

# INSTALLATION AND MAINTENANCE

INSTRUCTIONS FOR TYPE MO-10 MULTI-REVOLUTION MOTOR OPERATING MECHANISM



## **IMPORTANT**

**Read the entire manual before installing and maintaining equipment.  
Make absolutely sure that applicable equipment is de-energized and properly grounded.**

## GENERAL

The MO-10 multi-revolution motor operator mechanism will operate through 17 1/2 revolutions and is designed to be used with a gear drive switch operating mechanism. For applications requiring fewer revolutions to complete an open or closed cycle, simply adjust the auxiliary switch cams to achieve the desired travel.

The MO-10 can be uncoupled from the vertical operating pipe and test operated without disturbing the position of the air-break disconnecting switches. The uncoupled air-break disconnecting switches can be padlocked in either the open or closed position.

For manual operation, insert the operating handle through the opening in the front cover of the housing. As the operating handle is inserted, the motor is electrically disconnected from its control voltage.



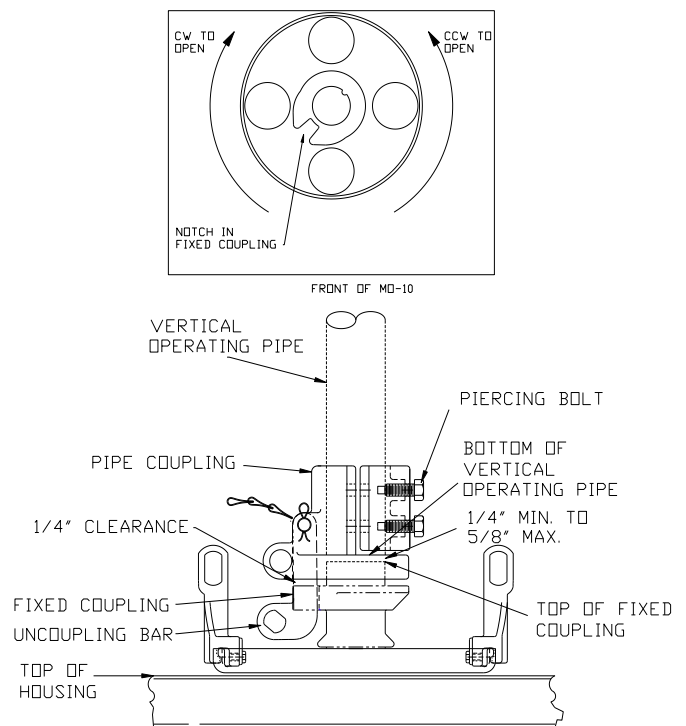
## INSTALLATION INSTRUCTIONS

- Fully close switch.
- Mount the motor operator using the four through holes and 5/8" hardware. Install the Neoprene backed steel washers between the enclosure and the structure with the Neoprene side towards the motor operator.
- The bottom of the vertical operating pipe should be from 1/4" to 5/8" from the top of the fixed coupling.

- Drill the conduit plate, install conduit and terminate control power wires. Refer to drawings provided inside cabinet.

## ADJUSTMENT STEPS

- Set the motor operator in the CLOSED position. If the motor operator is set for Counter-Clockwise rotation to open, the CLOSED position will typically be on the left and the OPEN on the right facing the motor operator. The opposite would be true for Clockwise to open operation. The "close limit" Auxiliary Switch 2 is to be set with switch closed and as shown on the yellow instruction decal inside the left door. After the cam has been rotated to the desired position, use the 5/64" Allen wrench to tighten the set screw until it contacts the shaft. **Tighten an additional 1/4 turn for proper torque.**

