

## Applications

The AM-671 and AM-672 universal mounting brackets and the AM-673 multiple actuator mounting bracket are used with MX40-704X, MX40-707X and MX40-715X damper actuators.

The AM-758, AM-759 and AM-760 universal mounting brackets are used with MX40-707X and MX40-715X damper actuators.

The AM-671 and AM-672 universal mounting brackets are each designed to provide a mounting surface for an above-listed actuator when the actuator cannot be mounted directly to the damper shaft and no proper mounting surface is available. Both brackets require that the AM-693 or AM-712 linkage kit (order separately) be used.

The AM-673 multiple actuator mounting bracket makes it possible to mount two of the above-listed actuators onto one damper shaft when more torque is required. Refer to Model Chart for usage.

The AM-758, AM-759 and AM-760 universal mounting brackets are each designed to provide a mounting surface for an above-listed actuator when the actuator cannot be mounted directly to the damper shaft and no proper mounting surface is available. The brackets allow both vertical and horizontal mounting. The brackets require that the AM-690, and AM-691 crankarm kit (order separately) be used.

## Features

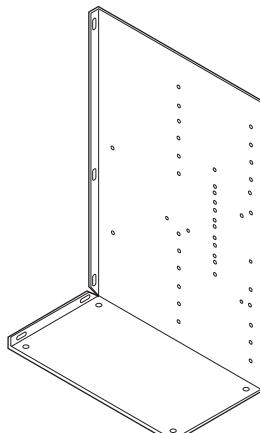
- Made from 12-gauge galvanized steel

### AM-671 and AM-672

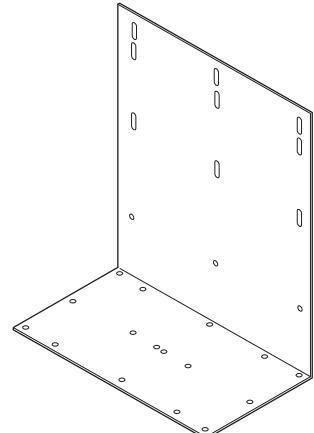
- May be installed inside or outside the duct mounting, to the ductwork, or directly to the damper assembly
- May also be mounted to suitable surfaces other than the duct

### AM-673

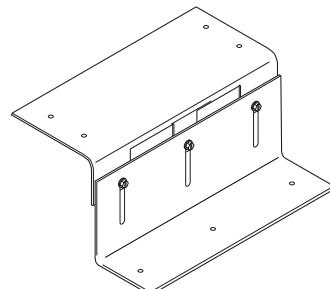
- Allows the mounting of two damper actuators onto one damper shaft



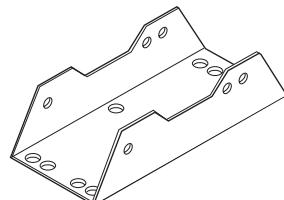
AM-671



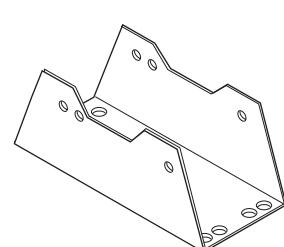
AM-672



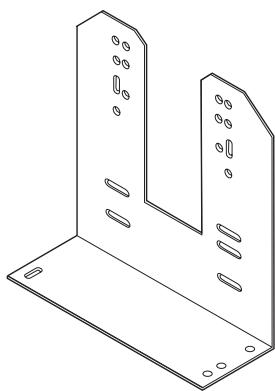
AM-673



AM-758



AM-759



AM-760

### AM-758

- May be installed inside or outside the duct mounting, to the ductwork, or directly to the damper assembly.
- When used as a replacement it will place the crankarm in the same relative position as the Honeywell™ Mod IV actuators.

### AM-759

- May be installed inside or outside the duct mounting, to the ductwork, or directly to the damper assembly.
- When used as a replacement it will place the crankarm in the same relative position as the Honeywell™ Mod III actuators.

### AM-760

- May be installed inside or outside the duct mounting, to the ductwork, or directly to the damper assembly.
- Provided with hole patterns to mount the actuators in either a horizontal or vertical position.

## Applicable Literature

- Cross-Reference Guide, F-23638
- MA40-7XXX, MA40-7XXX-50X Spring Return Two-Position SmartX Actuators General Instructions, F-26642
- MF40-7XX3, MA40-7XX3-50X Spring Return Floating SmartX Actuator General Instructions, F-26644
- MS40-7XX3, MS40-7XX3-50X Spring Return Proportional SmartX Actuator General Instructions, F-26645
- MX40-7XXX and MX40-6XXX SmartX Actuator Selection Guide, F-26646

## SPECIFICATIONS

**Material:** 12 GA Galvanized Steel.

**Table-1 Model Chart.**

Model	Description	For Use With	Kit Required
AM-671	Universal mounting bracket with side flange	MA40-707X, MF40-7073, MS40-7073, MA40-715X, MF40-7153, MS40-7153	AM-693
		MA40-704X, MF40-7043, MS40-7043	AM-712
AM-672	Universal mounting bracket	MA40-707X, MF40-7073, MS40-7073, MA40-715X, MF40-7153, MS40-7153	AM-693
		MA40-704X, MF40-7043, MS40-7043	AM-712
AM-673	Multiple actuator mounting bracket	MA40-704X, MF40-7043, MA40-707X, MA40-715X, MF40-7153, MS40-7153	N/A
AM-758	Universal short "U" mounting bracket	MA40-707X, MF40-7073, MS40-7073, MA40-715X, MF40-7153, MS40-7153	AM-690 or AM-691
AM-759	Universal long "U" mounting bracket	MA40-707X, MF40-7073, MS40-7073, MA40-715X, MF40-7153, MS40-7153	AM-690 or AM-691
AM-760	Universal slotted "L" mounting bracket	MA40-707X, MF40-7073, MS40-7073, MA40-715X, MF40-7153, MS40-7153	AM-690 or AM-691

## Additional Equipment Required

When an AM-671 or AM-672 universal mounting bracket is used to mount a damper actuator, an AM-693 or AM-712 crankarm kit is required to complete the installation. See Table-1.

