



**NUMBER:** 18-045-14

**GROUP:** Vehicle Performance

**DATE:** November 21, 2014

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**THE wiTECH SOFTWARE LEVEL MUST BE AT RELEASE \*\*15.02\*\* OR HIGHER TO PERFORM THIS PROCEDURE.**

**SUBJECT:**

P20EE SCR NOX Catalyst Efficiency Below Threshold Bank 1

**OVERVIEW:**

This bulletin involves verifying the proper operation of the Diesel Exhaust Fluid (DEF) system and, if necessary, replacing the Selective Catalyst Reduction (SCR) Catalyst assembly.

**MODELS:**

2014	(DS)	Ram 1500 Pickup
2014	(WK)	Grand Cherokee

**NOTE: This bulletin applies to vehicles equipped with a 3.0L diesel engine (sales code EXF).**

**SYMPTOM/CONDITION:**

A small number of customers may experience a Malfunction Indicator Lamp (MIL) illumination. Upon further investigation the Technician may find Diagnostic Trouble Code (DTC) P20EE SCR NOX Catalyst Efficiency Below Threshold Bank 1 set in the Powertrain Control Module (PCM) memory..

**DIAGNOSIS:**

Using a Scan Tool (wiTECH) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all vehicle systems are functioning as designed. If DTCs other than the ones listed above are present record them on the repair order and repair as necessary before proceeding further with this bulletin.

**PARTS REQUIRED:**

Qty.	Part No.	Description
1 (AR)	68243268AB	Converter, SCR Catalyst (WK 4WD only)
1 (AR)	68243267AB	Converter, SCR Catalyst (WK 2WD only)
1 (AR)	68263789AB	Converter, SCR Catalyst (DS vehicles with 140 inch wheelbase)
1 (AR)	68263790AB	Converter, SCR Catalyst (DS vehicles with 149 inch wheelbase)

**REPAIR PROCEDURE:**

**NOTE: The PCM must be at the latest calibration level before proceeding with this repair.**

1. Following all applicable published service bulletins, verify the PCM software is up to date.

**NOTE: Diesel exhaust fluid will form white deposits around leaky fittings.**

2. Raise the vehicle on a suitable hoist and inspect all DEF hoses and hose connections for leaks or restrictions. If found, repair as necessary before continuing with this bulletin.
3. Perform a Diesel Exhaust Fluid Injector Quantity Test by performing the following steps
  - a. Remove the DEF Injector from the decomposition tube, leaving the electrical connector plugged in and injector connected to the supply hose.
  - b. Place the injector into a suitable container to capture the fluid that is sprayed during the injector quantity test.
  - c. Using the wiTECH, perform the "DEF Dosing Injection Quantity" test located in the PCM "System Tests".
  - d. Measure the amount of fluid sprayed after the test times out.

**NOTE: The following injector flow specifications may differ slightly from published service information and should be used for this procedure.**

4. Was the amount of fluid captured between 26 ml and 35 ml (1 oz and 1.2 oz)?
  - a. Yes>>> Proceed to Step #7.
  - b. No>>> This bulletin does not apply. Further diagnosis of the DEF system is required.

**NOTE: DEF fluid dilution or contamination is not covered under normal warranty.**

5. Test and inspect the DEF fluid sample gathered in Step #3 for signs of contamination. Refer to detailed service procedures available in DealerCONNECT/TechCONNECT, Service Info Section 25 - Emissions Control> Diesel Exhaust Fluid Emissions> Diagnosis And Testing> DIAGNOSIS AND TESTING - DIESEL EXHAUST FLUID. If found, repair as necessary following normal warranty repair guidelines regarding.

- 6. Were there any signs of DEF fluid contamination found?
  - a. Yes>>> Repair the source of the contamination as needed per current warranty repair guidelines.
  - b. No>>> Proceed to Step #7.
- 7. Replace the SCR catalyst. Refer to detailed service procedures available in DealerCONNECT/TechCONNECT, Service Info Section 11- Exhaust System> Catalyst, Selective Catalytic Reduction (SCR)> Removal/Installation.
- 8. Did the vehicle have an active or stored P2BA9-00 - NOX Exceedence - Insufficient Reductant Quality and/or a "Service DEF" message displayed on the Electronic Vehicle Information Center (EVIC)?
  - a. Yes>>> Repair as necessary following normal warranty repair guidelines. Refer to detailed diagnostic procedures and SCR Healing steps found in DealerCONNECT/TechCONNECT, Service Info Section 28 - DTC-Based Diagnostics> Module, Powertrain Control (PCM), 3.0L Diesel NAFTA> Diagnosis and Testing> P2BA9-00 - NOX Exceedence - Insufficient Reductant Quality.
  - b. No>>> The bulletin is now complete. No further action is required.

**POLICY:**

Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

Labor Operation No:	Description	Skill Category	Amount
11-50-01-9F	Test DEF System Only (2 - Skilled)	10 - Diesel	0.5 Hrs.
11-50-01-9G	Test DEF System And Replace SCR Catalyst DS Vehicles Only (2 - Skilled)	10 - Diesel	1.1 Hrs.
11-50-01-9H	Test DEF System And Replace SCR Catalyst WK Vehicles Only (2 - Skilled)	10 - Diesel	0.9 Hrs.

**FAILURE CODE:**

ZZ	Service Action
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