TECHNICAL SERVICE BULLETIN 21-2287

Illuminated MIL With DTC P203B - Urea Sensor Reprogramming Tool - Built On Or Before 21-Aug-2017

30 August 2021

This bulletin supersedes 17-0068. Reason for update: New Part/Procedure For Same Condition

Model:

Ford 2016-2017 F-650/F-750	Engine: 6.7L

Summary

This article supersedes TSB 17-0068 to update the Service Procedure and Part List.

Issue: Some 2016-2017 F-650/F-750 vehicles equipped with a 6.7L diesel engine and built on or before 21-Aug-2017 may exhibit an illuminated malfunction indicator lamp (MIL) with diagnostic trouble code (DTC) P203B. This may be due to a low voltage condition during engine cranking. To correct this condition, reflash the diesel exhaust fluid (DEF) reductant level sensor/quality module using the Urea Sensor Reprogramming tool.

Action: Follow the Service Procedure steps to correct the condition on vehicles that meet all of the following criteria:

- 2016-2017 F-650/F-750
- 6.7L diesel
- Built on or before 21-Aug-2017
- Illuminated MIL with DTC P203B

Special Tool(s)

	Urea Sensor Reprogramming Tool 418-665

Warranty Status: Eligible under provisions of New Vehicle Limited Warranty (NVLW)/Emissions Warranty/Service Part Warranty (SPW)/Special Service Part (SSP)/Extended Service Plan (ESP) coverage. Limits/policies/prior approvals are not altered by a TSB. NVLW/Emissions Warranty/SPW/SSP/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

Labor Times

Description	Operation No.	Time
2016-2017 F-650/F-750: Retrieve DTCs, Verify Part Number And Reprogram The Reductant Level Sensor/Quality Module (Do Not Use With Any Other Labor Operations)	212287A	0.5 Hrs.

Repair/Claim Coding

Causal Part:	5J250
Condition Code:	04

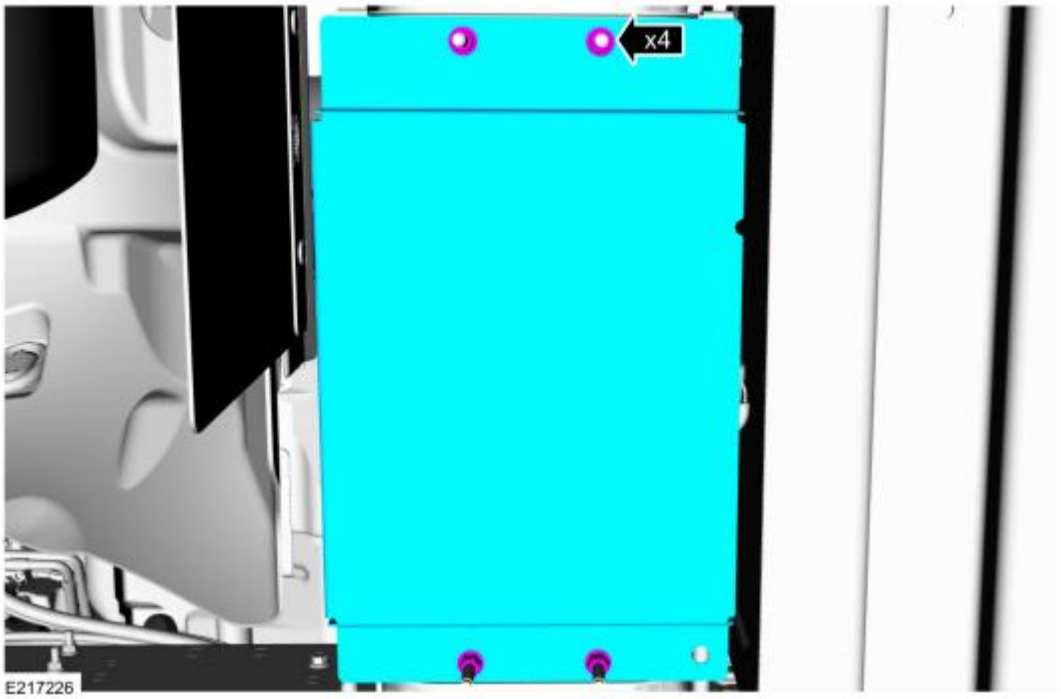
Service Procedure

1. Turn the vehicle ignition to the OFF position.

2. Locate the reductant tank on the side of the vehicle.

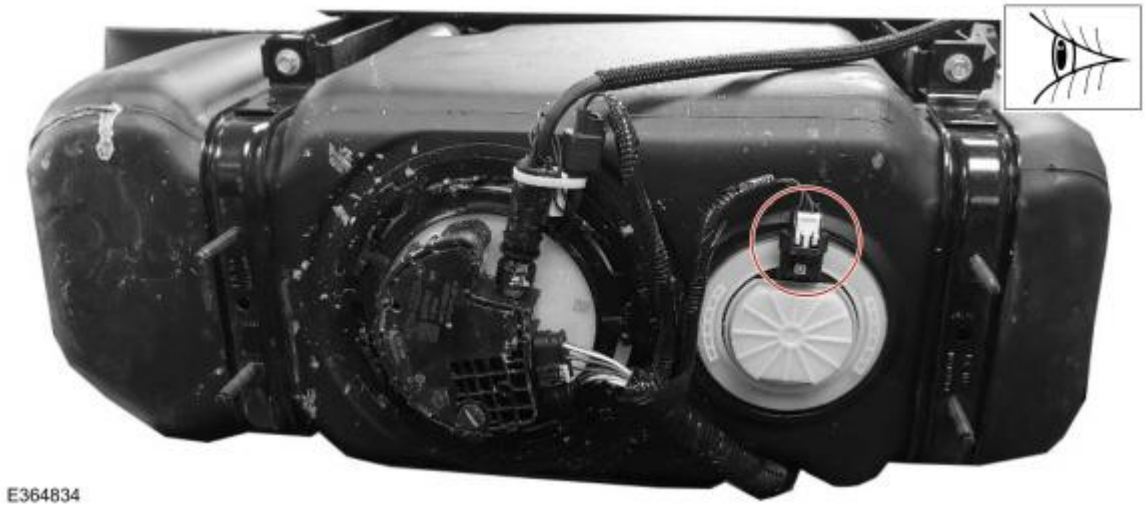
3. Remove the 4 skid plate retainers and then remove the skid plate. Do not remove the reductant tank. (Figure 1)

