Troubleshooting Guide- Air Bag Inflate/Deflate
February 2010

Symptom: Chassis suspension system (air bags) does not inflate with an “All Retract” command or the suspension (air bags) does not deflate when an “Auto-Level” command is initiated.

Summary: The leveling controller output is used to change the position of the chassis master air dump valve. The controller output signal, inflate or deflate, typically has a two(2) minute duration. Wire colors and locations are dependant on the controller type and detailed in following diagrams

Important Note: The Auto-Level controller output is used to change the position of the chassis master air dump valve. This valve, however, is air pilot operated and therefore requires both adequate system air pressure and electrical signal from the controller in order to change position. The controller output signal lasts for two minutes from the time the “All Retract” button is pressed. If the primary chassis air system pressure is below the minimum threshold, air pressure will not be available to the secondary air system to shift the position master air dump valve even if controller signal is present.

Lack of system air pressure, during the two minute duration of the inflate signal, is the most common cause of air bags not inflating.

Therefore, it is recommended that the coach be started prior to retracting the jacks.

Trouble-Shooting:
Troubleshooting is dependant upon the type of controller platform and the brand of motorhome (style of wiring harness installed). Please see the following examples for proper diagnosis.

Note: Perform all troubleshooting with a multi-meter, not a test light!
Troubleshooting:

New Platform Controllers (2319, 2519, 2730, 2755)
All utilize 2318 Keypad

Four Winds International Products

Equalizer Systems Auto-Level controllers interface with the chassis air system through a 4-pin connector that utilizes three (3) wire connections. This connection is a “break out” of the main leveling harness and is located in the pump area and represents the end of the Equalizer Systems supplied components regarding the air suspension.

Verify appropriate signal voltage at the 4-pin harness connector.

- Deflate= +12V on the Gray wire, 0 V present on Purple. (In relation to chassis ground)
- Inflate= +12V on the Purple wire, 0 V present on Gray.

If appropriate signals are present at the four pin connector, the issue is downstream in the chassis air system. If signals are not present at the four pin connector, test for same outputs at the leveling controller. If present, a harness issue exists. If a signal is not present, the controller output has failed and the controller needs to be replaced.
Equalizer Systems Auto-Level controllers interface with the chassis air system through a 2-pin connector. This connection is a “break out” of the main leveling harness and is located a short distance from the keypad on the keypad harness extension and represents the end of the Equalizer Systems supplied components regarding the air suspension.

Note: On certain controllers, the signal to inflate/deflate the airbags may be delayed for approximately 20 seconds (TS/Entegra 2745 controller).

<table>
<thead>
<tr>
<th>2-Pin Harness Connection</th>
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<tbody>
<tr>
<td>• Deflate: 12V Gray</td>
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<tr>
<td>• Inflate: 12V Purple</td>
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<table>
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<tr>
<th>Auto-Level Controller Connection</th>
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<tbody>
<tr>
<td>• Inflate: 12V Purple (pin # 7)</td>
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<tr>
<td>• Deflate: 12V Gray (pin # 8)</td>
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Troubleshooting:
Panel Style Controllers (1703, 1934, 2057, 2058) and Toggle switch style controller panels

Equalizer Systems Auto-Level controllers interface with the chassis air system through a 2-pin connector located on the rear of the dash mounted control panel.

Two Position Plug
Pin #1 = Deflate: Orange
Pin #2 = Inflate: White

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