When an AM-758, AM-759 or AM-760 universal mounting bracket is used to mount a damper actuator, an AM-690 or AM-691 crankarm kit is required to complete the installation. See Table-1.

# INSTALLATION

## Inspection

Inspect the package for damage. If damaged, notify the appropriate carrier immediately. If undamaged, open the package and inspect the device for obvious damage. Return damaged products.

## Requirements

- Drill and No. 24 drill bit for AM-671 and AM-672
- No. 19 drill bit for AM-673
- Tools (not provided):
  - Appropriate screwdriver for mounting screws
  - Torque wrench with appropriate socket
- #8 sheet metal screws (not provided)
- Training: Installer must be a qualified, experienced technician.
- Other accessories as appropriate
- 10 mm and 7/16" open end wrench

## Mounting

### AM-671 Universal Mounting Bracket

#### Note:

To complete the installation of a damper actuator using an AM-671 universal mounting bracket, an AM-693 or AM-712 crankarm kit is required.

1. Install the universal mounting bracket onto the mounting surface, using either the four 1/4" (6.35 mm) diameter holes in its base or the five 1/4" X 5/8" (6.35 x 15.87 mm) oval holes in its edge (See Figure-5).
2. Locate the pre-drilled mounting holes on the actuator label that are covered by a white "+" sign (See Figure-1 and Figure-2).
3. Puncture the "+" sign locations that will be used for the mounting brackets.



#### Caution:

Do not drill holes in the actuator body. Use #10 self tapping screws (provided with accessory kit) into actuator body.

4. Use the #10 self-tapping screws to secure the brackets to the actuator, see Figure-1 and Figure-2.
5. Determine the best location for the actuator on the universal mounting bracket. The bracket features pre-punched hole patterns on the actuator mounting surface.

#### Note:

The pre-punched mounting holes in the universal mounting bracket may not be in the correct location for the application. In this case all four holes will be marked and drilled.

6. Attach the actuator to the mounting surface with #8 sheet metal screws (not supplied).
7. Link the damper actuator to the damper linkage, using the crankarm supplied in the appropriate crankarm kit.

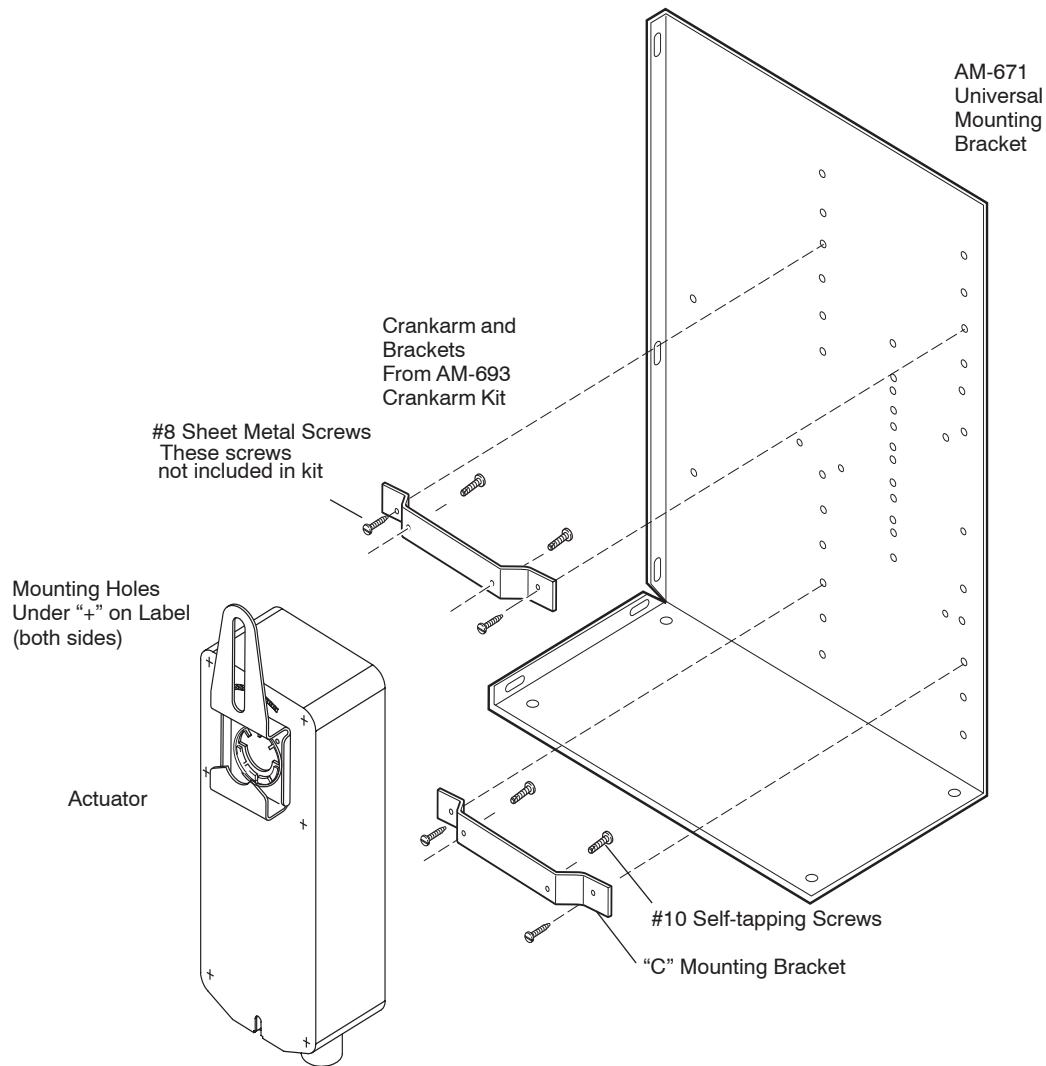


Figure-1 Installation of MX40-707X and MX40-715X Actuator to Universal Mounting Bracket AM-671.

