

 CHAMPION BUS, INC. Thor Industries Commercial Bus Division	<u>FIELD SERVICE BULLETIN</u> <u>Freightliner M2</u> <u>ADA Parking Brake Interlock</u> <u>addition</u>	FSB_2012-102 Revision: 0 Issue Date: 12/11/2012 Manual Section: N/A Author: M. Neuville Approval: B. Sprague Form Rev. C 06/04/09
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UNITS AFFECTED: 22732 through 22753, and 22755.

DESCRIPTION: The valve added by this bulletin will prohibit the parking brake from being released when the wheelchair lift is deployed, providing additional redundancy to the ADA lift interlock.

CAMPAIGN EXPIRATION DATE: No expiration date

MATERIALS NEEDED:

Part Number	Description	Quantity
3972585	VALVE, SOLENOID ELECTRIC INTERLOCK	1
3975938	HARNESS, INTERLOCK PB M2	1
3974628	RELAY, 40 AMP 12 VOLT SPEMCO	1
3941796	LOOM,3/4" NYLON W/STRIPE HI-TEMP	1 FT
3945623	LOOM,1/4SPLIT NYLON W/STRIPE ALL	1 FT
	Male 1/4" spade terminals	
	Female 1/4" spade terminals	
	Zip ties	

DISCLAIMER:

The procedures contained herein are not exclusive. Champion Bus, Inc. cannot possibly know, evaluate, or advise the transportation industry of all conceivable ways in which a procedure may be undertaken or of the possible consequences of each such procedure. Other procedures may be as good, or better, depending upon the particular circumstances involved.

Each carrier who uses the procedures herein must first satisfy itself thoroughly that neither the safety of its employees or agents, nor the safety of any products, will be jeopardized by any procedure selected.

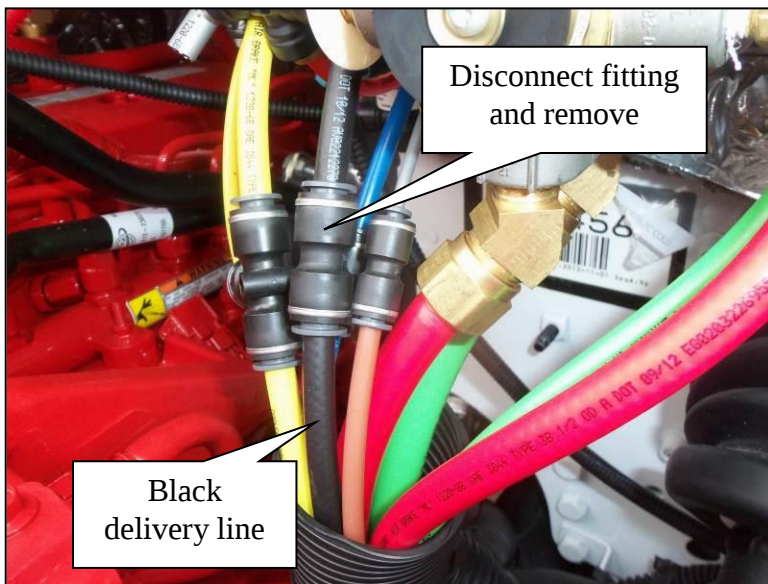
PROCEDURE:

1. Park the bus in a level location, place the gear selector in PARK, apply the parking brakes, and chock the wheels.
2. Move the curbside mirror out of the way and open the Freightliner hood.

