

# BZD-XX ROUND SINGLE BLADE BAROMETRIC ZONE DAMPER WITH AUTOMATIC PRESSURE RELIEF

PATENT PENDING

## INSTALLATION INSTRUCTIONS

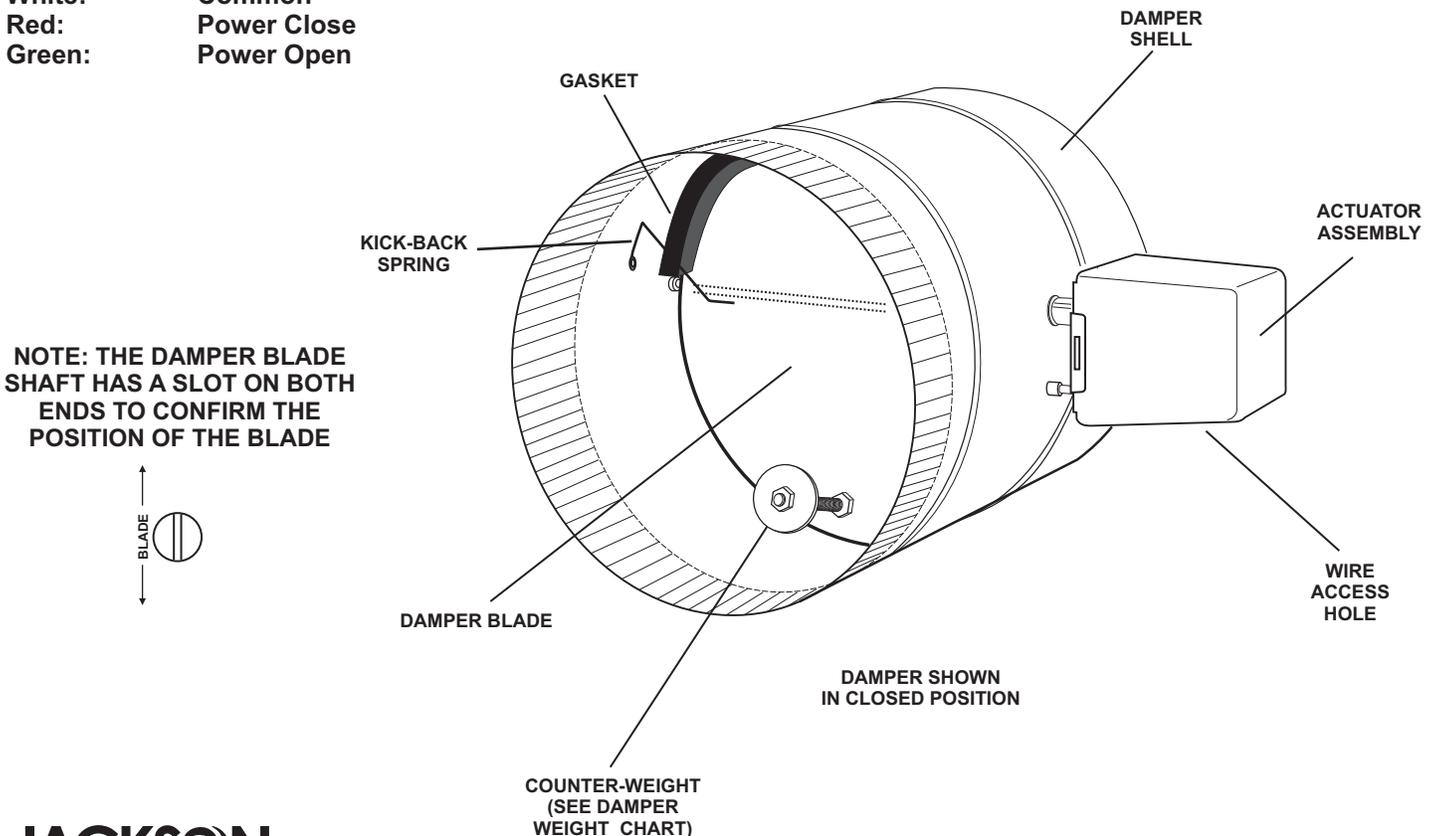
### INTRODUCTION

The BZD Barometric Zone Damper™ operates like any standard zone control damper but also has a built-in static pressure relief mechanism that eliminates the need for a bypass damper. If the static pressure reaches the factory preset setting, any damper that is in the closed position will start to modulate open and bleed a small amount of air into the non-calling zone. This prevents the system static pressure from rising to an unacceptable level.

