

Installation Instructions



ZONE DAMPER Model PCZDSP and PCZDBP NEW EZ WIRE PLUG-IN

PCZDBP – Bottom Mount



PCZDSP – Side Mount



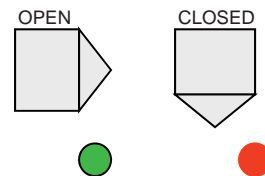
TROUBLESHOOTING

Once the motor is plugged into the control panel the motor will move to either the Open or Closed position. In the full Open position the LED will light GREEN. In the full Closed position the LED will light RED. When the motor is moving between open and closed the LED will go out.

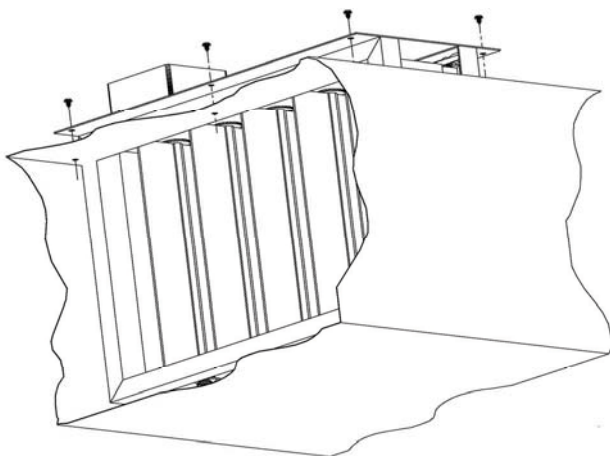
If the motor LED does not light when the motor is plugged into the panel, try unplugging and re-plugging the motor. If there is still no LED, see the voltage check on the opposite page to check voltage from the panel and at the plug at the damper. If there is not at minimum 10VDC at the plug the damper will not operate properly.

Check the wire for a broken wire or poor connection. Also if there are other dampers on the same zone wired together, ensure all other dampers are moving freely to full open and closed. If other dampers on the same line are obstructed and not fully operating, this will draw down the power to operate all of the dampers.

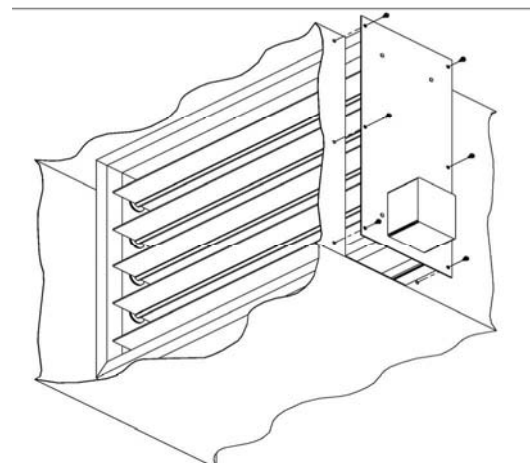
If the motor's LED is not lighting, check to see if the motor is actually moving between open and closed. If the damper motor does not reach its full travel to open or closed the LED will not light. Check damper to see what is obstructing the damper not to reach its full open or closed position. Below the shaft position is shown in relation to the LED when at either position.



To Install, Cut a 4" Slot in the side of the duct the damper is to be inserted; Insert the damper and secure with sheet metal screws provided.



Bottom Mount Installation



Side Mount Installation

INSTALLATION

BEFORE INSTALLING THIS PRODUCT...

Read these instructions carefully. Failure to follow the instructions could damage the product and void the warranty. Ensure that the installer is a trained, experienced service technician. After completing installation, use these instructions to check product operation.

LOCATION

The Zone Dampers are installed typically near the furnace/air handler plenum and in the air duct takeoff to the zone. Always make sure the dampers are accessible for wiring, checkout, duct cleaning and replacement of damper or motor if ever needed.

DAMPER SIZE

To ensure proper operation, the ZD must be properly sized for the air duct. To ensure proper fit, damper sizes are built slightly smaller. 1/4" less than the listed dimensions. If the damper is forced into an undersized air duct, the excess pressure jams the damper blades and causes improper operation.

HUMIDIFICATION

Do not install dampers in heating systems where spray or atomizing type humidifiers are installed in the furnace plenum or air supply duct. Excessive lime or mineral deposits accumulate on damper blades and cause improper operation. For humidification, use evaporative type humidifiers or return air type humidifiers.

INSTALLATION CONSIDERATIONS

Install Zone Dampers (ZDS) or (ZDB) into a squared air duct. Frame misalignment may jam the damper blades. Do not weld dampers to air ducts.

INSTALLING A ZONE DAMPER

Ensure the ZD is correctly sized to the air duct and select a ZD location near the furnace plenum.

