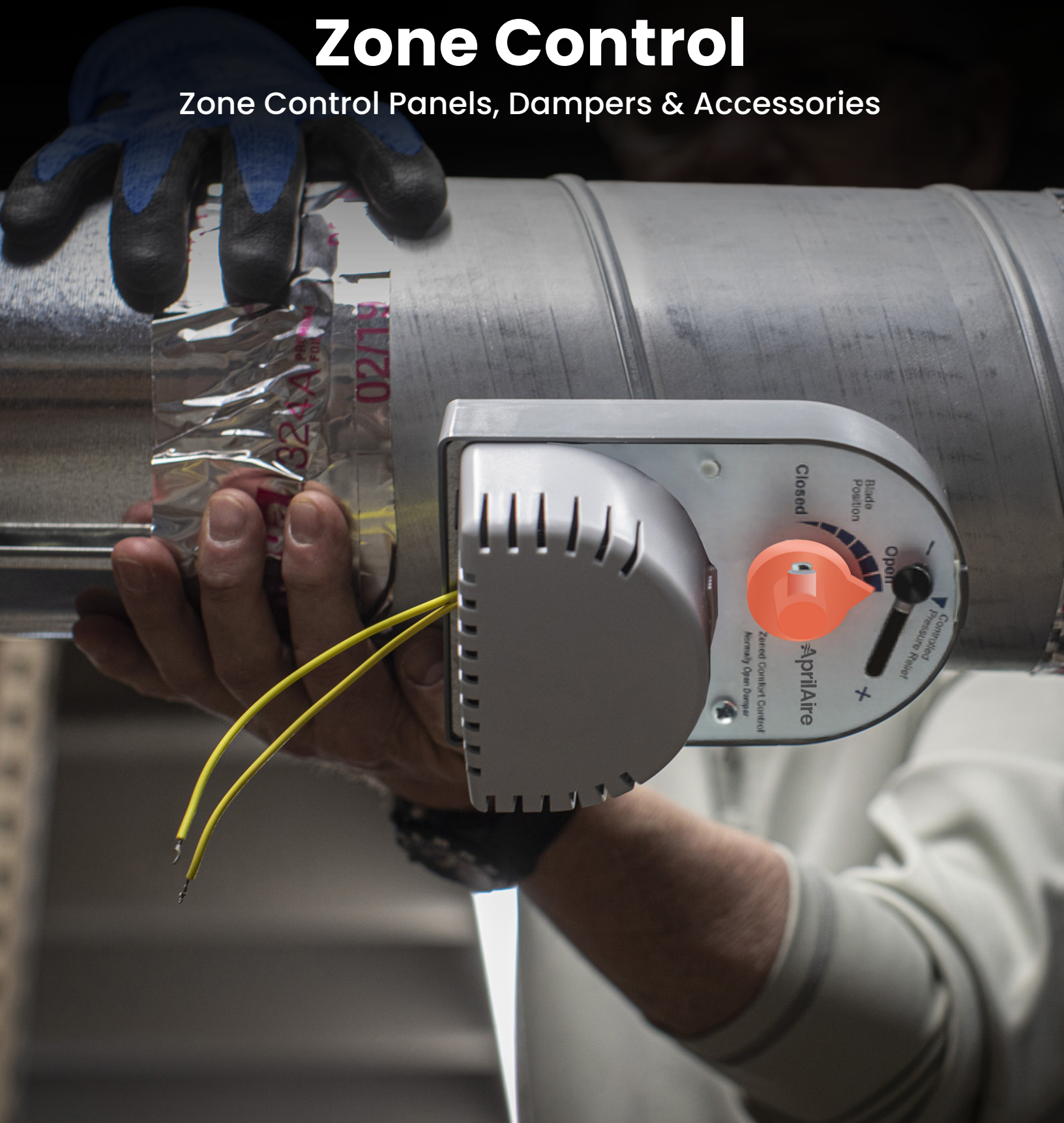




# Zone Control

Zone Control Panels, Dampers & Accessories



Healthy Air Control in every home.



We are professional-grade Healthy Air solutions. AprilAire is on a mission to enhance people's health by improving the air in their homes. Healthy Air is essential to living a healthy lifestyle and improving our overall well-being. We are inspired by the needs of consumers and the expertise of professional contractors to create, design, and build innovative solutions.

