



# Technical Service Bulletin

**Technical Service Bulletin:** TSB190202

**Released Date:** 01-Dec-2023

**Aftertreatment Diesel Exhaust Fluid (DEF) Dosing Unit and DEF Dosing Valve with OEM Wiring Harness Fault Codes**

## Aftertreatment Diesel Exhaust Fluid (DEF) Dosing Unit and DEF Dosing Valve with OEM Wiring Harness Fault Codes

### Warranty Statement

The information in this document has no effect on present warranty coverage or repair practices, nor does it authorize TRP or Campaign actions.

### Contents

#### Product Affected

- B6.7 CM2350 B121B
- B6.7 CM2450 B155B
- L9 CM2350 L116B
- L9 CM2450 L126B
- X12 CM2350 X119B
- X12 CM2450 X137B
- X15 CM2350 X114B
- X15 CM2350 X116B
- X15 CM2450 X124B
- X15 CM2450 X134B

#### Issue

Multiple trouble not found aftertreatment DEF dosing units and DEF dosing valves have been returned from the field due to being replaced while troubleshooting the following Fault Codes:

- 1683
- 3237
- 3238
- 3241
- 3423
- 3558

- 3559
- 3563
- 5867

#### Symptom:

- Active Fault Codes listed present.
- Aftertreatment diesel exhaust fluid (DEF) dosing unit or DEF dosing valve can appear to be non-functional.

#### Root Cause:

- Neither a good nor malfunctioning aftertreatment DEF dosing unit or DEF dosing valve can cause the listed Fault Codes to become active as these fault codes are isolated within the OEM wiring harness.
- An electrical short or open circuit has been detected in the DEF dosing unit or DEF dosing valve OEM wiring harness.

#### Verification

- Active Fault Codes listed present.
- Aftertreatment DEF dosing unit or DEF dosing valve can appear to be non-functional.

#### Resolution

- Follow appropriate troubleshooting steps as outlined in the corresponding fault code troubleshooting trees and/or EDS.
- Review OEM service information for documentation related to the listed Fault Codes

#### Service Instructions

- Connect with INSITE™ electronic service tool and check for active fault codes.
- Follow appropriate troubleshooting steps as outlined in the corresponding fault code troubleshooting trees and/or EDS.
- If the listed Fault Codes are the only active fault codes, do **not** replace aftertreatment DEF dosing unit or DEF dosing valve. Follow corresponding troubleshooting documentation.
- Check the DEF dosing valve wiring harness for chaffed wires, damaged/exposed wires, and/or damaged pins.
  - RETURN wire from DEF dosing valve wiring harness connector to OEM wiring harness ECM connector.
  - SUPPLY wire from DEF dosing valve wiring harness connector to OEM wiring harness ECM connector.
- Check OEM aftertreatment DEF dosing unit relay wiring harness for chaffed wires, damaged/exposed wires, and/or damaged pins.
  - CONTROL wire from OEM aftertreatment DEF dosing unit relay connector to OEM wiring harness ECM connector.
  - RETURN wire from OEM aftertreatment DEF dosing unit relay connector to OEM wiring harness ECM connector.

- Battery SUPPLY wire from battery connection to OEM aftertreatment DEF dosing unit relay connector.
- Check OEM aftertreatment DEF dosing unit relay for proper operation.
- Check OEM SUPPLY wire between the aftertreatment DEF dosing unit and OEM aftertreatment DEF dosing unit relay connector for chaffed wires, damaged/exposed wires, and/or damaged pins.
- Check OEM RETURN wire from the OEM aftertreatment DEF dosing unit connector to OEM aftertreatment DEF dosing unit ground connection.
- Review OEM service information for documentation related to the listed Fault Codes.

## Document History

Date	Details
2019-11-21	Module Created
2021-6-11	Updated Product Affected section.
2023-4-13	Added fault codes and mention of DEF dosing valve.
2023-12-1	Updated service instructions section of TSB.

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**Last Modified: 01-Dec-2023**

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