

# INSTALLATION INSTRUCTIONS

## Series 80 Air Control Damper

### Handling:

Unpack all dampers carefully. Immediately note any damage (bent hardware, kinked or torn side seals, missing screws, bearings, etc.) and inform your representative. Do not install, especially if side seal may have to be replaced. It is easier to repair a damper on the floor than in ducting. Do not pile dampers on each other or allow debris to fall on them. Avoid re-handling if possible; install each unit as soon as possible after unpacking.

### Identification:

All dampers contain labels on which tagging, if called for, is included. Each section of multiple section dampers have labels which states its location in relation to the other sections. It is very important that assembly should follow these labels to ensure that joining tabs fit and the "U" bolt connectors (where supplied) go into matching holes supplied.

### Installation:

1. Check the location of intended installation for any obstructions or irregularities, which might interfere with damper operation. The duct opening should measure a +1/4" over the damper dimensions, and should be straight, square, level, and/or plumb. In horizontal duct runs ('vertical' damper installation) ensure the area under the damper is supported, to prevent sagging due to its weight.
2. Determine the location of the shaft extension (hole) before securing the damper in place. Attach the spring clip mounted shaft extension through the holes in the sleeve and bracket, to a 'power blade'. In a parallel blade damper, all blades are power blades. In an opposed blade damper, every other blade from the 'primary' blade are power blades.
3. On dampers with blade and jamb seals, apply a bead of caulk around the perimeter of the damper/sleeve joint on both sides of the damper to prevent leakage.
4. Before concluding the installation, cycle the damper several times to ensure unimpeded function.
5. For multi-section damper installations larger than 120" x 120", mullions are recommended. Request pages F-57 and F-58 of Aire Technologies' Installation Instructions package for details on construction of and installations employing mullions. Alternatively, consult the SMACNA Fire, Smoke, & Radiation Damper Installation Guide on that subject.
6. Aire Technologies Air Control Dampers may be actuated with electric or pneumatic actuators. Please consult the Installation Instructions provided with those products for proper attachment of those items.

### Operation Check:

- A. Lubricate linkage, bearings, and other moveable parts with a silicone lubricant. Do not use petroleum-based products as they could cause excessive dust collection.
- B. Manual dampers should run through a full-open to full-close cycle by hand to determine the good condition of the damper. If there is any binding, it is up to the installer to:
  - a. Clean damper of any debris (dust, dirt, concrete, etc.) that can obviously impede movement.
  - b. Check for straightness and twist.
  - c. Check side seals (if included) for kinks and tears.
  - d. Check for missing bearings.
  - e. Check that all hardware is undamaged and freely moving.
- C. Motorized dampers should be checked by a preliminary attempt to operate with the motor. If binding occurs, disconnect one end of the driving linkage (and note its exact position beforehand) to operate damper manually and check per above. Reconnect linkage and check again. Obviously, if the motor is inoperative, this will become apparent at first step.

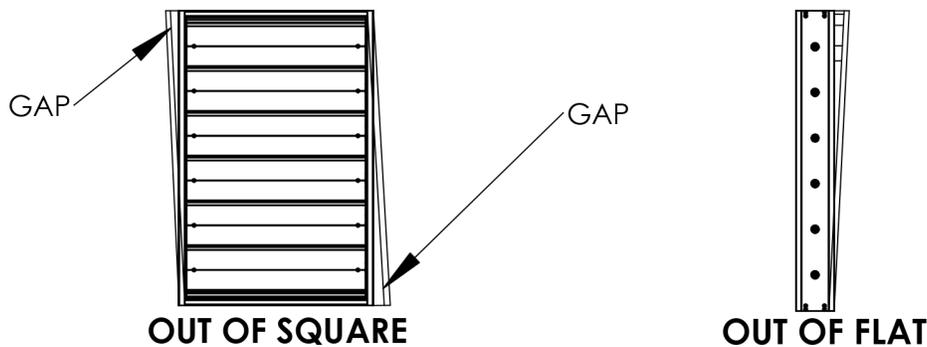
### Maintenance:

Once every 6 months, we recommend the following:

- Tighten any screws that are loose.
- Spray all moving parts with a silicone lubricant.
- Clean and wipe down damper

### NOTE:

The bottom of the duct or wall opening must support the weight of the damper. The bottom of the duct must be a flat, square surface. If not flat, use shims to keep damper bottoms in alignment. On larger multi-section installations, use adequate support and bracing to provide a rigid installation.