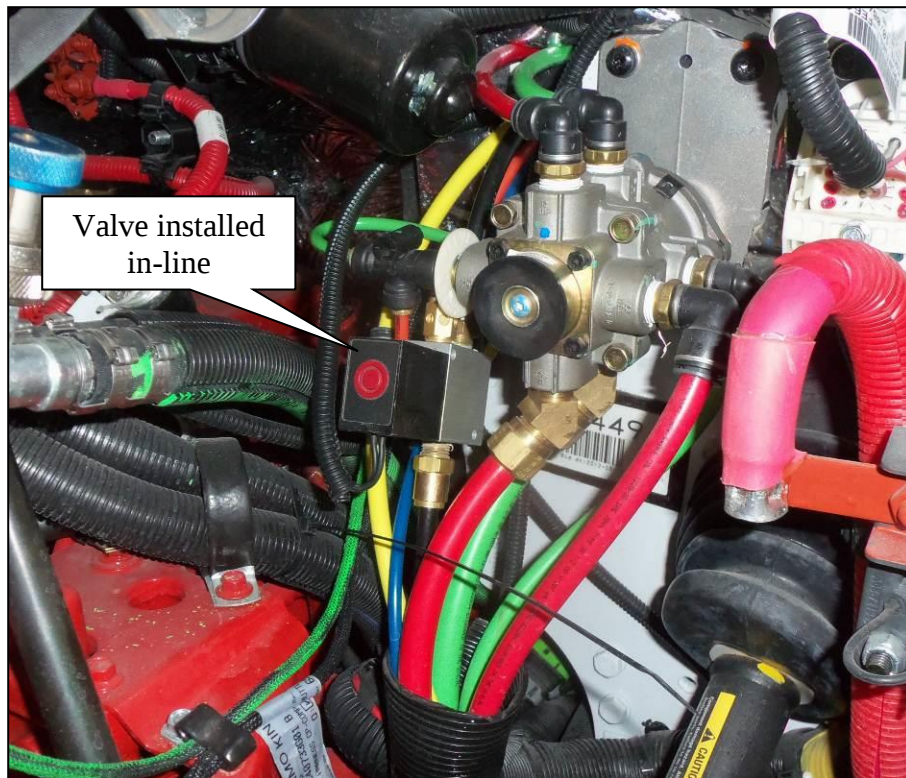
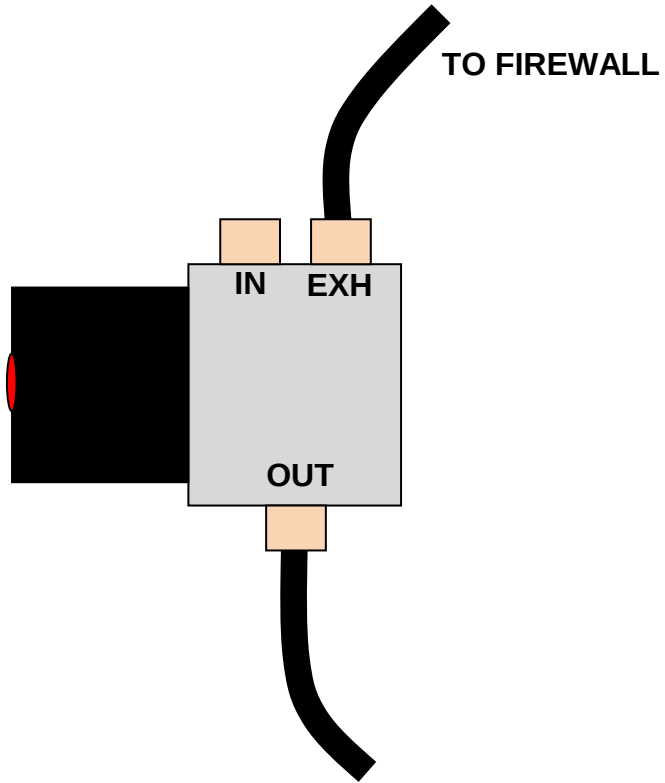
3. On the roadside of the vehicle, locate the bundle of air lines where they pass through the firewall.



