

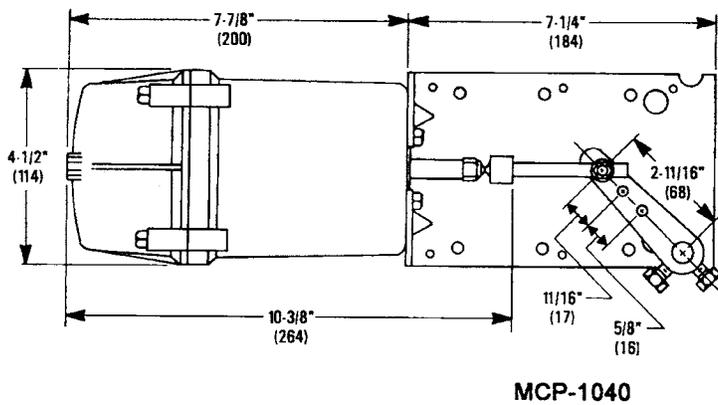
Installation Guide

Mounting

Post

NOTE: Post mounting is typically used for **internal duct** mounting.

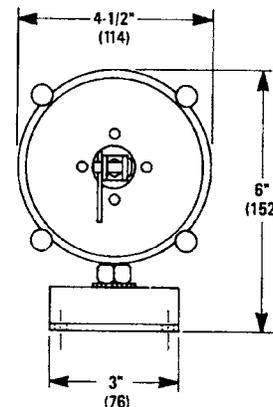
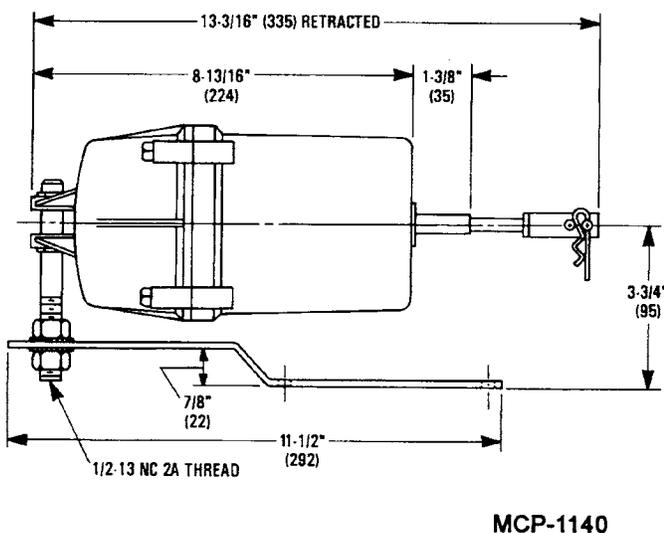
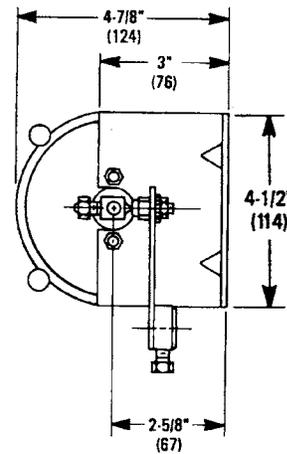
1. Position the damper for its "normal" position.
2. Connect the damper's blade clip or drive arm with the clevis pin and cotter pin.
3. Mount the offset bracket to either the damper frame or the duct.
4. Check that the linkage will not bind as the shaft extends and retracts.



Right Angle

NOTE: Right-angle mounting is typically used for **external duct** mounting.

1. Slide the crank arm over the damper shaft.
2. Determine whether the damper shaft must rotate clockwise (CW) or counterclockwise (CCW).
3. Locate the half-circle cutouts on the outside corners of the bracket.
4. Place the appropriate half circle cutout over (for clockwise rotation) or under (for counter clockwise rotation) the damper shaft).



CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.

- Loosely mount the actuator externally on the duct or air handling unit.
- Leave sufficient room for adjusting and servicing the unit.
- Position the damper for its “normal” position.
- Tighten the crank arm set screws.
- Check that the linkage will not bind as the shaft extends and retracts.
- Firmly anchor the bracket to the duct. The actuator assembly is positioned for 90° rotation.

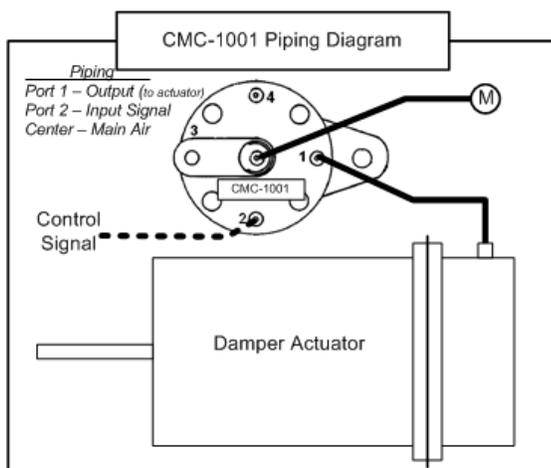
Connections

NOTE: Use 1/4" (6 mm) O.D. FR polyethylene tubing and only clean, dry control air.

NOTE: Models ordered with CMC-1001 positioners are factory-piped between the positioner and the actuator.

NOTE: If the application requires operation near the maximum temperature and maximum pressure, add a tubing restraint to the actuator connection.

- Connect the **input control signal** to the actuator port (if no positioner is used) or to the positioner (CMC-1001 input) Port 2 (see the diagram).
- Connect the **main air** (20 psi) to the positioner (CMC-1001 center) port.
- If a positioner is not factory-piped to the actuator, connect the actuator input port to positioner (CMC-1001 output) Port 1.
- Slowly apply supply pressure to fully stroke the actuator and linkage.
- Check for any binding. Fine tuning can be accomplished by adjusting the balljoint on the pushrod.



Adjustments and Calibration

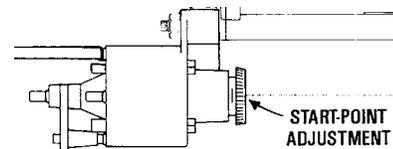
▲ DANGER

The actuator contains a large powerful spring. Exercise extreme caution if disassembly is required. The actuator shaft **MUST** be restrained to prevent the spring from expanding.

Actuators with positioners contain an 8–13 psi spring. A positioner allows the unit to operate over any 5 psi span with the start-point adjustable from 3–10 psi. Replace the 5 psi spring with a 10 psi spring to widen the span.

To change the positioner start-point:

- Apply the desired signal pressure.
- Rotate the start-point adjuster until the actuator starts to stroke.



Maintenance

No routine maintenance is required. However, care should be taken during any installation or maintenance due to the power of the actuator. Each component is designed for dependable, long-term reliability, and performance. Careful installation will also ensure long-term reliability and performance.

Important Notices

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More Information

For specifications and other information about the actuators, see the [MCP-1040/1140/04xx Series Data Sheet](#) on the [KMC web site](#). For information about the positioner, see the [CMC-1001 Data Sheet](#).

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