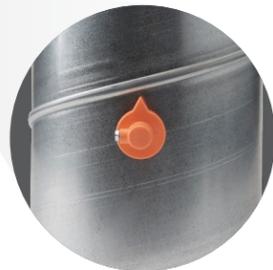
- + Rigorous cycle testing in extreme temperatures (over 140° F) to simulate attic summer conditions
- + Functional testing performed at extreme environmental conditions of -40°F/90% RH and 150°F/15% RH
- + 100% end-of-line testing
- + Actuator design proven successful in thousands of system installs
- + Packaging and product design for rough handling exceed shipping requirements of the ISTA 1A drop test
- + Five-year warranty

Fail Safe Design

- + Zone damper normally open; powers closed, allowing conditioned air to continue to flow if mechanical motor reaches end of service life

Blade Positioning Indicator

- + Orange indicator—easy to read from a distance
- + Open and closed position clearly indicated
- + Orange position indicator on both sides of damper
- + Simple, visual system check and troubleshooting

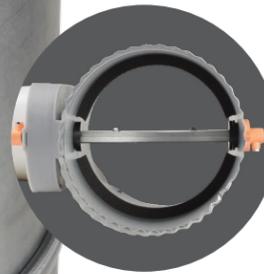


Back View of Damper

Flex Duct Integration

- + Raised actuator allows flex duct to encase entire damper
- + Damper shell extended beyond actuator to provide ample space to secure flex duct (zip tie)

ADDITIONAL ZONE DAMPERS



Bypass Settings

- + Thumbscrew adjustable, no tools required
- + Factory set to 0% bypass
- + Standard setting indicated by ▲, approximate 15% bleed
- + Controlled Pressure Relief is infinitely adjustable for peak system performance

One Piece Assembly

- + Remove motor and actuator as one assembly
- + Assembly replacement while damper shell remains in duct
- + Simple, labor saving design

Attic Insulation Protection

- + Insulation proof—all openings secured preventing spray in insulation from entering actuator and causing problems

Round Damper Blade Design

- + Gasket material minimizes air bypass when blade is closed
- + Common plastic bearing stabilizes damper blade
- + Hex shaft allows secure blade fastening

Robust Motor Design

- + Start-up torque dampened with torsion lever for extended life
- + Motor covered for improved appearance, cover tightly secured
- + Life tested to extreme usage in attic temperatures

2-Wire Connection

- + Simplifies installation—fewer wires to organize



Barometric Bypass Dampers

TAKE A 'WEIGHT' OFF YOUR SHOULDERS WITH BAROMETRIC BYPASS DAMPERS

Barometric dampers are airflow activated and relieve excess pressure in HVAC systems as zone dampers open and close.

- + Reliability: No-weighted arm! Over 99.9 percent reliability rate at 5 years comparable testing. Tested at maximum pressure in attic conditions.
- + Simple, labor-saving design: Easy to install and service.
- + Ships completely assembled
- + Packaging and product design for rough handling to exceed shipping requirements of the ISTA 1A drop test.
- + Five-year warranty

- + Pressure setting adjustable by thumbscrew
- + Versatile installation: Counter-weighted blade allows installation at any angle
- + Blade positioning indicator: Easy to see and read, clearly indicated opened and closed positions.

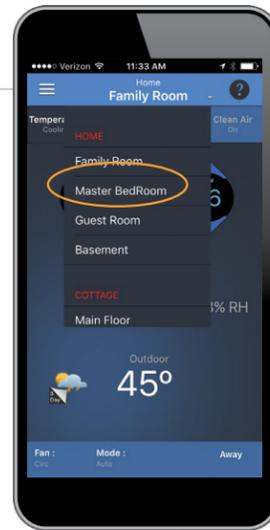
Round Damper Blade Design

- + Gasket material minimizes air bypass when blade is closed
- + Common plastic bearing stabilizes damper blade



Thermostats & Accessories

We have a complete line of thermostats with zoning and IAQ functionality, including our line of Wi-Fi Thermostats that allow consumers to control all zones from a single interface or mobile app. With the *Aprilaire Wi-Fi Thermostat app*, adjusting temperature and IAQ settings in a zoned home has never been easier or more convenient.