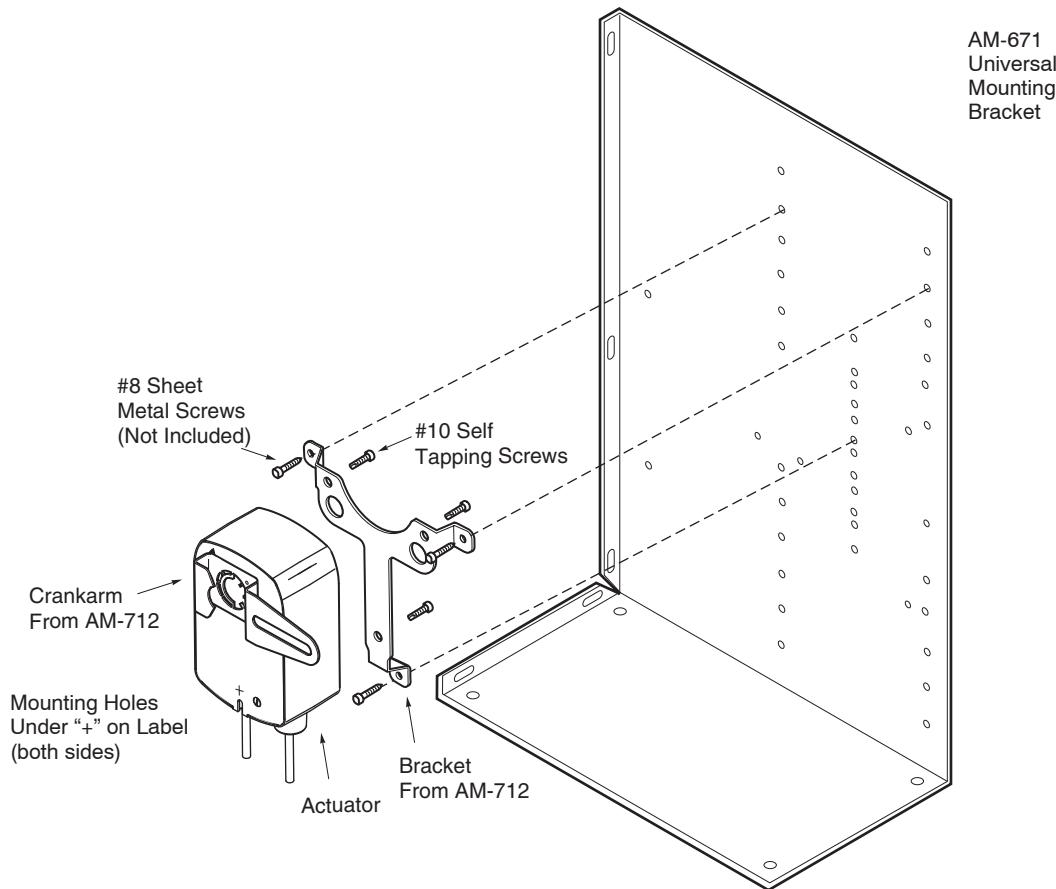


Figure-2 Installation of MX40-704X actuator to Universal Mounting Bracket AM-671.

### AM-672 Universal Mounting Bracket

**Note:**

To complete the installation of a damper actuator using an AM-671 universal mounting bracket, an AM-693 or AM-712 crankarm kit is required.

1. Install the mounting bracket onto the mounting surface.
2. Locate the pre-drilled mounting holes on the actuator label that are covered by a white "+" sign (See Figure-3 and Figure-4).
3. Puncture the "+" sign locations that will be used for the mounting brackets.

**Caution:**

Do not drill holes in the actuator body. Only use #10 self tapping screws (provided with accessory kit) into actuator body.



4. Use the #10 self-tapping screws to secure the brackets to the actuator (See Figure-3 and Figure-4).
5. Determine the best location for the actuator on the universal mounting bracket. The bracket features pre-punched hole patterns on the actuator mounting surface.
6. Attach the actuator to the mounting surface with #8 sheet metal screws (not supplied).
7. Link the damper actuator to the damper linkage, using the crankarm supplied in the appropriate crankarm kit.

