

Dealer Service Instructions for:

Emissions Recall G30

Replace Oxygen Sensor Module and Reprogram ECM

Effective immediately all repairs on involved vehicles are to be performed according to this recall. Rapid Response Transmittal (RRT) 07-037 and Service Bulletin #18-033-07 are being cancelled.

Models

2007 - 2008 (DH/D1) Dodge Ram 2500/3500 Pick Up Truck

*NOTE: This recall applies only to the above vehicles equipped with a 6.7L diesel engine ("A" in the 8th VIN position) built **through** August 20, 2007 (MDH 082019).*

IMPORTANT: Some of the involved vehicles may be in dealer new vehicle inventory. Dealers should complete this recall service on these vehicles before retail delivery. Dealers should also perform this recall on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

Subject

The On-Board Diagnostic (OBD) system on about 74,000 of the above vehicles may not detect a failed oxygen sensor or illuminate the Malfunction Indicator Light as required. In addition, the OBD system may cause these trucks to fail an Inspection Maintenance (Readiness) test and may not store mileage as required for certain transmission faults.

Repair

The Oxygen Sensor Module must be replaced and the Engine Control Module (ECM) must be reprogrammed (flashed).

NOTE: The new software will also improve vehicle driveability and reduce the potential for exhaust soot accumulation in the vehicle's particulate filter.

Parts Information

<u>Part Number</u>	<u>Description</u>
CBF1G300	Oxygen Sensor Module

Each dealer to whom vehicles in the recall were assigned will receive enough oxygen sensor modules to service about 20% of those vehicles.

<u>Part Number</u>	<u>Description</u>
04275086AB	Authorized Modifications Label

Due to the likelihood that the required labels are already in your parts inventory, no labels will be distributed initially. Label may be ordered as needed.

Special Tools

The following existing special tools may be required to perform this repair:

- CH9401* StarSCAN® Tool
- CH9404* StarSCAN Vehicle Cable
- CH9409* StarSCAN Documentation Kit
- CH9410* StarSCAN Ethernet Cable 12 ft.
- CH9412* StarSCAN Software Update Device Kit
- NPN TechCONNECT PC
- NPN StarSCAN Software Update CD

* Part of CH9400 kit.

Service Procedure

A. Replace the Oxygen Sensor Module

1. Open the hood and disconnect the negative battery cables from both batteries.
2. Using a mechanic's creeper, slide under the right side of the truck and locate the oxygen sensor module on the outer side of the right frame rail (Figure 1).
3. Disconnect the electrical connector at the oxygen sensor module (Figure 1).

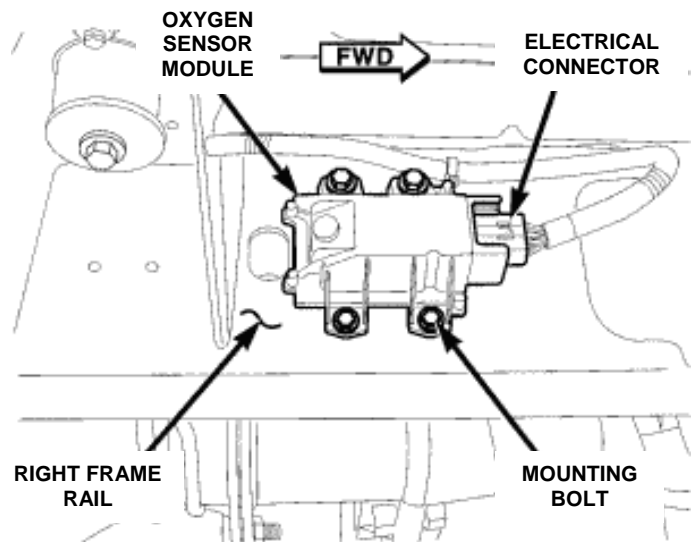


Figure 1

4. Remove the four oxygen sensor module mounting bolts (Figure 1).
5. Remove and discard the original oxygen sensor module from frame rail.
6. Position the new oxygen sensor module onto the frame rail.
7. Install the four oxygen sensor module mounting bolts.
8. Tighten the oxygen sensor module mounting bolts to 53 in. lbs. (6 N·m).
9. Connect the oxygen sensor module electrical connector to the module.
10. Connect the negative battery cables.
11. Continue with **Section B - Check ECM Software Level**.

Service Procedure (Continued)

B. Check ECM Software Level

1. Connect the StarSCAN to the vehicle.
2. Turn the vehicle ignition switch to the “ON/RUN” position (engine not running).
3. Connect the CH9410 StarSCAN ethernet cable to the StarSCAN and the dealer's network drop.
4. Power up the StarSCAN and verify that the StarSCAN is at software release 8.03 or higher.