**AprilAire is Healthy Air.**



5-year warranty on all installed products



Designed & Engineered in the USA



### We Test to Make Them More Durable, They Pass to Ensure They're More Reliable

Our line of zone panels and dampers have been designed to stand up to the harshest conditions that exist in the most demanding climates. We put our entire zoning product line through rigorous testing to expose any weaknesses. If any are revealed, we do it all over again.

### We Measure and Analyze Our Successes but More Importantly, Our Failures Too

AprilAire has a reputation of making the most reliable air improvement products in the world. It's all thanks to our comprehensive testing protocol. We've acquired the skills and equipment to assure the delivery of consistent, high-quality product. We look not only at ways to improve our products, but also to expand and perfect the methods we use to test their quality.

### 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

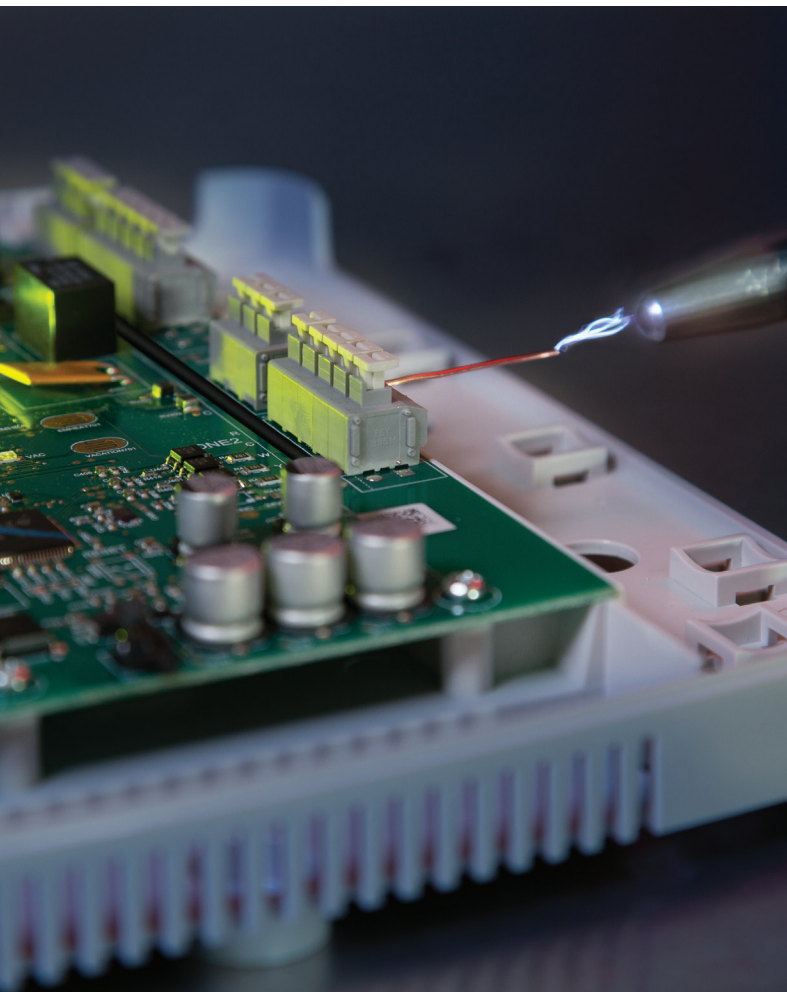
- Failure Mode and Effects Analysis (FMEA) performed to reduce probability and severity of product and product sub-system failures
  - EC 61000-4-5; IEC 61000-4-12. Tested and passed 50% beyond International Electro-technical Commission (IEC) Level 4 (the highest threshold). IEC is the world's leading 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

### 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.

# Zoning is Essential for Today's Energy Efficient Homes

One of the largest issues confronted by homeowners is uneven temperatures throughout the house. Zoning is the solution. A well-designed zoning system will provide reliable operation and years of optimal comfort and energy efficiency for your customers.



## AprilAire is the Answer

AprilAire Zone 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 setup. This reduces errors and minimizes the amount of time you spend on each job.
- **Reliable:** AprilAire zone panels and dampers are designed to withstand extreme temperatures in attics. Rigorous testing of all components assures that your company can concentrate on new business, and not on callbacks.
- **Profitable:** Easy installations mean less training needed for your installers. The faster and more accurate the installation, the greater profits for your business.

