

## Model DHK Damper Hardware Kit

May be required with Motor Replacement Kit - Model MRK when replacing old motor actuators. Not for use when replacing an MA-ND3, MA-ND4 or MA-ND5.

### Contents:

- (1) ND/ND2 Anti-Rotation Bracket
- (1) URD/RDN Anti-Rotation Bracket
- (1) Shaft Adaptor
- (4) 11/32 hex nuts
- (1) 10-32 x 1/2" Screw
- (1) 10-32 Hex Nut
- (4) #6 phillips screws
- (1) M5 Metric Flanged Nut

### Tools Required:

- 5/16" Nut Driver
- 11/32" Nut Driver (ND/ND2)
- 3/32" Allen Wrench (RDN)
- Medium Phillips Screwdriver
- Flat Head Screwdriver
- Precision Pocket Screwdriver

The Versatile DHK Damper Hardware Kit is compatible with original ND & ND2 Rectangular Dampers. It also works with URD & RDN Style Round Dampers. **The DHK will not work on a ND damper with a Motor side dimension of 8" or less. If your damper is 8" or less, the entire damper must be replaced.**

Installation and service should be performed by qualified personnel only. Follow all local & national, mechanical & electrical codes & ordinances.

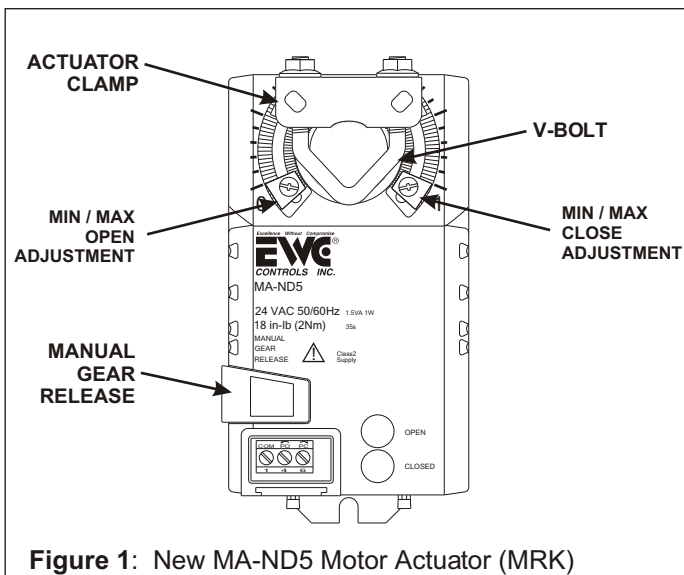


Figure 1: New MA-ND5 Motor Actuator (MRK)

### BEFORE YOU BEGIN

- Read all instructions and figures pertaining to the model actuator you are replacing.
- Gather the necessary tools to complete the replacement.
- Disconnect 24vac power supply.
- Tag and remove low voltage wires from existing actuator.

### ATTACHING BRACKET TO ACTUATOR

- MODEL URD & RDN STYLE DAMPERS (Figure 2)**
- MODEL ND & ND2 STYLE DAMPERS (Figure 3)**
- Select appropriate *Anti-Rotation Bracket* for your damper. See figures 2 or 3.
- Keeping the top folds on the *Anti-Rotation Bracket* toward the Motor Actuator, slide the Motor Actuator into the *Anti-Rotation Bracket*, making sure the folds grab the top of the Motor Actuator.
- Insert screw through Mounting Tabs and tighten nut using a nut driver.
- Follow instructions for **Replacing Motor Actuator** for **URD** or **RDN** on pages 2 and 3.
- Follow instructions for **Replacing Motor**