NOTE: The software release level is visible in the blue header at the top of the StarSCAN screen.

5. Starting from the “Home” screen, select “**ECU View**”.
6. Touch the StarSCAN screen to highlight the “**PCM Powertrain Control Module**” in the list of modules.
7. Select “**More Options**”.
8. Select “**ECU Flash**”.
9. Record the part number of the Application software file in the ECM.
10. Determine if the application software file part number currently in the ECM is one of the following part numbers (or the same root part number with a higher suffix - last two digits):

<u>2007</u>	<u>2008</u>
55350230AU	62350235AG
55350235AU	62351235AG
55351230AU	62350230AG
55351235AU	62351230AG

- If the current application software file part number in the ECM **matches** one of the above part numbers (or the same root part number with a higher suffix - last two digits), no further action is required. Disconnect the StarSCAN and continue with **Section D. Install Authorized Modifications Label**.
- If the current application software file part number in the ECM **does not match** one of the above part numbers, continue with **Section C. Program the ECM**.

Service Procedure (Continued)

C. Program the ECM

NOTE: This repair procedure cannot be performed using the StarMOBILE in its standalone mode. Use the StarSCAN to perform this repair procedure.

NOTE: Before performing this repair procedure, the operating software in the StarSCAN must be programmed with software release level 8.03 or higher. The software release level is visible in the blue header at the top of the StarSCAN screen.

CAUTION: On 2007 model trucks, before the application software can be reprogrammed (flashed) into the Engine Control Module (ECM), the ECM must first be reprogrammed (flashed) with new “bootloader” software. Failure to reprogram the ECM with the new “bootloader” software first may cause the process of reprogramming the ECM with the application software to fail. The ECM “bootloader” software special flash procedure must be followed exactly to prevent damage to the ECM.

CAUTION: When performing the “bootloader” section of the repair procedure, **DO NOT** interrupt the ECM reprogramming session. This special ECM “bootloader” software reprogramming session does not support “abort - recovery” mode. If “bootloader” software is interrupted, the ECM will be permanently disabled and will require replacement.

1. Install a battery charger and verify that the charging rate provides 13.0 to 13.5 volts. If the battery charger is timer controlled, set the battery charger to continuous charge. Do not allow the charger to time out during the flash process.

NOTE: Do not allow the charging voltage to exceed 13.5 volts during the flash process.

2. Make sure the ignition is in the “RUN” position.
3. For 2007 model trucks, “bootloader” software replacement **is required**. Continue with Step 4 of this procedure.

For 2008 model trucks, “bootloader” software replacement **is not required**. Continue with Step 12 of this procedure.

Service Procedure (Continued)

4. Erase all flash files from the StarSCAN using the following procedure:
 - a. From the StarSCAN “Home” screen select “**Show Short Cuts**” button located in the upper right corner of the screen.
 - b. Select “**Tool Menu**” button in the upper left corner of the screen.
 - c. Select “**Manage Files**”.
 - d. Select “**More Options**”.
 - e. Select “**Delete All**”.
 - f. Select “**Yes**” on the pop-up screen.
 - g. Select “**OK**” on the pop-up screen.
 - h. Select “**Back**” at the “User’s Files” menu.

5. Obtain the ECM “Bootloader” software file and download it to the StarSCAN using the following procedure:
 - a. Select “**ECU View**”.
 - b. Select “**(PCM) Powertrain Control Module**” from the list of modules.
 - c. Select “**More Options**”.
 - d. Select “**ECU Flash**”.
 - e. Record the part number of the new application software in the ECM (“Resident Flash File for Part # xxxxxxxxxxx”).
 - f. Select “**Browse for New File**”.
 - g. Select “**OK**” at the flash down load screen.
 - h. Enter the required data and select “**OK**” at the password screen.
 - i. Select “**Finish**”.
 - j. Highlight the ECM “Bootloader” software file.

CAUTION: The “Bootloader” file will have the letters “BT” in the last two digits (suffix) of its part number. DO NOT select the application software file with the letters “AU” or higher suffix in the last two digits of its part number.
 - k. Select “**Download to Scantool**”.

Service Procedure (Continued)

- l. Select “Close” on the pop-up screen when the download is complete.
- m. Select “Back” one (1) time.

CAUTION: When performing the “bootloader” section of the repair procedure, DO NOT interrupt the ECM reprogramming session. This special ECM “bootloader” software reprogramming session does not support “abort – recovery” mode. If “bootloader” software is interrupted, the ECM will be permanently disabled and will require replacement.

6. Close all doors and turn OFF all accessories (i.e. radio, hvac, lights, etc.).
7. Download the “Bootloader” software from the StarSCAN to the vehicle using the following procedure:
 - a. Highlight the “Bootloader” software selected previously.

