If system did not store any DTCs, scan tool will display NO TRIGGER CODE SET. If system status initialization is necessary, use following procedures: DO NOT disconnect battery during and after drive mode. Disconnecting battery will reset memory. Drive mode can be used to cause a DTC to set if a fault is present or to verify that a DTC will not return after a repair has been completed. Right front HO2S heater is controlled by a duty signal. Right front HO2S heater is controlled by a duty signal. Left front HO2S heater is controlled by a duty signal. Left front HO2S heater is controlled by a duty signal.

DTC P1518: IMRC SHUTTER VALVE STUCK OPEN

Condition

PCM monitors intake manifold runner control (IMRC) circuit voltage. DTC is set when PCM terminal No. 3 voltage is less than 1.6 volt for 3.2 seconds when IMRC valve changes from open to closed position. Possible causes are:

- Short to ground in wiring between IMRC harness connector terminal No. 1 (Black/Red wire) and PCM harness connector terminal No. 42 (Black/Yellow wire) or between IMRC harness connector terminal No. 5 (Black/Blue wire) and PCM harness connector terminal No. 3 (Red wire).
- Connector or terminal malfunction.
- IMRC malfunction.
- PCM malfunction.

Testing

NOTE: Record freeze frame data. Check for service bulletins and on-line information.

1. Using scan tool, clear DTC. Ensure transmission is in Park. Turn ignition off. Start engine. Accelerate engine to more than 4000 RPM for 5 seconds. Allow engine to idle. Recheck DTCs. If DTC P1518 is pending, go to next step. If DTC P1518 is not pending, problem is intermittent. See TROUBLE SHOOTING - NO CODES article.
2. Turn ignition off. Check IMRC valve position. If IMRC valve lever is closed, problem is electrical. Go to next step. If IMRC valve lever is open, problem is IMRC valve sticking. Check and repair as necessary. Go to step 9 .
3. Turn ignition on. Check IMRC valve position. If IMRC valve lever is open, problem is in control circuit. Go to next step. If IMRC valve lever is closed, problem is in monitor circuit. Go to step 6 .
4. Turn ignition off. Disconnect IMRC actuator connector. Check IMRC actuator and IMRC actuator harness connector terminals. If problem is not present, go to next step. If any problem is present, repair as necessary. Go to step 9 .
5. Check continuity between IMRC harness connector terminal No. 1 (Black/Red wire) and ground. If continuity is not present, go to step 9 . If continuity is present, repair short to ground in wiring between IMRC harness connector terminal No. 1 (Black/Red wire) and PCM harness connector terminal No. 42 (Black/Yellow wire). See **Fig. 8** . See WIRING DIAGRAMS article. Go to step 9 .
6. Turn ignition on. Using scan tool, access IMRCMTR PID. Disconnect IMRC harness connector. If PID does not change from on to off, go to next step. If PID changes from on to off, replace IMRC actuator and go to step 9 .

7. Check IMRC actuator and IMRC actuator harness connector terminals. If problem is not present, go to next step. If any problem is present, repair as necessary. Go to step 9 .
8. Turn ignition off. Check continuity between IMRC harness connector terminal No. 5 (Black/Blue wire) and ground. If continuity is not present, go to next step. If continuity is present, repair short to ground in wiring between IMRC harness connector terminal No. 5 (Black/Blue wire) and PCM harness connector terminal No. 3 (Red wire). See **Fig. 8** . See WIRING DIAGRAMS article. Go to step 9 .
9. Reconnect all components. Using scan tool, clear all DTCs. Turn ignition off. Start engine. Accelerate engine to more than 4000 RPM for 5 seconds. Allow engine to idle. Recheck DTCs. If same DTC is pending, replace PCM and go to next step. PCM is mounted to passenger floor, behind glove box. If same DTC is not pending, go to next step.
10. Perform after repair procedure. See **AFTER REPAIR PROCEDURE** . If DTC is not present, testing is complete. If any DTC is present, go to appropriate test for diagnosis and repair.

