



GREENHECK ABD-Z2 Automatic Balancing Damper Instruction Manual

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ABD-Z2 Automatic Balancing Damper Instruction Manual

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Installation, Operation and Maintenance Manual

Please read and save these instructions for future reference. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with these instructions will result in voiding of the product warranty and may result in personal injury and/or property damage.



Receiving and Handling

Upon receiving dampers, check for both obvious and hidden damage. If damage is found, record all necessary information on the bill of lading and file a claim with the final carrier. Check to be sure that all parts of the shipment, including accessories, are accounted for.

Dampers must be kept dry and clean. Indoor storage and protection from dirt, dust and the weather is highly recommended. Do not store at temperatures in excess of 100°F (38°C).

Safety Warning

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.

This manual is the property of the owner and is required for future maintenance. Please leave it with the owner when the job is complete.

General Installation

Electrical Guidelines

All wiring shall be done in accordance with the National Electrical Code ANSI/NFPA-70 latest edition, any local codes that may apply, and wiring diagrams developed in compliance with the job or project design and specifications.

Important!

Electrical input may be needed for this equipment. This work should be performed by a qualified electrician. Verify power before wiring actuator. Greenheck is not responsible for any damage to, or failure of the unit caused by incorrect field wiring. To avoid causing death or serious bodily harm to building occupants, follow all instructions carefully. Dampers must close completely to preserve the integrity of the fire smoke separation.

Setting Desired CFM on the ABD Damper

Verify the minimum and maximum setpoints are in the available range (see Figure 3 and 4).

Adjusting the Minimum CFM

Loosen the bolt to adjust to move drive link to primary or alternate linkage location. See Detail A for correct linkage location.

Adjusting the Maximum CFM

How the maximum CFM adjusted. Loosen the wing nut on crank arm, adjust full-open stop clockwise until

specified maximum CFM setpoint is achieved. Tighten wing nut.

Note: ABD-Z2 is adjustable in the field. Make sure full open stop does not over travel. If you over adjust, you can wreck the unit.