## Any Type of Home, Any Type of Climate

AprilAire Zone Control offers a complete line of zone panels, dampers, and controls to provide the exact solution for any application. A switch 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
Single Stage Heat/Cool	6202	1 Heat 1 Cool	Up to 2 Zones
Single Stage Heat/Cool	6203	1 Heat 1 Cool	Up to 3 Zones
Single Stage Heat Pump	6302	2 Heat 1 Cool	Up to 2 Zones
Single Stage Heat Pump	6303	2 Heat 1 Cool	Up to 3 Zones
Multi-Stage Universal	6403	2 Heat 2 Cool H/C or 4 Heat 2 Cool Heat Pump	Up to 3 Zones
Multi-Stage Universal	6404	2 Heat 2 Cool H/C or 4 Heat 2 Cool Heat Pump	Up to 4 Zones, expandable to 12 Zones

## AprilAire Exclusive Zone Panel Features

- 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



# 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

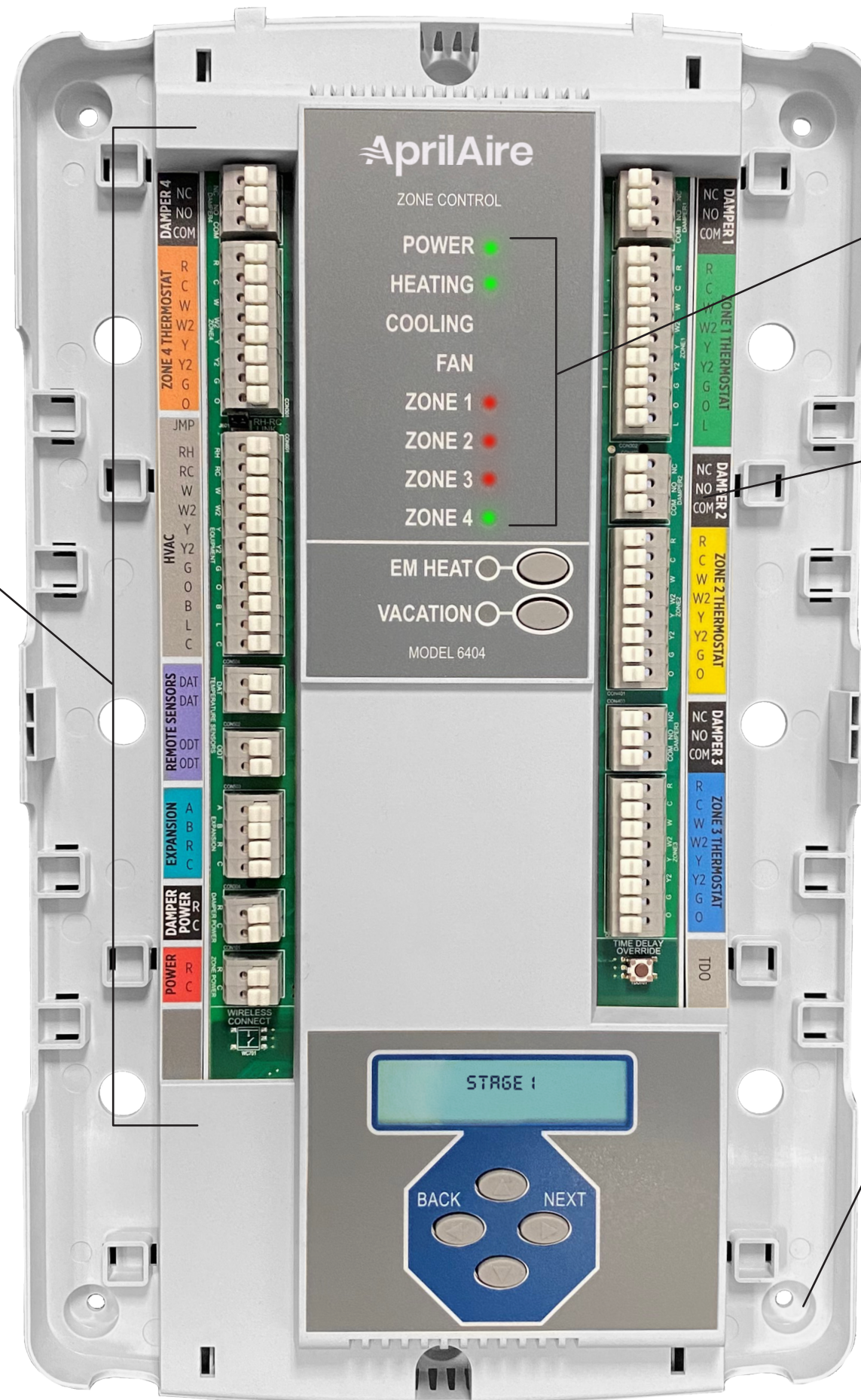
Press button and automatically manage all zones to preset vacation schedule