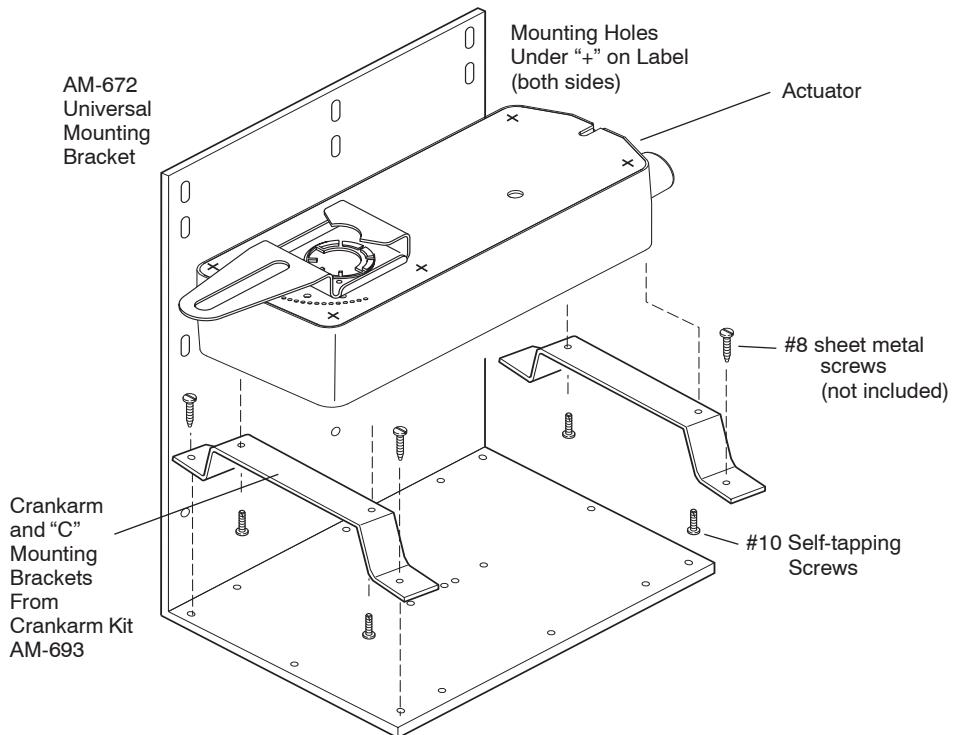


Figure-3 Installation of MX40-707X and MX40-715X Actuator to Universal Mounting Bracket AM-672.

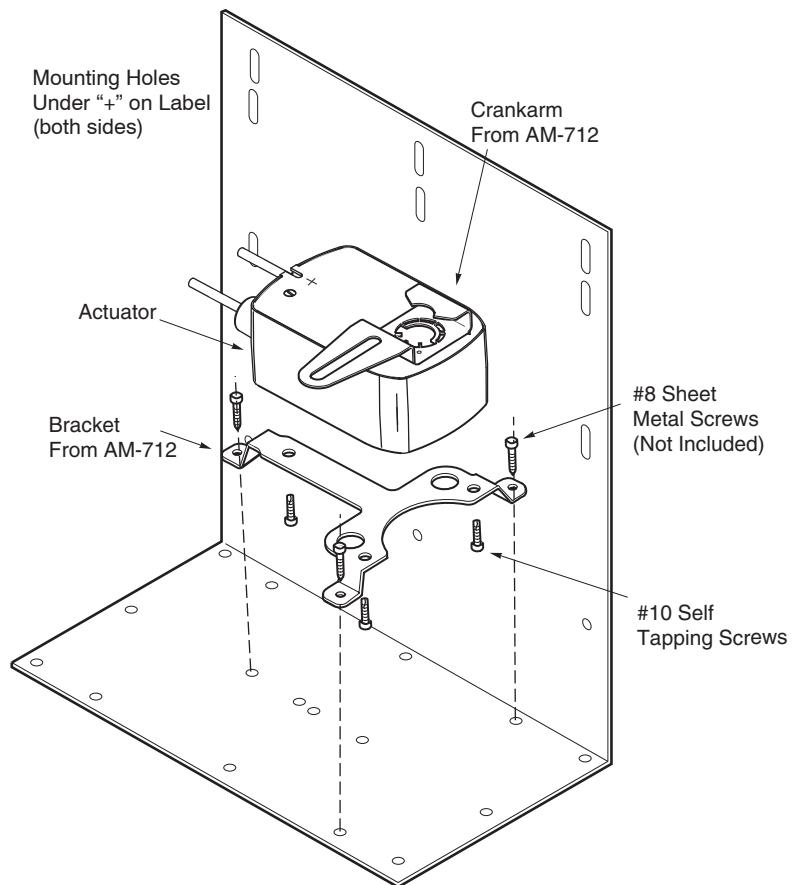


Figure-4 Installation of MX40-704X Actuator to Universal Mounting Bracket AM-672.

## AM-673 Multiple Actuator Mounting Bracket

Determine how the two damper actuators will be mounted. Using the multiple actuator mounting bracket, it is possible to mount the actuators one directly above the other (See view 3A in Figure-5), or with the top actuator 180° opposed to the bottom actuator (See view 3B in Figure-5). Note that the advantage of mounting the second actuator directly above the first is that a smaller mounting area is required and it allows for neater routing of the actuator wires. The advantages of mounting the second actuator at 180 degrees opposed to the first are that the actuators may be mounted on a shorter damper shaft.

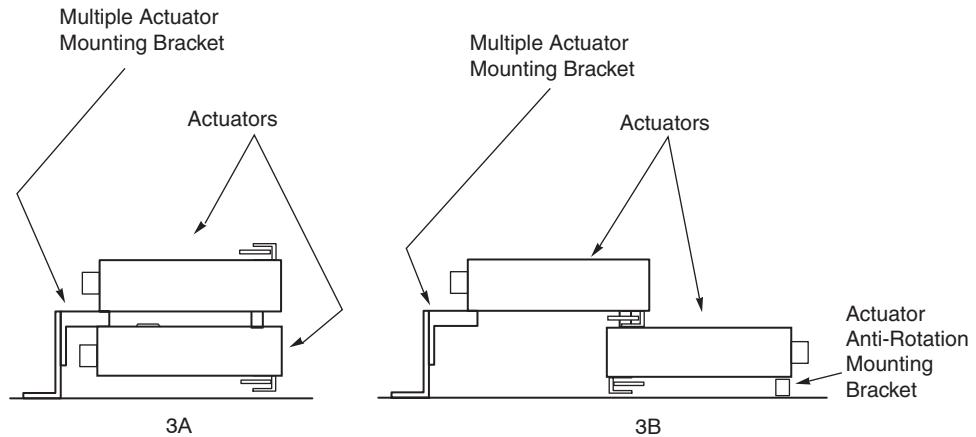


Figure-5 Installation Options for Multiple Actuator Mounting Bracket AM-673.

