

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.

These instructions apply to the automatic balancing damper (ABD-Z1) which includes a constant cfm pressure independent valve, a shut off damper with electric actuator, a plenum box and optional grille in one assembly.

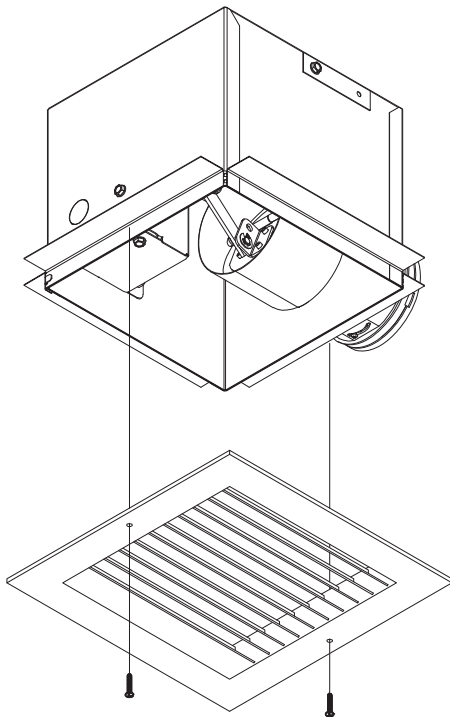


Table of Contents

General Installation.....	2
Setting Desired CFM on the ABD Damper	2
Mounting the ABD in the Plenum Box	3
Mounting the ABD-Z1 in the Ceiling.....	3
Actuator Connections	4
Maintenance	4

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.

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

Greenheck's ABD dampers can be installed anywhere a constant volume of air is required. Assure that the airflow direction is properly aligned for your application (see **Figure 1**).

The ABD is designed for installation without the need for any screws or fasteners. The adjustment of the cfm set-point is accomplished by positioning the set-point indicator to the notch corresponding to the desired cfm (see **Figure 2**). The damper must be mounted such that the set-point ridges are located on the bottom of the damper (see **Figure 3**).

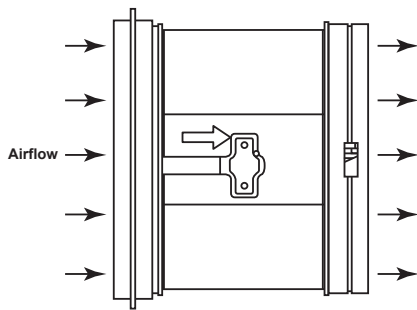


Figure 1

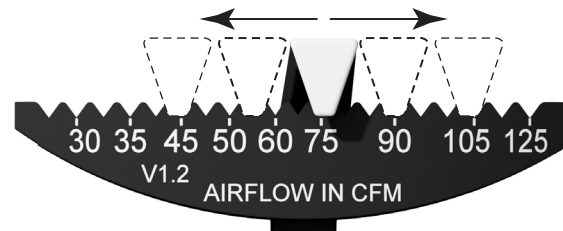


Figure 2

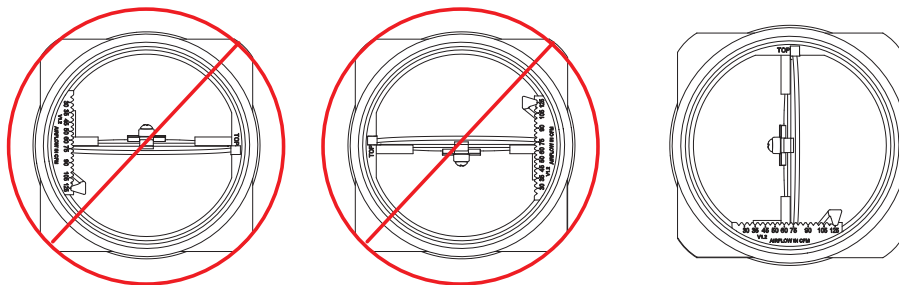
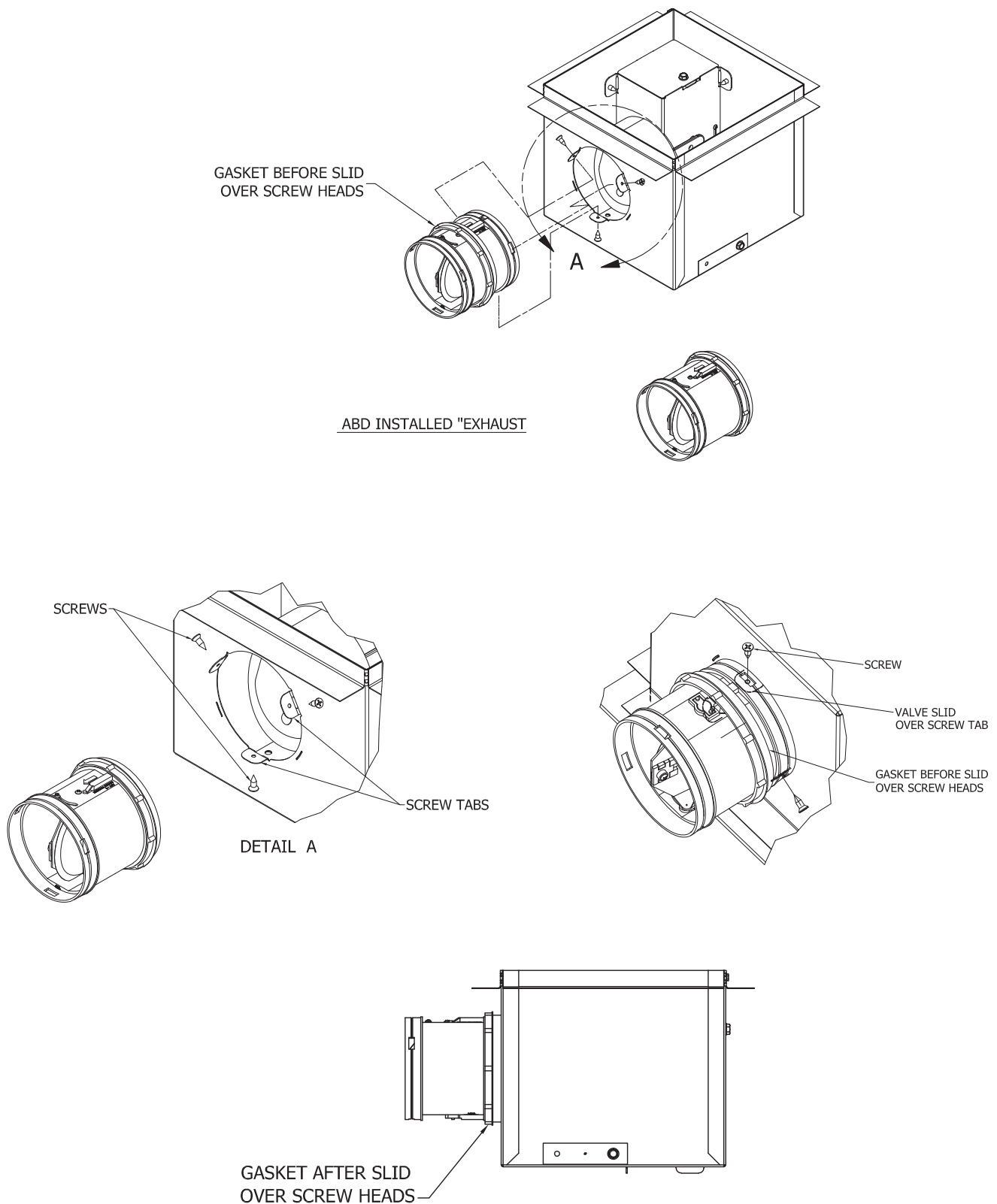


