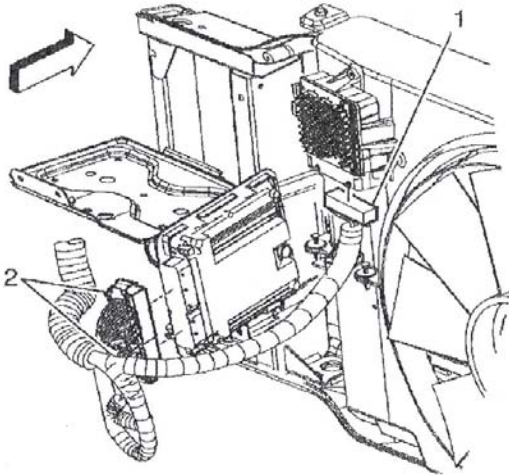


2006-2007 LBZ / LMM 6.6L Duramax ECM Performance Replacement



Congratulations on your purchase of a performance computer for your GM Duramax. This performance upgrade will give you better mileage on the highway at cruising speeds and better throttle response than the original factory programming, and may have some custom enhancements that you requested.

Replacement of the computer is simple—undo the connector clips and restraints from the ECM. Install the new ECM.

If this computer originally came from your vehicle, you're good to go.

If this is a replacement, read the following information which may require your installation to be completed at a GM dealership or competent technician with a GM TECH2 scan tool.

FUEL INJECTOR FLOW RATE PROGRAMMING

CIRCUIT / SYSTEM DESCRIPTION

The control functions for the fuel injection system are integrated in the engine control module (ECM). Each injector's flow rate information and cylinder position are stored in the memory of both the **glow plug control module (GPCM)** and the **ECM**. The fuel injector flow rate programming must be done when any of the following procedures are performed:

- The **ECM** is replaced
- The GPCM is replaced
- Any fuel injectors are replaced

If the **ECM** does not communicate, the flow rate information can be retrieved from the GPCM. If both control modules fail to communicate, the fuel injector flow rate information, or injection quantity adjustment (IQA) flow rate numbers, will need to be retrieved from each individual injector.

CIRCUIT / SYSTEM VERIFICATION

Review the Display **ECM & GPCM Inj. Flow Rates** parameter with a scan tool. All cylinders should be programmed with a flow rate number. Both the GPCM and the ECM should be programmed with the same flow rate numbers for the corresponding cylinders.

CIRCUIT / SYSTEM TESTING

IMPORTANT: If the flow rate number is not available in either control module, the numbers will need to be retrieved from each individual injector.

1. With a scan tool installed, enter the vehicle information and select the following options:
 - a. Special Functions
 - b. Fuel System
 - c. Injector Flow Rate Programming
 - d. Display **ECM & GPCM Inj. Flow Rates**
2. Record all flow rate numbers with the corresponding cylinders from the control modules.
 - a. If any injectors are replaced, go to Reprogram Injector Flow Rates parameter and enter the flow rate number of the new injector to the corresponding cylinder. The flow rate numbers of the new injector to the corresponding cylinder. The flow rate numbers will automatically update both control modules.

IMPORTANT: When installing a new fuel injector, ensure that the IQA data number from the yellow IQA Data Tag, shipped with the new injector, is programmed to the correct cylinder

- If the **ECM** was replaced, go to Copy GPCM Flow Rates to ECM parameter and reprogram the ECM. This will update the ECM with the GPCM flow rate numbers.
- If the GPCM was replaced or the flow rate numbers are not the same for both modules, go to Copy **ECM** Flow Rates to GPCM parameter and reprogram the GPCM. This will update the GPCM with the ECM flow rate numbers.

- If both control modules were replaced, go to Reprogram Injector Flow Rates parameter and enter the previously recorded flow rate numbers or the numbers retrieved from each individual injector, to the corresponding cylinders.
- If replacing a PCM with a GM SPO replacement part, after programming, these modules will learn the incoming fuel continue password immediately upon receipt of a password message. Once a password message is received, and a password is learned, a learn procedure must be performed to change this password again. A PCM which has been previously installed in another vehicle will have learned the programming to learn the current vehicle password.

CONDITIONS

Use this procedure after replacing:

- The Passlock™ sensor
- The BCM
- The PCM

LEARN PROCEDURES

There are 2 available methods to perform the programming procedure:

- A **10-minute** procedure which required a Tech 2 and a techline terminal.
- A **30-minute** procedure which does not require the use of any tools.

10-MINUTE LEARN PROCEDURE

1. Connect the Tech 2 to the vehicle.
2. Select Request VTD Info. for SPS under Special Functions in the Body Control Module menu.
3. Disconnect the Tech 2 from the vehicle and connect it to a techline terminal.
4. On the techline terminal, select Theft Module Re-Learn under Service Programming.
5. Disconnect the Tech 2 from the techline terminal and connect it to the vehicle.
6. Turn ON the ignition, with the engine OFF.
7. Select VTD Re-Learn under Service Programming.
8. Attempt to start the engine, then release the key to ON, vehicle will not start.
9. Observe the SECURITY telltale. After approximately **10 minutes**, the telltale will turn OFF. The vehicle is not ready to relearn the Passlock™ Sensor Data Code and/or password in the next ignition switch transition from OFF to CRANK.
10. Turn OFF the ignition, and wait **5 seconds**
11. Start the engine, the vehicle has not learned the password.
12. With the Tech 2 scan tool, clear any DTC's

30-MINUTE LEARN PROCEDURE

1. Turn ON the ignition, with the engine OFF.
2. Attempt to start the engine, then release the key to ON, vehicle will not start.
3. Observe the SECURITY telltale. After approximately **10 minutes**, the telltale will turn OFF.
4. Turn OFF the ignition and wait **5 seconds**
5. Repeat steps 1 through 4 two more times for a total of 3 cycles/**30 minutes**. The vehicle is now ready to relearn the Passlock™ Sensor Data Code and/or passwords on the next ignition switch transition from OFF to CRANK.
6. Start the engine. The vehicle has not learned the Passlock™ Sensor Data Code and/or password.

IMPORTANT: The vehicle learns the Passlock™ Sensor Data Code and/or password on the next ignition switch transition from OFF to CRANK. You must turn the ignition OFF before attempting to start the vehicle.

Technical Assistance is available at 1-888-WESTER-1 if you have further questions. Remember to return your core ECM in the shipping box and carefully read the return shipping instructions.



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