Aprilaire®

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

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.

Our Story

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 -40°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

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.

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.
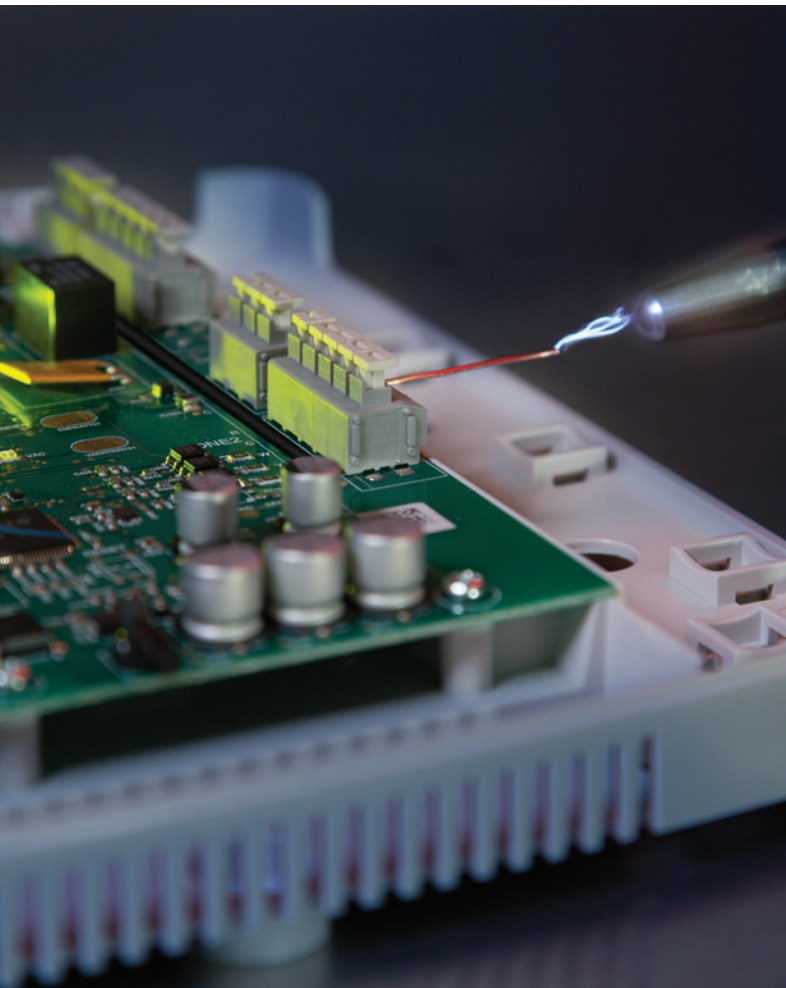
Our objectives

+ 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.

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 industy 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**

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
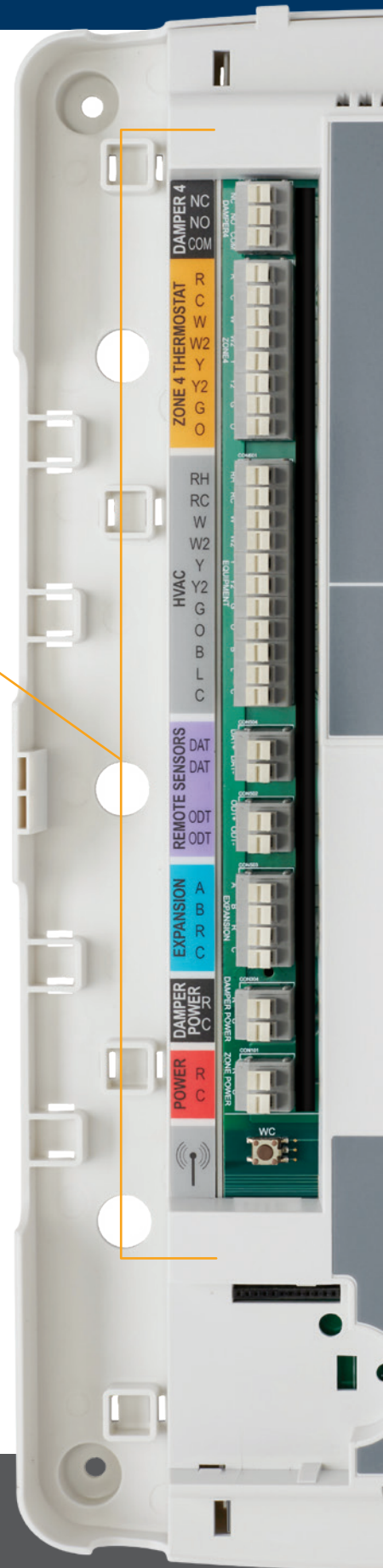
Emergency Heat