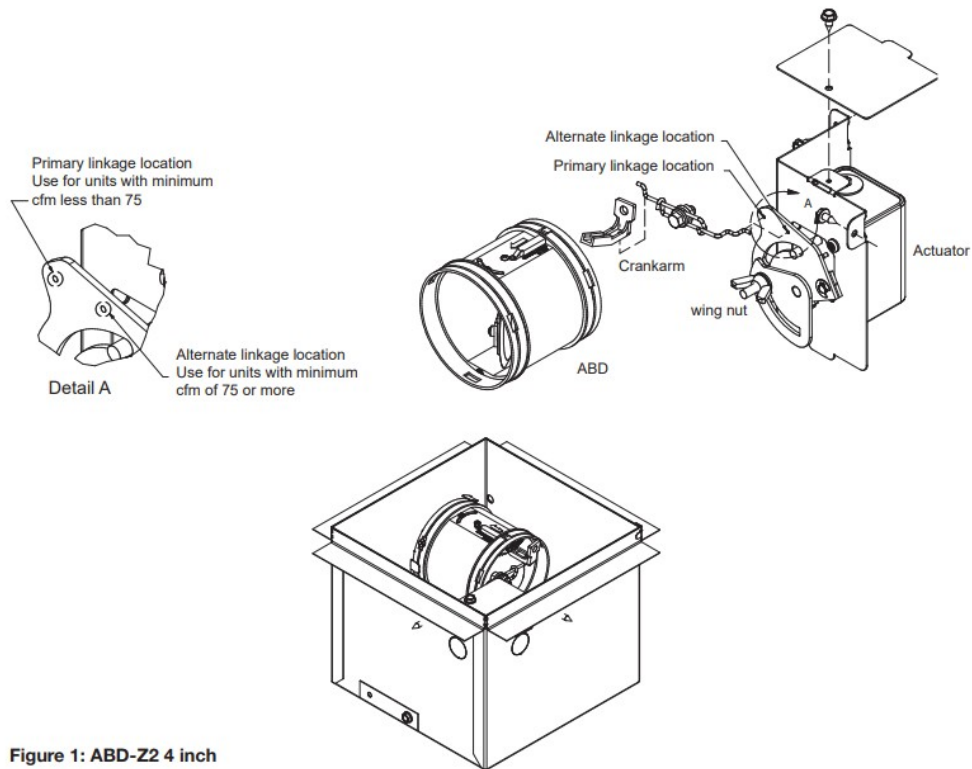


Figure 1: ABD-Z2 4 inch

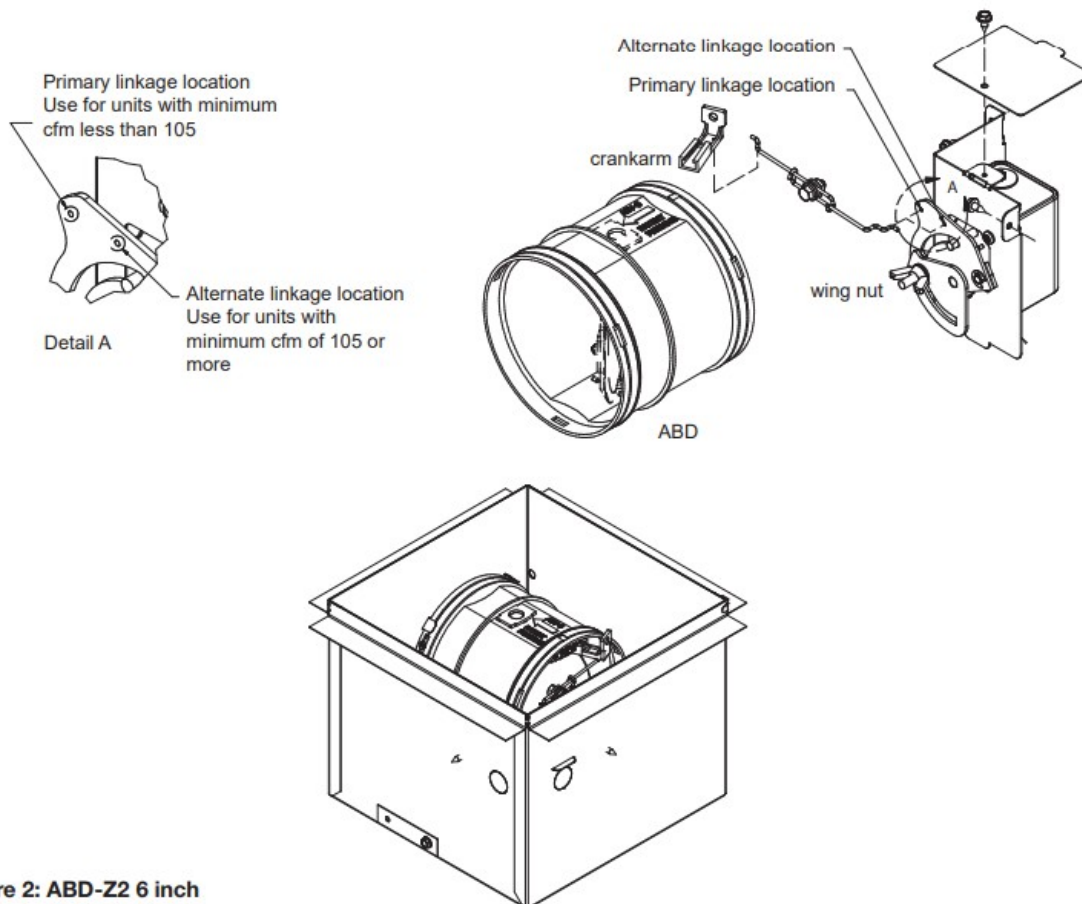


Figure 2: ABD-Z2 6 inch

Figure 3: CFM setpoints for ABD-Z2 4 inch

Available Max/Min CFM Set Points for ABD-Z2 4 inch																				
Maximum CFM Setpoint	Minimum CFM Setpoint																			
		25	30	33	35	40	45	48	50	55	60	68	75	80	85	90	95	100	105	
	30																			
	33	X																		
	35	X	X																	
	40	X	X	X																
	45	X	X	X	X															
	48	X	X	X	X	X														
	50	X	X	X	X	X	X													
	55	X	X	X	X	X	X	X												
	60	X	X	X	X	X	X	X	X											
	68	X	X	X	X	X	X	X	X	X										
	75	X	X	X	X	X	X	X	X	X	X									
	80	X	X	X	X	X	X	X	X	X	X	X								
	85	X	X	X	X	X	X	X	X	X	X	X	X							
	90	X	X	X	X	X	X	X	X	X	X	X	X	X						
	95	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
	100	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
	105	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
	115	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
	125	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Figure 4: CFM setpoints for ABD-Z2 6 inch

