

**WESTLOCK**  
CONTROLS CORPORATION

**TECH-385Q**  
**ACCUTRAK ROTARY MODELS:**  
**1040/9358/2004/9044/9468/5004**  
**5044/2007/9479/5050**  
**OPERATING MANUAL**

(Complete Installation and Operations Manual, TECH-385, Available at  
[www.westlockcontrols.com](http://www.westlockcontrols.com))

<b>IOM: Tech-385Q</b>		<b>Revision:</b>	
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## 1.

### Warnings

- Never remove enclosure cover or make/break electrical connections with power connected to the unit.
- Perform all wiring in accordance with site and local codes and the National Electric Code ANSI-NFPA-70 (US) or the Canadian Electric Code Part I (Canada) for the appropriate area classifications.
- Confirm that the AccuTrak model being installed is approved for the hazardous area (see unit ID label).
- Confirm that supply power to switches is within rated specifications listed on the unit identification label.
- Protect the unit from exposure to aggressive substances or atmospheres to ensure that hazard rating is not compromised.



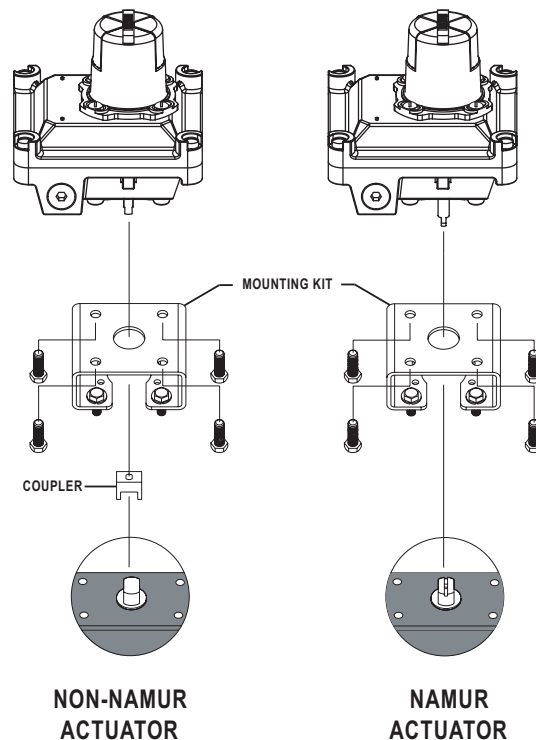
## 2.

### Installation

#### 2.1. *Mounting Instructions*

Required Tools: Open-end wrenches or adjustable wrench to fit all sizes of hex head bolts in the mounting kit.

1. Obtain a mounting kit suited for the actuator/valve, commonly available through a local Westlock Controls distributor.
2. Attach the mounting bracket and coupler (if required) to the unit housing with the hardware provided.
3. Attach the unit and mounting system to the actuator.
4. If mounting kit includes coupler, ensure proper axial alignment between unit shaft, coupler and actuator shaft. Failure to ensure this alignment could result in long-term stress-related failure of unit shaft in high cycle or high torque applications.



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## 2.2. Calibration

**Note 1:** Switch actuation can be confirmed using a signal detection device such as a multimeter or ohmmeter, set for “continuity”.

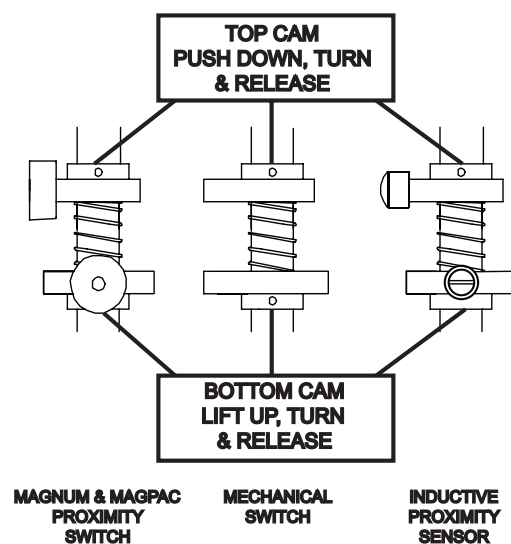
**Note 2:** For NAMUR P+F NJ2-V3-N type sensors, use test meter, P+F model #1-1350 or equivalent to check sensor actuation and calibration. If the proper meter is not available, contact the factory for additional assistance with the test procedure.

**Note 3:** Adjust cams by hand by pushing/pulling the cam against the shaft spring to disengage from the mating spline, rotating to adjust and re-engaging firmly onto spline.

**Required Tools:** Signal detection device (see note 1); slotted screw driver for cover screws (M4, #10 or 5/16 by model)

### Switch Adjustment (two switches):

1. Remove unit cover as follows: loosen (but do not remove) captive screws, rotate cover slightly to grip corners, pull firmly.  
DO NOT PRY COVER WITH TOOLS.
2. With valve in the closed position, adjust bottom cam until bottom switch (#2) actuates.
3. Stroke valve to the open position, adjust top cam until top switch (#1) actuates.
4. Cycle actuator several times to confirm proper switch indication at each end of stroke. Finely adjust cams if necessary.
5. Skip to Field Wiring section or replace unit cover, applying approximately 20 in-lbs of torque to cover screws.



