

# Replacing the Controller Assembly (RL2E0X00C12) on the Fisher™ L2e Electric Level Controller

## Supplement to [Fisher L2e Electric Level Controller Instruction Manual \(D103531X012\)](#)

This supplement contains information on how to replace the complete controller assembly on the L2e controller.

Refer to the [L2e instruction manual \(D103531X012\)](#), available from your [Emerson Process Management sales office](#) or at [www.Fisher.com](http://www.Fisher.com), for all other information regarding the L2e electric level controller.



### **⚠ WARNING**

Always wear protective clothing, gloves, and eyewear when performing any maintenance operations to avoid personal injury. To avoid personal injury or property damage caused by the release of pressure or process fluid, observe the following before starting maintenance:

- Provide some temporary means of control for the process before taking the controller out of service.
- Provide a means of containing the process fluid before removing any measurement devices from the process.
- Vent any trapped process pressure.
- Check with your process or safety engineer for any additional measures that must be taken to protect against process media.

### **⚠ WARNING**

For explosion-proof applications, disconnect power before installing, servicing or removing electrical components. Personal injury or property damage from fire or explosion may result if power is not disconnected.

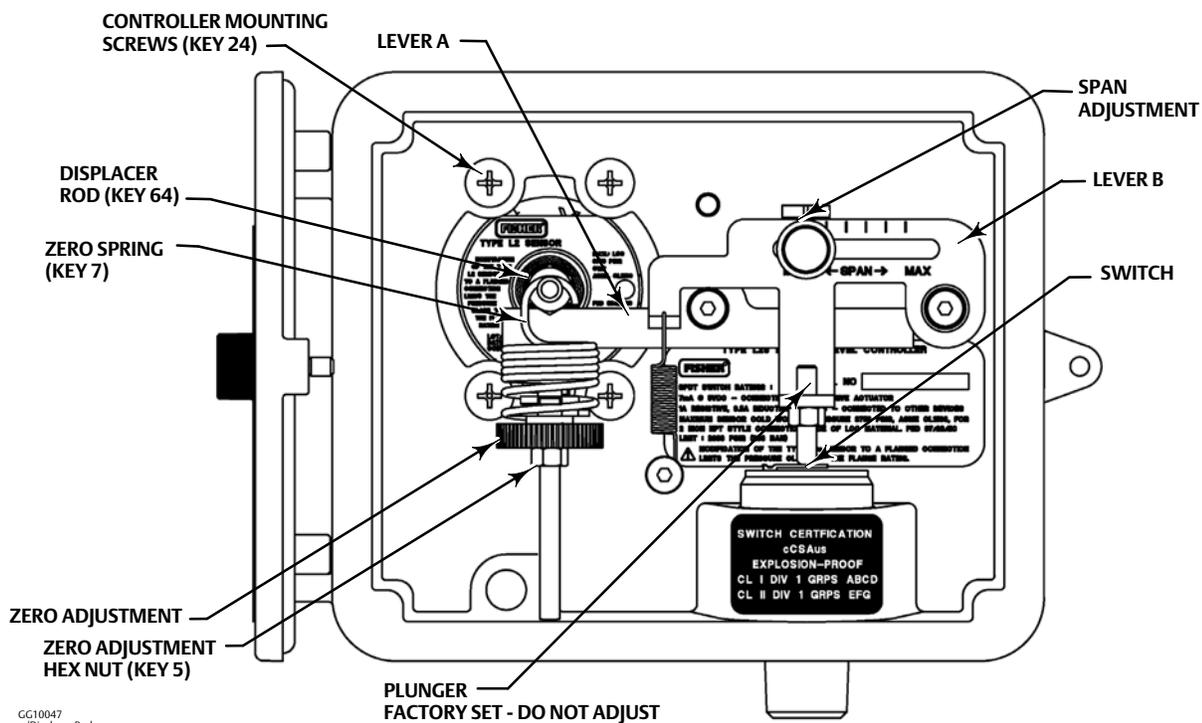
Select junction boxes, wiring and/or cable glands that are rated for the environment of use (such as hazardous location, ingress protection, and temperature). Failure to use properly rated electrical hardware wiring and/or cable glands can result in personal injury or property damage from fire or explosion. Wiring connections must be in accordance with local, regional, and national codes for any given hazardous area approval. Failure to follow the local, regional, and national codes could result in personal injury or property damage from fire or explosion.

