

INSTALLATION INSTRUCTIONS

Zoning Dampers

ZDAMPRNDB

ZDAMPRECB

These instructions must be read and understood completely before attempting installation

Safety Labeling and Signal Words

DANGER, WARNING, CAUTION, and NOTE

The signal words **DANGER**, **WARNING**, **CAUTION**, and **NOTE** are used to identify levels of hazard seriousness. The signal word **DANGER** is only used on product labels to signify an immediate hazard. The signal words **WARNING**, **CAUTION**, and **NOTE** will be used on product labels and throughout this manual and other manual that may apply to the product.

DANGER – Immediate hazards which will result in severe personal injury or death.

WARNING – Hazards or unsafe practices which could result in severe personal injury or death.

CAUTION – Hazards or unsafe practices which may result in minor personal injury or product or property damage.

NOTE – Used to highlight suggestions which will result in enhanced installation, reliability, or operation.

Signal Words in Manuals

The signal word **WARNING** is used throughout this manual in the following manner:

 **WARNING**

The signal word **CAUTION** is used throughout this manual in the following manner:

 **CAUTION**

Signal Words on Product Labeling

Signal words are used in combination with colors and/or pictures or product labels.

WARNING

PERSONAL INJURY, AND/OR PROPERTY DAMAGE HAZARD

Failure to carefully read and follow this warning could result in equipment malfunction, property damage, personal injury and/or death.

Installation or repairs made by unqualified persons could result in equipment malfunction, property damage, personal injury and/or death.

The information contained in this manual is intended for use by a qualified service technician familiar with safety procedures and equipped with proper tools and test instruments.

Installation must conform with local building codes and with the national Electrical Code NFPA70 current edition or Canadian Electrical Code part 1 CSA C.22.1. The National Fuel Gas Code (NFGC) NFPA 54/ANSI Z223.1, and in Canada refer to the current editions of the National Standards of Canada CAN/CSA-B149.1 and .2 Natural Gas and Propane Installation codes.

WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury or death.

Before installing or servicing system, always turn off main power to system and install lockout tag. There may be more than one disconnect switch.

CAUTION

CUT HAZARD

Failure to follow this warning could result in personal injury.

When removing access panels or performing maintenance functions inside your unit, be aware of sharp sheet metal parts and screws. Although special care is taken to reduce sharp edges to a minimum, be extremely careful and wear appropriate clothing, safety glasses, and gloves when handling parts or reaching into the unit.


NOTE: Read the entire instruction manual before starting the installation.

SAFETY CONSIDERATIONS

Improper installation, adjustment, alteration, service maintenance, or use can cause explosion, fire, electrical shock, or other conditions which may cause death, personal injury, or property damage. Consult a qualified installer, service agency, or your distributor or branch for information or assistance. The qualified installer or agency must use factory-authorized kits or accessories when modifying this product. Refer to the individual instructions packaged with the kits or accessories when installing.

Follow all safety codes. Wear safety glasses, protective clothing, and work gloves. Have a fire extinguisher available. Read these instructions thoroughly and follow all warnings or cautions included in literature and attached to the unit. consult local building codes, the current editions of the National Fuel Gas Code (NFGC) NFPA 54/ANSI Z223.1, and the National Electrical Code (NEC) NFPA 70.

In Canada refer to the current editions of the National Standards of Canada CAN/CSA-B149.1 and .2 Natural Gas and Propane Installation codes, and Canadian Electrical Code CSA C22.1

Recognize safety information. This is the safety-alert symbol . When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury. Understand these signal words: DANGER, WARNING, and CAUTION. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which **will** result in severe personal injury or death. WARNING signifies hazards which **could** result in personal injury or death. CAUTION is used to identify unsafe practices which **may** result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury or death.

Before installing or servicing system, always turn off main power to system and install lockout tag. There may be more than one disconnect switch.

INTRODUCTION

The round and rectangular dampers are designed with a more compact actuator, and are shorter in length. The compact actuator contains a self aligning plastic hub which slips over the shaft but is not clamped to it, reducing the possibility of misalignment and shaft binding. Rectangular dampers now use 45 degree actuators and blades, the same as round dampers.

