



DTC P0300: Random Misfire and Any Combination of the Following:

DTC P0301: No. 1 Cylinder Misfire Detected

DTC P0302: No. 2 Cylinder Misfire Detected

DTC P0303: No. 3 Cylinder Misfire Detected

DTC P0304: No. 4 Cylinder Misfire Detected

NOTE:

- Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see page 11-3).
- If the misfire is frequent enough to trigger detection of increased emissions during two consecutive driving cycles, the MIL will come on, and DTC P0300 (and some combination of P0301 through P0304) will be stored.
- If the misfire is frequent enough to damage the catalyst, the MIL will flash whenever the misfire occurs, and DTC P0300 (and some combination of P0301 through P0304) will be stored. When the misfire stops, the MIL will remain on.
- Troubleshoot the following DTCs first, if any of them were stored along with the random misfire DTC(s). (Because parts can sometimes fail without setting DTCs, you should also do a physical inspection of the systems listed below):
 - P0101, P0102, P0103: MAF sensor
 - P0107, P0108, P1128, P1129: MAP sensor
 - P0171, P0172: Fuel system
 - P0201, P0202, P0203, P0204: No. 1 - No. 4 cylinder injector(s) circuit ('11-12 models)
 - P0335, P0339: CKP sensor
 - P0365, P0369: CMP sensor
 - P0351, P0352, P0353, P0354: No. 1 - No. 4 cylinder ignition coil(s) circuit
 - P0506, P0507: Idle control system
 - P2646, P2647, P2648, P2649: VTEC system
 - P0400, P0401, P0404, P0406, P2413: EGR system

1. Turn the ignition switch to ON (II).
2. Clear the DTC with the HDS.
3. Start the engine, and let it idle without load (A/T in P or N, M/T in neutral).
4. Monitor the OBD STATUS for DTC P0301, P0302, P0303, or P0304 in the DTCs MENU with the HDS.

Does the HDS indicate FAILED?

YES—Go to step 9.

NO—If the HDS indicates PASSED, go to step 5. If the HDS indicates EXECUTING, keep idling until a result comes on. If the HDS indicates OUT OF CONDITION or NOT COMPLETED, wait for several minutes, then recheck.

5. Check the CYL1 MISFIRE, CYL2 MISFIRE, CYL3 MISFIRE, and/or CYL4 MISFIRE in the DATA LIST for 10 minutes with the HDS.

Does the CYL1 MISFIRE, CYL2 MISFIRE, CYL3 MISFIRE, and/or CYL4 MISFIRE show misfire counts?

YES—Go to step 9.

NO—Go to step 6.

6. Test-drive the vehicle for several minutes in the range of these recorded freeze data parameters:
 - ENGINE SPEED
 - VEHICLE SPEED
 - REL TP SENSOR
 - CLV (calculated load value)
 - APP SENSOR
 - ECT SENSOR 1

7. Monitor the OBD STATUS for DTC P0301, P0302, P0303, or P0304 in the DTCs MENU with the HDS.

Does the HDS indicate FAILED?

YES—Go to step 9.

NO—If the HDS indicates PASSED, go to step 8. If the HDS indicates EXECUTING, keep driving until a result comes on. If the HDS indicates OUT OF CONDITION or NOT COMPLETED, go to step 6 and recheck.

(cont'd)

PGM-FI System

DTC Troubleshooting (cont'd)

8. Check the CYL1 MISFIRE, CYL2 MISFIRE, CYL3 MISFIRE, and/or CYL4 MISFIRE in the DATA LIST for 10 minutes with the HDS.

Does the CYL1 MISFIRE, CYL2 MISFIRE, CYL3 MISFIRE, and/or CYL4 MISFIRE show misfire counts?

YES—Go to step 9.

NO—Intermittent failure, the system is OK at this time. ■

9. Turn the ignition switch to LOCK (0).

10. Check the fuel quality.

Is the quality good?

YES—Go to step 11.

NO—Drain the tank, and fill it with a known-good fuel, then go to step 19.

11. Inspect the spark plugs (see page 4-20). If the spark plugs are fouled or worn, replace them.
12. Test-drive the vehicle for several minutes in the range of these recorded freeze data parameters:
- ENGINE SPEED
 - VEHICLE SPEED
 - REL TP SENSOR
 - CLV (calculated load value)
 - APP SENSOR
 - ECT SENSOR 1

13. Check the CYL1 MISFIRE, CYL2 MISFIRE, CYL3 MISFIRE, and/or CYL4 MISFIRE in the DATA LIST for 10 minutes with the HDS.