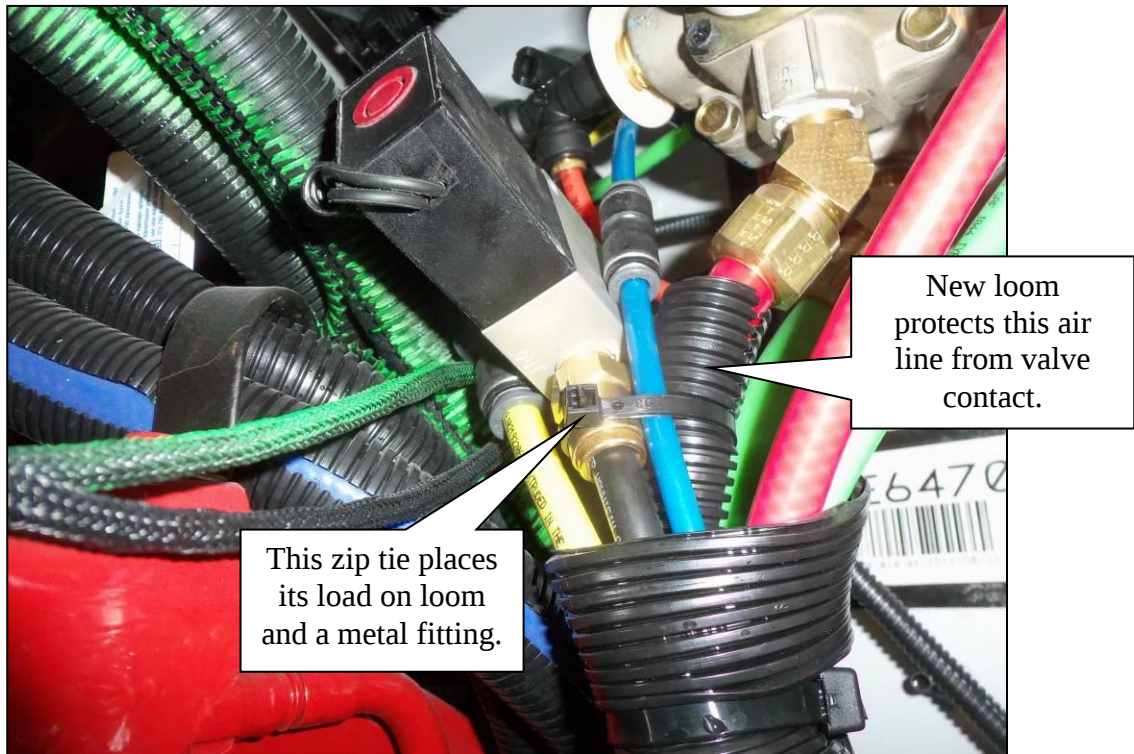
4. Locate the black 3/8" air line. This is the delivery line for the parking brake (spring brake) system. First ensure the parking brake is still applied (knob out), then remove the quick-disconnect splice fitting.



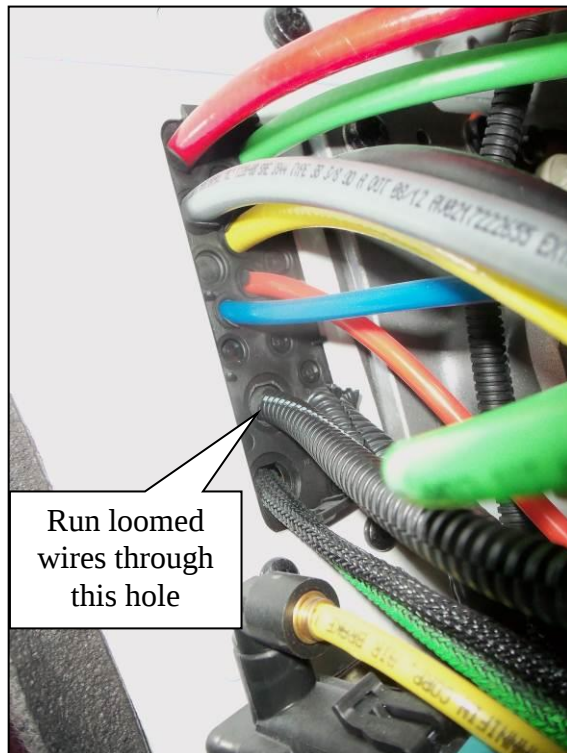
5. Install the provided valve such that the black line from the firewall is connected to the port labeled “EXH” and the black line from beneath is connected to the port labeled “OUT”. It may be helpful to trim the existing line by an inch for the new valve to fit.