= amazon alexa Compatible = GoogleAssistant Compatible

	WI-FI	STANDARD
8900	<p>MODELS 8910W & 8920W</p> <ul style="list-style-type: none"> + Full color 7 in. screen, (Model 8920W). All control options on one screen. + Full IAQ control 	<p>MODEL 8910</p> <ul style="list-style-type: none"> + Touch screen interface + Full IAQ control
8600	<p>MODEL 8620W</p> <ul style="list-style-type: none"> + Easy-to-use touch screen designed for temperature and humidity control. 	<p>MODEL 8620</p> <ul style="list-style-type: none"> + Real language programming
8400	<p>MODEL 8476W</p> <ul style="list-style-type: none"> + Temperature control. Perfect for any zone. 	<p>MODELS 8444, 8446, 8448, 8463, 8465, 8466, 8476</p> <ul style="list-style-type: none"> + Heat/cool, heat pump and universal models

SPECIALTY THERMOSTATS

Wireless

Perfect for Zoning Applications

MODEL 8710



Home Automation

Communicating Thermostat
MODEL 8800 Wi-Fi Models: 8810, 8820, 8830, 8840



ZONING ACCESSORIES

Model 8051 Flush Mount Sensor

- + Provides opportunity to remotely mount the thermostat out of view

Model 8052 Outdoor/Duct Sensor

- + Designed for outdoor or duct installation (including with zone control panels)

Model 8053 Surface Mount Sensor

- + Provides opportunity to remotely mount the thermostat out of view

Model 8022 3-Wire to 4-Wire Adapter

- + Any two thermostat equipment terminals can be combined with the diode pair (not 24V hot or common) and wired to the model

- + Provides an extra wire without pulling new

Model 8028 Damper Power

Distribution Panel

- + Controls additional dampers per zone

Model 6401 Expansion Panel (6404 only)

- + Add two additional zones

Model 8056 Wireless Outdoor Temperature and RH Sensor

- + Installed with simple push-button assimilation process

Zone Control Panels

	Model	Specifications
Universal		6404 - 4 Zone Universal Multistage (Can be expanded to 12 zones with Model 6401) <ul style="list-style-type: none"> + 2 Heat 2 Cool or 4 Heat 2 Cool (Heat Pump) + Compatible with Model 8056 wireless outdoor sensor
		6403 - 3 Zone Universal Multistage <ul style="list-style-type: none"> Overall Dimensions: 8¹/₁₆" W x 14¹/₁₆" H x 1⁴/₁₆" D Humidity: 5% - 90% RH, non-condensing Operating Temperature: 32°F - 158°F Shipping Temperature: -40°F - 165°F Voltage: 18-30VAC 50/60 Hz Maximum Current: Damper output per zone (fused): 18VA at 158°F, 30VA at 90°F zone panel and thermostats (fused): 18VA at 158°F, 30VA at 90°F zone panel consumption: 4VA max Note: Use 18 or 20 AWG solid (non-stranded) wire
Zoned Comfort Control™ Kits* Available: 6404K & 6403K		
Heat Pump Only		6303 - 3 Zone Heat Pump 6302 - 2 Zone Heat Pump <ul style="list-style-type: none"> + 2 Heat 1 Cool Single Stage
		<ul style="list-style-type: none"> Overall Dimensions: 8⁵/₁₆" W x 9³/₁₆" H x 1⁴/₁₆" D Humidity: 5% - 90% RH, non-condensing Operating Temperature: 32°F - 158°F Shipping Temperature: -40°F - 180°F Voltage: 18-30VAC 50/60 Hz Maximum Current: Damper output per zone (fused): 18VA at 158°F, 30VA at 90°F zone panel and thermostats (fused): 18VA at 158°F, 30VA at 90°F zone panel consumption: 4VA max Note: Use 18 or 20 AWG solid (non-stranded) wire
Zoned Comfort Control™ Kits* Available: 6303K & 6302K		
Conventional Only		6203 - 3 Zone Heat/Cool 6202 - 2 Zone Heat/Cool <ul style="list-style-type: none"> + 1 Heat 1 Cool Single Stage
		<ul style="list-style-type: none"> Overall Dimensions: 8⁵/₁₆" W x 9³/₁₆" H x 1⁴/₁₆" D Humidity: 5% - 90% RH, non-condensing Operating Temperature: 32°F - 158°F Shipping Temperature: -40°F - 180°F Voltage: 18-30VAC 50/60 Hz Maximum Current: Damper output per zone (fused): 18VA at 158°F, 30VA at 90°F zone panel and thermostats (fused): 18VA at 158°F, 30VA at 90°F zone panel consumption: 4VA max Note: Use 18 or 20 AWG solid (non-stranded) wire
Zoned Comfort Control™ Kits* Available: 6203K & 6202K		

* Zoned Comfort Control Kits include: Zone panel, 6" duct probe and 24V 40VA universal transformer

*Round Damper Dimension = Nominal diameter + 4.5", **Rectangular Damper Dimension = Nominal width + 3.5"