### Mounting Procedure (View 3A in Figure-5)

1. Mount the first actuator onto the damper shaft but do not connect its wires at this time. Be sure the actuator's V-clamp assembly is positioned correctly for proper damper operation.
2. Position the first actuator mounting bracket on the adjustable plate over the existing pre-punched holes.
3. Position one actuator anti-rotation mounting bracket on one side of the plate, and the second bracket on the other side of the plate. Both anti-rotation bracket studs must be facing away from the plate and must be opposite each other.

#### Caution:

If the anti-rotation bracket studs are not positioned opposite each other the actuators may not be properly aligned with the shaft resulting in premature wear.

4. Secure the two anti-rotation brackets using two #8 screws with nuts (not provided in kit).
5. Loosen the three locking screws which secure the top section of the multiple actuator mounting bracket in position (See Figure-6).
6. Adjust the height of the top section of the multiple actuator mounting bracket so that it clears the top of the first actuator by approximately 1/8" (3.18 mm). Tighten the three locking screws.
7. Install the second actuator onto the damper shaft, but do not tighten the V-clamp nuts at this time.



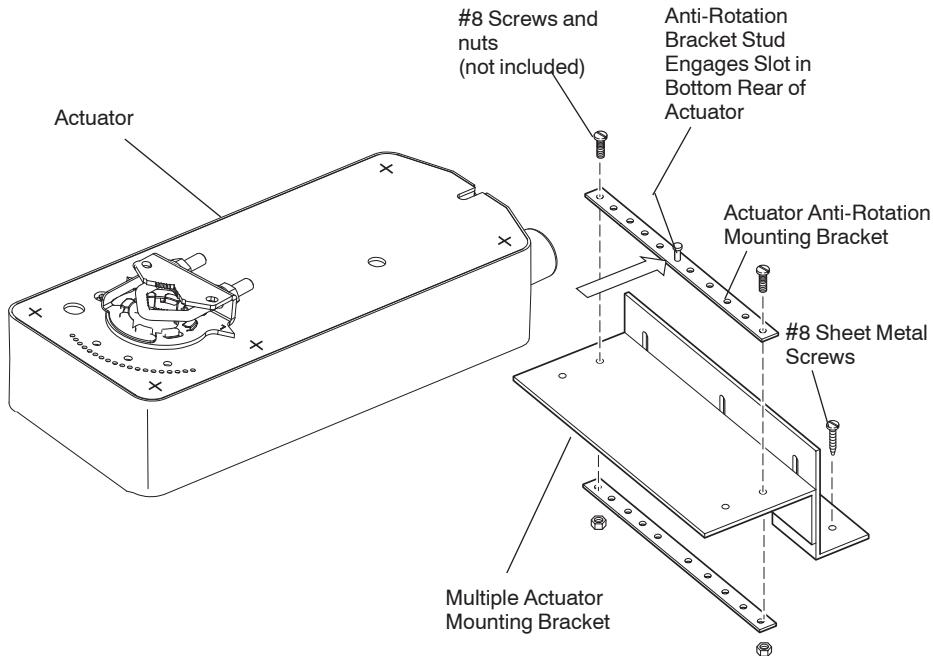


Figure-6 Installation of Multiple Actuator Mounting Bracket AM-673.

8. Position the second actuator as determined earlier, and place the multiple actuator mounting bracket under it. Position the multiple actuator mounting bracket so that the stud of the actuator's rear anti-rotation mounting bracket is engaged in the slot at the bottom rear of the actuator (See Figure-6).
9. Transfer the locations of the three thru holes from the base of the multiple actuator mounting bracket to the mounting surface.
10. Drill the marked thru holes in the mounting surface, using a No. 24 drill.
11. Fasten the multiple actuator mounting bracket to the mounting surface, using #8 sheet metal screws. The bottom actuator should be in position and secure.
12. Verify the correct orientation of the second actuator's V-clamp assembly on the damper shaft. Tighten the nuts on the V-clamp (refer to Table-2) using appropriate wrench.
13. Connect the wires of the two actuators to the power and controller output signal.
14. Apply power to the actuators and check for proper operation. Make adjustments as necessary.

Table-2 V-Clamp Tightening Torque.

Actuator	Tightening Torque
MX40-707X MX40-715X	6 to 8 ft-lb (8 to 11 N-m)
MX40-704X	4 to 6 ft-lb (5 to 8 N-m)

### AM-758 and AM-759 Universal Mounting Bracket

**Note:**

To complete the installation of a damper actuator using AM-758 or AM-759 universal mounting bracket, an AM-690 or AM-691 crankarm kit is required.

1. Install the mounting bracket onto the mounting surface.
2. Locate the pre-drilled mounting holes on the actuator label that are covered by a white "+" sign (See Figure-7).
3. Position the actuator in the desired mounting position (horizontal or vertical) and puncture the four "+" sign locations that will be used for the mounting.



**Caution:**

Do not drill holes in the actuator body. Only use #10 self tapping screws (provided with accessory kit) into actuator body.

4. Use the #10 self-tapping screws to secure the actuator to the mounting bracket (See Figure-7).
5. Link the damper actuator to the damper linkage, using the crankarm supplied in the appropriate crankarm kit.