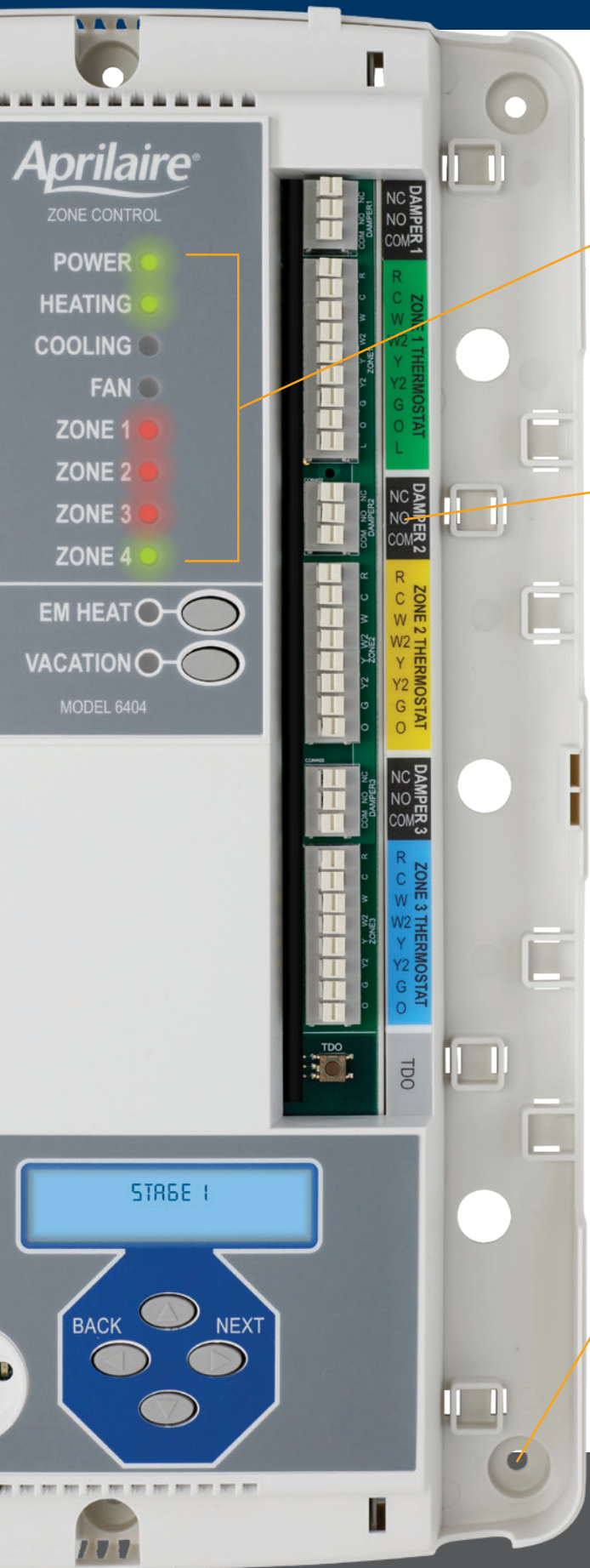Automatically engage emergency heat across all zones in heat pump system

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

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
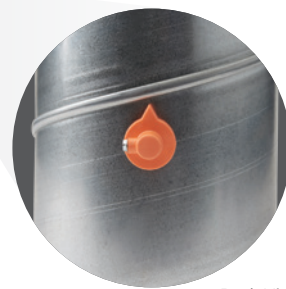
+ Five-year warranty

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

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)

Back View
of Damper

Round   Rectangular   Slip-In

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

Ventilation
(black label)

Zoning
(white label)

NORMALLY-CLOSED
POWER *OPEN*

NORMALLY-OPEN
POWER *CLOSED*

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

High

8

Air Flow

Blade
Position

Open

Aprilaire®

Barometric
Bypass Damper
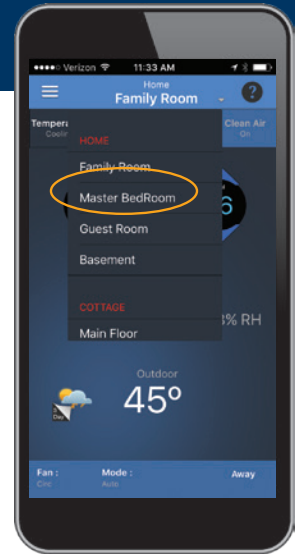
Low

Pressure
Setting

Closed

Thermostats and Zoning 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   = Google Assistant Compatible

	WI-FI			STANDARD	
8900		**MODELS 8910W & 8920W**	+ Full color 7 in. screen, (Model 8920W). All control options on one screen. + Full IAQ control	**MODEL 8910**	+ Touch screen interface + Full IAQ control
8600		**MODEL 8620W**	+ Easy-to-use touch screen designed for temperature and humidity control.	**MODEL 8620**	+ Real language programing
8400		**MODEL 8476W**	+ Temperature control. Perfect for any zone.	**MODELS 8444, 8446, 8448, 8463, 8465, 8466, 8476**	+ 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**

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
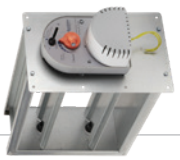+ Installed with simple push-button assimilation process