## Emergency Heat

Automatically engage emergency heat across all zones in heat pump system

## Outdoor Sensors (optional)

Wired temperature only (**Model 8052**)



## 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

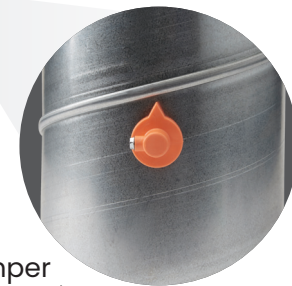
- Rigorous cycle testing in extreme temperatures (over 140° F) to simulate attic summer conditions
- Functional testing performed at extreme environmental conditions of -40°F/90% RH and 150°F/15% RH
- 100% end-of-line testing
- Actuator design proven successful in thousands of system installs
- Packaging 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

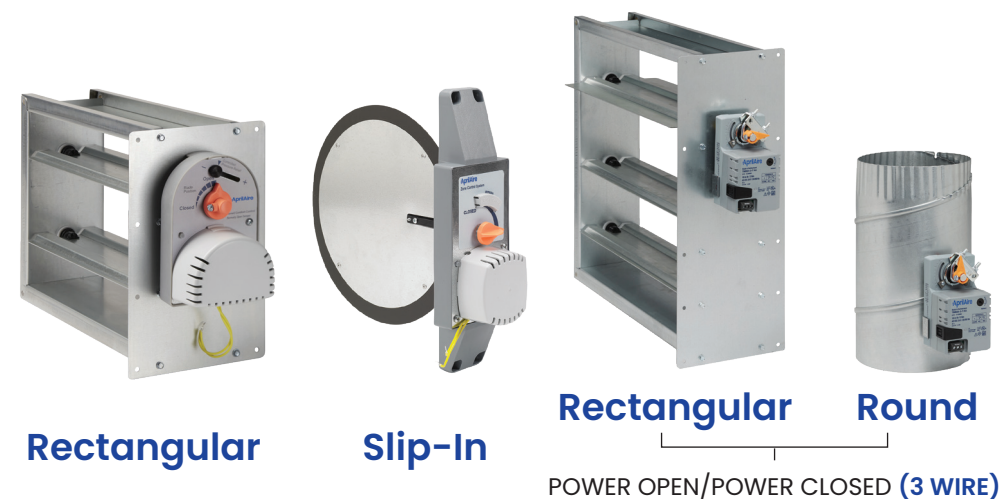


Back View of Damper

## 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



Rectangular

Slip-In

Rectangular

Round

POWER OPEN/POWER CLOSED (3 WIRE)



## 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)



NORMALLY-CLOSED  
POWER OPEN

Zoning  
(white label)



NORMALLY-OPEN  
POWER CLOSED

# Barometric Bypass Dampers

## Lose the Extra Weight for Less Stress on the System

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

- Reliability: No-weighted arm! Over 99.9% 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



# Zone Control Systems



6000 SERIES PRODUCT CONFIGURATIONS		
KITS	BLACK	WHITE
<b>2-ZONE</b>	<b>Model 6010: 2-Zone Complete Kit*</b> 	<b>Model 6015: 2-Zone Complete Kit*</b> 
<b>3-ZONE</b>	<b>Model 6020: 3-Zone Complete Kit*</b> 	<b>Model 6025: 3-Zone Complete Kit*</b> 
<b>INDIVIDUAL COMPONENTS</b>	Model 6030: 2-Zone Base Model 6040: 3-Zone Base Model 6050: Secondary Zone UI	Model 6035: 2-Zone Base Model 6045: 3-Zone Base Model 6055: Secondary Zone UI