Damper Features

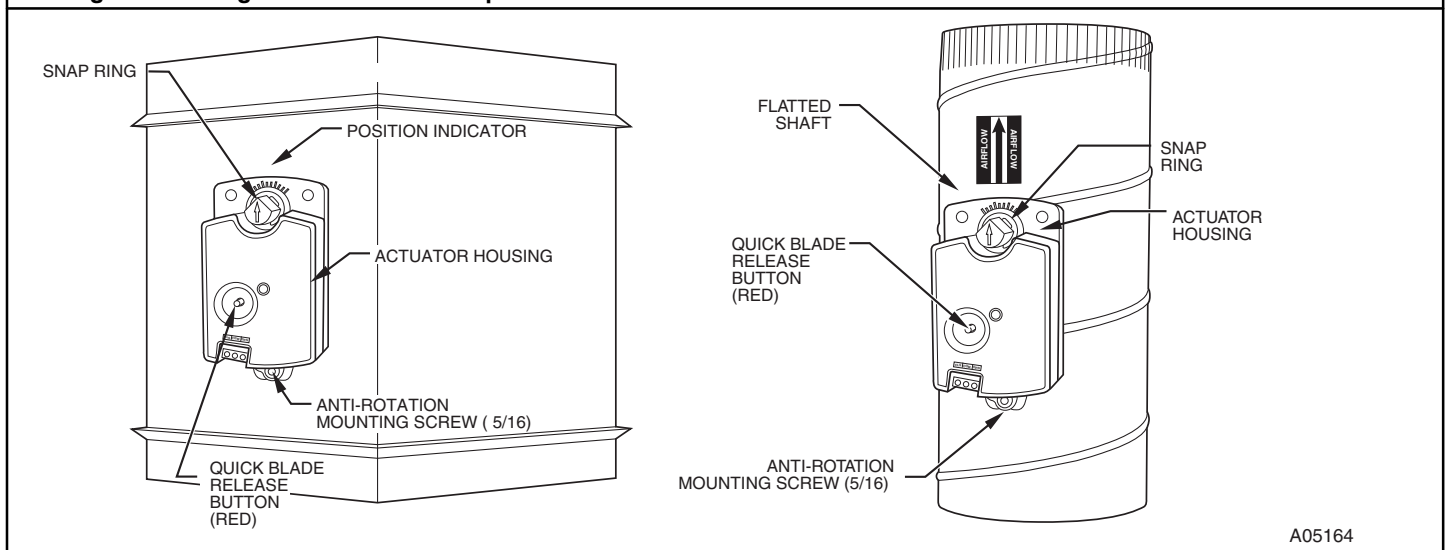
1. Self aligning shaft and actuator hub requires no adjustment.
2. Spring loaded disengagement (quick blade release button) for momentary release of main gear and damper blade.
3. Terminals recessed in plastic. No cover removal for wiring.
4. Plastic hub protects actuator from condensation.

INSTALLATION

NOTE: Refer to the zoning kit installation instructions for application information. All dampers must be properly installed and supported according to local codes or SMACNA standards. Seal duct joints using duct tape, mastic, or other approved methods. Do not allow mastic to come in contact with actuator.

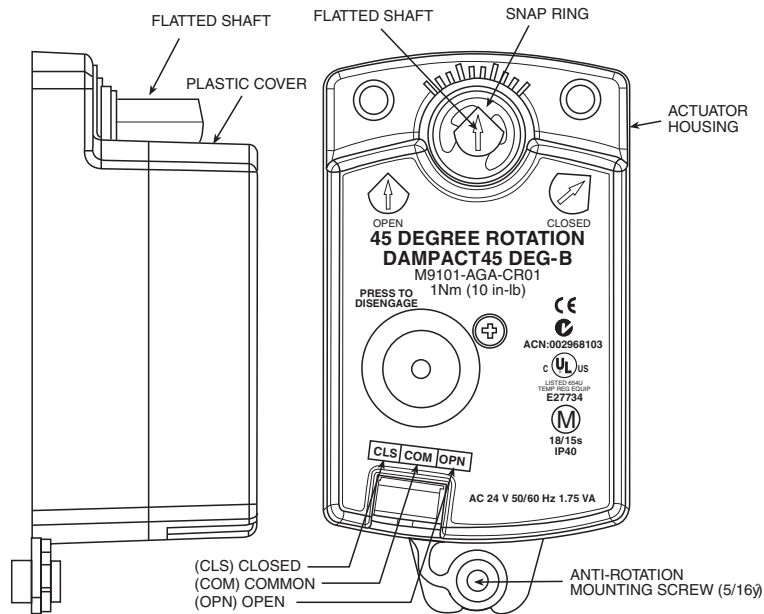
1. Install damper so actuator is visible for inspection and accessible in the event it would ever need servicing. The arrow on end of damper shaft represents damper blade position.
2. To wire damper, connect to OPN, COM, and CLS terminals as indicated. It is good practice to provide a wiring strain relief to protect connections from wire movement.
3. If the damper is in an inconditioned space, insulate the damper using 1-1/2 inches insulation (check local codes).

Fig. 1 - Rectangular and Round Damper



A05164

Fig. 2 – Actuator Detail



A05169

⚠ CAUTION

UNIT COMPONENT DAMAGE HAZARD

Failure to follow this caution may result in damage to the unit.

Before proceeding, verify that all wiring is correct per factory approved schematic.

4. After installation is complete, check dampers and verify they are all operating properly. When 24-vac is applied between common and open, the damper should go full open in approximately 15 sec. If damper is used in a 50 hz application, time will increase to approximately 18sec. Power damper and cycle open/closed several times.
5. Residential dampers are designed in such a way that if the damper jams or stalls it will not damage the damper or motor. If for any reason the damper should jam, it will usually be related to twisting or bending of the damper body during installation, or tension on the dampershaft. After you correct any bending or twisting problems, the damper should operate properly. If in an emergency it becomes necessary to force a damper open manually, press in the disengagement button (quick blade release) with 1 hand and turn mounting hub to reposition damper shaft. Release disengagement button to hold damper shaft in new position.