Model	Specifications

Universal

6404 – 4 Zone Universal Multistage
(Can be expanded to 12 zones with Model 6401)

6403 – 3 Zone Universal Multistage

+ **2 Heat 2 Cool or**
 4 Heat 2 Cool (Heat Pump)
+ **Compatible with Model 8056 wireless outdoor sensor**

Overall Dimensions	8¹⁷⁄₂₀″ W x 14¹⁸⁄₂₅″ H x 1⁴³⁄₅₀″ 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

+ **2 Heat 1 Cool**
 Single Stage

Overall Dimensions	8⁶³⁄₁₀₀″ W x 9³³⁄₅₀″ H x 1⁴³⁄₅₀″ 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

+ **1 Heat 1 Cool**
 Single Stage

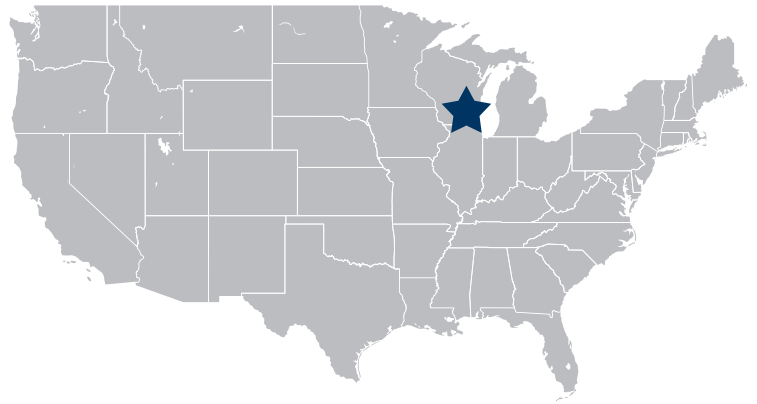|	
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Zoned Comfort Control™ Kits* Available: 6203K & 6202K

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

Round Dampers

Size & Stock No.*	NOMINAL DIAMETER											
	4" (102mm)	5" (127mm)	6" (153mm)	7" (178mm)	8" (200mm)	9" (229mm)	10" (250mm)	12" (300mm)	14" (350mm)	16" (400mm)	18" (450mm)	20" (500mm)
Zone Damper (Normally open/power closed)	---	---	6606	6607	6608	6609	6610	6612	6614	6616	6618	6620
Ventilation Damper (Normally closed/power opened)	---	---	6506	---	6508	---	6510	---	---	---	---	---
Barometric Pressure Relief (Air flow activated)	---	---	---	---	6108	---	6110	6112	6114	6116	---	---
Static Pressure Relief (Power activated)	---	---	---	---	6208	---	6210	6212	6214	6216	6218	6220
Round Slip-In Damper (Normally open/power closed)	6704	6705	6706	6707	6708	---	6710	---	---	---	---	---

Rectangular Dampers

Size & Stock No.**	NOMINAL WIDTH											
NOMINAL HEIGHT	8" (200mm)	10" (250mm)	12" (300mm)	14" (350mm)	16" (400mm)	18" (450mm)	20" (500mm)	22" (550mm)	24" (600mm)	26" (650mm)	28" (700mm)	30" (750mm)
Side Mount (Motor mounted on short dimension)												
8" (200mm)	6721	6722	6723	6724	6725	6726	6727	6728	6729	6730	6731	6753
10" (250mm)	---	6732	6733	6734	6735	6736	6737	6738	6739	6740	6741	6742
12" (300mm)	---	---	6743	6744	6745	6746	6747	6748	6749	6750	6751	6752
14" (350mm)	---	---	---	6754	6755	6756	6757	6758	6759	6760	6761	6762
16" (400mm)	---	---	---	---	6763	6764	6765	6766	6767	6768	6769	6770
18" (450mm)	---	---	---	---	---	6771	6772	6773	6774	6775	6776	6777
20" (500mm)	---	---	---	---	---	---	6778	6779	6780	6781	6782	6783
22" (550mm)	---	---	---	---	---	---	---	6784	6785	6786	6787	6788
24" (600mm)	---	---	---	---	---	---	---	---	6789	6790	6791	6792
26" (650mm)	---	---	---	---	---	---	---	---	---	6793	6794	6795
28" (700mm)	---	---	---	---	---	---	---	---	---	---	6796	6797
30" (750mm)	---	---	---	---	---	---	---	---	---	---	---	6798
Bottom Mount (Motor mounted on long dimension)												
8" (200mm)	6721	6812	6813	6814	6815	6816	6817	6818	6819	---	---	---
10" (250mm)	---	6732	6823	6824	6825	6826	6827	6828	6829	---	---	---
12" (300mm)	---	---	6743	6834	6835	6836	6837	6838	6839	---	---	---

*Round damper dimension = nominal diameter + 4.5"

**Rectangular dimension = nominal width + 3.5" 10-day lead time for shaded items

Team Aprilaire

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.

Aprilaire®

Your Partners in Comfort®

PARTNER WITH US

Aprilaire®

Trusted Solutions for a Healthy Home®