

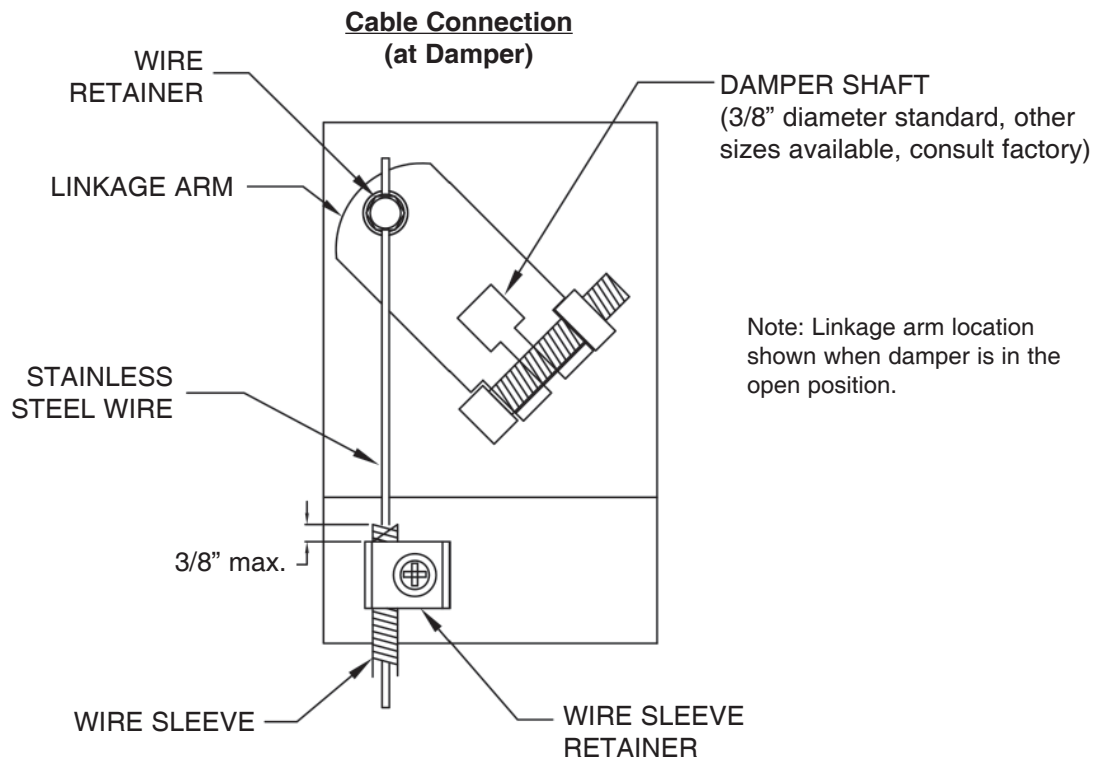
## INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS

### Cable Operated Dampers, Model FQAA and FQBA

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**CAUTION! DO NOT INSTALL, USE OR OPERATE THIS EQUIPMENT UNTIL THIS MANUAL HAS BEEN READ AND UNDERSTOOD. READ AND SAVE THESE INSTRUCTIONS FOR FUTURE USE.**