## Removing the Controller From the Sensor

Refer to figure 1 for key number locations unless otherwise indicated.

1. Disconnect power from any electrical source.
2. Disconnect electrical wiring from switch.
3. Note Span adjustment setting.
4. Slide the hook end of the zero spring (key 7) over and off the controller end of the displacer rod (key 64).
5. Loosen the four controller mounting screws but don't remove.
6. Tap the controller body to loosen gasket.
7. Remove the four controller mounting screws (key 24); discard screws and gasket.
8. Standing in front of the assembly, remove the controller by pulling it down and toward you, away from the sensor, taking care to clear the nut on the displacer rod.

Figure 1. Fisher L2e Controller



## Replacing the Complete Controller Assembly (RL2E0X00C12)

Refer to figure 1 for key number locations unless otherwise indicated.

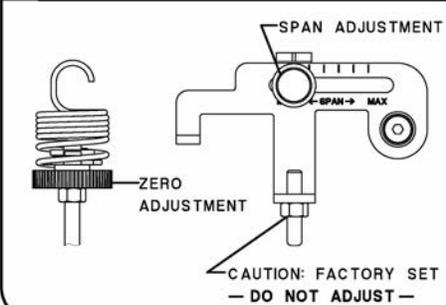
1. Install the new controller assembly with new gasket on the sensor. (Make sure lever A is under the displacer rod.)
2. Install the four 1/4-20X1.250" cap screws (key 24), supplied in the kit. Torque to 6.8 N•m (60 lbf•in), using medium strength thread locking adhesive and a 7/16" socket.
3. Slide the hook end of the zero spring (key 7) onto the controller end of the displacer rod (key 64).
4. Reconnect switch wiring.
5. Reconnect power to electrical source
6. Perform the Initial Setup (Dry or Wet Displacer) and Zero and Span Adjustment procedures below.

## L2e Initial Setup (Dry Displacer)

Refer to figure 2.

1. Move Span to minimum setting.
2. Move Zero down until the valve opens, or N/C contact (red to brown leads) closes.
3. Slowly move Zero up until valve closes, or N/C contact (red to brown leads) opens.

Figure 2. Initial Setup

<p><b>INITIAL SETUP (DRY DISPLACER)</b></p> <ol style="list-style-type: none"> <li>1. MOVE SPAN TO MINIMUM SETTING ( ← ).</li> <li>2. MOVE ZERO DOWN UNTIL VALVE OPENS OR N/C CONTACT (RED TO BROWN LEADS) CLOSSES.</li> <li>3. SLOWLY MOVE ZERO UP UNTIL VALVE CLOSSES OR N/C CONTACT (RED TO BROWN LEADS) OPENS.</li> </ol>		<p><b>SCAN FOR L2e AND easy-Drive FIELD SUPPORT</b></p> 									
<p><b>ZERO AND SPAN ADJUSTMENT (WET DISPLACER)</b></p> <ol style="list-style-type: none"> <li>1. ENABLE PROCESS FLOW TO VESSEL.</li> <li>2. MOVE SPAN AND ZERO FOR DESIRED CONTROL.</li> </ol>											
	<table border="1"> <thead> <tr> <th></th> <th>MOVE</th> <th>LEVEL HEIGHT</th> </tr> </thead> <tbody> <tr> <td rowspan="2">ZERO ADJUSTMENT</td> <td>↑</td> <td>RAISE</td> </tr> <tr> <td>↓</td> <td>LOWER</td> </tr> </tbody> </table>			MOVE	LEVEL HEIGHT	ZERO ADJUSTMENT	↑	RAISE	↓	LOWER	
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SPAN ADJUSTMENT	→	INCREASE									
	←	DECREASE									

## L2e Zero and Span Adjustment (Wet Displacer)

After initial setup (dry displacer) is complete,

1. Enable process flow into the vessel.
2. Move Zero and Span Adjustment for desired liquid zero position (setting noted on previous unit) and level DG (differential gap).
3. Tighten the Zero Adjustment hex nut (key 5), shown in figure 1, to lock the Zero setting.

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