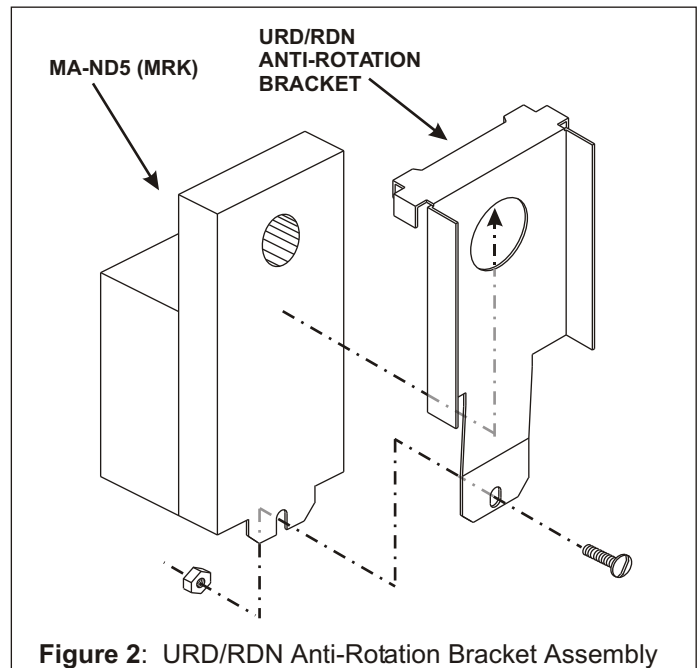


Figure 2: URD/RDN Anti-Rotation Bracket Assembly

## REPLACING MOTOR ACTUATOR

### MODEL URD STYLE DAMPERS

#### (Figure 4)

- Remove the four (4) phillips head screws holding the existing motor actuator to the damper.
- Pull the existing motor actuator straight off.
- Using the *Manual Gear Release* on the New Actuator/Bracket Assembly, position the Actuator Clamp to the far LEFT. (OPEN Position)
- Loosen the nuts on the V-bolt so the Shaft Adaptor will slide thru easily.
- On the URD damper, position the slot on the Damper Blade Shaft vertically and insert the URD/ND mating end of the Shaft Adaptor fully into the Damper Blade Shaft.
- Align Actuator/Bracket Assembly and mounting holes with Shaft Adaptor and mounting brackets.
- Insert Philips head screws thru mounting brackets into the Anti-Rotation Bracket and tighten.
- Using a 5/16" nut driver, tighten the V-bolt to the Shaft Adaptor.
- Reconnect wiring.