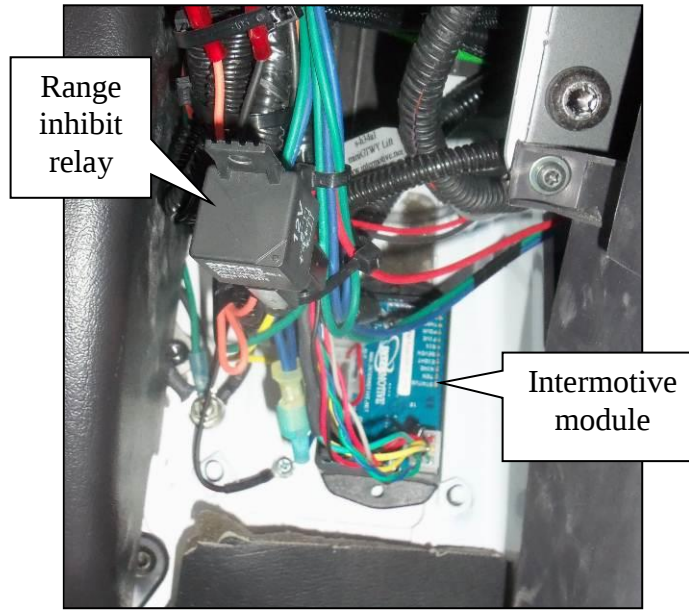
6. Secure the valve to the surrounding bundle of air lines using zip-ties. Avoid using zip ties directly on air lines. Instead, zip tie to plastic or metal fittings wherever possible. Use loom to protect any air lines the valve body contacts.



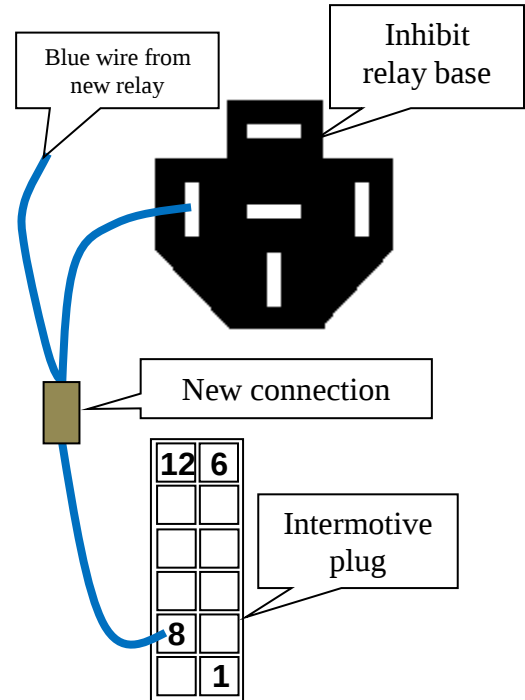
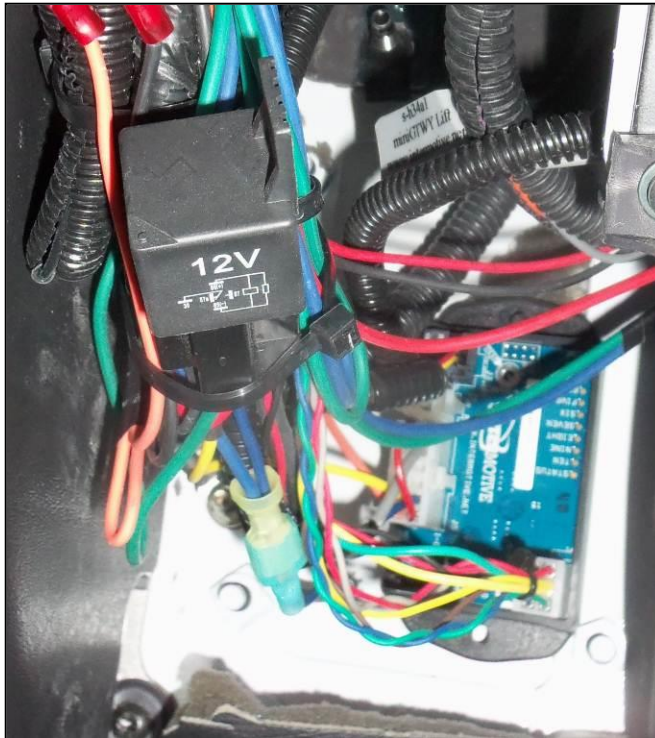
7. At this time, you may test the valve for proper plumbing by pressing the red button on the valve. With wheels chocked and vehicle in park, pressing the valve's red button should result in the parking brakes applying. When satisfied, re-apply the parking brake using the dashboard knob.
8. Protect the two wires on the valve with loom, and use electrical tape at each end to secure the loom to the wires. On the rubber pass-through at the firewall, poke out the plug for the largest available opening. Run the loomed wires through this opening.