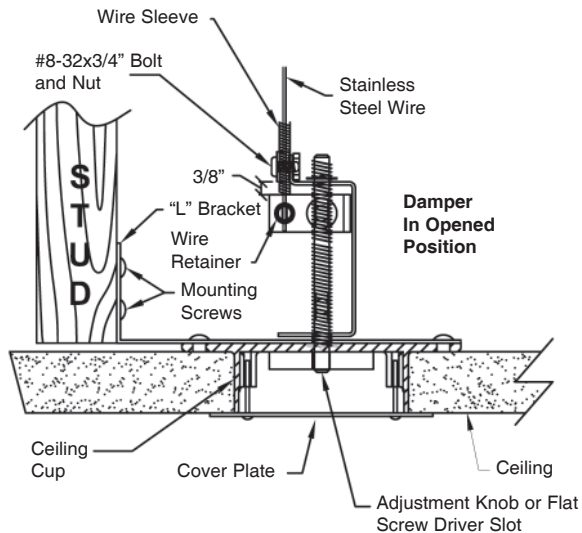
## For use with models FQAA and FQBA



- 1) Make sure linkage arm is in the location shown above (damper will be in full open position).
- 2) Slide wire sleeve under wire sleeve retainer leaving approximately 3" of the stainless wire exposed. Make sure wire sleeve does not extend more than 3/8" beyond the wire sleeve retainer (see drawing).
- 3) Slide stainless wire into wire retainer and tighten. Then tighten wire sleeve retainer securing the wire sleeve in place. Make sure damper remains in open position during this step.
- 4) Install damper as needed allowing cable to reach the controller with the fewest turns for optimum operation.
- 5) Connect cable to controller, if not already connected (see individual connection details for each controller).

**NOTE:** Minimize 90 degree bends in cable to one and try to locate controller as close to damper as possible to minimize play in total system. The more curves in the cable, the less responsive the damper will be to the controller. Wire and casing between damper and controller should be secured every 4 feet.

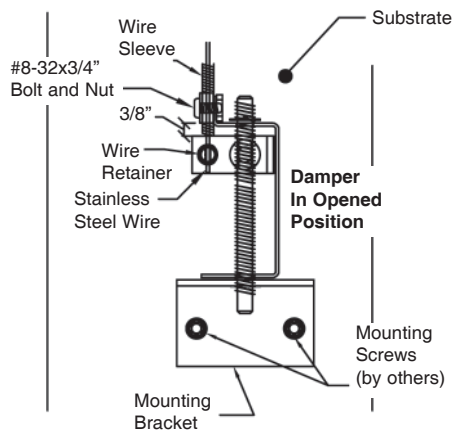
### Model BO-300 Controller Installation



- 1) Cut a  $\text{Ø}2\text{-}7/8$ " hole in ceiling. Install cup using "L" bracket and mounting screws (mounting screws by others).
- 2) Slide stainless wire into wire retainer and tighten. Then tighten the #8 bolt and nut, securing the wire sleeve in place. Make sure wire sleeve does not extend more than  $3/8$ " beyond the wire sleeve retainer (see drawing).
- 3) Attach cover to ceiling cup with provided screws.

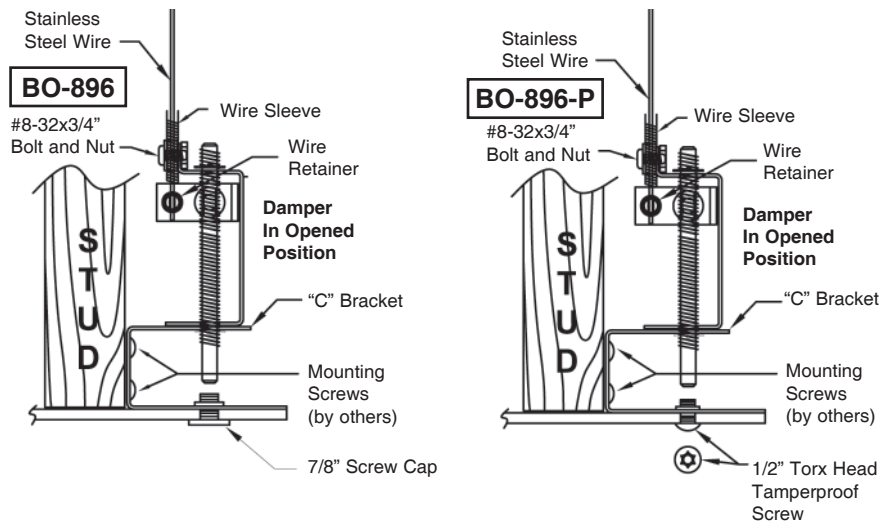
**Note:** BCW (Wire Sleeve & Stainless Steel Wire) must be in as straight a line as possible from damper to insure optimum performance.