Does the CYL1 MISFIRE, CYL2 MISFIRE, CYL3 MISFIRE, and/or CYL4 MISFIRE show misfire counts?

YES—Go to step 14.

NO—Go to step 19.

14. Check the fuel pressure (see page 11-282).

Is the fuel pressure OK?

YES—Go to step 15.

NO—

- If the fuel pressure is too high, replace the fuel pressure regulator (see page 11-297), then go to step 19.
- If the pressure is too low, check for restrictions in the fuel pump, the fuel filter, and the fuel line. If they are OK, replace the fuel pressure regulator (see page 11-297), then go to step 19.

15. Start the engine. Hold the engine speed at 3,000 rpm without load (A/T in P or N, M/T in neutral) until the radiator fan comes on, then let it idle.

16. Check under these conditions:

- Engine coolant temperature (ECT SENSOR 1) above 176 °F (80 °C)
- A/T in P or N, M/T in neutral
- All electrical loads off

17. Monitor the ENGINE SPEED in the DATA LIST with the HDS. Raise and hold the engine speed steady at 2,500 ± 100 rpm. While holding the rpm steady, check the MAF SENSOR in the DATA LIST.

Is there about 4.6–5.7 gm/s (M/T), 4.7–5.7 gm/s (A/T)?

YES—Go to step 18.

NO—Replace the MAF sensor/IAT sensor (see page 11-211), then go to step 19.

18. Do the VTEC rocker arm test (see page 6-7).

Did the engine pass the test?

YES—Go to step 19.

NO—Repair the VTEC rocker arm (see page 6-32), then go to step 19.



19. Turn the ignition switch to ON (II).
20. Reset the ECM/PCM with the HDS.
21. Do the ECM/PCM idle learn procedure (see page 11-268).
22. Do the CKP pattern clear/CKP pattern learn procedure (see page 11-5).
23. Test-drive the vehicle for several minutes in the range of these recorded freeze data parameters:
 - ENGINE SPEED
 - VEHICLE SPEED
 - REL TP SENSOR
 - CLV (calculated load value)
 - APP SENSOR
 - ECT SENSOR 1
24. Check for Pending or Confirmed DTCs with the HDS.

Is DTC P0300, P0301, P0302, P0303, or P0304 indicated?

YES—Check for poor connections or loose terminals at the ignition coils, the injectors, and the ECM/PCM, then go to the troubleshooting for DTC P0301, P0302, P0303, or P0304; '09-10 models (see page 11-111), '11-12 models (see page 11-117).

NO—Go to step 25.

25. Monitor the OBD STATUS for DTC P0301, P0302, P0303, or P0304 in the DTCs MENU with the HDS.

Does the HDS indicate PASSED?

YES—Troubleshooting is complete. If any other Pending or Confirmed DTCs were indicated in step 24, go to the indicated DTC's troubleshooting. ■

NO—If the HDS indicates FAILED, go to step 1 and recheck. If the HDS indicates EXECUTING, keep driving until a result comes on. If the HDS indicates OUT OF CONDITION or NOT COMPLETED, go to step 23.

DTC P0301: No. 1 Cylinder Misfire Detected ('09-10 models)

DTC P0302: No. 2 Cylinder Misfire Detected ('09-10 models)

DTC P0303: No. 3 Cylinder Misfire Detected ('09-10 models)

DTC P0304: No. 4 Cylinder Misfire Detected ('09-10 models)

NOTE: Before you troubleshoot, record all freeze data and any on-board snapshot, and review the general troubleshooting information (see page 11-3).

1. Turn the ignition switch to ON (II).
2. Clear the DTC with the HDS.
3. Start the engine, and let it idle without load (A/T in P or N, M/T in neutral).
4. Monitor the OBD STATUS for DTC P0301, P0302, P0303, or P0304 in the DTCs MENU with the HDS.

Does the HDS indicate FAILED?

YES—Go to step 9.

NO—If the HDS indicates PASSED, go to step 5. If the HDS indicates EXECUTING, keep idling until a result comes on. If the HDS indicates OUT OF CONDITION or NOT COMPLETED, wait for several minutes, and recheck.

5. Check the CYL1 MISFIRE, CYL2 MISFIRE, CYL3 MISFIRE, and/or CYL4 MISFIRE in the DATA LIST for 10 minutes with the HDS.

Does the CYL1 MISFIRE, CYL2 MISFIRE, CYL3 MISFIRE, and/or CYL4 MISFIRE show misfire counts?

YES—Go to step 9.

NO—Go to step 6.

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