



Reliability Driven™

Procedure 7-135

Date: Mar. 24, 2017

ALLISON TRANSMISSION HARNESS CONNECTOR PLUG CAVITY

NOTICE

The transmission harness and connector retrofit is NOT complete until both FCP Service Bulletin 445 and MCI Procedure 7-135 have been performed.

Description:

MCI has prepared a procedure to insert plugs in the transmission harness connector open cavities on the J4500 series coaches listed below. This procedure is in conjunction with transmission harness retrofit outlined in MCI FCP Bulletin 445.

Water migration into the transmission connector and harness, may result in transmission codes as a result of corrosion or the potential of transmission failure.

A labor allowance of 0.4 hours will be granted for this rework on the J4500 series coaches listed below.

66554	66648 to 67895	67897 to 67967	67969	67971 to 67975
67977 to 67980	67982 to 67991	67993 to 68046	68049 to 68058	68060 to 68065
68072 to 68080				

Parts

Qty.	New P/N	Description
4	19-11-1845	Plug, Cavity
a/r		Electrical Tape

Service Procedure:



Read this entire procedure before beginning work.

Use Safe Shop Practices At All Times.

To avoid personal injury, never enter or perform work in the engine compartment prior to positioning the ENGINE RUN and ENGINE START switches on the engine compartment remote control box to the OFF position. Allow enough time for components to cool down prior to working in the engine compartment.

Use Safe Shop Practices At All Times.

NOTICE

If the steps in this procedure are performed over a pit, chock the tires. Position the ENGINE RUN and ENGINE START switches on the engine compartment remote control box to the OFF position. Allow enough time for components to cool down.

If the steps in this procedure are performed with the coach on a lift, dump the air from the tag axle suspension and raise coach to desired height. Position safety stands underneath the coach in only the specified locations shown in Section 3F in the MCI J4500 Maintenance Manual (as shown in Figure 1 of this document). Support the tag axle.

Ensure that the coach is securely supported before attempting work underneath the coach.

1. Drive the coach over a pit, or use a lift to access the transmission harness routing.
2. Turn the main battery disconnect switch to the OFF position.

⚠ WARNING

DO NOT place safety stands in any other location than shown in Figure 1 and Section 3F in the MCI J4500 Maintenance Manual.

