

# Tech Tip



From your friends at New York Bus Sales

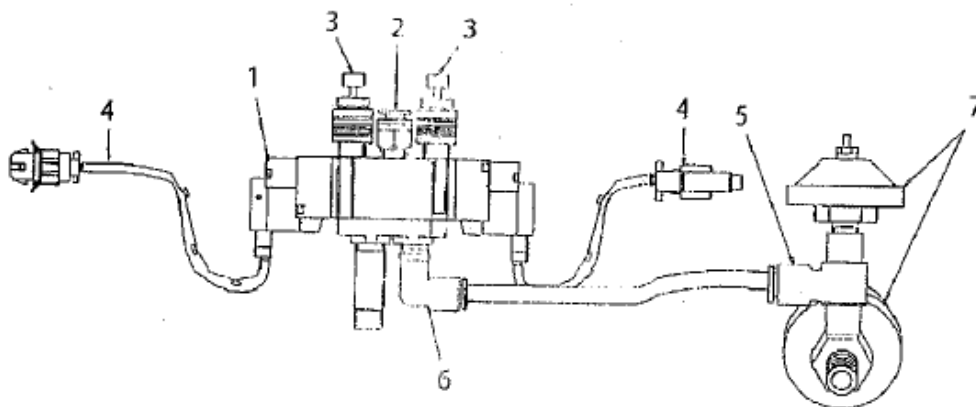
## Product Effected – Units with Air Entrance Doors

**Complaint:** Air doors will not operate

**Cause:** The wires to the air valve that operate the air doors are breaking right at the point where they go into the valve body or the wires connected to the switches are breaking due to fatigue from the movement of the cylinder. Even though the cylinder movement is minimal, the number of times it operates during the course of a normal day causes the wires to fatigue at their weakest point. Seeing as the gauge wire used for the valve is less they tend to break sooner and seeing as the switch wires see the most movement they also are prone to break.

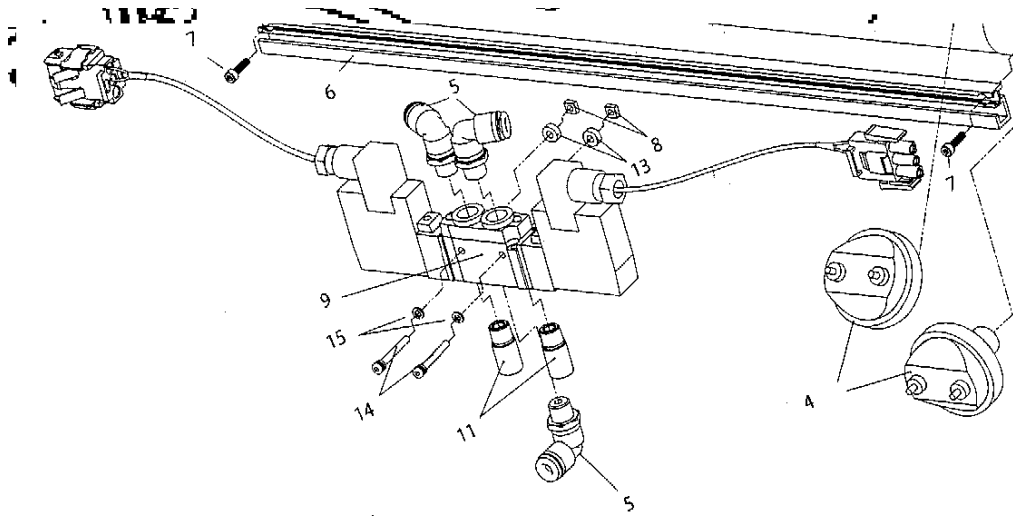
**Correction:** The basic correction is to create a “loop” of wire in the harness so that it moves where the wire is heaviest gauge and there are specific “bend” points in the wires – See Steps below

**PLEASE NOTE:** Attached to this Tech Tip is a previous Service Update which was for the same Basic principle but for an older style. Since that time there has been (2) updates to the cylinder assemblies used. Below are diagrams of each.



Cylinder Assy #00125149

is the first design and is suitable for the fact that the electrical plugs can be replaced if the wire ends break. Part number #10001178 is used and contains both plugs as one male and one female



This is the most current design and as you can see the plug ends are not replaceable. Should the wires break and not be repairable the valve assembly needs to be replaced which is part #10004776.