Figure 1



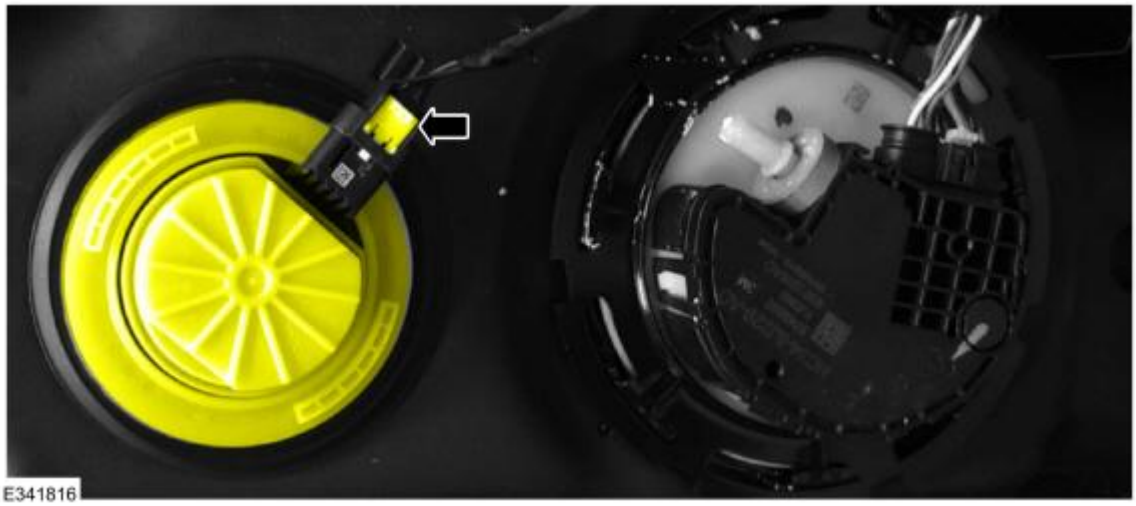
4. Locate the 4 pin electrical connector for the reductant level sensor/quality module (part of the reductant tank). (Figure 2)

Figure 2



5. Carefully unlatch the white secondary lock, depress the tab and remove the connector from the reductant level sensor/quality module. (Figure 3)

Figure 3



6. Is part number GC4A-5J242-AD printed on the component side of the reductant level sensor/quality module 4 pin electrical connector?

(1). Yes - proceed to Step 7.

(2). No - this article does not apply. Refer to the Powertrain Control and Emissions Diagnosis (PC/ED) Manual for additional diagnostics.

7. Connect the Urea Sensor Reprogramming tool into the reductant level sensor/quality module on the reductant tank. (Figures 4-5)

NOTE: When using the Urea Sensor Reprogramming tool for the first time, remove the plastic tab from the battery compartment to power the tool.

Figure 4

E341817

Figure 5

E341818

8. Once the Urea Sensor Reprogramming tool is connected, move the toggle switch to the ON position. The top green light emitting diode (LED) will illuminate and the software reprogramming process for the reductant level sensor/quality module will begin automatically. (Figure 6)

Figure 6

E341819

9. Allow up to 60 seconds for the tool to complete reprogramming the reductant level sensor/quality module.

10. Does the bottom LED on the Urea Sensor Reprogramming tool illuminate green? (Figure 7)

Figure 7

E341820

(1). Yes - the reductant level sensor/quality module has been successfully reflashed. Disconnect the Urea Sensor Reprogramming tool from the reductant level sensor/quality module and reconnect the 4 pin electrical connector from the wire harness. Re-install the reductant tank skip plate on to the reductant tank. Repair is complete.

(2). No - proceed to Step 11.

11. Is the bottom LED illuminated red?

(1). Yes - make sure the Urea Sensor Reprogramming tool is securely connected to the urea sensor and turn the reprogramming tool off then turn it back on again to restart the reprogramming process. Allow up to 60 seconds for the tool to complete reprogramming the reductant level sensor/quality module. Return to Step 10.

(2). No - proceed to Step 12.

12. Are both the red LED and green LEDs flashing?

(1). Yes - replace the 9 volt battery in the Urea Sensor Reprogramming tool. Make sure the Urea Sensor Reprogramming tool is securely connected to the urea sensor and turn the reprogramming tool off then turn it back on again to restart the reprogramming process. Allow up to 60 seconds for the tool to complete reprogramming the reductant level sensor/quality module. Return to Step 10.

(2). No - the reductant level sensor/quality module has been successfully reflashed. Disconnect the Urea Sensor Reprogramming tool from the reductant level sensor/quality module and reconnect the 4-way connector from the wire harness. Install the stone shield on the tank assembly using the 3 push pins. Repair is complete.

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