

July 2013 Technical Service

This Service Information bulletin supersedes SI B13 14 10 dated April 2011.

# PERFORM THE PROCEDURE OUTLINED IN THIS SERVICE INFORMATION ON ALL AFFECTED VEHICLES THE NEXT TIME THEY ARE IN THE SHOP FOR MAINTENANCE OR REPAIRS.

NEW designates changes to this revision

#### **SUBJECT**

Voluntary Emissions Recall Campaign 10E-A02: N54 Inspection and Replacement of Injectors

#### **MODEL**

E60, E61, E71, E82, E88, E90, E92, and E93 with the N54 engine produced from 04/02/2007 through 11/30/2008

### **SITUATION**

The piezo injectors may cause misfire faults with erratic engine operation.

#### **AFFECTED VEHICLES**

This Emissions Recall involves E60, E61, E71, E82, E88, E90, E92, and E93 vehicles with N54 engines which were produced from 04/02/2007 through 11/30/2008.

In order to determine whether a specific vehicle has had this Emissions Recall Campaign completed or is affected by this Recall Campaign, it will be necessary to utilize the "Service Menu" of DCSnet (Dealer Communication System) or the Key Reader. Based on the response of the system, either proceed with the corrective action or take no further action.

Copy of the customer letter is attached.

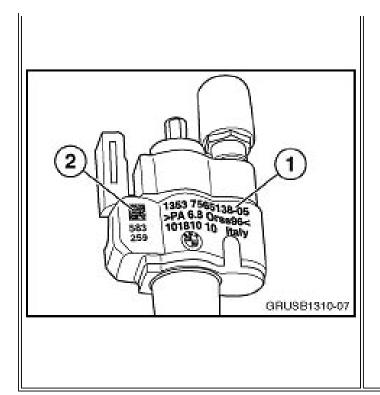
# **CORRECTION**

Check the injectors' production date/serial numbers (using the DMC scanner) and replace if required.

#### **PROCEDURE**

- 1. Using the workshop PC, from the CenterNet page open the **ASAP Portal** and then select "**Service/Technic**" and **DMC Injector Check**.
- 2. From the DMC Injector Check, select **Start** and then **enter the last seven digits** of the vehicle's VIN, the mileage, and then continue with **Enter DMC Injectors**. If the VIN is not found in the database (display shows: "Vehicle ID XXXXXXX not affected!"), no further action is required. Otherwise, proceed to step # 3.

3. Remove the engine's acoustic cover following REP11 00 "Remove and refit/replace ignition-coil cover (N54/N54T)".



4. Check each injector's part number and index number (indicated as # 1), which are located on the injectors' plastic housing facing the ignition coil.

#### 5. **IMPORTANT:**

Injectors with P/N 13 53 **7 585 261 04-08** index are not affected by this Service Action and should not be replaced.

Injectors with PN/index 13 53 7 537 317-xx or 13 53 7 565 138-01 up to 7 565 138-07 must be carefully removed in a sequential order (following REP13 53 310) and marked with the cylinder number.

6. Obtain the DMC (Data Matrix Code) scanner P/N 83 30 2 211 622, which has already been shipped to your center specifically for this Service Action (refer to tools SIB04 30 10).

#### **IMPORTANT:**

A limited quantity of subsidized scanners was sent to all BMW center primary locations. Distribution of the subsidized scanners is complete. Additional scanners may be purchased directly from Microscan (scanner manufacturer) by using one of the two methods listed below:

Follow this link and order by credit card.

shop.microscan.com/ProductDetails.asp?ProductCode=FIS%2DHS2D%2D0100G

o Contact Kay Groves (Microscan) directly at:

Kay Groves, Inside Sales

Microscan, Renton, WA

425-203-4926

kgroves@microscan.com

Microscan's part number for the scanner is FIS-HS2D-0100G. The price is \$475.00.

7. Prior to first usage, the DMC scanner needs to be configured:

Connect the scanner to the USB port of the workshop's PC. Using the attached configuration sheet; scan all

4 bar code symbols. Audible signals after each scanning would indicate correct readout of the scanner. Once successfully completed, configuration does not need to be repeated.

