



Reliability Driven™

Service Bulletin No. 434

MODEL	J4500 Series	TYPE	Field Change Program	SECTION/GROUP	7-Electrical	DATE	June 9, 2016
SUBJECT	DD13 ENGINE REGENERATION AT LOW AMBIENT TEMPERATURE						
CONDITIONS							

Customer Complaint:

Motor Coach Industries ("MCI") has become aware that the DD13 engine does not reach an operating temperature that is sufficient to perform a regeneration at low ambient temperatures.

Cause:

Engine does not reach high enough operating temperature at low ambient temperatures.

Corrective Action:

MCI will remedy the affected coaches equipped with Vansco multiplex at no cost to customers by installing the cooler bypass valve and revising the multiplex program. However, proper repairs will require the use of specialized equipment and therefore MCI strongly urges customers to make an appointment as soon as possible by calling the MCI Customer Service Line at 1-800-241-2947, to have the repair performed by trained technicians who have the necessary equipment.

66008	66032	66074	66078	66082
66085	66087	66132 to 66133	66147	66179 to 66184
66187 to 66188	66195 to 66200	66202 to 66207	66209 to 66210	66222 to 66224
66239 to 66240				

Parts

Qty.	Old P/N	New P/N	Description
1		26-07-0088	Kit, Transmission Cooler Bypass Valve, DD13 <i>Kit contents are:</i>
1		07-12-5955	Harness, Coolant Bypass
1		19-11-1465	Heat Shrink
4		19-11-3789	Splice, Solis
1		07-08-1057	Fuse, Mini, 5A
1		16-16-1616	Valve, 2 Way
2		19-10-3058	Fitting, 3/4 x 5/8
4		19-11-258	Tyrap, 7.31 inch
2		19-11-259	Tyrap, 3/8 x 3.50 inch
1		19-2-69	Washer, 1/4 inch
1		19-4-22	Clamp, Line
2		19-4-230	Clamp, Stepless, Spring
a/r			Solder, Resin, Core, 1/8, 60% Tin, 40% Lead
a/r			Sealant, Pipe Fitting

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.

1. Open the wheelchair compartment door and secure in the open position using the steel detent pin.



If the coach is equipped with a wheelchair lift, activate and raise the lift to the upper position. Insert the maintenance steel pin on both sides of the lift

2. Turn the main battery disconnect switch to the OFF position.
3. Close the quarter turn valves in the engine compartment to isolate the cooling system. Drain the coolant into a clean, suitable sized container.

4. Locate the closing panel on the rear wall of the wheelchair lift compartment. Release the eight (8) fasteners on the closing panel and place aside to be re-installed at a later step in this procedure. Refer to Figure 1.

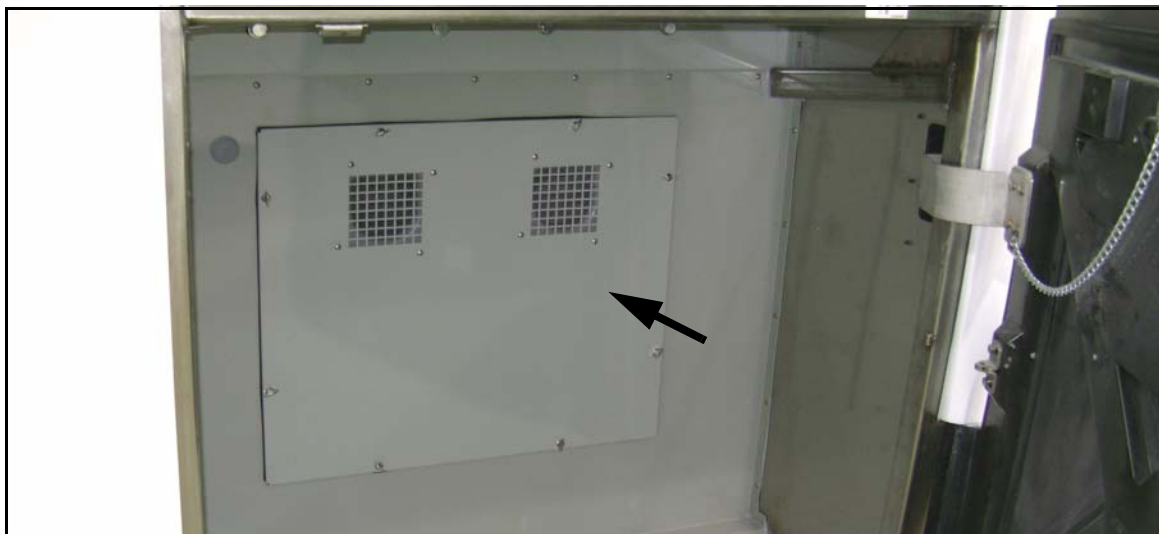


Figure 1.

