

## **GM 6.6L Duramax LBZ Injector Installation Tips**



This DT660003R injector has an eight digit injector quantity adjustment code (IQA) that must be entered into the Engine Control Module (ECM) during the installation process using a scan tool. **Failure to enter the IQA into the ECM may result in engine operation complaints.**

Perform a fuel system inspection prior to installation of replacement injectors. If rust, contamination, or metal particles are found the fuel system must be cleaned including the tank, filter housing, supply lines, and the high-pressure system. **Failure to completely clean the complete fuel system can result in immediate or repeated short-term injector failures.**

### **INSTALLATION TIPS**

1. Use caution when working on the fuel system to prevent injury. The high-pressure side of the fuel system is pressurized up to 26,000 PSI and the injector wiring high voltage is approximately 45 volts. Make sure the engine is off, the high-pressure has bled down, and the engine has cooled off prior to working on the fuel system.
2. The Engine Control Module (ECM) should be updated to the latest calibration as part of the diagnostic and repair process.
3. Before performing an injector balance test check that the actual rail pressure and the desired rail pressure match by performing a fuel pressure regulator graphing test. Unstable rail pressure will cause inaccurate injector balance rate results.
4. DTech fuel injectors have tolerances measured in microns. It is important to work in a clean manner to prevent contamination of the fuel system to prevent premature failures. Clean the engine area around the fuel system prior to removing any fuel system components. Before assembly inspect each component for dirt, grease, or other contaminants and clean as necessary.
5. The high-pressure injection lines from the rail to the injectors must be cleaned per GM bulletin 03-06-04-036B or replaced with new lines to prevent debris from entering the DTech injector fuel inlet.
6. Check the water in fuel sensor (WIF) per GM PIP4706.
7. Install a new fuel filter and do not fill it with fuel prior to installation.
8. Each injector has an injector quantity adjustment (IQA) code. For each injector record the installation cylinder and the eight digit alphanumeric code for entry in the ECM in step 17. Refer to the picture below for the location of the code on the injector.
9. Make sure that the injector bore in the cylinder head is clean and that the old injector body o-ring and nozzle-sealing washer have been removed.
10. Lubricate the injector body o-ring with clean engine oil and install the injector into the cylinder head.
11. Use shop air to blow any debris and fluids from the hold down bolt hole in the cylinder head.
12. Install the hold-down bracket pin and hold down bracket.
13. Install the hold-down bracket bolt and torque it to 22 ft-lb (30 Nm).

*(Continued on reverse side.)*

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14. Connect the injector electrical connectors to the injector stator connection. Take care to connect each electrical connector to the proper cylinder location.
15. Install the injector return connectors and hose.
16. Install the injection lines and torque the injection line nuts to 30 ft-lb (41 Nm).
17. Enter the DTech eight digit IQA code followed by five "0" (zeros) into the ECM following the procedure below. Failure to enter the IQA code into the ECM may result in engine operation complaints. Use the GM Tech 2 to program the individual injector codes in the ECM and the GPCM.
  - a. Special Functions.
  - b. Fuel System.
  - c. Injector Flow Rate Programming.
  - d. Reprogram Injector Flow Rates, select the cylinder and enter the individual injector IQA codes. Both the ECM and GPCM will be updated.



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