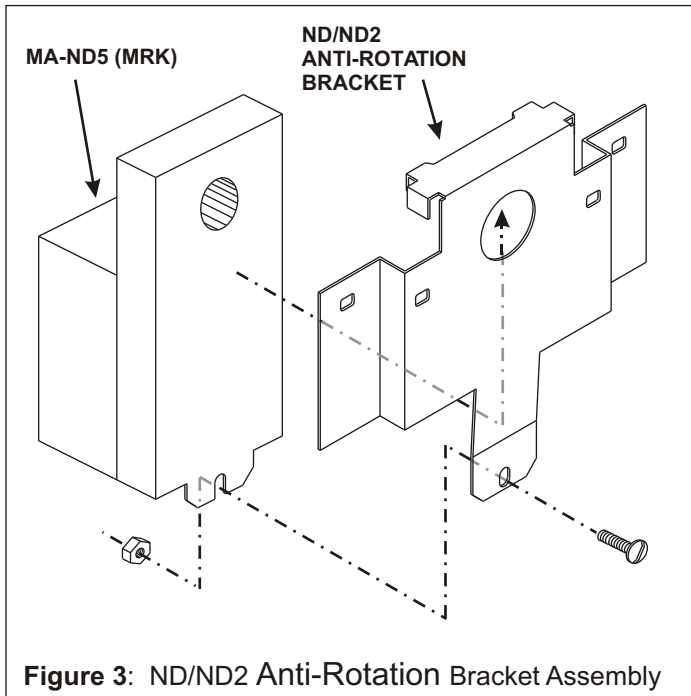


Figure 3: ND/ND2 Anti-Rotation Bracket Assembly

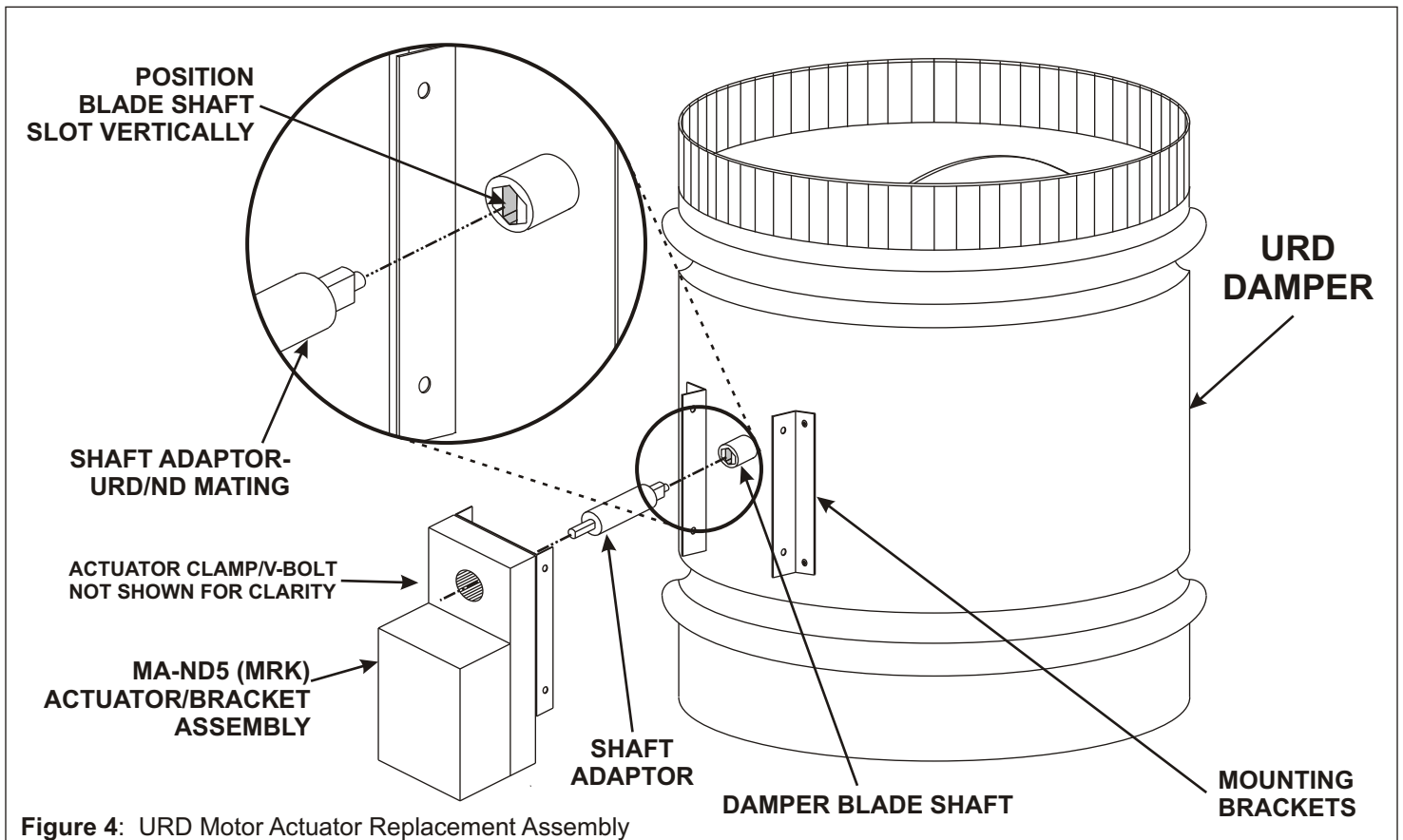


Figure 4: URD Motor Actuator Replacement Assembly

### MODEL RDN STYLE DAMPERS

#### (Figure 5)

- Align *Damper Blade Shaft* set screw with access opening on existing motor actuator.
- Using a 3/32" allen wrench, loosen the set screw on the *Damper Blade Shaft*.
- Remove the four (4) phillips head screws holding the existing motor actuator to the damper.
- Pull the existing motor actuator straight off.
- Using the *Manual Gear Release* on the New Actuator/Bracket Assembly, position the *Actuator Clamp* to the far RIGHT. (CLOSED Position)
- Loosen the nuts on the *V-bolt* so the *Shaft Adaptor* will slide thru easily.
- On the RDN damper, position the set screw on the *Damper Blade Shaft* so it is facing UP and insert the RDN mating end of the *Shaft Adaptor* fully into the blade shaft with the flat side UP.
- Using 3/32" allen wrench, tighten the set screw on the *Damper Blade Shaft*.
- Align Actuator/Bracket Assembly and mounting holes with *Shaft Adaptor* and mounting brackets.
- Insert Philips head screws thru mounting brackets into the *Anti-Rotation Bracket* and Tighten.
- Using a 5/16" nut driver, tighten the *V-bolt* to the *Shaft Adaptor*.