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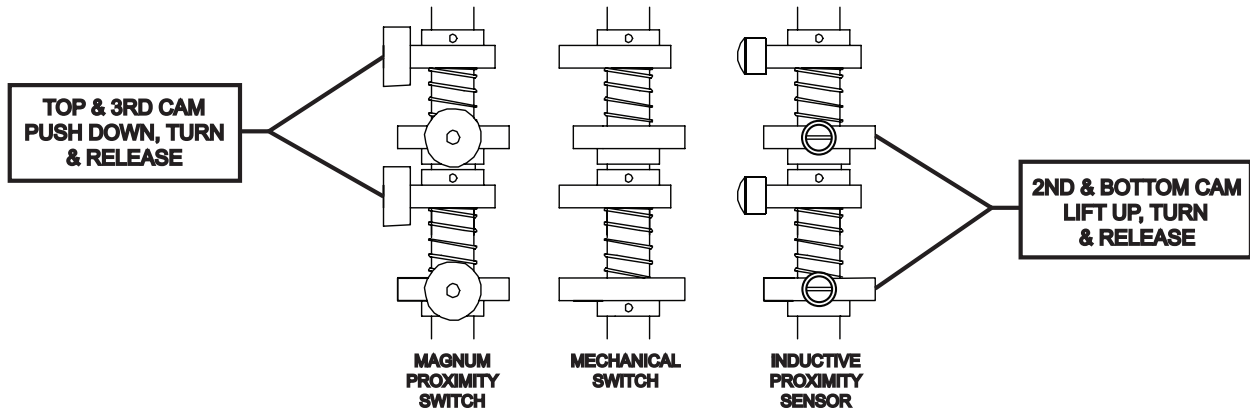
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### Switch Adjustment (four switches, no CS transmitter option):

Follow steps as above for the calibration of two switches but adjust the first and third cams from the top for switches #1 and #2 and the second and fourth cams from the top for switches #3 and #4 (see illustration below).



### Transmitter setting (optional CS transmitter):

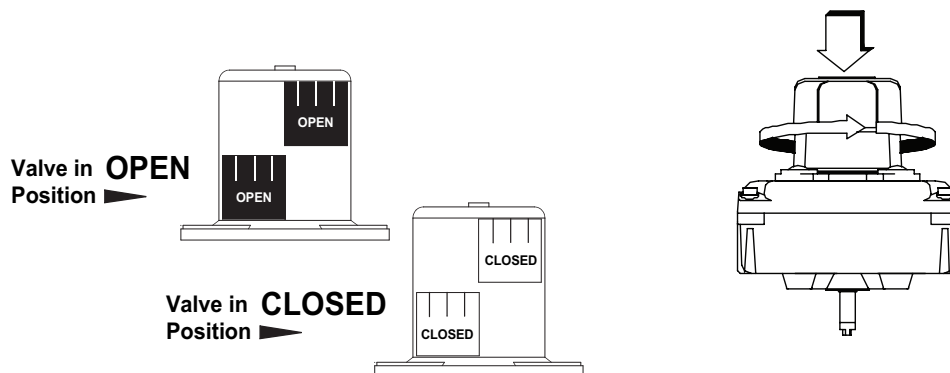
For the calibration of optional current signal (CS) transmitter, see Westlock Controls Installation/Operations Manual TECH-301, available through your local sales representative or at [www.westlockcontrols.com](http://www.westlockcontrols.com).

### Beacon Adjustment:

Note: Skip this step if cover is flat or Beacon already displays the correct valve status.

Required Tools: slotted screw driver for #12 screws.

1. For two-way OPEN/CLOSED: remove, rotate and re-fasten outer beacon to synchronize displayed position with valve position.
2. For three-way flow paths: remove, rotate and re-fasten outer beacon and/or inner beacon coupler to synchronize displayed flow path with valve/actuator flow path.



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3.

### Field Wiring

See the warnings section of this document for important warnings pertaining to the wiring of this unit. Remove and replace cover before and after wiring, per instructions given in the Switch Adjustment section above.

Required Tools: slotted screw drivers for terminal strip screws (#2), cover screws (M4, #10 or 5/16 by model), and grounding screw (#8 or M4 by model); wire strippers as required for field wires.



1. Wire the AccuTrak monitor strictly according to the wiring diagram on the inside of the enclosure cover.
2. Confirm that the ground wire is secure under the green grounding screw in the enclosure.
3. Seal all unused conduit entries as required with suitably certified plugs having an ingress protection rating of IP67 or better.
4. Ensure that only suitably certified cable glands are used, having an ingress protection rating of IP67 or better.
5. Ensure that the temperature rating of all field wiring meets the service temperature range of the application.

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