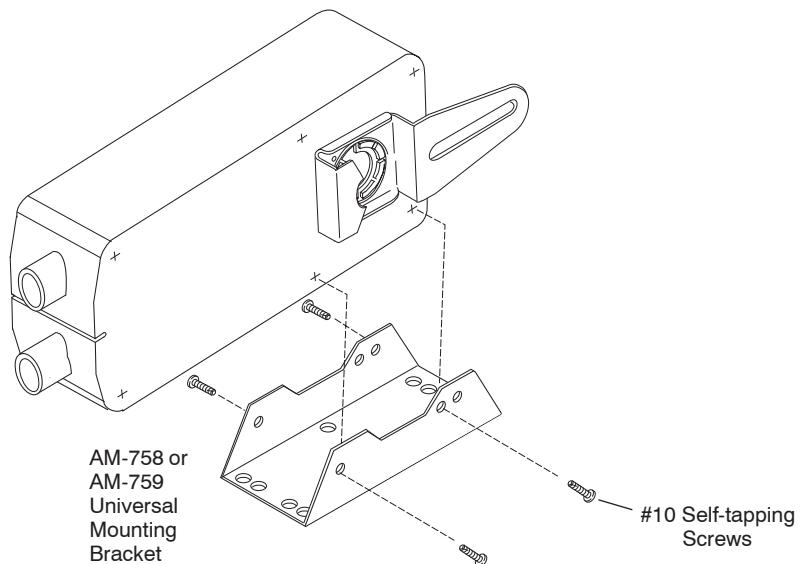
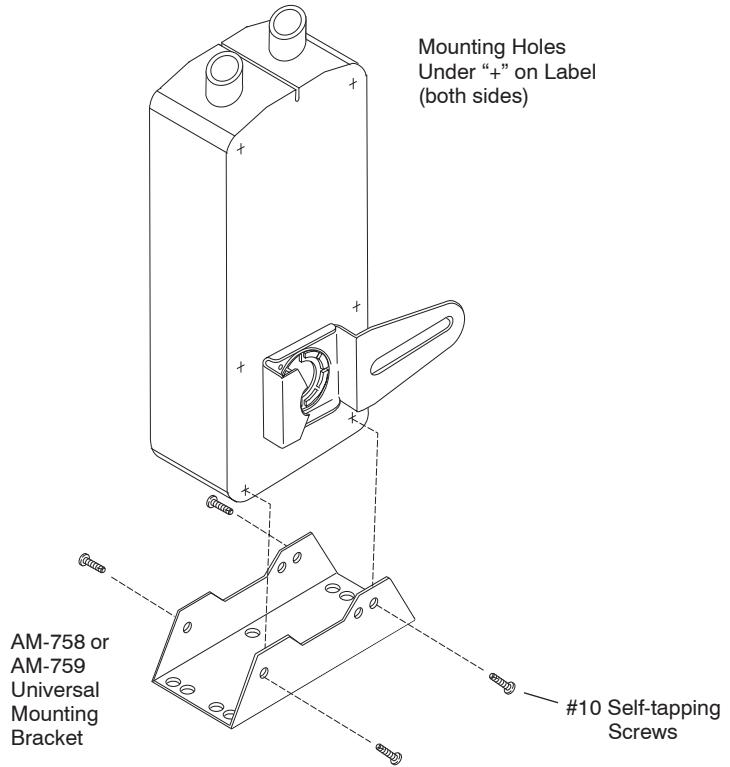


Figure-7 Installation of Universal Mounting Bracket AM-758 and AM-759.

## AM-760 Universal Mounting Bracket

**Note:**

To complete the installation of a damper actuator using AM-760 universal mounting bracket, an AM-690 or AM-691 crankarm kit is required.

1. Install the mounting bracket onto mounting surface.
2. Locate the pre-drilled mounting holes on the actuator label that are covered by a white "+" sign (See Figure-8).
3. Position the actuator in the desired mounting position (horizontal or vertical) and puncture the four "+" sign locations that will be used for the mounting.



**Caution:**

Do not drill holes in the actuator body. Only use #10 self tapping screws (provided with accessory kit) into actuator body.

4. Use the #10 self-tapping screws to secure the actuator to the mounting bracket (See Figure-8).
5. Link the damper actuator to the damper linkage, using the crankarm supplied in the appropriate crankarm kit.

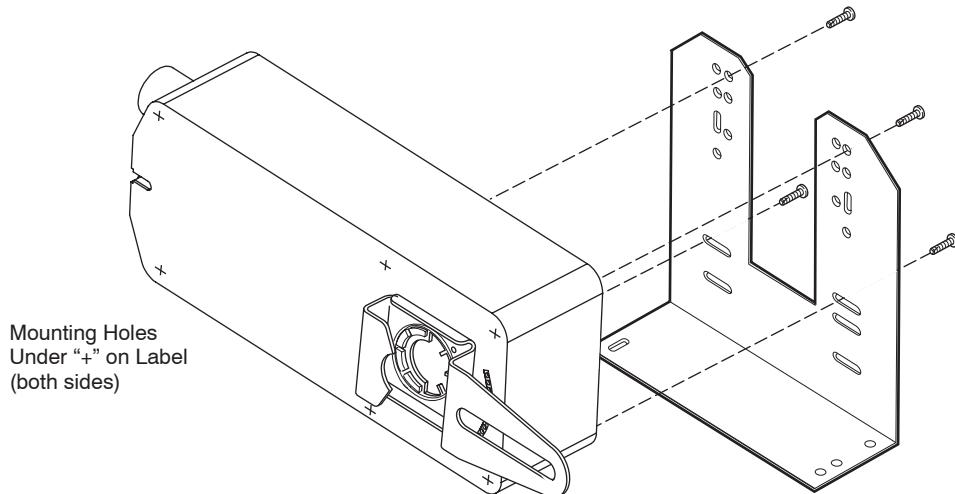


Figure-8 Installation of Universal Mounting Bracket AM-760.

To replace a current actuator with a SmartX actuator use the following chart to get correct actuator replacement.