- Reconnect wiring. Note: Refer to MA-ND5 Submittal sheet for proper wiring.

### MODEL ND/ND2 STYLE DAMPERS

#### (Figure 6)

- Remove the two (2) 11/32" actuator mounting nuts holding existing motor actuator to damper frame.
- Pull the existing motor actuator straight off.
- For ND2 dampers place one (1) of the supplied 11/32" hex nuts on each existing *Mounting Post*. (Not necessary for older ND dampers).
- Using the *Manual Gear Release* on the New Actuator/Bracket Assembly, position the *Actuator Clamp* to the far LEFT. (OPEN Position)
- Loosen the nuts on the *V-bolt* so the *Shaft Adaptor* will slide thru easily.
- On the damper, position the slot on the *Damper Blade Shaft* vertically and insert *Shaft Adaptor* fully into the *Damper Blade Shaft*.
- Align Actuator/Bracket Assembly and mounting holes with *Shaft Adaptor* and mounting posts.
- Replace 11/32" hex nuts on mounting posts and tighten.
- Using a 5/16" nut driver, tighten the *V-bolt* to the *Shaft Adaptor*.
- Reconnect wiring.

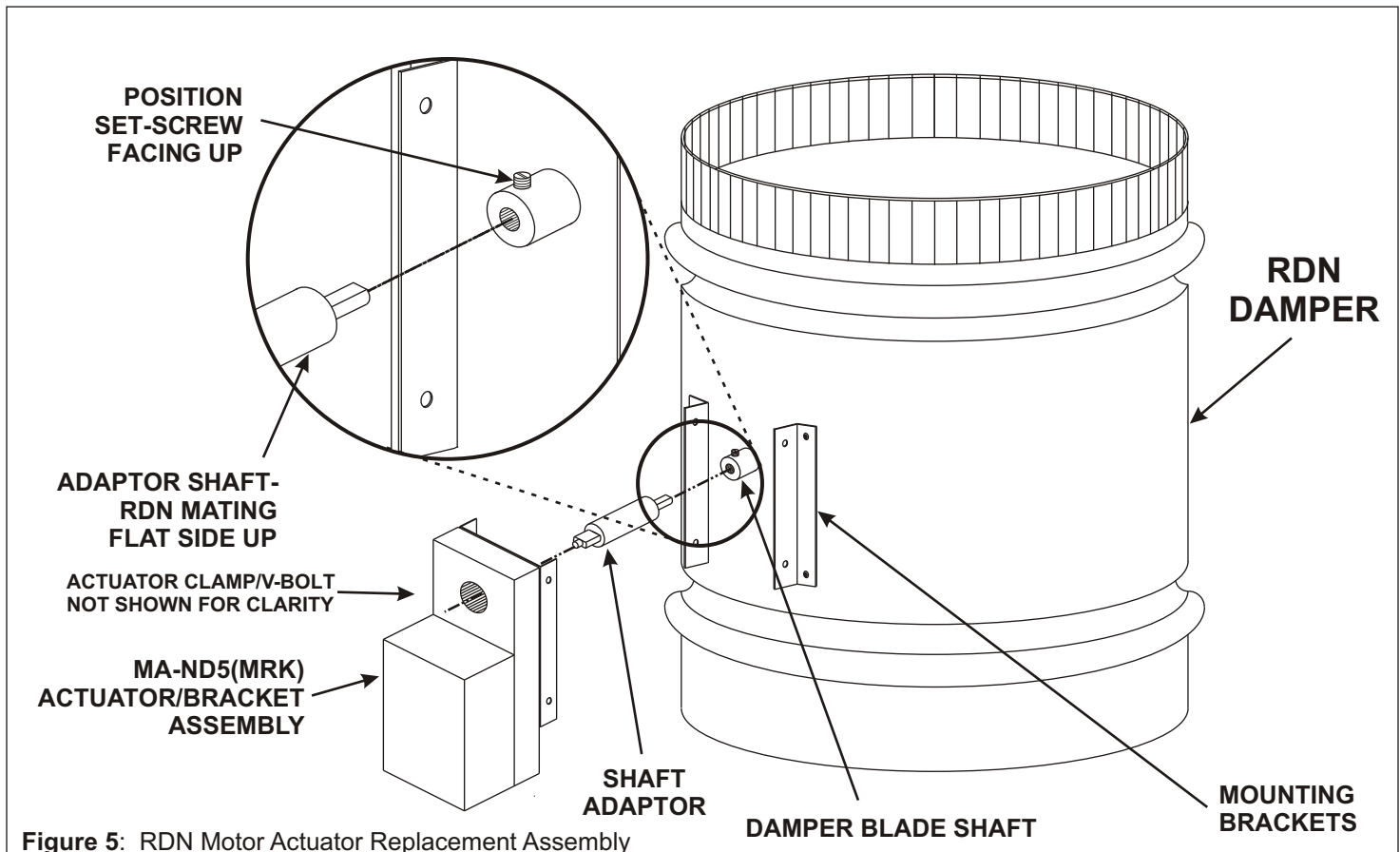
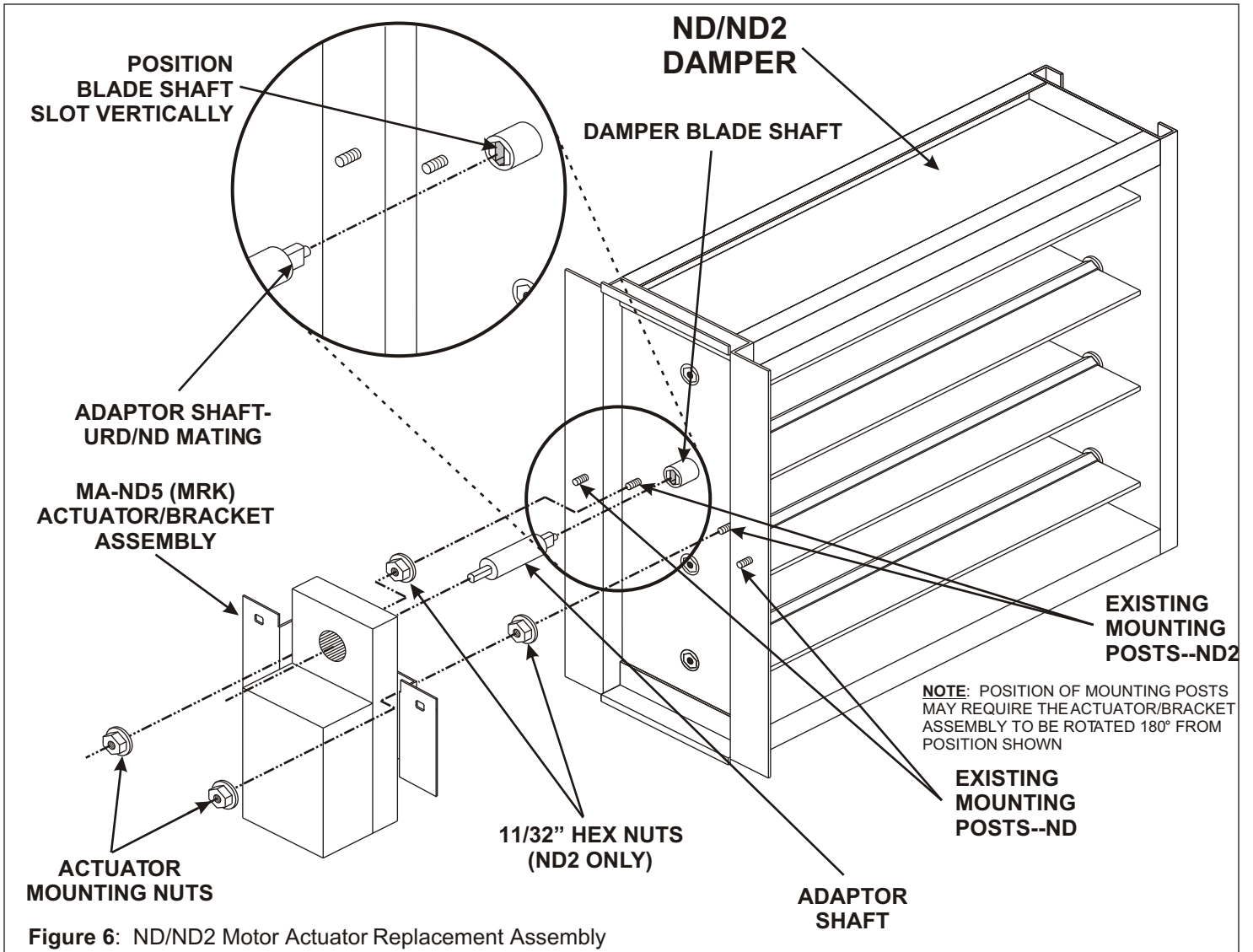
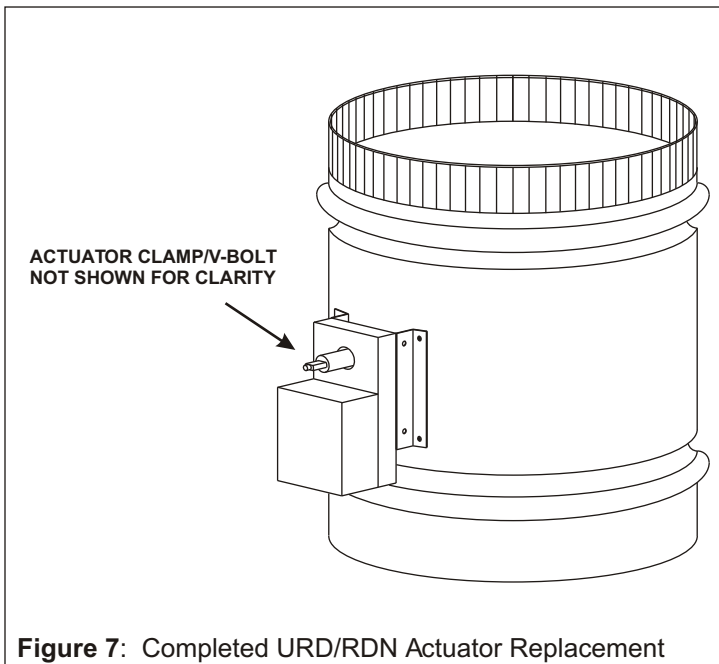