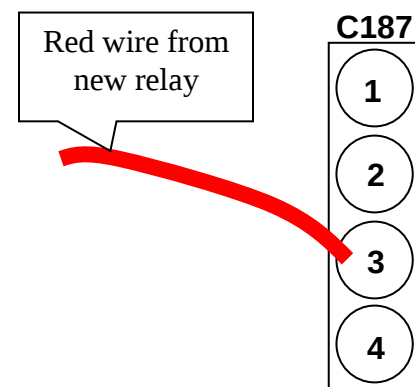
9. Inside the bus, under the dashboard, crimp female quick-disconnect terminals to the two black wires from the valve.
10. Locate the Intermotive module and range inhibit relay to prepare for installation of the retrofit harness. The Intermotive is located to the left of the steering column on the firewall. The range inhibit relay is within a few inches of the Intermotive module.



11. A blue wire runs from pin 8 of the 12-pin connector on the Intermotive, to pin 85 or 86 of the range inhibit relay. Cut this blue wire and crimp on terminals such that the side of the relay has two wires in its terminal, effectively creating a wye. The new wire at the connection goes to the blue wire from pin 85 or 86 of the new relay.



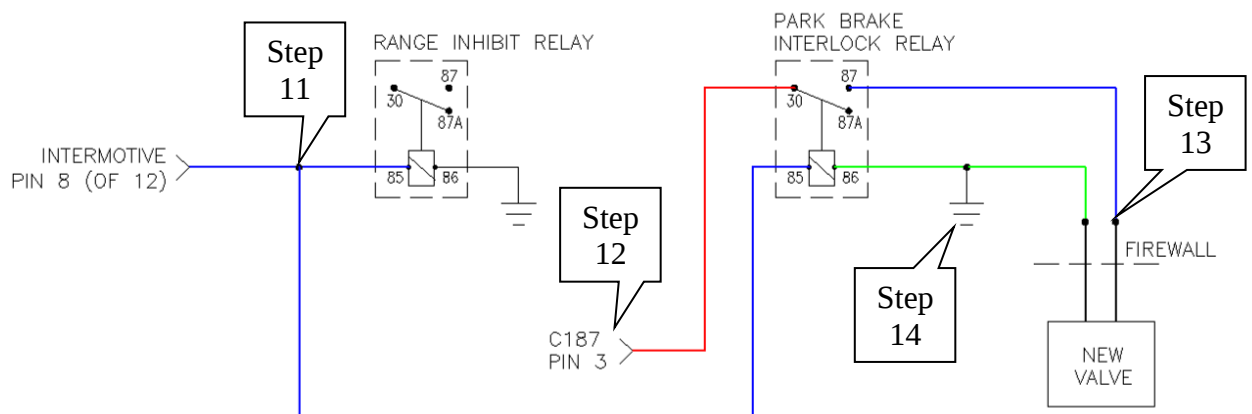
12. Above the steering column, find connector C187. Pin 3 is unused on one side. Connect the red wire from the new relay in the retrofit harness to pin 3.



13. Crimp male quick-disconnect terminals onto the remaining blue and green wires from the retrofit harness. Connect the blue and green wires to the black wires from the valve. Polarity does not matter.



14. Connect the ring terminal that is part of the green wire to an existing nearby ground location.
15. The overall connection of the retrofitted wiring is demonstrated below.



16. Use zip-ties to secure the wires under the dash out of the way. Ensure that there will be no chance of the wires interfering with pedal operation or the movement of driver's feet.