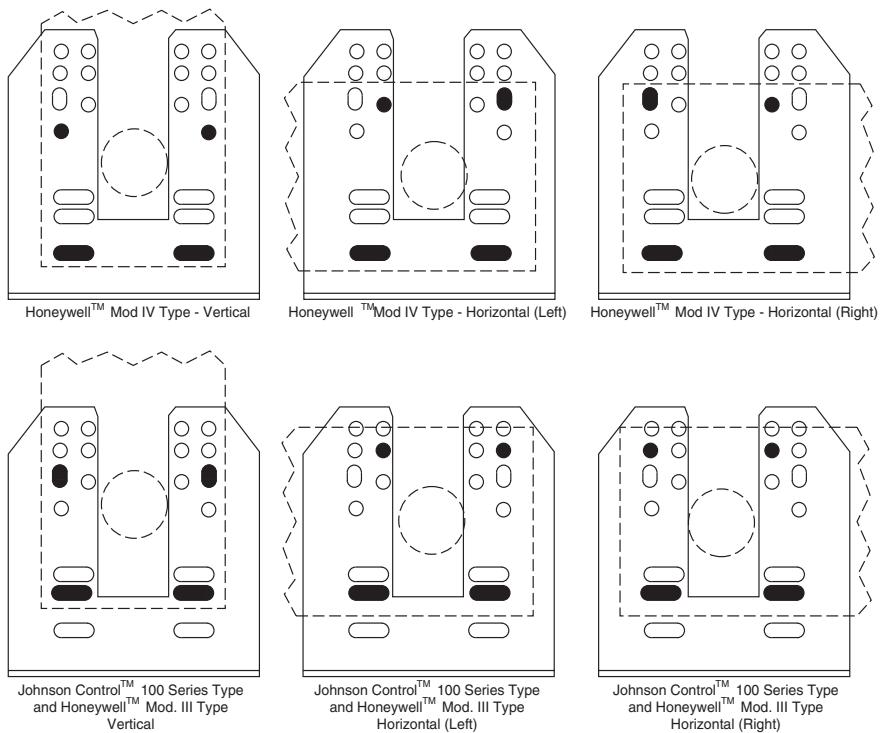


Figure-9 Installation of SmartX to Replace a Honeywell™ or Johnson Control™ Series Actuator.

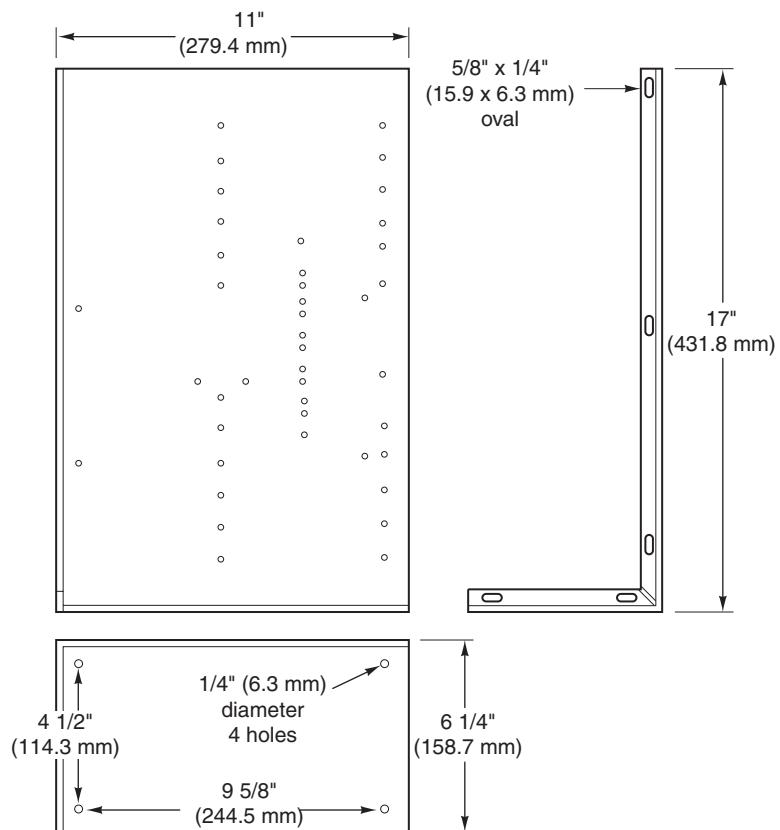


Figure-10 Universal Mounting Bracket AM-671 Dimensions.

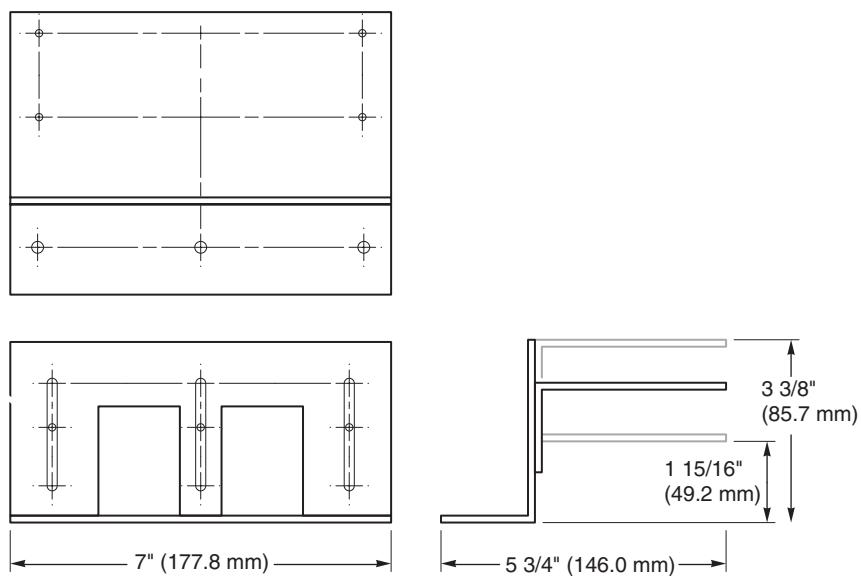


Figure-11 Multiple Actuator Mounting Bracket AM-673 Dimensions.