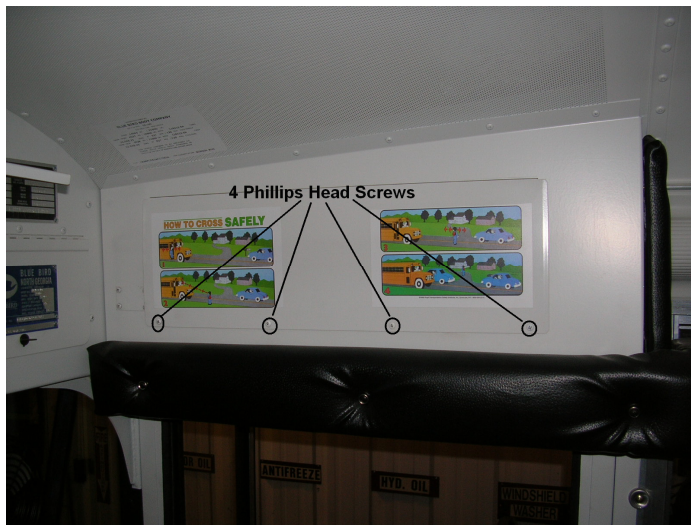
**Cylinder Assy #10001867**

**PLEASE NOTE: The first assembly #00125149 has been discontinued and replaced by the Current #10001867 and is a “plug and play”.**

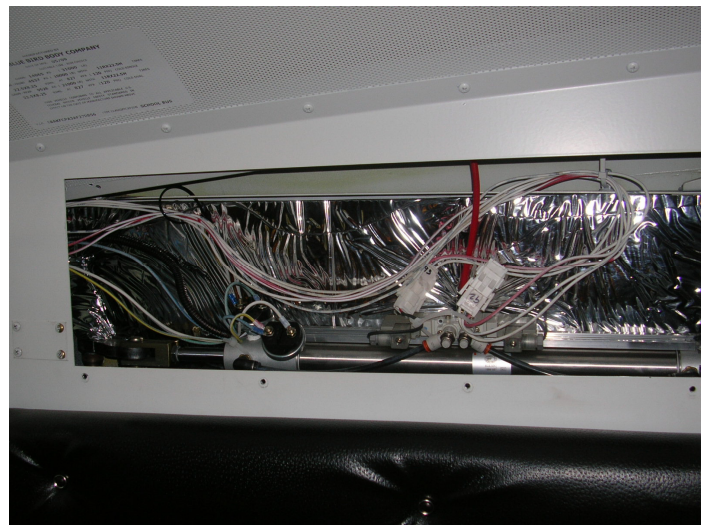
**STEPS TO ADDRESS THE ISSUE**

*(To Be Used With Either Cylinder Assy)*

**Step #1 – Locate the panel above the entrance door and remove the 4 phillips head screws (Figure#1) to expose the air door cylinder. Once removed you’ll notice that the wires may be hanging and not properly secured (Figure #2)**



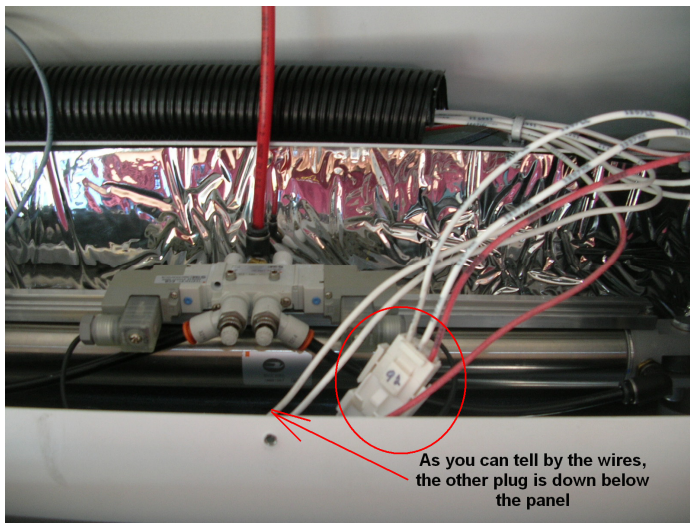
**Figure #1**



**Figure #2**

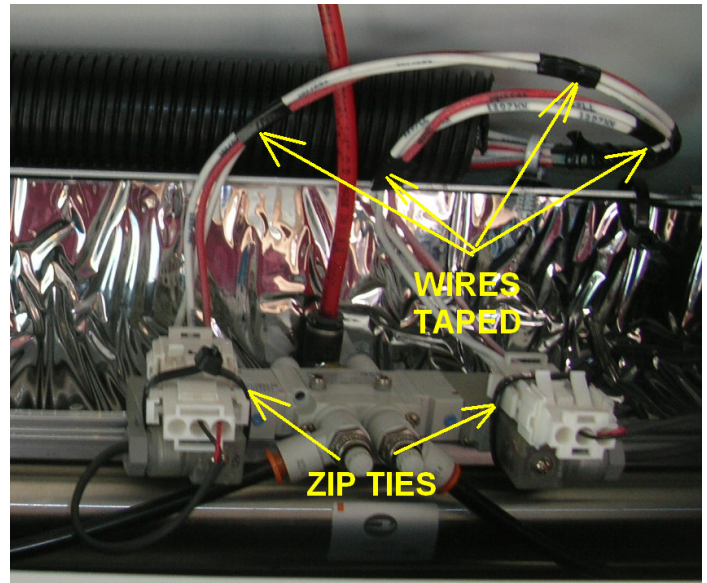


**Step #2 – Locate both white plugs ... Figure #3 shows the one plug and you can see by following the wires in the figure that the other plug is below the panel.**