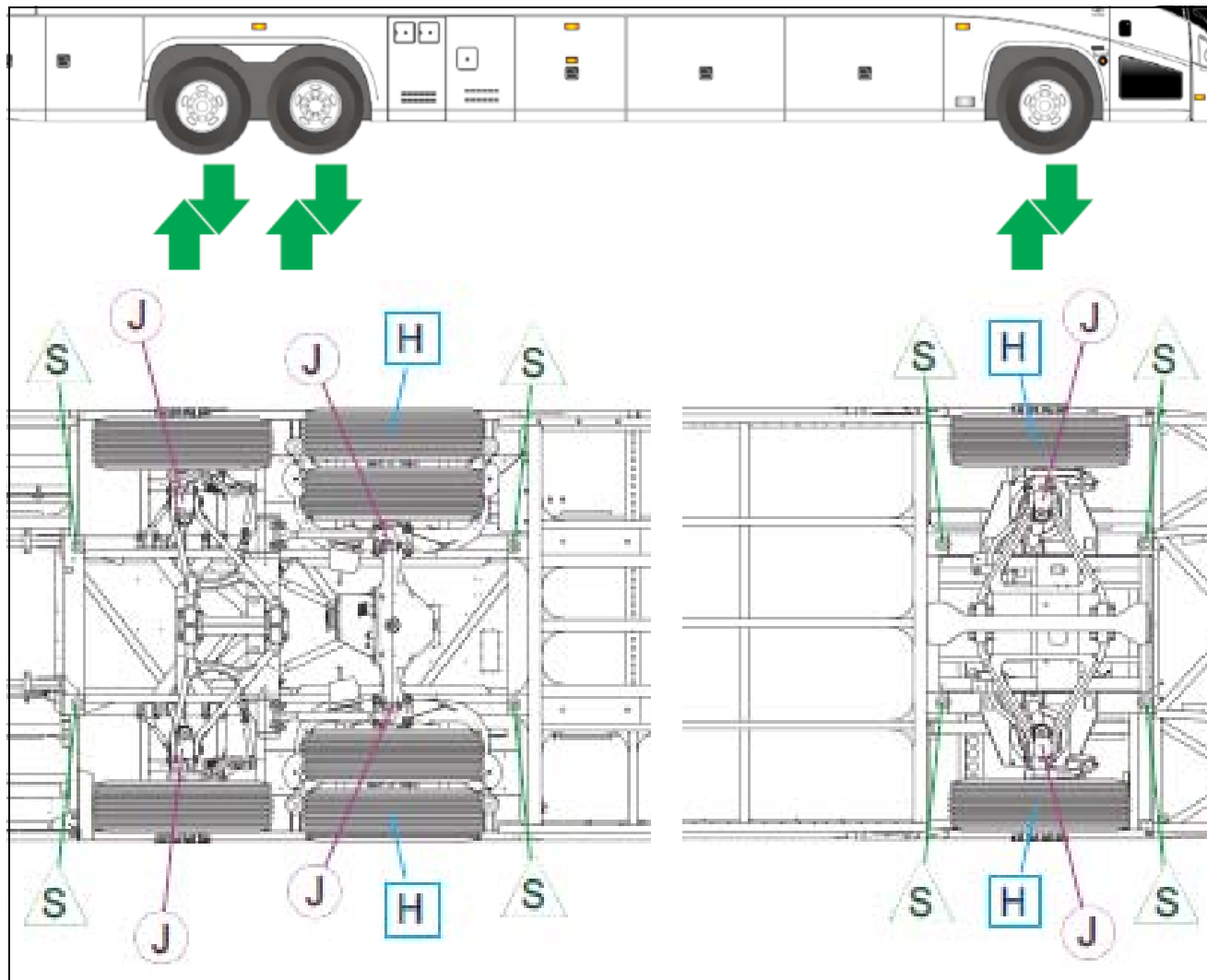


Figure 1. J4500 coach hoisting and safety stands location.

Item	Figure 1 Description
S	Safety Stand (Primary locations)
J	Jacking Point
H	Hoisting Point

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3. Locate the transmission harness connector, behind the roadside, tag axle wheel (refer to Figure 2).