		NOMINAL DIAMETER											
		4" (102mm)	5" (127mm)	6" (152mm)	7" (178mm)	8" (203mm)	9" (229mm)	10" (254mm)	12" (305mm)	14" (356mm)	16" (406mm)	18" (457mm)	20" (508mm)
Round Dampers Size & Stock No.* Zone Damper (Normally open/power closed) <i>W3 indicates power open/power closed</i> Ventilation Damper (Normally closed/power opened) Barometric Pressure Relief (Air flow activated) Static Pressure Relief (Power activated) Round Slip-In Damper (Normally open/power closed)				6606 6606W3 H: 10 3/4"	6607 6607W3 H: 10 3/4"	6608 6608W3 H: 10 3/4"	6609 6609W3 H: 10 3/4"	6610 6610W3 H: 10 3/4"	6612 6612W3 H: 12 1/4"	6614 6614W3 H: 14 1/4"	6616 6616W3 H: 16 1/4"	6618 H: 18 1/4"	6620 H: 20"
				6506 H: 10 3/4"		6508 H: 10 3/4"		6510 H: 10 3/4"					
						6108 H: 10 3/4"			6112 H: 12 1/4"	6114 H: 14 1/4"	6116 H: 16 1/4"		
						6208 H: 8"			6212 H: 12"	6214 H: 14"	6216 H: 16"	6218 H: 18"	6220 H: 20"
		6704 W: 3 1/2" H: 12 3/4" D: 7 3/8"	6705 W: 3 1/2" H: 12 3/4" D: 8 3/8"	6706 W: 3 3/4" H: 12 3/4" D: 9 1/8"	6707 W: 3 1/2" H: 12 3/4" D: 10 3/8"	6708 W: 3 3/4" H: 12 3/4" D: 11 3/8"			6710 W: 3 1/2" H: 12 3/4" D: 13 1/8"				

		NOMINAL WIDTH (in inches)												
		8" (203mm)	10" (254mm)	12" (305mm)	14" (356mm)	16" (406mm)	18" (457mm)	20" (508mm)	22" (559mm)	24" (610mm)	26" (660mm)	28" (711mm)	30" (762mm)	
Rectangular Dampers Size & Stock No.** Side Mount Motor mounted on short dimension <i>W3 indicates power open/power closed</i> Bottom Mount Motor mounted on long dimension		8" (203mm)	6721 6721W3	6722 6722W3	6723 6723W3	6724 6724W3	6725 6725W3	6726 6726W3	6727 6727W3	6728 6728W3	6729 6729W3	6730 6730W3	6731 6731W3	
		10" (254mm)		6732 6732W3	6733 6733W3	6734 6734W3	6735 6735W3	6736 6736W3	6737 6737W3	6738 6738W3	6739 6739W3	6740 6740W3	6741 6741W3	6742 6742W3
		12" (305mm)			6743 6743W3	6744 6744W3	6745 6745W3	6746 6746W3	6747 6747W3	6748 6748W3	6749 6749W3	6750 6750W3	6751 6751W3	6752 6752W3
		14" (356mm)				6754 6754W3	6755 6755W3	6756 6756W3	6757 6757W3	6758 6758W3	6759 6759W3	6760 6760W3	6761 6761W3	6762 6762W3
		16" (406mm)					6763 6763W3	6764 6764W3	6765 6765W3	6766 6766W3	6767 6767W3	6768 6768W3	6769 6769W3	6770 6770W3
		18" (457mm)						6771 6771W3	6772 6772W3	6773 6773W3	6774 6774W3	6775 6775W3	6776 6776W3	6777 6777W3
		20" (508mm)							6778 6778W3	6779 6779W3	6780 6780W3	6781 6781W3	6782 6782W3	6783 6783W3
		22" (559mm)								6784 6784W3	6785 6785W3	6786 6786W3	6787 6787W3	6788 6788W3
		24" (610mm)									6789 6789W3	6790 6790W3	6791 6791W3	6792 6792W3
		26" (660mm)										6793 6793W3	6794 6794W3	6795 6795W3
		28" (711mm)											6796 6796W3	6797 6797W3
		30" (762mm)												6798 6798W3
		8" (203mm)	6721 6721W3	6812 6812W3	6813 6813W3	6814 6814W3	6815 6815W3	6816 6816W3	6817 6817W3	6818 6818W3	6819 6819W3	6820 6820W3	6821 6821W3	6822 6822W3
10" (254mm)		6732 6732W3	6823 6823W3	6824 6824W3	6825 6825W3	6826 6826W3	6827 6827W3	6828 6828W3	6829 6829W3	6830 6830W3	6831 6831W3	6832 6832W3		
12" (305mm)			6743 6743W3	6834 6834W3	6835 6835W3	6836 6836W3	6837 6837W3	6838 6838W3	6839 6839W3	6840 6840W3	6841 6841W3	6842 6842W3		



Team Aprilaire

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You and your team can rely on our customer service and technical support teams to provide a live voice on the phone from Wisconsin whenever they need assistance. Our call performance is second to none.



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