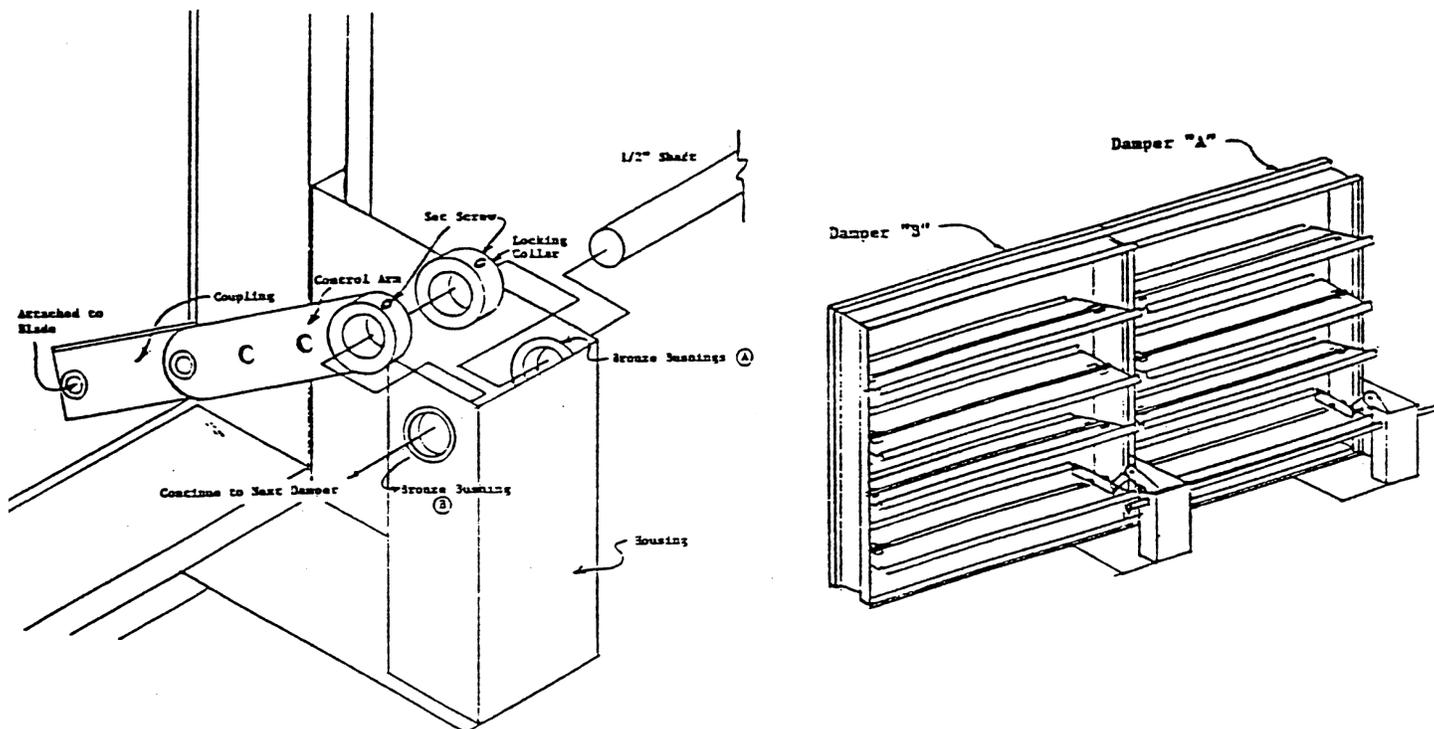


### WARNING:

Improperly installed dampers and damper sections prevent the blades from sealing properly. Gaps between the blades and frame indicate a damper that is installed out of square. Gaps between the blades indicate a damper installed out of flat. Gaps between the blades and jambs indicate a damper of square.

# INSTALLATION INSTRUCTIONS

## Installation of Jack Shaft Assembly



These dampers have been pre-assembled and tested before shipping. Please read instructions before beginning.

1. Place dampers in order: A, B, C, etc. Make sure when facing side of damper with housing on it, the housing is on the right hand side of the damper.
2. Use the self-tapping screws supplied to attach the frames together through the pre-drilled holes.
3. Bring with damper "A".
4. Place the 1/2" rod halfway through bronze bushing.
5. Slide the locking collar (should be wired to control arm for shipping) over the shaft.
6. Next, hold the control arm up (which is attached to the bottom blade) and slide the 1/2" rod through it until the rod sticks out of bronze bushing (B).
7. Continue sliding the rod to damper "B".
8. Repeat steps 4, 6, and 7 until the rod has attached all single section dampers. (Note: only damper "A" will have a locking collar.)
9. Once the 1/2" rod is in place, close damper "A". The control arm and coupling should now be in a straight line.
10. Tighten the set screw of the control arm with a 1/8" Allen wrench.
11. Slide the locking collar over to the opposite side (away from control arm) of the housing and tighten its set screw. This should allow little side to side movement of the 1/2" rod. If there is movement, this may cause added friction in opening the dampers.
12. Move to damper "B". Shut damper and tighten set screw. Repeat this until all set screws are tightened.
13. Cycle damper using 1/2" rod to ensure nothing is binding.
14. 1/2" rod may be adjusted side to side to allow for proper installation of actuator/hand quadrant.