- 8. With the DMC scanner connected to the workshop PC, from the CenterNet page, open the **ASAP Portal**, and then select **Service/Technic** and **DMC Injector Check**.
- 9. From the DMC Injector Check, select **Start** and then enter the vehicle's last seven digits of the VIN, the mileage, and then continue with **Enter DMC Injectors.**
- 10. The injector's data code must be entered for all six cylinders in a sequential order (from cylinder 1 to 6).

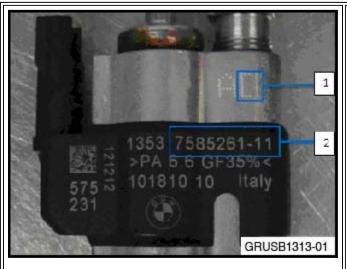
For the injectors already removed, scan the rectangular bar code located in the upper left part of the plastic housing, next to the injectors' part number (indicated as # 2 in the illustration). The 34 or 36-digit line should appear in the corresponding cylinder's line.

If the displayed code shows "########..," select **Unreadable** from the bottom menu bar and proceed to the next cylinder.

For the cylinders which did not require an injector removal per step 3 above, press Skip from the bottom menu bar and proceed to the next cylinder.

- 11. After all 6 cylinders' fields are filled out, continue with **Check** selected from the bottom menu bar.
- 12. Defective or "unreadable" injectors are going to be marked "**Replace**" (red field). Use **P/N** 13 53 8 616 079 for the replacement. If one or all of the injectors on that bank are not already index 11 or higher, all of the injectors on that bank should be replaced if any one injector is "unreadable" or marked "replace."

IMPORTANT: Injectors with index 11 and higher have a different calibration and construction than injectors with index 10 and lower. Due to this difference, injectors with index 11 and higher and injectors with index 10 and lower cannot be mixed on the same engine bank (i.e., cylinders 1-3 or 4-6). See the photo below to properly identify the index number.



As of January 2013, an improved injector has been available. Two distinct markings on the injector itself will identify the improved injector:

1 = Internal material improvement2 = 7585261 - (index) 11 or greater

Use the DCS Warranty Vehicle Inquiry: See the Repair History (Claims) section to review the prior injector repairs, if applicable. Click on the "Claim Number" to review each claimed defect code and its corresponding line item details (labor, parts and sublet).

- 13. New Injectors identified as "OK" (green field) should not be replaced and reinstalled into corresponding cylinders after replacement of the PTFE sealing ring (P/N 13 53 7 584 315) and decoupling element (P/N13 53 7 564 751), following REP 13 53 310.
- 14. After data matrix determination is completed, store the data by pressing "End (save data)," selected from the bottom menu bar.
- 15. Follow Repair Instruction 13 53 310 for injector removal and installation. Additionally, the spark plugs from the misfiring cylinders which were found to be soaked ("wet") with fuel should be replaced.
- 16. After injector replacement, perform the individual injector calibration (adjustment) with the DME control module, per SI B12 26 08.
- 17. Obtain the replacement injectors (P/N 13 53 8 616 079) from your parts department and register them back into the database. Press the "Replace defective injectors" button from the bottom menu bar and scan each new injector into the corresponding cylinder's field. After all new replacement injectors are registered (the data matrix code of replacement injectors is marked green), select "Save results" from the bottom menu bar.

# Note:

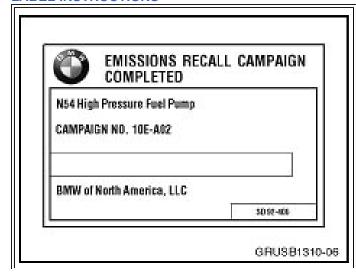
Detailed description of the injectors' scanning and registering process can be found in DMC Injector Check/Manual Index Check from the ASAP Portal.

18. New After installation, the new injectors must be calibrated using ISTA/D Service Functions as per REP13 53 310.

# **PARTS INFORMATION**

Part Number	Description	Quantity
NEW 13 53 8 616 079	Piezo injector	As required, up to 6
13 53 7 564 751	Injectors' decoupling element	As required, up to 6
13 53 7 584 315	Injectors' PTFE seal	As required, up to 6

# LABEL INSTRUCTIONS



After the vehicle has been checked and corrected, obtain a label (SD 92-406) and with a ball point pen print your dealer code (5 digits) on the Recall Completion Label (see illustration). An initial quantity of 200 labels will be sent to all BMW centers. Peel the label from its backing and affix it to the right (passenger) rear side of the hood in the engine compartment, close to windshield.

