DTC P0301: No.1 Cylinder Misfire
DTC P0302: No.2 Cylinder Misfire
DTC P0303: No.3 Cylinder Misfire
DTC P0304: No.4 Cylinder Misfire
DTC P0305: No.5 Cylinder Misfire
DTC P0306: No.6 Cylinder Misfire

1. Remove the intake manifold cover and the ignition coil cover.
2. After checking and recording the freeze data, reset the PCM. If there is no freeze data of the misfire, just clear the DTC.
3. Start the engine, and listen for a clicking sound from the injector at the problem cylinder.

   Does the injector click?

   **YES**  - Go to step 4.

   **NO**  - Go to step 32.

4. Turn the ignition switch OFF.
5. Exchange the ignition coil from the problem cylinder with one from another cylinder.
6. Test-drive the vehicle several times in the range of the freeze data or under various conditions if there was no freeze data.
7. Check for a DTC or Temporary DTC with the scan tool.

   Is DTC P0301, P0302, P0303, P0304, P0305 or P0306, or Temporary DTC P1399 indicated?

   **YES**  - Go to step 8.

   **NO**  - Intermittent misfire due to poor contact at the ignition coil connector (no misfire at this time).

8. Determine which cylinder had the misfire.

   Does the misfire occur in the cylinder where the ignition coil was exchanged?

   **YES**  - Replace the faulty ignition coil.

   **NO**  - Go to step 9.

9. Turn the ignition switch OFF.
10. Exchange the spark plug from the problem cylinder with one from another cylinder.
11. Test-drive the vehicle several times in the range of the freeze data or under various conditions if there was no freeze data.
12. Check the DTC and the Temporary DTC with the scan tool.

   Is DTC P0301, P0302, P0303, P0304, P0305 or P0306, or Temporary DTC P1399 indicated?

   **YES**  - Go to step 13.

   **NO**  - Intermittent misfire due to spark plug fouling, etc. (no misfire at this time).

13. Determine which cylinder had the misfire.
NO - Go to step 14.

14. Turn the ignition switch OFF.
15. Exchange the injector from the problem cylinder with one from the another cylinder.
16. Let the engine idle for **2 minutes**.
17. Test-drive the vehicle several times in the range of the freeze data or under various conditions if there was no freeze data.

18. Check the DTC and the Temporary DTC with the scan tool.

   Is DTC P0301, P0302, P0303, P0304, P0305 or P0306, or Temporary DTC P1399 indicated?

   **YES** - Go to step 19.

   **NO** - Intermittent misfire due to bad contact in the injector connector (no misfire at this time).

19. Determine which cylinder had the misfire.

   Does the misfire occur in the cylinder where the injector was exchanged?

   **YES** - Replace the faulty injector.

   **NO** - Go to step 20.

20. Turn the ignition switch OFF.
21. Disconnect the ignition coil 3P connector from the problem cylinder.
22. Turn the ignition switch ON (II).
23. Measure voltage between ignition coil 3P connector terminal No.3 and body ground.

   Is there battery voltage?

   **YES** - Go to step 24.
25. Check for continuity between ignition coil 3P connector terminal No.2 and body ground.

   Is there continuity?

   **YES** - Go to step 26.

   **NO** - Repair open in the wire between the ignition coil and G101 (or G102).

26. Disconnect the negative cable from the battery.
27. Disconnect PCM connector C (31P).
28. Check for continuity between body ground and the PCM connector terminal (see table).

Is there continuity?

**YES** - Repair short in the wire between the PCM and the ignition coil.

**NO** - Go to step 29.
29. Connect ignition coil 3P connector terminal No.1 and body ground with a jumper wire (see table).

![Diagram of jumper wire](image)

<table>
<thead>
<tr>
<th>PROBLEM CYLINDER</th>
<th>DTC</th>
<th>PCM TERMINAL</th>
<th>WIRE COLOR</th>
</tr>
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<tbody>
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<td>No. 1</td>
<td>P0301</td>
<td>C4</td>
<td>YEL/GRN</td>
</tr>
<tr>
<td>No. 2</td>
<td>P0302</td>
<td>C14</td>
<td>(BLU/RED)*</td>
</tr>
<tr>
<td>No. 3</td>
<td>P0303</td>
<td>C3</td>
<td>(WHT/BLU)*</td>
</tr>
<tr>
<td>No. 4</td>
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<td>C13</td>
<td>(BRN)*</td>
</tr>
<tr>
<td>No. 5</td>
<td>P0305</td>
<td>C12</td>
<td>BLK/RED</td>
</tr>
<tr>
<td>No. 6</td>
<td>P0306</td>
<td>C23</td>
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30. Check for continuity between body ground and the PCM connector terminal (see table).

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</table>

Is there continuity?

**YES** - Go to step 31.

**NO** - Repair open in the wire between the PCM and the ignition coil.

31. Check the engine compression.

Is the engine compression OK?

**YES** - Substitute a known-good PCM and recheck. If the symptom/indication goes away, replace the original PCM.

**NO** - Repair the engine.

32. Turn the ignition switch OFF.
33. Disconnect the negative cable from the battery.
34. Disconnect PCM connector B (25P).
35. Reconnect the negative cable to the battery.
36. Turn the ignition switch ON (II).
37. Measure voltage between body ground and the PCM connector terminal (see table).

Is there battery voltage?

**YES** - Go to step 38.

**NO** - Go to step 46.

38. Turn the ignition switch OFF.
39. Disconnect the injector 2P connector from the problem cylinder.
40. Measure resistance between injector 2P connector terminals No.1 and No.2.

Is there 10 Ohm - 13 Ohm?

YES - Go to step 41.

NO - Replace the injector.

41. Exchange the injector from the problem cylinder with one from another cylinder.
42. Let the engine idle for 2 minutes.
43. Test-drive the vehicle several times in the range of the freeze data or under various conditions if there was no freeze data.
44. Check for a DTC or Temporary DTC with the scan tool.

Is DTC P0301, P0302, P0303, P0304, P0305 or P0306, or Temporary DTC P1399 indicated?

YES - Go to step 45.

NO - Intermittent misfire due to injector malfunction, etc.

45. Determine which cylinder had the misfire.

Does the misfire occur in the other cylinder where the injector was exchanged?

YES - Replace the faulty injector.

NO - Substitute a known-good PCM and recheck. If the symptom/indication goes away, replace the original PCM.

46. Turn the ignition switch OFF.
47. Disconnect the injector 2P connector from the problem cylinder.
49. Measure voltage between injector 2P connector terminals No.1 and body ground.

   Is there battery voltage?

   YES - Go to step 50.

   NO - Repair open in the wire between the injector and the PGM-FI main relay.

50. Turn the ignition switch OFF.
51. Check for continuity between body ground and PCM connector terminal (see table).

Is there continuity?

**YES** - Repair short in the wire between the PCM and the injector.

**NO** - Go to step 52.
52. Connect injector 2P connector terminal No.2 to body ground with a jumper wire (see table).
53. Check for continuity between body ground and PCM connector terminals (see table).

Is there continuity?

YES - Replace the injector, then recheck.

NO - Repair open in the wire between the PCM and the injector.

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