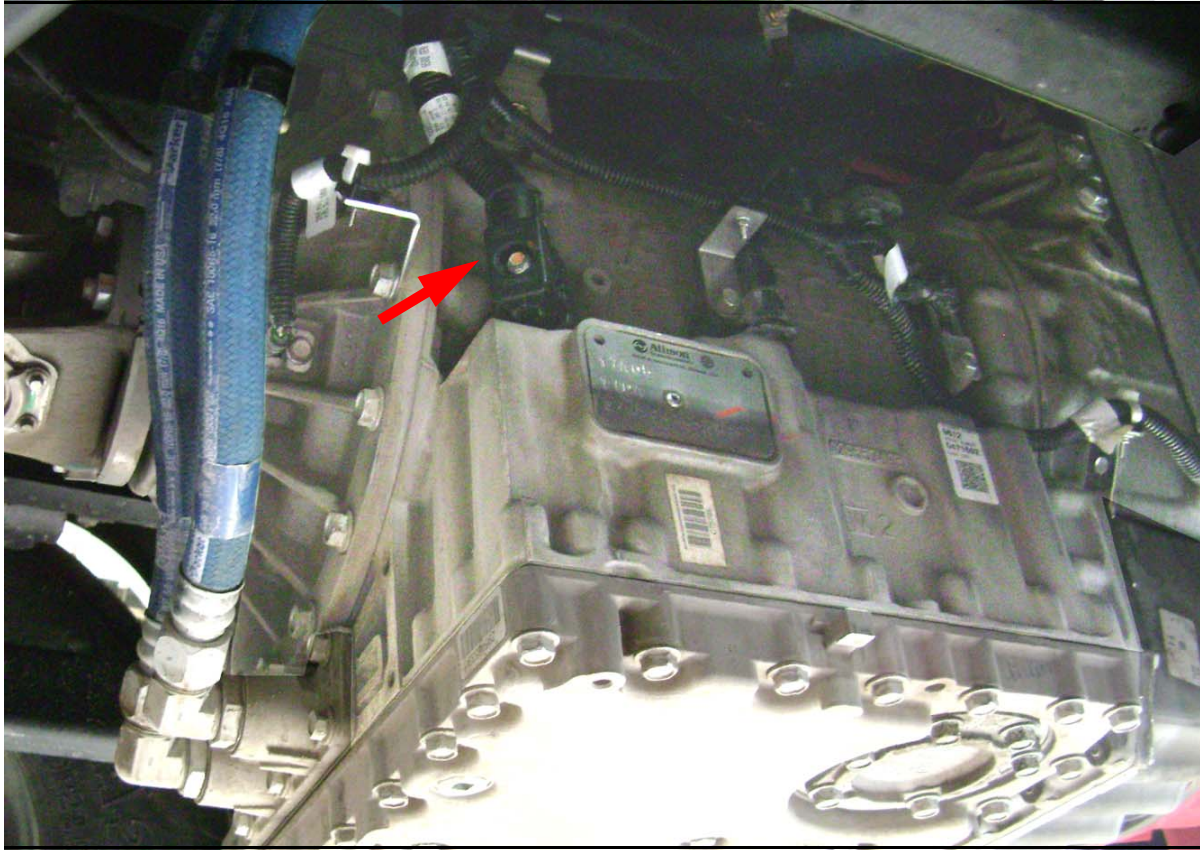


Figure 2. Transmission harness connector.

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4. At the forward section of the transmission, locate the transmission harness connector shown in Figure 3.
5. Using a 8 mm socket, loosen the mounting screw from the face of the transmission harness connector. Carefully pull to disconnect the transmission harness connector (refer to Figure 4).

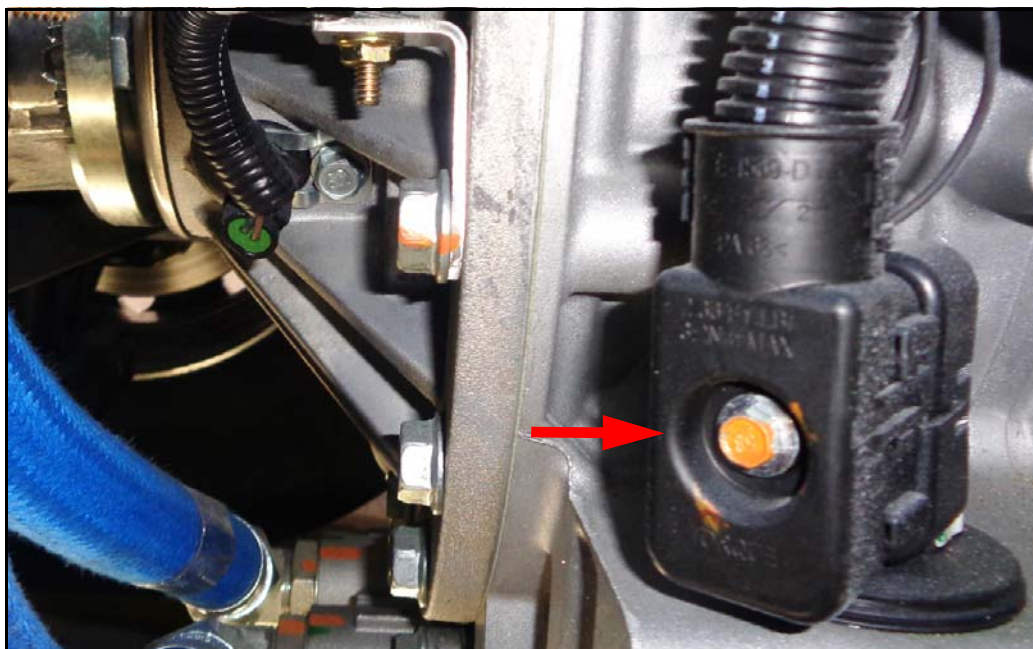


Figure 3. Transmission harness connector location.



Figure 4. Transmission harness connector removed from the interface port.

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6. Remove and discard the tape from the spare wires and the loom clamp as shown in Figure 5.



Figure 5.