5. Locate Plug +EC-X46 on bulk head. Locate spare wires SP3 and SP5 in the 07-12-3601 harness.
6. Using wire cutters, cut the harness, p/n 07-12-5955, four (4) feet back from the connector +EC-BYPASS (plug) end.
7. Using wire strippers, strip off 0.250 inch from the wires on the four (4) foot section of cut harness Using solder, splice ring and heat shrink, splice on red wire CKT1904 from harness, p/n 07-12-5955, to SP3 in 07-12-3601 harness. Splice the black wire CKT1901A from harness, p/n 07-12-5955, to SP5. Apply electrical tape and loom to the harness.

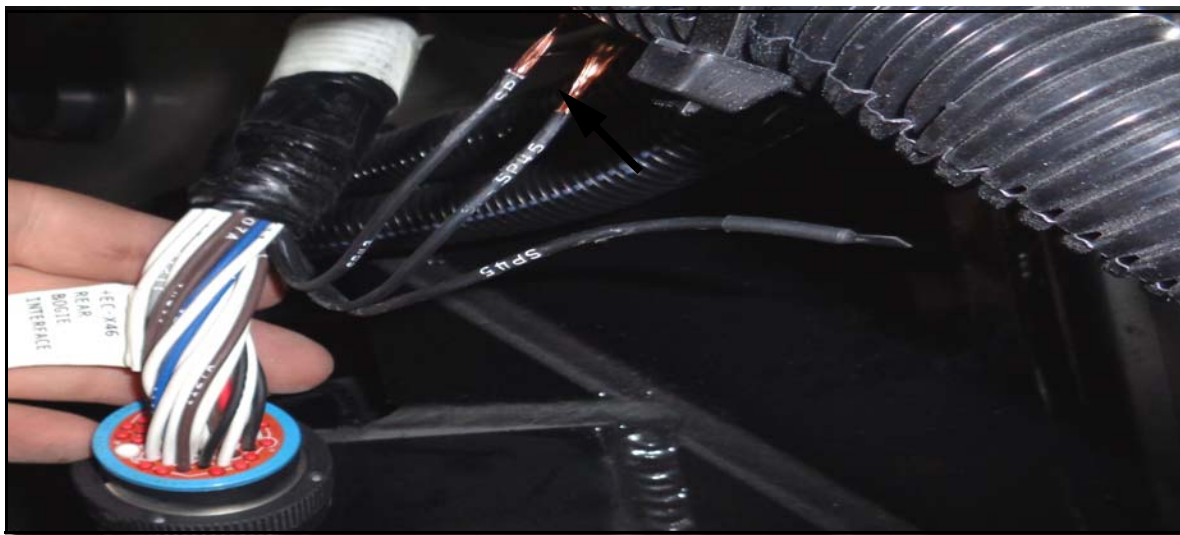


Figure 2.

8. Locate the coolant hose (refer to Item 1 / Figure 3).
9. Locate the coolant hose line clamp (refer to Item 5 / Figure 3). Remove and retain the line clamp and mounting hardware.
10. Using a marker and tape measure, mark a line at the 9.50 and 14.00 inch point using Item 3 / Figure 3 as the starting point.

NOTICE

When cutting the coolant hose, use caution not to deform the integrity of the hose ends.

11. Using hose cutters and wire cutters, cut the hose jacket and wire framing at the lines made in Step 10. Discard the cut piece.

