Installation Instructions

Replacement Direct-Drive Damper Actuator

DAMPACT45DEG-R
DAMPACT90DEG-R

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

This symbol → indicates a change since the last issue.

SAFETY CONSIDERATIONS

Installing and servicing air conditioning equipment can be hazardous due to system pressures, electrical components, and fuel gases. Only trained and qualified personnel should install, service, or repair air conditioning equipment.

Untrained personnel can perform basic maintenance functions such as cleaning coils, or cleaning and replacing filters. All other operations should be performed by trained service personnel. When working on heating & air conditioning equipment, observe precautions in the literature, on tags, and on labels attached to the unit.

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 the 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 a hazard 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.

Follow all safety codes. Wear safety glasses and work gloves. Have a fire extinguisher available if needed. Read these instructions thoroughly and follow all warnings or cautions attached to the unit. Consult local building codes and National Electrical Code (NEC) for special requirements.

Before proceeding with installation, inspect thoroughly for shipping damage. Notify shipper immediately if any damage is found. Check for proper clearances of moving parts.

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

---

⚠ WARNING: ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury or death. Before performing installation, service or maintenance operations on this system turn off all main power switches and/or disconnects. There may be more than one switch or disconnect. Turn off accessory power switch(s) if applicable. TAG DISCONNECT SWITCH(S) WITH A SUITABLE WARNING LABEL.

→ INTRODUCTION

Kit Part No. DAMPACT45DEG-R and DAMPACT90DEG-R are the replacement actuators designed for residential dampers. These kits contain the actuator, an anti-rotation mounting screw, and an Installation Instruction. They can be used on dampers having round shafts or the newer dual flatted shafts. The 24-vac direct-drive actuator provides smooth, quiet performance in a smaller package. The DAMPACT45DEG-R kit is intended for round and newer rectangular dampers having a 45 degree rotation from closed to open. The DAMPACT90DEG-R kit is for slip-in and older rectangular dampers which rotate through 90 degrees from closed to open. Ninety degree rectangular dampers have round shafts while 45 degree rectangular dampers have dual flatted shafts with an arrow on the shaft end.

⚠ CAUTION: UNIT OPERATIONAL HAZARD

Failure to follow this caution may result in improper unit operation. An operational problem will occur if the wrong travel actuator is applied to the wrong damper. Use DAMPACT45DEG-R for 45 degree dampers and DAMPACT90DEG-R for 90 degree dampers.

