HercuLine 2001 Actuator
Upgrade to Non Contact Position Sensor
Replacement Instructions
50018180- 501

Overview
These instructions apply to the following kit: HercuLine 2001 upgrade to non-contact position sensor kit and its application to the HercuLine 2001 Actuators. This kit allows you to replace the existing pot assembly with a non contact position sensor.

Summary
This kit contains a Non Contact Position Sensor and associated parts for your HercuLine 2001 Actuator.

Tools Needed
To perform the installation procedure, you will need the following tools:
- Medium Flat-blade screwdriver
- Medium Phillips screwdriver
- Small needle-nosed pliers
- Allen key screw driver set

Procedure

WARNING
Disconnect power before accessing components inside the actuator. Failure to do so may result in death or serious injury.

ATTENTION
When working with Printed Wiring Assemblies (PWAs) always protect against electrostatic discharge by wearing a grounded wrist strap. Failure to do so may result in equipment damage.
### Table 1  NCS Installation Procedure

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Disconnect power from the actuator.</td>
</tr>
<tr>
<td>2</td>
<td>Remove the 6 screws and the extended top cover of the actuator case.</td>
</tr>
</tbody>
</table>

![Diagram of actuator showing top cover and screws]
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<tr>
<td>3</td>
<td><strong>Move the actuator output shaft to 50%</strong>.</td>
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</tbody>
</table>

If the actuator has a hand wheel, rotate the hand wheel until the pointer is at 50% on the scale.

If the actuator does not have a hand wheel, remove the top cover and rotate the shaft at the bearing retainer plate until the pointer is at 50% on the scale.
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| 4    | **Removing the Potentiometer Assembly**  
Locate the pot assembly.  
Remove the (50002635-403) set screw which secures the pot shaft to the CAM shaft.  
Remove 2-(51109695-312) sems screws that secure the bracket to the casting and then remove the mounting bracket.  
Slide out the pot shaft and remove the pot assembly.  |
| 5    | **Assembling the Rvit-z board on the mounting bracket.**  
Mount a (51500657-001) Rvit-Z Board to a (51451441-001) mounting bracket using 4-(23000) sems screws.  
Install a (51451384-001) steel pin through the end of the Rvit-Z riser & secure with a (51452604-001) set screw through the CAM Shaft.  |
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| 6    | **Mounting the Rvit-Z assembly.**  
Locate the place to mount the Rvit-z assembly.  
Slide the Rvit-Z assembly over the end of the CAM Shaft.  
Secure the bracket to the casting using 2-(51109695-312) sem screws.  
Use the plastic Rvit-Z Spacers to set an equal gap between the Risers on each side of the Rvit-Z board.  
Install a (50002635-403) set screw. Hold the risers and secure the assembly through the CAM Shaft with the set screw. |
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<tr>
<td></td>
<td><img src="image" alt="Step 1 - Install Rvit-Z cable to the board" /></td>
</tr>
<tr>
<td>8</td>
<td>Replace the gasket.</td>
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<tr>
<td>9</td>
<td>Reattach the top cover and secure with the screws.</td>
</tr>
</tbody>
</table>
Warranty/Remedy

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While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.