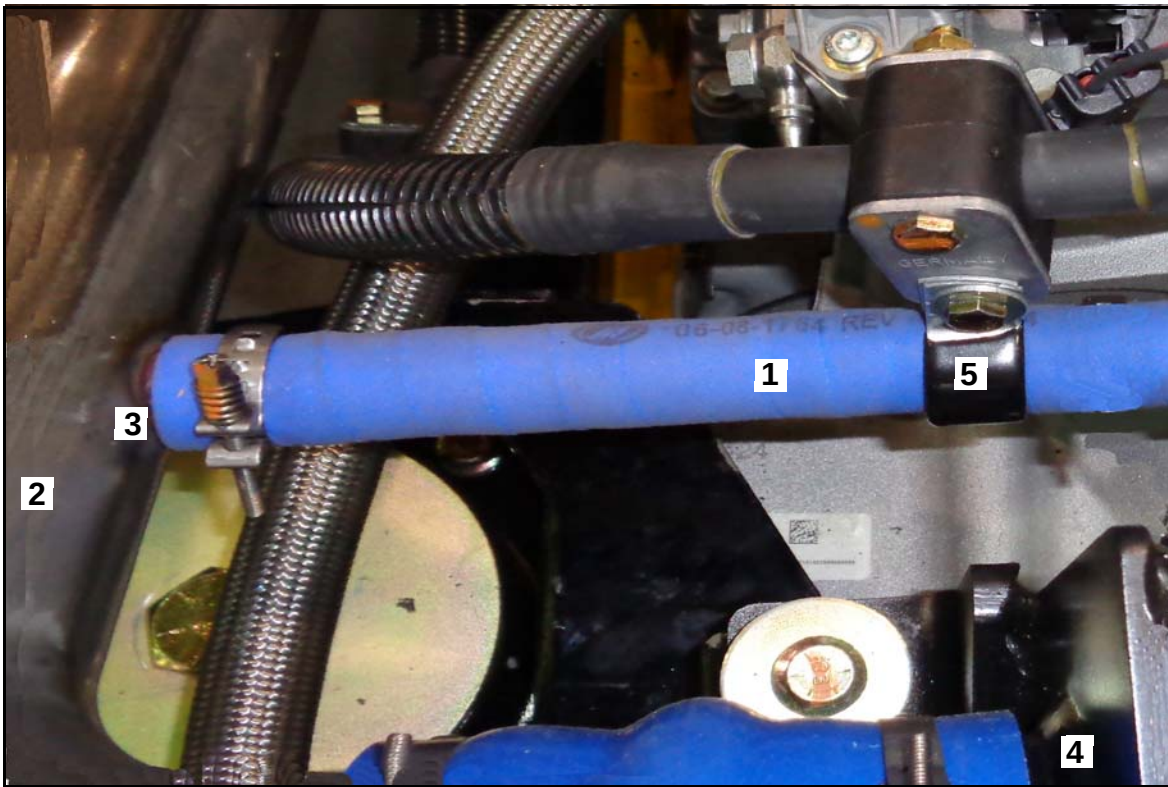


Figure 3.

Item	Description
1	Coolant hose
2	SST Pipe, Oil Cooler to Thermostat
3	Measurements, 9.50 and 14.0, inch, to be taken from this point
4	Transmission cooler, reference location
5	Remove and retain line clamp and mounting hardware

12. Orient the coolant bypass valve, p/n 16-16-1616, ensuring that the casting stamped "IN" port is facing towards the curbside of the coach. Slide one (1) stepless spring clamp, p/n 19-4-230, over both ends of the cut hose end. Install the valve utilizing the cut hose ends as shown in Figure 4. Orient and tighten the stepless spring clamp over the valve ports. Torque clamps to 12-14 in.-lbs.
13. Re-install the coolant hose line clamp (refer to Item 5 / Figure 3).



Figure 4.

14. Locate the 2 pin packard connector on the coolant bypass valve shown in Figure 4. Connect to the harness end +EC-BYPASS.
15. Open the baggage bay compartment #3 doors. Locate the rear electrical junction box mounted to the ceiling. Pull to release the rubber T-straps on the rear electrical junction box closing panel.

16. Locate the Plug +RJ-X2 on the Wabco ABS module. Locate spare wires SP3 and SP5 in the 07-12-3601 harness six (6) inches back from the plug.