	Vehicle Emission Recall - Proof of Correction	
Manufactu The above dea	cribed vehicle has been received, modified and/or equipped with new emission control devices.	
Dealor's Name	Address, City, State and Zip	
Dete	Dealership's Authorized Signature	
Return this certifica	tile to DMV <u>only</u> when required - otherwise retain for your records. SD92-084	
	S12 96 U31	
St.	312 90 031	

For California centers only: It is required by the California Code of Regulations that an executed orange "Vehicle Emission Recall - Proof of Correction" certificate (SD92-084, see illustration) be provided to each customer (for vehicles registered in the state of California), once the Recall on his or her vehicle has been completed.

**Note:** Additional labels can be ordered online at BMW TIS.

#### **WARRANTY INFORMATION**

The repair described in this bulletin is covered under warranty regardless of time or mileage.

Reimbursement for this Recall will be via normal claim entry utilizing the following information.

#### **IMPORTANT:**

Verify which of the following campaign codes (00 13 96 01 00 or 00 13 97 01 00) are listed in the DCS Open Campaign Information and the key reader for the vehicle being repaired and code the claim accordingly using the following information.

Claiming the repair utilizing the incorrect defect code or labor code will cause claim denial.

<b>Defect Code:</b>	00 13 96 01 00	
Labor Operation:	Labor Allowance:	<b>Description:</b>
00 59 784	Refer to KSD2*	Remove engine's acoustic cover; check injectors' part numbers. No removal is required.
00 59 785	Refer to KSD2*	Remove engine's acoustic cover; check injectors' part numbers. Remove, scan and reinstall or replace all 6 injectors.

00 59 786	Refer to KSD2*	Remove engine's acoustic cover; check injectors' part numbers. Remove, scan and reinstall or replace 5 injectors
00 59 787	Refer to KSD2*	Remove engine's acoustic cover; check injectors' part numbers. Remove, scan and reinstall or replace 4 injectors.
00 59 788	Refer to KSD2*	Remove engine's acoustic cover; check injectors' part numbers. Remove, scan and reinstall or replace 3 injectors.
00 59 789	Refer to KSD2*	Remove engine's acoustic cover; check injectors' part numbers. Remove, scan and reinstall or replace 2 injectors.
00 59 790	Refer to KSD2*	Remove engine's acoustic cover; check injectors' part numbers. Remove, scan and reinstall or replace 1 injector.
	OR	
<b>Defect Code:</b>	00 13 97 01 00	
Labor Operation:	Labor Allowance:	Description:
00 59 854	Refer to KSD2*	Remove engine's acoustic cover; check injectors' part numbers. No removal is required.
00 59 855	Refer to KSD2*	Remove engine's acoustic cover; check injectors' part numbers. Remove, scan and reinstall or replace all 6 injectors.
00 59 856	Refer to KSD2	Remove engine's acoustic cover; check injectors' part numbers. Remove, scan and reinstall or replace 5 injectors.
00 59 856	Refer to KSD2	injectors' part numbers. Remove, scan and

00 59 857	Refer to KSD2*	Remove engine's acoustic cover; check injectors' part numbers. Remove, scan and reinstall or replace 4 injectors.
00 59 858	Refer to KSD2*	Remove engine's acoustic cover; check injectors' part numbers. Remove, scan and reinstall or replace 3 injectors.
00 59 859	Refer to KSD2*	Remove engine's acoustic cover; check injectors' part numbers. Remove, scan and reinstall or replace 2 injectors.
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00 59 860	Refer to KSD2*	Remove engine's acoustic cover; check injectors' part numbers. Remove, scan and reinstall or replace 1 injector.

All the labor operation codes listed above are Plus labor operations.

\*Refer to KSD2 for the corresponding flat rate unit (FRU) allowance. Enter the Chassis Number, which consists of the last 7 digits of the Vehicle Identification Number (VIN). Click on the "Search" button, and then enter the applicable flat rate labor operation in the FR code field.

## **ATTACHMENTS**

View PDF attachment **B131410\_Customer\_Letter**.

View PDF attachment **B131410\_Scanner\_Configuration**.

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