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## GM Diesel Top Dead Center (TDC) Offset Relearn

**Application** 6.5 Liter Diesel Engine equipped GM vehicles.

**Problem** Diagnostic Trouble Code (DTC) P1214 stored in memory after replacement ECC was installed or fuel injector pump has been replaced.

**Solution** Perform Top Dead Center (TDC) Offset Procedure to ensure proper injector pump timing. Use the procedure listed below:

1. Perform anti-theft (PASSLOCK) relearn procedure first. See PT 70-77-0001.
2. Install suitable scan tool.
3. Using the scan tool, clear any DTCs present.
4. Start engine and bring to operating temperature. Shut engine down.
5. Turn ignition switch to the ON position, engine off (not running).
6. Fully depress throttle for at least 45 seconds.
7. Turn ignition switch to the OFF position for 30 seconds.
8. Restart engine. Using scan tool, verify that TDC offset has been cleared to zero.
9. Start engine and bring to operating temperature, engine RPM less than 1500.
10. Using scan tool, verify that TDC offset is between negative .25 to negative .75. If TDC offset is within specs, relearn procedure is complete.
11. If TDC is not within specs, it will be necessary to reset the injector pump timing. Follow the procedure outlined in the shop manual.

**Note** Refer to your vehicle's service manual for detailed relearn procedures specific to your application.