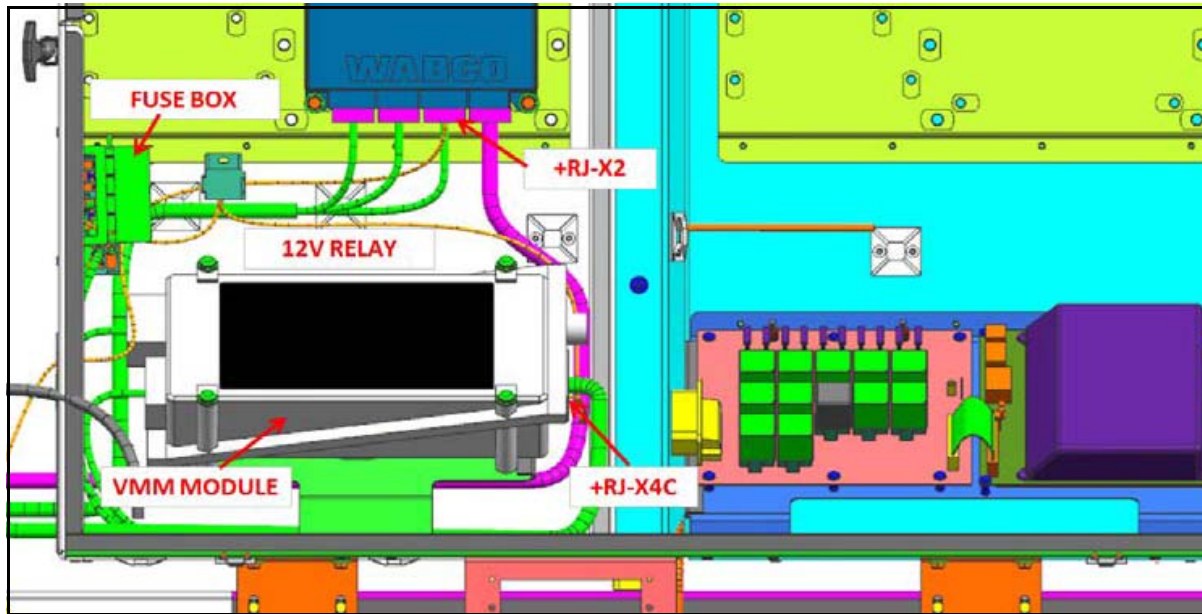


Figure 5.

17. Using wire strippers, strip 0.250 inch from the cut red wire CKT1904 and SP3. Using solder, splice ring and heat shrink, splice on red wire CKT1904 from harness, p/n 07-12-5955, to SP3.
18. In the rear junction box, using wire strippers, strip the cut black wire CKT1901A and SP5 0.250 inch. Using solder, splice ring and heat shrink, splice on black wire CKT1901A from harness, p/n 07-12-5955, to SP5.
19. Locate Plug +RJ-X4C on the VMM module. Locate Pin 25 on Plug +RJ-X4C.
20. Remove the plug from the cavity and populate Pin 25 with the pin end (CKT 1902 / white wire) of the harness 07-12-5955.

NOTICE

If there is an empty spot in Row C, use Row C. Row B is 24V Batt SW and row C is 24V IGN.

21. In the rear junction box, locate fuse slot B1 in the fuse box. Populate B1 with CKT1903 from harness 07-12-5955. Install a 5A fuse. Using a permanent marker, update the fuse panel decal.

22. Route the ring terminal end of the remaining cut section of the harness, p/n 07-12-5955 from the rear junction box to the ground stud in the battery compartment (refer to Figure 6).
23. Using existing hardware, install the ring terminal. Torque to 3-5 ft-lbs. Apply Hi-Tack to the ground stud area.