NOTE: The “Bootloader” file will have the letters “BT” in the last two digits (suffix) of its part number.
 - b. Select “Update Controller”.
 - c. Select “OK” at ECU flash.
 - d. Select “OK” at the “Flash Update Successful” screen after the flash process is complete.
 - e. Select “Back” three (3) times to return to the “ECU View” screen.
8. Turn the ignition switch to the “OFF” position, remove the key from the ignition, and wait two minutes.
9. Insert the ignition key into the ignition switch and turn the ignition switch to the “RUN” position (do not start the engine).
10. Confirm that the ECM has the new “Bootloader” software using the following procedure:
 - a. From the “ECU View” screen, select “PCM” in the list of modules.
 - b. Select “More Options”.
 - c. Select “ECU Flash”.
 - d. Confirm that the available “Bootloader” software file part number matches the resident flash file part number in the ECM.

Service Procedure (Continued)

11. Erase the “Bootloader” software file from the StarSCAN using the following procedure:
 - a. Starting at the “Flash PCM” screen, select “**Manage Files**”.
 - b. Highlight the “Bootloader” software file listed in the StarSCAN memory.
 - c. Select “**Delete**”.
 - d. Select “**YES**” on the pop-up screen.
 - e. Select the “**BACK**” button five (5) times.
12. From the “Home” screen select “**ECU View**” (select the “**BACK**” button 4 times if bootloader was not reprogrammed).
13. Select “**PCM Powertrain Control Module**”.
14. Select “**More Options**”.
15. Select “**ECU Flash**”.
16. Download the ECM application software file to the StarSCAN using the following procedure:
 - a. Select “**Browse for New File**”.
 - b. Select “**OK**” at the Flash Download screen.
 - c. Enter the required data and select “**OK**” at the password screen.
 - d. Select “**Finish**” at the “Flash Update” screen to display download results.
 - e. Select the application software file.

NOTE: The application software file will have suffix letters “AU” or higher for 2007 models or “AG” or higher for 2008 models (in the last two digits of the part number).
 - f. Highlight the application software file for download to the StarSCAN.
 - g. Select “**Download to Scantool**”.
 - h. Select “**Close**” at the “Download File” screen when the download is complete.
 - i. After the file has been downloaded, select “**Back**” one (1) time.

Service Procedure (Continued)

17. Reprogram the ECM with new application software from the StarSCAN using the following procedure:
 - a. Highlight the application software file to be downloaded.
 - b. Select **“Update Controller”**.
 - c. Select **“OK”** at the ECU Flash screen.
 - d. Wait for the software file to download to the ECM.
 - e. Select **“OK”** at the **“Flash ECU Successful”** screen after the download is complete.
18. Verify that the new software part number on the **“Flash PCM”** screen matches the downloaded file.
19. Select **“Back”** four (4) times to return to the **“Home”** screen.
20. Turn the ignition switch to the **“OFF”** position and wait 10 seconds.
21. Clear all Diagnostic Trouble Codes (DTC’s) using the following procedure:
 - a. Place the ignition switch to the **“RUN”** position (do not start the engine).
 - b. Select **“System View”**.
 - c. Select **“All DTC’s”**.
 - d. Select **“Clear All Stored DTC’s”**.
 - e. Select **“Yes”** at the confirm screen.
 - f. Turn the ignition switch to the **“OFF”** position and wait 10 seconds.
 - g. Start the engine to verify that all DTC’s have been erased.
 - h. Turn the ignition switch to the **“OFF”** position.
22. Turn off and disconnect the battery charger.
23. Disconnect the StarSCAN from the vehicle and continue with **Section D. Install Authorized Modifications Label**.

Service Procedure (Continued)

D. Install Authorized Modifications Label

1. Type or print (with a ballpoint pen) the recall number, dealer code and date on the Authorized Modifications Label (Figure 2).
2. Attach the label near the VECI label and then close the hood.
3. Complete Proof of Correction Form for California Residents.

CHANGE AUTHORITY	DEALER CODE	DATE
RECALL G30	XXXXX	XX/XX/XX

Figure 2

NOTE: This recall is subject to the **State of California Registration Renewal/Emissions Recall Enforcement Program**. Complete a Vehicle Emission Recall Proof of Correction Form (**Form No. 81-016-1053**) and **supply it to vehicle owners residing in the state of California** for proof that this recall has been performed when they renew the vehicle registration.

Completion Reporting and Reimbursement

Claims for vehicles that have been serviced must be submitted on the DealerCONNECT Claim Entry Screen located on the Service tab. Claims submitted will be used by Chrysler to record recall service completions and provide dealer payments.