\* Kits include outdoor temperature sensor along with duct probe

# Zone Control Panels

MODEL	SPECIFICATIONS											
 <b>UNIVERSAL</b>	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	<table border="1"> <tr> <td><b>Overall Dimensions</b></td> <td>8 63/100" W x 14 18/25" H x 1 43/50" D</td> </tr> <tr> <td><b>Humidity</b></td> <td>5%–90% RH, non-condensing</td> </tr> <tr> <td><b>Operating Temperature</b></td> <td>32°F–158°F</td> </tr> <tr> <td><b>Shipping Temperature</b></td> <td>-40°F–180°F</td> </tr> <tr> <td><b>Voltage</b></td> <td>18-30VAC 50/60 Hz</td> </tr> </table>	<b>Overall Dimensions</b>	8 63/100" W x 14 18/25" H x 1 43/50" D	<b>Humidity</b>	5%–90% RH, non-condensing	<b>Operating Temperature</b>	32°F–158°F	<b>Shipping Temperature</b>	-40°F–180°F	<b>Voltage</b>	18-30VAC 50/60 Hz
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<b>ZONED COMFORT CONTROL™ KITS** AVAILABLE: 6404K &amp; 6403K</b>												
 <b>HEAT PUMP ONLY</b>	6303 – 3 Zone Heat Pump 6302 – 2 Zone Heat Pump 2 Heat 1 Cool Single Stage	<table border="1"> <tr> <td><b>Overall Dimensions</b></td> <td>8 63/100" W x 9 33/50" H x 1 43/50" D</td> </tr> <tr> <td><b>Humidity</b></td> <td>5% - 90% RH, non-condensing</td> </tr> <tr> <td><b>Operating Temperature</b></td> <td>32°F–158°F</td> </tr> <tr> <td><b>Shipping Temperature</b></td> <td>-40°F–180°F</td> </tr> <tr> <td><b>Voltage</b></td> <td>18-30VAC 50/60 Hz</td> </tr> </table>	<b>Overall Dimensions</b>	8 63/100" W x 9 33/50" H x 1 43/50" D	<b>Humidity</b>	5% - 90% RH, non-condensing	<b>Operating Temperature</b>	32°F–158°F	<b>Shipping Temperature</b>	-40°F–180°F	<b>Voltage</b>	18-30VAC 50/60 Hz
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<b>ZONED COMFORT CONTROL™ KITS** AVAILABLE: 6303K &amp; 6302K</b>												
 <b>CONVENTIONAL ONLY</b>	6203 – 3 Zone Heat/Cool 6202 – 2 Zone Heat/Cool 1 Heat 1 Cool Single Stage	<table border="1"> <tr> <td><b>Overall Dimensions</b></td> <td>8 63/100" W x 9 33/50" H x 1 43/50" D</td> </tr> <tr> <td><b>Humidity</b></td> <td>5%–90% RH, non-condensing</td> </tr> <tr> <td><b>Operating Temperature</b></td> <td>32°F–158°F</td> </tr> <tr> <td><b>Shipping Temperature</b></td> <td>-40°F–180°F</td> </tr> <tr> <td><b>Voltage</b></td> <td>18-30VAC 50/60 Hz</td> </tr> </table>	<b>Overall Dimensions</b>	8 63/100" W x 9 33/50" H x 1 43/50" D	<b>Humidity</b>	5%–90% RH, non-condensing	<b>Operating Temperature</b>	32°F–158°F	<b>Shipping Temperature</b>	-40°F–180°F	<b>Voltage</b>	18-30VAC 50/60 Hz
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<b>ZONED COMFORT CONTROL™ KITS** AVAILABLE: 6303K &amp; 6302K</b>												