Figure 3

Mounting the ABD in the Plenum Box

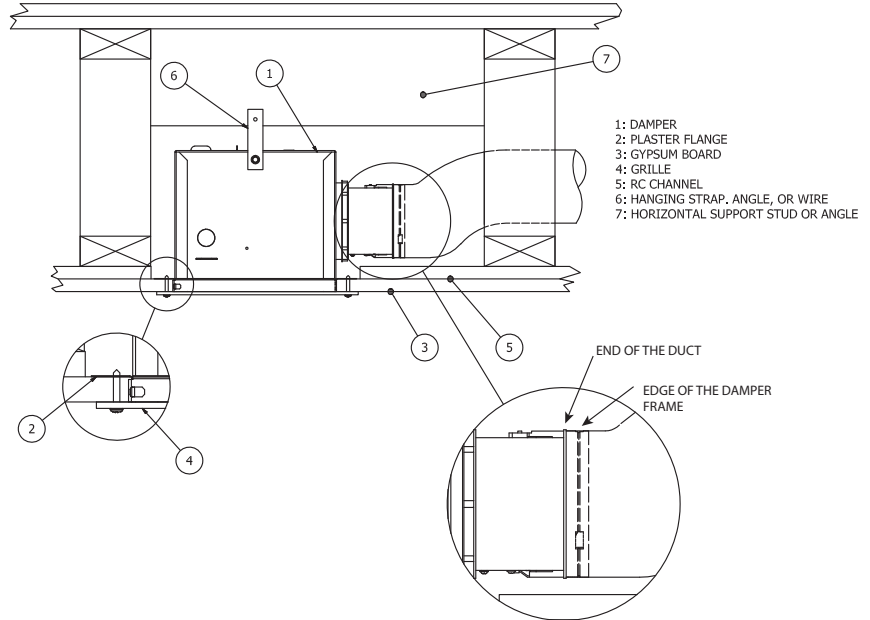
Determine if you need the ABD dampers to be exhaust or intake (see arrows on the ABD for flow direction). Slide the ABD onto the plenum box and screw the ABD to the tabs provided on the plenum box.

Slide the gasket (provided) on the ABD over the top of the screw heads until tight against the plenum box.



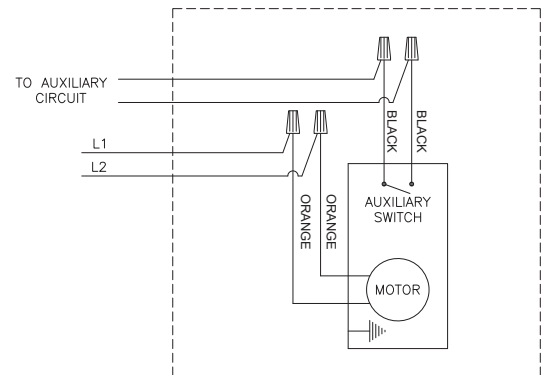
Mounting the ABD-Z1 in the Ceiling

- 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-Z1 between the ceiling joists. Attach the hangers to the ceiling joist using 2 - #8 x ¾ in. nails.
- 3) Attach the ductwork to the ABD.
- 4) Install the grille.



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**).



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.