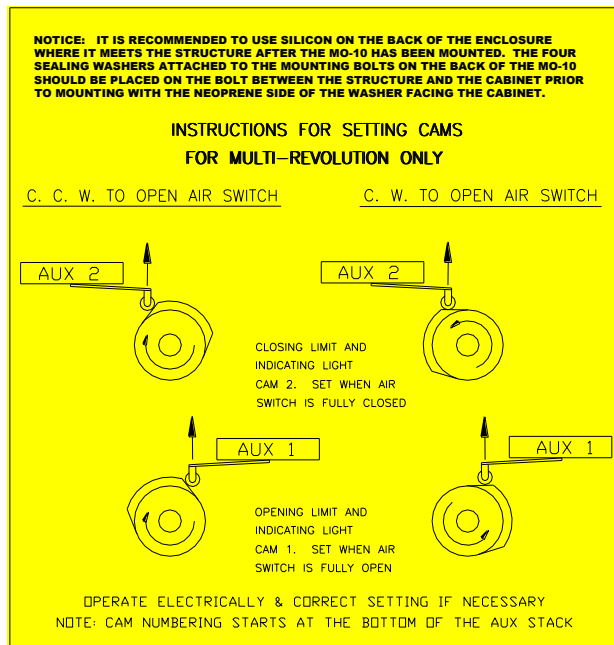


- With the switch and motor operator still in the closed position, engage the uncoupling bar in the fixed coupling slot and tighten the coupling clamping bolts around the vertical operating pipe. The 1/4" aluminum spacer is provided to help measure the 1/4" clearance required between the pipe coupling and the fixed coupling.

**The spacer is to be discarded after the coupling is clamped around the VOP.** Do not tighten the piercing bolts at this time since the relative positions of the OPEN and CLOSED position indicators may need to be moved.

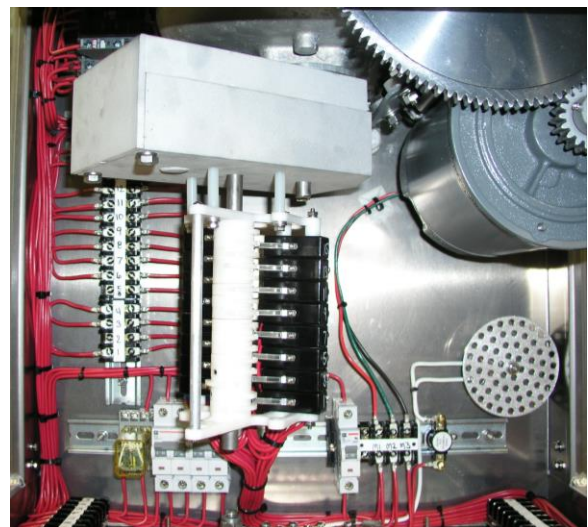


Coupling with position indicators



- Use the manual crank handle and crank the switch to the fully OPEN position. Set the “open limit” Auxiliary Switch 1 according to the yellow decal.
- Now that the “closed”, “open” and dynamic brake auxiliary switches have been set and with the switch still in the OPEN position, uncouple the vertical operating pipe from the motor operator. Slide the pin through the coupling so that the uncoupling bar is held in the uncoupled position.

- Electrically operate the motor operator to the CLOSED and back to the OPEN position. Try to couple the VOP to the motor operator. The uncoupling bar should slide freely into the slot on the fixed coupling. If it does not, manually crank the motor operator to where it does couple freely and reset the “open” Auxiliary Switch 1. Uncouple the VOP and repeat the process until the uncoupling bar will operate freely without manually cranking the motor operator.
- Couple the VOP to the motor operator and manually crank the switch to the fully CLOSED position. Uncouple the VOP and electrically operate the motor operator and adjust Auxiliary Switch 2 until the uncoupling bar slides freely into the fixed coupling slot.
- Couple motor operator to the VOP and electrically operate switch to verify appropriate setting of the cams. Reset limit switches as necessary.
- Once successful switch operation is achieved the remaining auxiliary switches can be set as required.



View showing auxiliary switches with individually set cams.

- Braking of the permanent magnet motor is accomplished through a braking resistor located on the back side of the gear cover panel.