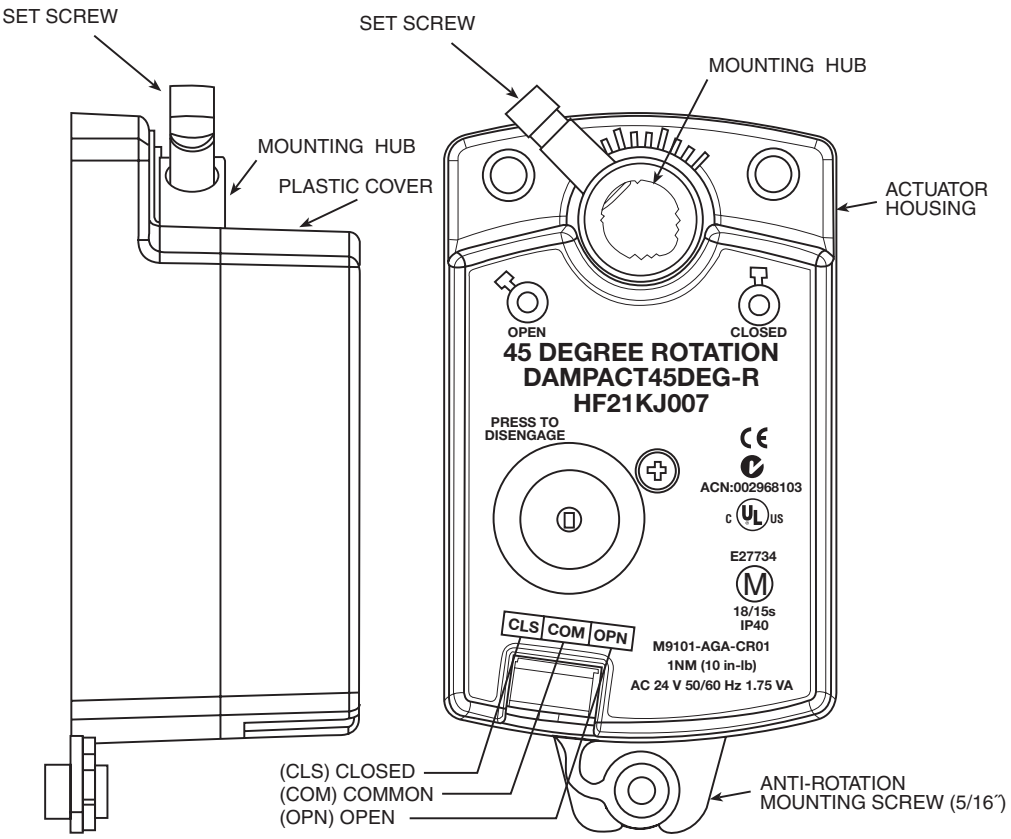
ACTUATOR FEATURES

1. A 1/2-in. direct-drive mounting hub for securing damper blade and shaft to actuator housing.
2. Spring-loaded disengagement (quick blade release button) for momentary release of main gear and damper blade.
3. → Recessed terminal block wiring.

INSTALLATION

Replacing the damper actuator can be performed on dampers already installed in the duct system. Dampers should always be installed where the actuator is visible for inspection and accessible for servicing. A black marker line or a molded arrow on the end of the damper shaft can be used to indicate the damper blade position.

Catalog No.: IM-DAMP-16 Cancels: IM-DAMP-13 Printed in U.S.A. 8-05



→ **Fig. 1–Replacement Actuator Installed**

REMOVE OLD ACTUATOR:

1. Turn power off.
2. Disconnect 24-v wiring to damper actuator.
3. Completely remove old actuator assembly and mounting bracket from damper.

NOTE: After actuator assembly is removed the damper shaft and blade should move freely within housing. If binding or sticking occurs, problem must be corrected before installing new actuator.

TO INSTALL REPLACEMENT ACTUATOR:

→ **NOTE:** Both the 45 and 90 degree replacement actuators will mechanically rotate a full 90 degrees when the blade release button is pressed. The 45 degree actuator uses the blade as a mechanical stop to stop it at the closed position, so that it only rotates through 45 degrees when connected to the damper. This is the way it is designed to operate. Follow directions below, attaching the actuator to the shaft at the **full open** position.

1. Install new actuator aligning shaft through mounting hub (do not tighten set screw yet).
2. Fasten actuator to the damper by using the anti-rotation screw supplied in packaging.
3. → For round shaft dampers, align the damper blade to the fully open position indicated by a black line on the shaft end parallel to the air flow direction. The actuator should be in the fully counter-clockwise position. Check by pressing the gear release button and manually rotating the actuator to the fully CCW stop. Slide the actuator up the shaft away from the damper by 3/16 inch to make its base parallel to the damper surface. Now securely tighten the set screw using a 5/16 open end wrench.
   For flatted shaft dampers, slide the actuator over the shaft, slip the actuator up the shaft 3/16 inch to make its base parallel to the damper surface and tighten the set screw against the CCW flat on the shaft. This will automatically align the shaft and actuator.
4. → To wire damper, strip wire leads 1/4 inch, insert into appropriate terminal and tighten terminal screw. It is good practice to provide a wiring strain relief to protect connection from wire movement.
5. After installation is complete, check dampers and verify they are all operating properly. Press in the Quick Blade Release (using one hand). This will disengage the damper blade. Use your other hand to turn the mounting hub back and forth several times to insure the damper blade is moving freely inside of duct. It doesn't matter what position you leave the mounting hub, because the system will provide proper positioning. Power damper and cycle open/closed several times. Residential dampers are designed in such a way that if the blade 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 damper shaft.
6. In areas where excessive condensing may occur, carefully insulate over the actuator assembly. Make sure insulation does not interfere with operation of actuator.