Available Max/Min CFM Set Points for ABD-Z2 6 inch																				
Maximum CFM Setpoint	Minimum CFM Setpoint																			
		50	60	65	70	75	80	85	90	98	105	113	120	135	143	150	160	170	180	193
	65	X																		
	70	X	X																	
	75	X	X	X																
	80	X	X	X	X															
	85	X	X	X	X	X														
	90	X	X	X	X	X	X													
	98	X	X	X	X	X	X	X												
	105	X	X	X	X	X	X	X	X											
	113	X	X	X	X	X	X	X	X	X										
	120	X	X	X	X	X	X	X	X	X	X									
	135	X	X	X	X	X	X	X	X	X	X	X								
	143	X	X	X	X	X	X	X	X	X	X	X	X							
	150	X	X	X	X	X	X	X	X	X	X	X	X	X						
	160	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
	170	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
	180	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
	193	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
	205	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	217	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	228	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	240		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	260			X	X							X	X	X	X	X				

X = Adjustment with linkage in primary position
X = Adjustment with linkage in alternate position

Mounting the ABD-Z2 in the Ceiling

1. Attach the hanger brackets provided to the damper. Dampers shall be supported in a minimum of two places on opposite sides of the damper.
2. Insert the ABD-Z2 between the ceiling joists. Attach the hangers to the ceiling joist using 2 – #8 x 3/4 in. nails.
3. Attach the ductwork to the collar of the plenum box.

4. Install the grille.

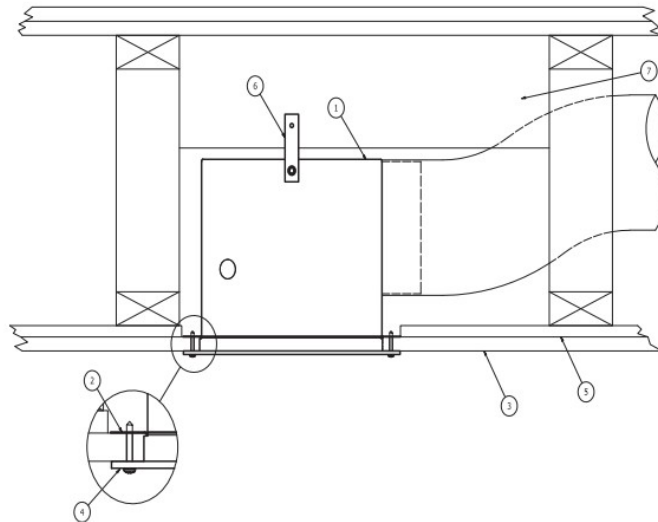


Figure 5: Mounting in the ceiling

Actuator Connections

Electrical connections to damper actuators should be made in accordance with wiring and piping diagrams developed in compliance with applicable codes, ordinances and regulations (see Electrical Guidelines).

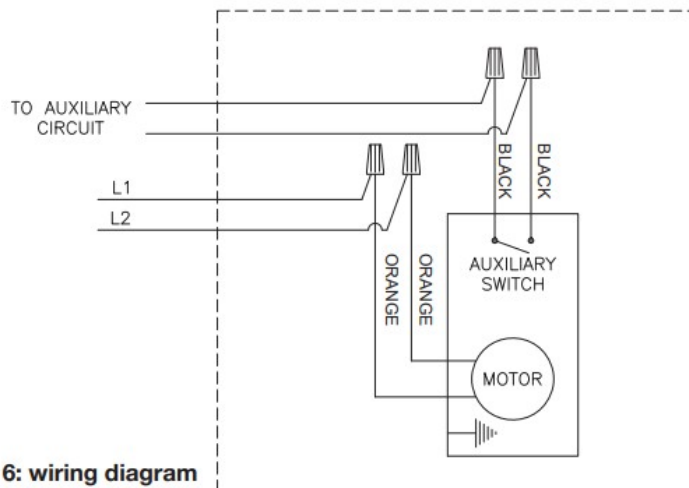


Figure 6: wiring diagram

Damper Maintenance

Dampers do not typically require maintenance as long as they are kept dry and clean. If cleaning is necessary, wash with water. No solvents should be used in cleaning, as they could damage the valve or gasket. In addition, ABD dampers incorporate Steri-Balance™ into all plastic components. Steri-Balance™ is a non-caustic material that inhibits antimicrobial growth.


Our Commitment

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.

Product warranties can be found online at Greenheck.com, either on the specific product page or in the literature section of the website at [Greenheck.com/Resources/Library/Literature](https://www.greenheck.com/Resources/Library/Literature).

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Documents / Resources

	<p>GREENHECK ABD-Z2 Automatic Balancing Damper [pdf] Instruction Manual ABD-Z2 Automatic Balancing Damper, ABD-Z2, Automatic Balancing Damper, Balancing Damper, Damper</p>
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References

- [Greenheck | Building Value in Air](#)
- [Error page](#)