Figure 5: RDN Motor Actuator Replacement Assembly

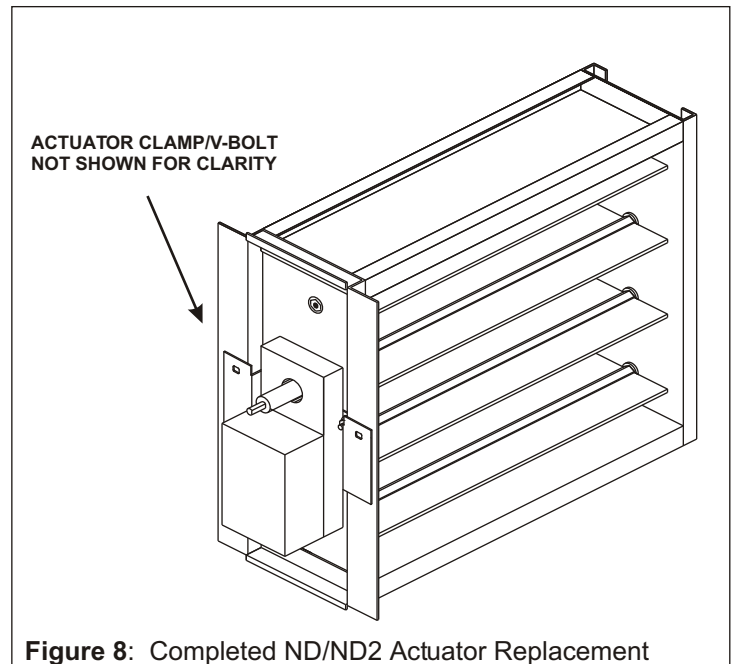
# Model DHK - Damper Hardware Kit



**Figure 6: ND/ND2 Motor Actuator Replacement Assembly**



**Figure 7: Completed URD/RDN Actuator Replacement**



**Figure 8: Completed ND/ND2 Actuator Replacement**