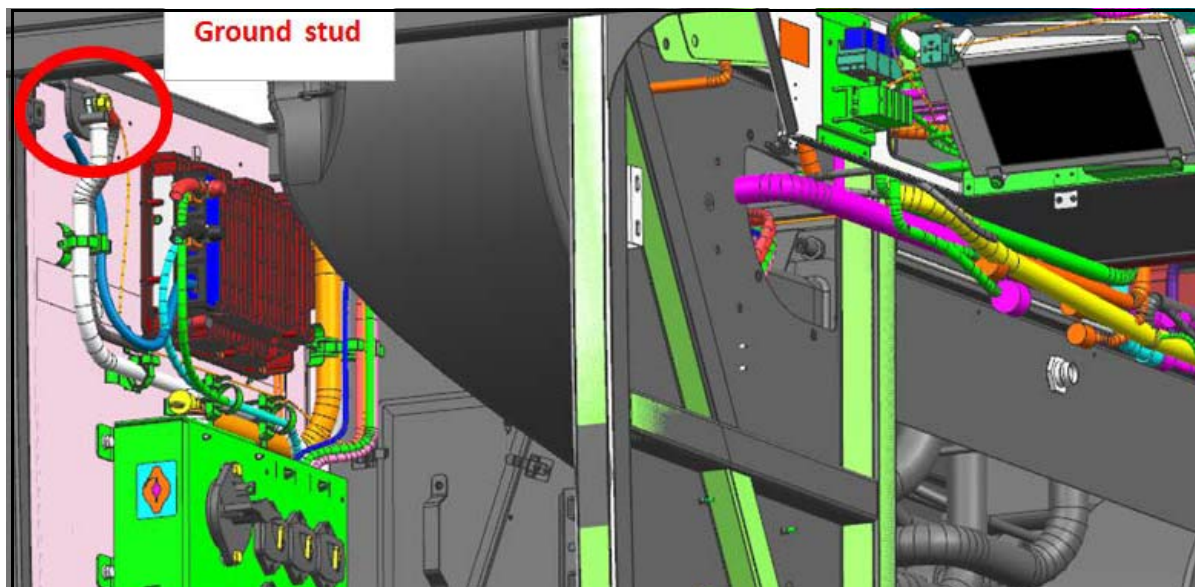


Figure 6.

24. Using tyrap, tyrap to secure the harness wires in the rear electrical junction box and battery compartment.
25. Close the rear electrical junction box. Pull to engage the rubber T-straps to secure in the closed position.
26. Orient the closing panel on the rear wall of the wheelchair lift compartment and engage the eight (8) fasteners to secure in the closed position.

CAUTION

Ensure there is no debris and/or contaminants in the collected coolant.

NOTICE

Ensure all drain valves are closed prior to introducing coolant back into the system.

27. Open the quarter turn valves in the engine compartment.
28. Follow the Special Coolant Fill Instructions on the decal located in the engine compartment, add coolant to the system as required.
29. Position the ENGINE RUN and ENGINE START switches on the engine compartment remote control box to the ON position. Start up the coach and allow to run for a few minutes.
30. Position the ENGINE RUN and ENGINE START switches on the engine compartment remote control box to the OFF position. Check for leaks and coolant level.
31. Connect a laptop to the coach. Download the revised multiplex program.

Procedure Complete.



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Mail or fax the completed limited warranty claim form and verification form to MCI's warranty department, or photocopy and mail to:

MCI Fleet Support
Attn: Warranty Department
7001 Universal Coach Drive
Louisville, KY 40258
Fax Number 1-800-360-8886

to receive credit for the hours used to complete this task. Contact the MCI Fleet Support Technical Center at 1-800-241-2947 for any further information.

Field Change Program Conditions:

Specialized programming equipment is required to perform this retrofit.

The parts required for this change will be supplied without charge.

A labor allowance of 1.50 hours will be granted for the procedure described in this bulletin on applicable J4500 Series coaches

This labor allowance will be credited to your MCI Fleet Support Parts Account on receipt of the attached "MCI Field Change Program Verification Form" and a "Warranty Claim Form" as detailed in your Owner Warranty manual to MCI's Warranty department. A "MCI Field Change Program Verification Form" needs to be submitted for each VIN affected. Photocopy the attached "MCI Field Change Program Verification Form" as required for the number of affected coaches in your fleet.

This program will end on Dec. 23, 2016.

Motor Coach apologizes for any inconvenience resulting from this campaign, but urges you to implement this change as soon as possible.

Sincerely,

Motor Coach Industries

Reliability Driven™

MCI FIELD CHANGE PROGRAM (FCP) VERIFICATION

CONTACT INFORMATION	
CUSTOMER NAME: _____ (PLEASE PRINT)	
FCP INFORMATION – ONE FORM PER UNIT	
FCP#: _____ Coach Model _____ Model Year _____	
COACH SERIAL #: (At least the last 5 digits)	DATE COMPLETED ____ / ____ / ____
MILEAGE:	
<u>IMPORTANT:</u> TO RECEIVE CREDIT FOR ANY ALLOWABLE LABOR CHARGES, THIS VERIFICATION FORM MUST BE RETURNED TO MCI UPON COMPLETION OF THE FCP.	
SUBMITTED BY: (Please Print) _____ DATE ____ / ____ / ____	
TITLE: (Please Print) _____	
SIGNATURE: _____	
COMMENTS:	

FAX TO: 800-360-8886

MAILING ADDRESS:

**MOTOR COACH INDUSTRIES
ATTN: WARRANTY DEPT.
7001 UNIVERSAL COACH DRIVE
LOUISVILLE, KY 40258**

MCI part # 03-15-7738C