### NOTICE 1

Based on our experience, you will obtain best possible operational reliability by following the recommendations given in these instructions. The data contained herein purports solely to describe the product, and it is not a warranty of performance or characteristics. It is with the best interest of our customers in mind that we constantly strive to improve our products and keep them abreast of advances in technology. This may lead to discrepancies between a product and these instructions.

### NOTICE 2

Within the scope of these instructions, it is impossible to take into account every event which may arise with technical equipment in service. Please consult our factory in the event of any irregularities, especially if not referred to herein.

### NOTICE 3

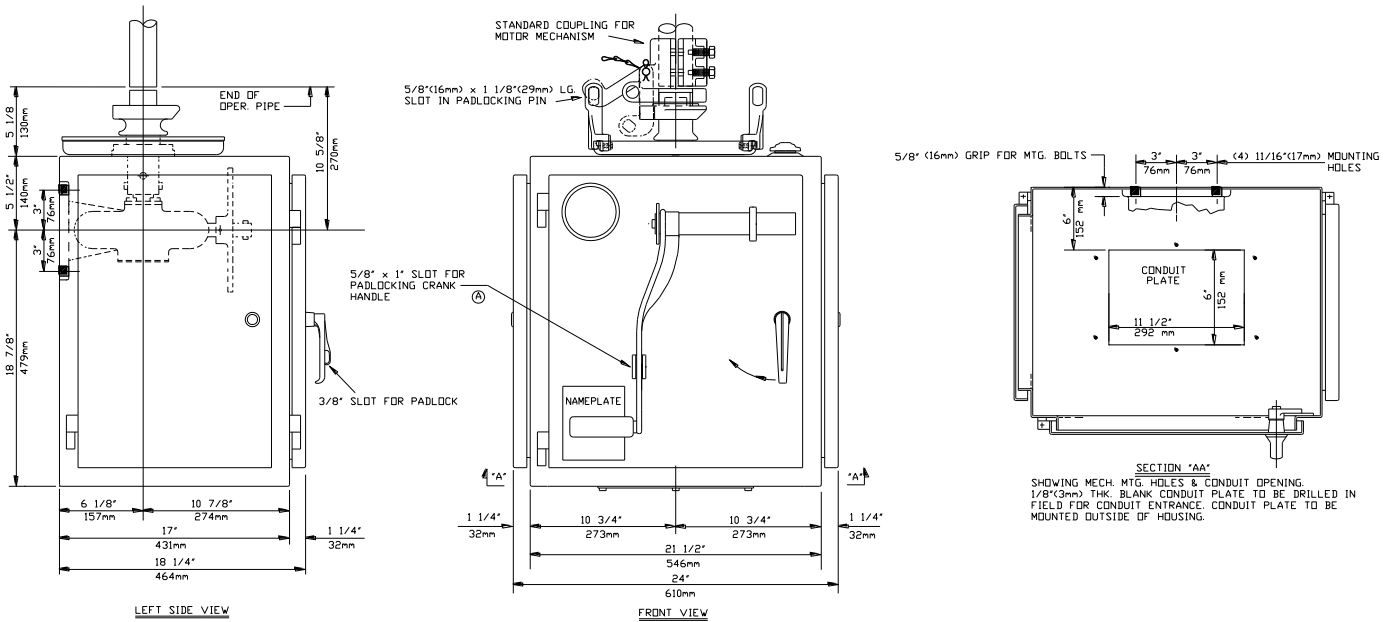
We expressly decline liability for damages resulting from any incorrect operation or wrong handling of our equipment, even if these instructions contain no specific indication in this respect. We stress the fact that only genuine spare parts should be used for replacement.

### NOTICE 4

These instructions do not purport to cover all details or variations in equipment or to provide for every possible contingency to be met in connection with installation, operation, or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to Pascor Atlantic, 254 Industry Drive, Bland, VA 24315. Phone Number: 276-688-3328, Fax: 276-688-2228 or 2229

[www.pascoratlantic.com](http://www.pascoratlantic.com)

# DIMENSIONAL LAYOUT



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