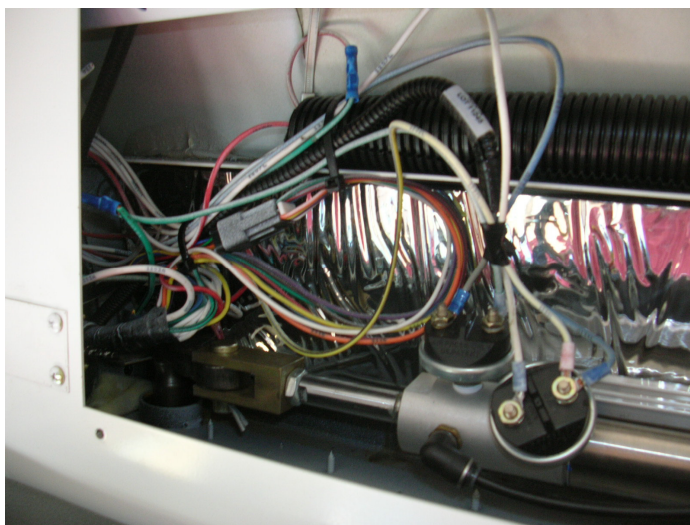
As you can tell by the wires,  
the other plug is down below  
the panel

**Figure #3**

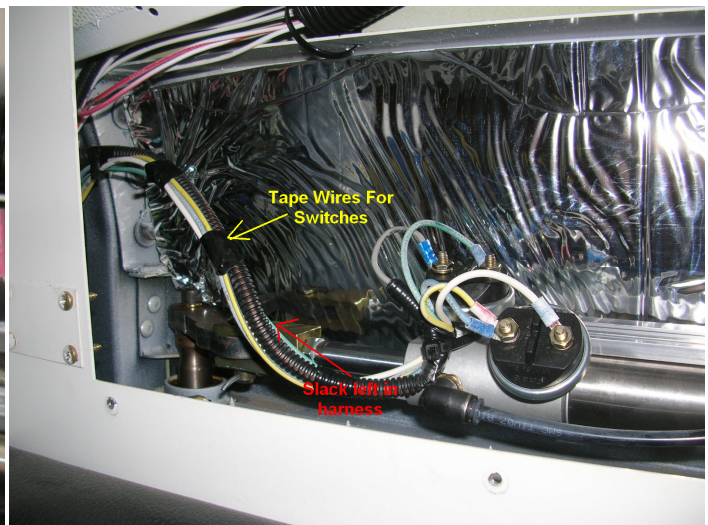


**Figure #4**

**Step #3 – Take the 2 white and one red wire leading to each plug and tape them together about every 3” to 4” and then wire tie the plugs to the valve as shown in Figure #4. Make sure to leave a “loop” of wire from the plugs to where the wires go into the loom above the cylinder and make sure the wires from the plug to the valve are free and will not contact anything.**



**Figure #5**



**Figure #6**

**Step #4 – Move to the front of the cylinder where the 2 switches (Part#01940873) are located (Figure #5). Separate the wires out leading to the switches and again tape them every 3” to 4” (Figure #6) Once gathered and taped together then leave some slack to the terminals on the switches and secure the end of that harness .... We use the forward switch (Figure #7)**





Figure #7

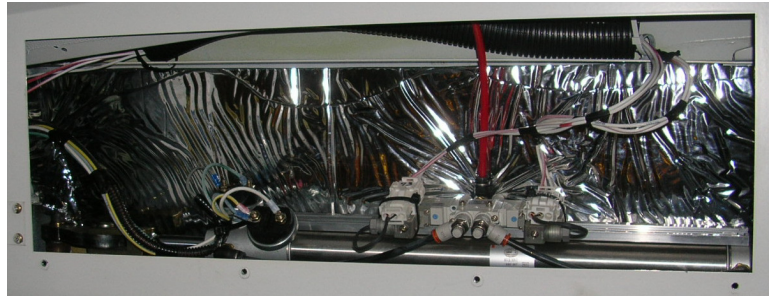


Figure #8

Finally ensure that all the wires in the header are secure and that there is sufficient slack for movement. Operate the door paying close attention to ALL the harnesses and your header should now look like Figure #8



John at Forestville Central School takes it a step further by cutting a length of heater hose and tie strapping it to the crank arm end of the cylinder assembly as shown in the photo to the left so that if the harness moves it will not be cut!

*Thanks to  
John from Forestville Central School and  
Mark from Union Endicott Central School  
For giving us feedback on this!*



**Contact Our Service Department With Any Questions**

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