Use one of the following labor operation numbers and time allowances:

	<u>Labor Operation Number</u>	<u>Time Allowance</u>
Replace oxygen sensor module and check ECM software level	08-G3-01-82	0.3 hours
<u>2007 Model Year Trucks:</u> Replace oxygen sensor module and reprogram ECM	08-G3-01-83	0.8 hours
<u>2008 Model Year Trucks:</u> Replace oxygen sensor module and reprogram ECM	08-G3-01-84	0.6 hours

Add the cost of the label plus applicable dealer allowance to your claim.

NOTE: See the Warranty Administration Manual, Recall Claim Processing Section, for complete recall claim processing instructions.

Dealer Notification

All dealers will receive three copies of this dealer recall notification letter by mail. To view this notification on DealerCONNECT, select “Global Recall System” on the Service tab, then click on the description of this notification.

Owner Notification and Service Scheduling

All involved vehicle owners known to Chrysler are being notified of the service requirement by first class mail. They are requested to schedule appointments for this service with their dealers. A generic copy of the owner letter is attached.

Enclosed with each owner letter is an Owner Notification postcard to allow owners to update our records if applicable.

Vehicle Lists, Global Recall System, VIP and Dealer Follow up

All involved vehicles have been entered into the DealerCONNECT Global Recall System (GRS) and Vehicle Information Plus (VIP) for dealer inquiry as needed.

GRS provides involved dealers with an updated VIN list of their incomplete vehicles. The owner's name, address and phone number are listed if known. Completed vehicles are removed from GRS within several days of repair claim submission.

To use this system, click on the “**Service**” tab and then click on “**Global Recall System.**” Your dealer's VIN list for each recall displayed can be sorted by: those vehicles that were unsold at recall launch, those with a phone number, city, zip code, or VIN sequence.

Dealers must perform this repair on all unsold vehicles before retail delivery. Dealers should also use the VIN list to follow up with all owners to schedule appointments for this repair.

Recall VIN lists may contain confidential, restricted owner name and address information that was obtained from the Department of Motor Vehicles of various states. Use of this information is permitted for this recall only and is strictly prohibited from all other use.

Additional Information

If you have any questions or need assistance in completing this action, please contact your Service and Parts District Manager.

Customer Services Field Operations
Chrysler LLC

DAIMLERCHRYSLER

EMISSIONS RECALL G30 REPLACE THE OXYGEN SENSOR MODULE AND REPROGRAM THE ECM

Dear: (Name)

Chrysler LLC has determined that some **2007 and 2008 model year Dodge Ram 2500/3500 trucks** equipped with a 6.7L diesel engine may not comply with Federal and California emissions regulations.

The problem is... The **On-Board Diagnostic (OBD) system on your truck** (VIN: xxxxxxxxxxxxxxxxxxxx) **may not detect a failed oxygen sensor or illuminate the Malfunction Indicator Light as required. In addition, the OBD system may cause your truck to fail an Inspection Maintenance (Readiness) test and may not store mileage as required for certain transmission faults.**

What your dealer will do... Chrysler will repair your vehicle free of charge (parts and labor). To do this, your dealer will replace the Oxygen Sensor Module and reprogram your truck's Engine Control Module. **The new software will also improve vehicle driveability and reduce the potential for exhaust soot accumulation in your vehicle's particulate filter.** The work will take about 1 hour to complete. However, additional time may be necessary depending on service schedules.

What you must do... Simply **contact your dealer** right away to schedule a service appointment. Ask the dealer to hold the part for your vehicle or to order it before your appointment.

If you need help... If you have questions or concerns which your dealer is unable to resolve, please contact Chrysler at 1-800-853-1403.

California residents... **The State of California requires the completion of emission recall repairs prior to vehicle registration renewal.** Your dealer will provide you with a Vehicle Emission Recall Proof of Correction Form after the recall service is performed. Be sure to save this form since the California Department of Motor Vehicles may require that you supply it as proof that the recall has been performed.

Please help us update our records, by filling out the attached prepaid postcard, if any of the conditions listed on the card apply to you or your vehicle.

If you have already experienced this condition and have paid to have it repaired, you may send your original receipts and/or other adequate proof of payment to the following address for reimbursement: Chrysler, P.O. Box 4639 Oak Ridge, TN 37831, Attention: Reimbursement.

In order to ensure your full protection under the emission warranty provisions, it is recommended that you have your vehicle serviced as soon as possible. Failure to do so could legally be determined to be a lack of proper maintenance of your vehicle. Further, without this repair, your vehicle may fail a state or local emission inspection test.

We are sorry for any inconvenience but trust that you understand our interest in clean air. Thank you for your attention to this important matter.

Customer Services Field Operations
Chrysler LLC
Notification Code G30

*Buckle up
for Safety!*