### Model BO-R Controller Installation

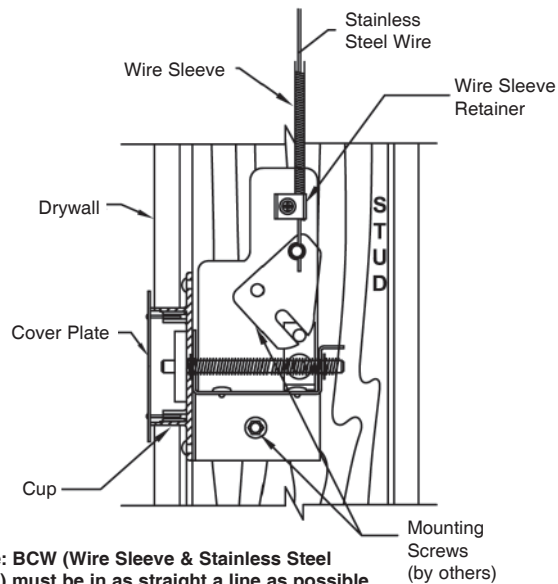


- 1) Attach mounting bracket with controller to desired surface (plenum, ceiling joist, diffuser or access panel). (Mounting screws by others.)
- 2) Slide stainless wire into wire retainer and tighten.
- 3) Then tighten the #8 bolt and nut, securing the wire sleeve in place. Make sure wire sleeve does not extend more than  $3/8$ " beyond the wire sleeve retainer (see drawing).

### Model BO-896 & BO-896-P Controller Installation



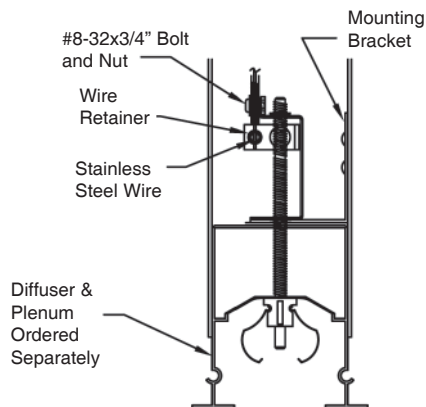
- 1) Attach "C" bracket with controller to ceiling joist (mounting screws by others).
- 2) Slide stainless wire into wire retainer and tighten.
- 3) Then tighten the #8 bolt and nut, securing the wire sleeve in place. Make sure wire sleeve does not extend more than  $3/8$ " beyond the wire sleeve retainer (see drawing).
- 4) Install screw cap (model BO-896) or torx head tamperproof screw (model BO-896-P).



**Note: BCW (Wire Sleeve & Stainless Steel Wire) must be in as straight a line as possible from damper to insure optimum performance.**

### Model BO-702 Controller Installation (Damper In Open Position)

- 1) Remove cover plate from cup.
- 2) Connect controller (cup) to stud (mounting screws by others).
- 3) Attach controller to cup with rivets.
- 4) Slide wire sleeve under wire sleeve retainer leaving approximately 2" of the stainless wire exposed. Make sure wire sleeve does not extend more than 3/8" beyond the wire sleeve retainer (see drawing).
- 5) Slide stainless wire into wire retainer and tighten. Then tighten wire sleeve retainer securing the wire sleeve in place.
- 6) Replace cover plate.



**Note: BCW (Wire Sleeve & Stainless Steel Wire) must be in as straight a line as possible from damper to insure optimum performance.**

### Model BO-PL Controller Installation (Damper In Open Position)

- 1) Drill 3/8"Ø hole in spine of directional diffuser at desired location.
- 2) Slide stainless wire into wire retainer and tighten. Then tighten the #8 bolt and nut, securing the wire sleeve in place.
- 3) Install controller directly above 3/8"Ø hole with mounting bracket (mounting screws or rivets by others).