### INSTALLATION

1. The damper can be mounted in either a horizontal air flow or vertical up-flow position.
2. The airflow must be in the direction of the arrow found on the damper shell. When the damper is mounted in the horizontal air flow position, the damper counter-weight must always be located on the bottom as illustrated below.
3. Each damper comes from the factory with the correct number of counter-weights attached to the barometric blade for horizontal air flow installation. **If the damper is mounted in a vertical up-flow position, make sure the proper number of weights are removed from the blade as shown on the included Damper Weight Chart. This damper will not work in a vertical down-flow application.**
4. The damper actuator is Power Open/Power Close. The motor is rated at 24Vac, 1.2VA. Wire color is as follows:

White: Common  
Red: Power Close  
Green: Power Open

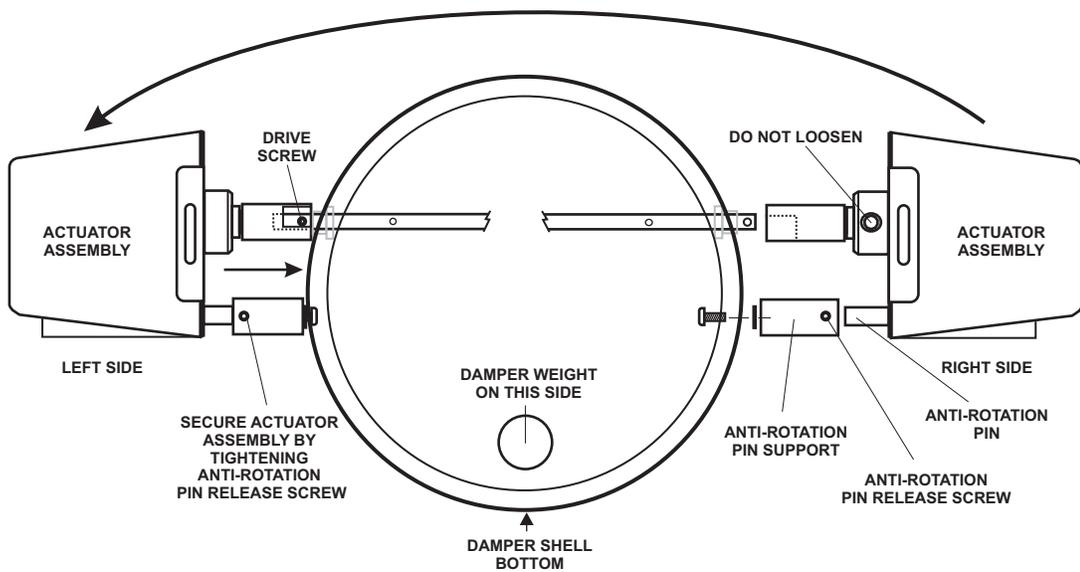


# RELOCATING THE DAMPER ACTUATOR

1. Changing the damper actuator position should be done before the damper is installed in the duct.
2. The actuator assembly is factory mounted on the right side of the damper. (Refer to illustration below)
3. **Apply 24V power to the White and Red leads until the Damper LED turns Green. (Damper open)**
4. Loosen the Anti-Rotation Pin Release Screw and slide the Actuator Assembly off the damper shaft.
5. Remove the screw and lock washer that hold the anti-rotation pin support to the damper shell and mount on the opposite side making sure that the Pin Release Screw is accessible.
6. With the damper blade in the closed position, align and slide the actuator assembly onto the left side of the damper shaft and secure by tightening the Anti-Rotation Pin Release Screw.
7. Check the damper blade to assure that it rotates freely to the open position.
8. When the actuator is relocated on the opposite side, the wire colors are reversed:

**White:** Common  
**Red:** Power Open  
**Green:** Power Close

NOTE: The LED color will be opposite. (Red = Open, Green = Closed)



## OPTIONAL BAROMETRIC BLADE LOCKING FEATURE

Some applications may require that the barometric blade feature be locked in place for conventional damper operation.

1. Locking the barometric blade should be done prior to installing the damper in the duct.
2. Confirm that the damper is in the closed position as shipped from the factory.
3. Loosen the Shaft Adapter Coupling Screw until the Shaft Adapter turns freely.
4. Loosen the Anti-Rotation Pin Release Screw and pull the Actuator Assembly away from the damper shaft.
5. Rotate the Shaft Adapter until the slot lines up with the Damper Shaft Drive Screw and then push the actuator and Shaft Adapter back on to the damper shaft.
6. Make sure that the damper blade is in the full closed position and then tighten the Shaft Adapter Coupling Screw and the Anti-Rotation Pin Release Screw.
7. Apply 24V power to the White and Blue leads to assure that the damper blade drives fully open and then power the damper closed (White and Red) before installation.