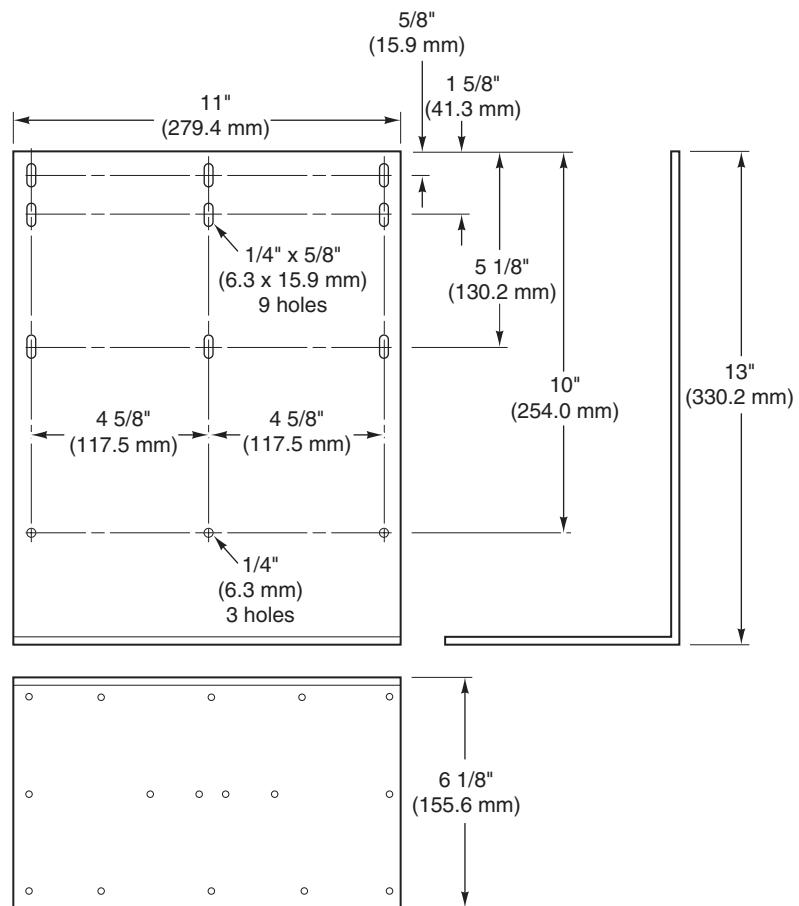


Figure-12 Universal Mounting Bracket AM-672 Dimensions.

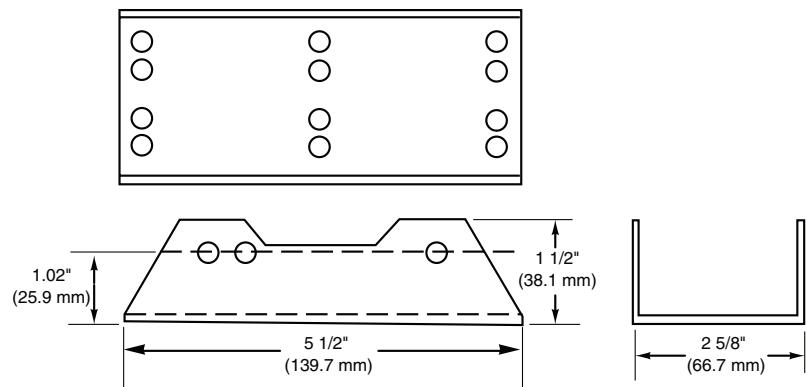


Figure-13 Universal Short "U" Mounting Bracket AM-758 Dimensions.

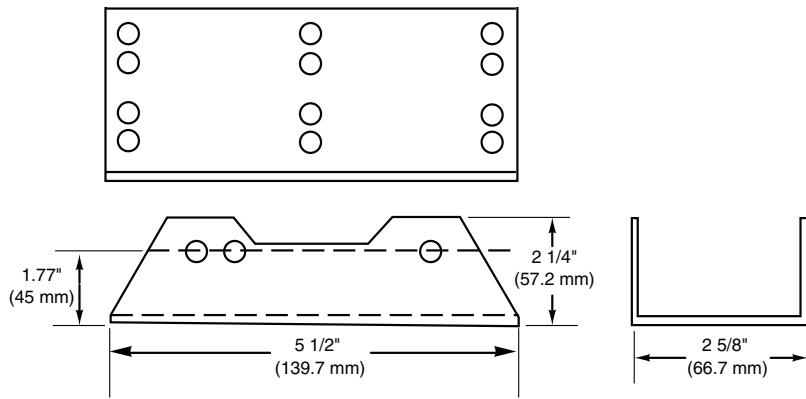


Figure-14 Universal Tall "U" Mounting Bracket AM-759 Dimensions.

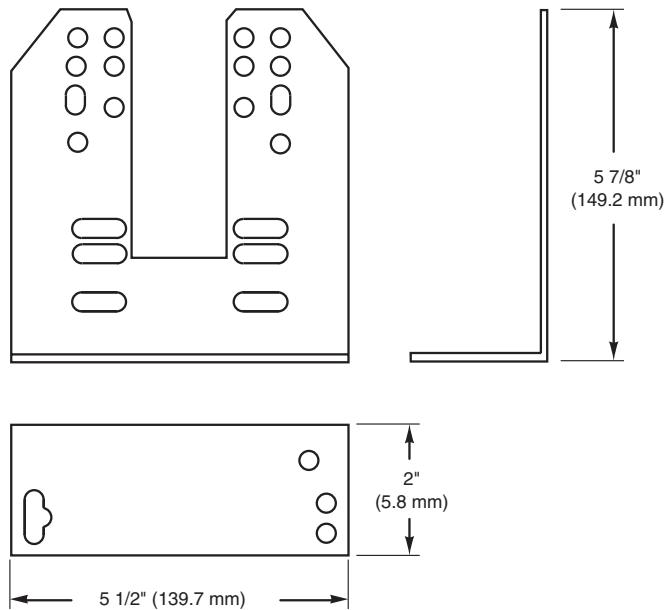


Figure-15 Universal Slotted "L" Mounting Bracket AM-760 Dimensions.