7. Using a narrow, flathead screwdriver, gently pry on the three (3) locking tabs to release the back cover.

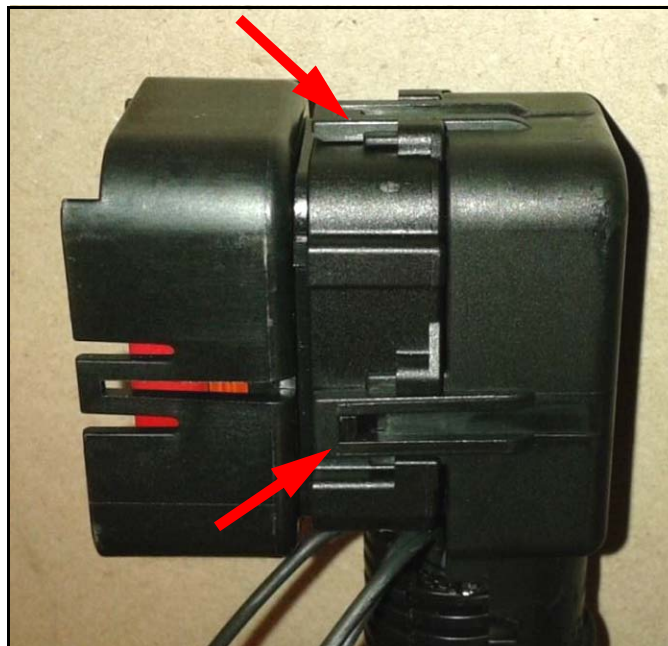


Figure 6. Locking tabs location.



Figure 7. Back cover removed.

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8. Using controlled force, carefully open and pull back the loom as far as possible (refer to Figure 8).
9. Using controlled force, carefully pull back the roundit 200 cover as far as possible (refer to Figure 8).



Figure 8.

10. Carefully navigate the wire bundle to align the wires parallel to the connector body as shown in Figure 9.

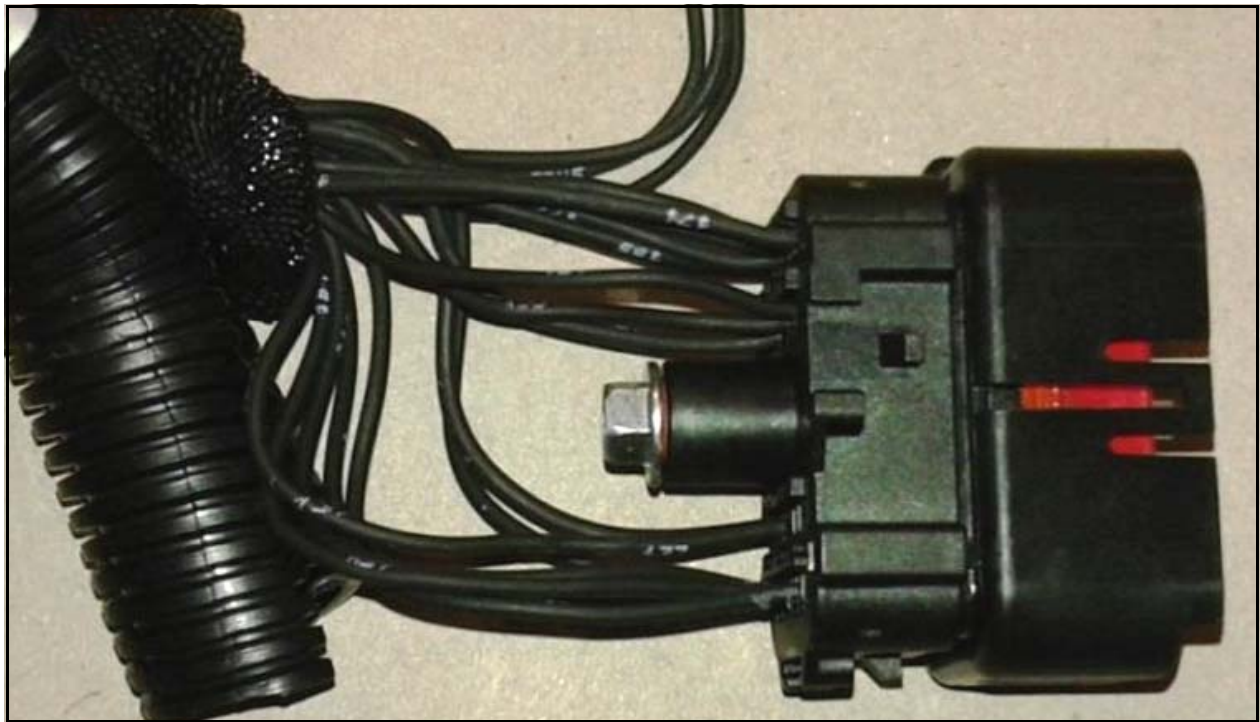


Figure 9.