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

# Zone Dampers



	ROUND DAMPER SIZE & STOCK NO.* NOMINAL DIAMETER (IN INCHES)											
	4" (102MM)	5" (127MM)	6" (152MM)	7" (178MM)	8" (203MM)	9" (229MM)	10" (254MM)	12" (305MM)	14" (356MM)	16" (406MM)	18" (457MM)	20" (508MM)
 <b>Zone Damper</b> (Normally open/ power closed) W3 indicates power open/power closed			6606 6606W3	6607 6607W3	6608 6608W3	6609 6609W3	6610 6610W3	6612 6612W3	6614 6614W3	6616 6616W3	6618	6620
			H: 10 3/4"	H: 10 3/4"	H: 10 3/4"	H: 10 3/4"	H: 10 3/4"	H: 12 3/4"	H: 14 3/4"	H: 16 3/4"	H: 19 3/50"	H: 22"
 <b>Ventilation Damper</b> (Normally closed/ power opened)			6506		6508		6510					
			H: 10 3/4"		H: 10 3/4"		H: 10 3/4"					
 <b>Barometric Pressure Relief</b> (Air flow activated)					6108		6110	6112	6114	6116		
					H: 10 3/4"		H: 10 3/4"	H: 12 3/4"	H: 14 3/4"	H: 16 3/4"		
 <b>Static Pressure Relief</b> (Power activated)					6208		6210	6212	6214	6216	6218	6220
					H: 8"		H: 10"	H: 12"	H: 14"	H: 16"	H: 18"	H: 20"
 <b>Round Slip-In Damper</b> (Normally open/ power closed)	6704	6705	6706	6707	6708		6710					
	W: 3 4/5" H: 12 3/5" D: 7 3/10"	W: 3 4/5" H: 12 3/5" D: 8 3/10"	W: 3 4/5" H: 12 3/5" D: 9 3/10"	W: 3 4/5" H: 12 3/5" D: 10 3/10"	W: 3 4/5" H: 12 3/5" D: 11 3/10"		W: 3 4/5" H: 12 3/5" D: 13 3/10"					

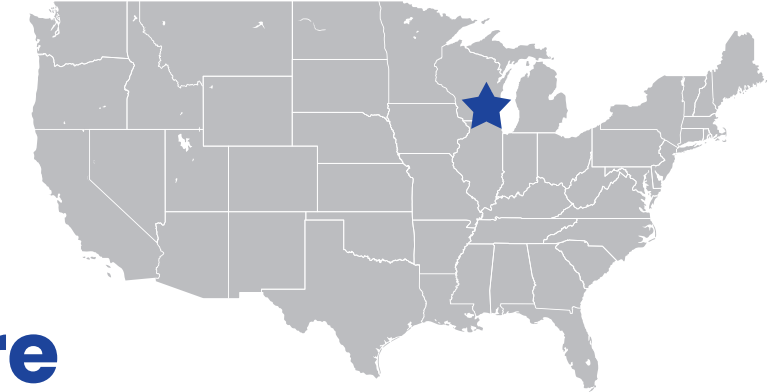
\* Round Damper Dimension = Nominal diameter + 4.5"

† 10 day lead time for shaded items

# Zone Dampers



		RECTANGULAR DAMPER SIZE & STOCK NO.*											
		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)
<b>Side Mount</b> Motor mounted on short dimension W3 indicates power open/ power closed	8" (203MM)	6721 6721W3	6722 6722W3	6723 6723W3	6724 6724W3	6725 6725W3	6726 6726W3	6727 6727W3	6728 6728W3	6729 6729W3	6730 6730W3	6731 6731W3	6753 6753W3
	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	6751	6752
	14" (356MM)				6754 6754W3	6755 6755W3	6756 6756W3	6757 6757W3	6758 6758W3	6759 6759W3	6760	6761	6762
	16" (406MM)					6763 6763W3	6764	6765	6766	6767	6768	6769	6770
	18" (457MM)						6771	6772	6773	6774	6775	6776	6777
	20" (508MM)							6778	6779	6780	6781	6782	6783
	22" (559MM)								6784	6785	6786	6787	6788
	24" (610MM)									6789	6790	6791	6792
	26" (660MM)										6793	6794	6795
	28" (711MM)											6796	6797
	30" (762MM)												6798
<b>Bottom Mount</b> Motor mounted on long dimension	8" (203MM)	6721 6721W3	6812 6812W3	6813 6813W3	6814 6814W3	6815 6815W3	6816 6816W3	6817 6817W3	6818 6818W3	6819 6819W3			
	10" (254MM)		6732 6732W3	6823 6823W3	6824 6824W3	6825 6825W3	6826 6826W3	6827 6827W3	6828 6828W3	6829 6829W3			
	12" (305MM)			6743 6743W3	6834 6834W3	6835 6835W3	6836 6836W3	6837 6837W3	6838 6838W3	6839 6839W3			



## Team AprilAire

CALL - 800.334.6011

You and your team are never alone in the field. Our customer service and technical support teams are only a phone call away. A live voice from our headquarters in Wisconsin will walk you through any questions you might have. We're proud to say our support team is as reliable as our equipment.



\* Rectangular Damper Dimension = Nominal width + 3.5"  
 † 10 day lead time for shaded items



# AprilAire®