1. Cut a 4-inch (102-millimeter) opening in one side (shorter dimension) of the air duct at the location selected. Ensure the opening is cut fully to the top and bottom air duct seams.
2. Slide the ZDS into the cut opening of the air duct. Ensure the electric actuator is mounted toward the top of the air duct.
3. Secure the ZDS mounting plate to the air duct with the sheet metal zip screws provided.

CAUTION

Locate and install dampers in an easily accessible location for Service and Checkout.

Never force dampers into undersized air ducts. Excess pressure will jam damper blades.

Ensure high limit setting is 200°F (93°C) or lower. Higher settings can damage electric actuator.

NEVER FORCE OR MOVE DAMPER BLADES MANUALLY. This can strip the motor gears and void the warranty.

WIRING

ALL WIRING MUST CONFORM TO NEC STANDARDS AND ALL APPLICABLE LOCAL CODES.

The ZDP damper is the simplest damper in the world to wire. Just plug it in to the female receptacle on the control panel. The damper comes complete with a 25' Modular Cord with an RJ11 connector on each end and a two-line splitter for slaving additional dampers from the same zone. Up to 10 dampers can be controlled on one zone.

When wiring multiple dampers on any zone, it is recommended to wire in one damper to the control panel and check its operation. Once the first damper operation is checked, add one damper at a time using the splitter supplied with each damper and check each damper as it is added to the zone.

The Plug-In Motors operate on 12VDC and require very little current. The modular cords supplied are standard telephone wire (four conductor) with RJ11 jacks.

Upon plugging in the damper from the panel the damper the damper LED will typically light GREEN showing the damper is open, providing the panel is telling the damper to Open. Check the zone on the panel to see if the zone indicator is lit Green also. If the Zone indicator is OFF, the damper will move to the Closed position and the damper LED will turn RED, indicating the damper is Closed.

CHECKOUT

The ZDP damper is a very simple damper to checkout. The two (2) color LED on the motor provides indication of the damper position. When the LED is GREEN the Damper is Open. When the LED is RED the damper is CLOSED. The motor is powered by 12VDC and uses a four (4) conductor cord to provide the power.

REPLACEMENT MOTOR

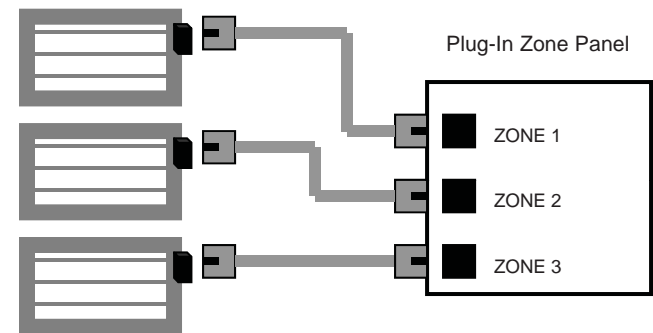
To replace the motor, simply loosen and remove the screw holding the motor onto the damper. Pull the motor straight off the damper shaft. Please note this is a snug fit and pull straight up. Before putting new motor back on, plug-in replacement to ensure the position the motor is in, Open or Closed. Be sure to align the damper to the same position as the motor before placing the new motor back onto the damper shaft. Replace mounting screw.

Questions, Comments, Problems??? Call our Toll Free Answer Line at:

1-800-422-4328 ext. 2

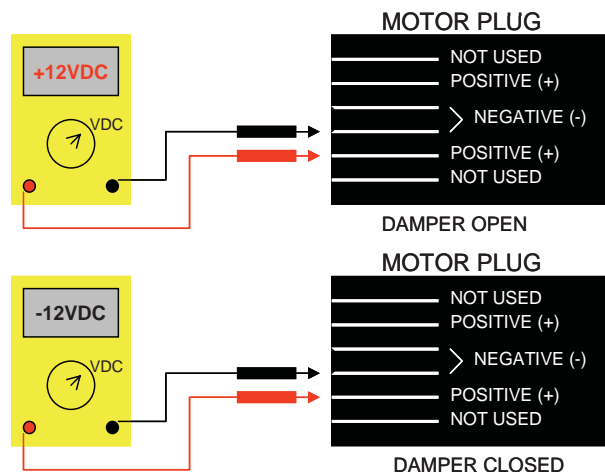
WIRING DIAGRAM

Plug-In Zone Dampers



To check the damper operation, place all thermostats to OFF or not calling. All dampers should be open with their LEDs Green. Press and HOLD the BOOT button on the zoning panel. All dampers will go closed and the LEDs turn RED. Release the Boot button and all dampers will return to Open.

If the damper is not operating properly, check the output jack on the panel for 12VDC. See below. If the panel is providing 12VDC (+/-10%), check the plug on the end of the modular cable for 12VDC to ensure the wire and modular plugs have the same power.



**INSTALLER: PLEASE LEAVE THESE INSTALLATION
INSTRUCTIONS WITH THE HOMEOWNER**

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O'Fallon, MO

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