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11. Using a narrow, flathead screwdriver, gently pry on the four (4) locking tabs to release the terminal lock (refer to Figure 10).



Figure 10.

CAUTION

To avoid damage to the wires, ensure that all wires are straight and parallel to the holes in the terminal lock.

12. Carefully, and in controlled stages, slide back the terminal lock as far as possible as shown in Figure 11, to access the terminal lock seal pins.



Figure 11.

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13. Locate the black molded pins shown in Figure 12. Carefully break and discard the existing four (4) black molded pins.

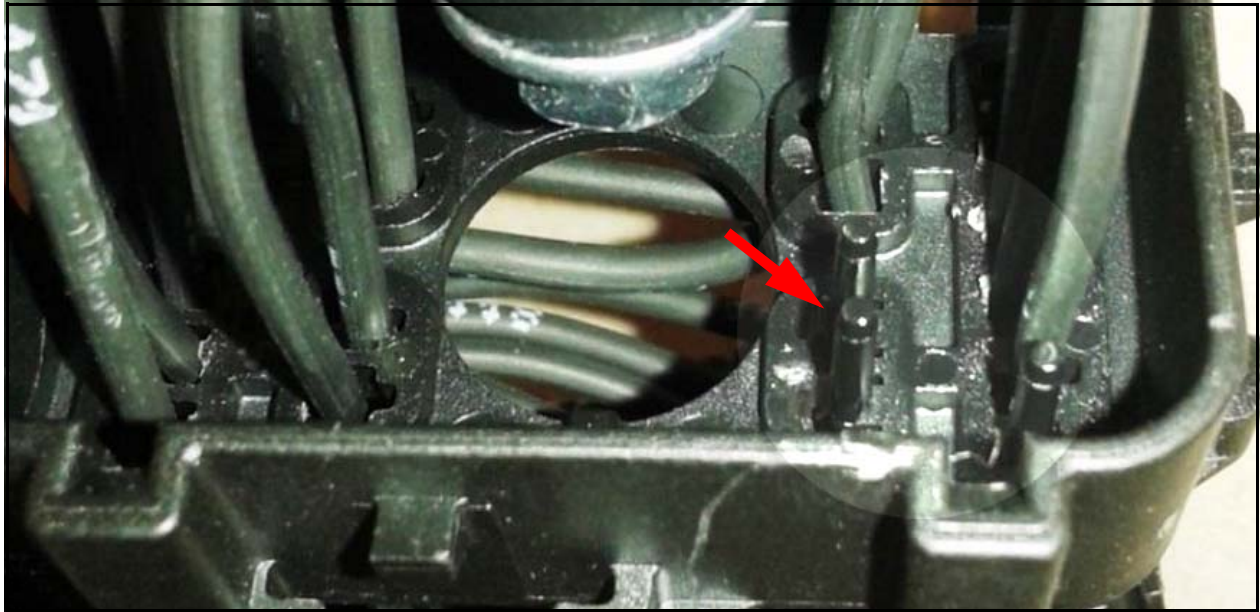


Figure 12. Existing black molded pins.

CAUTION

The cavity plug must be completely pressed down and bottomed out as shown in Figure 13 to achieve a water-tight seal.

14. Orient and press to secure the four cavity plugs, p/n 19-11-1845, into the open terminal lock cavities from the removed four (4) black molded pins as shown in Figure 13.



Figure 13.

CAUTION

To avoid damage or crimping of the wires, extreme caution must be utilized when re-installing the terminal lock on the connector body.

All wires must be oriented straight and parallel to the holes in the terminal lock.

Guide the terminal lock slowly in stages while tugging on each individual wire to avoid pinched wires in the transmission harness connector.

15. Carefully, and in controlled stages, slide the terminal lock on the connector body. Apply force to snap the terminal lock into the connector body.
16. Orient and route the wires around the center bolt as shown in Figure 14.
17. Tie back the spare wires to the wire bundle. Orient and wrap the roundit 200 cover back on the wire bundle. Apply electrical tape to secure.



Figure 14.

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18. Orient and apply pressure to snap the back cover on the transmission harness connector.



Figure 15.

19. Orient and apply pressure to snap the loom clamp on the transmission harness connector



Figure 16.

20. Using a 8 mm socket and the mounting screw, re-install the transmission harness connector. Torque to 20-24 in-lbs.

Procedure Complete.