

DTC P0507 [LF]

B3E010201087W04

| DTC P0507 | Idle control system RPM higher than expected |
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| DETECTION CONDITION | <ul style="list-style-type: none"> Actual idle speed is higher than expected by 200 rpm for 14 s, when the brake pedal is depressed (brake switch is on) and the steering wheel is held straight ahead (power steering pressure switch is off). <p>Note</p> <ul style="list-style-type: none"> If atmospheric pressure is less than 72.3 kPa {542 mmHg, 21.3 inHg} or intake air temperature is below -10 °C {14 °F}, the PCM cancels diagnosis of P0507. <p>Diagnostic support note</p> <ul style="list-style-type: none"> This is a continuous monitor (CCM). The MIL illuminates if the PCM detects the above malfunction conditions in two consecutive drive cycles or in one drive cycle while the DTC for the same malfunction has been stored in the PCM. PENDING CODE is available if the PCM detects the above malfunction condition during first drive cycle. FREEZE FRAME DATA is available. The DTC is stored in the PCM memory. |
| POSSIBLE CAUSE | <ul style="list-style-type: none"> IAC valve malfunction Accelerator cable misadjusting Actuator cable misadjusting Throttle valve malfunction Vacuum hose misconnection PCM malfunction |

Diagnostic procedure

| STEP | INSPECTION | | ACTION |
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| 1 | VERIFY FREEZE FRAME DATA HAS BEEN RECORDED • Has FREEZE FRAME DATA been recorded? | Yes | Go to the next step. |
| | | No | Record the FREEZE FRAME DATA on repair order, then go to the next step. |
| 2 | VERIFY RELATED REPAIR INFORMATION AVAILABILITY • Verify related service repair information availability. • Is any related repair information available? | Yes | Perform repair or diagnosis according to the available repair information. • If the vehicle is not repaired, go to the next step. |
| | | No | Go to the next step. |
| 3 | VERIFY RELATED PENDING OR STORED DTC • Turn the ignition switch off then to the ON position (Engine off). • Verify pending code or stored DTCs using the WDS or equivalent. • Is other DTC present? | Yes | Repair the applicable DTCs. (See DTC TABLE [LF] .) |
| | | No | Go to the next step. |
| 4 | INSPECT IAC VALVE MALFUNCTION • Perform IAC valve inspection. (See IDLE AIR CONTROL (IAC) VALVE INSPECTION [LF] .) • Is IAC valve normal? | Yes | Go to the next step. |
| | | No | Replace the IAC valve, then go to Step 9. |
| | INSPECT ACCELERATOR CABLE FREE | Yes | Go to the next step. |

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| 5 | PLAY <ul style="list-style-type: none"> • Turn the ignition switch off. • Is accelerator cable free play normal? (See ACCELERATOR CABLE INSPECTION/ADJUSTMENT [LF].) | No | Adjust accelerator cable free play, then go to Step 9. (See ACCELERATOR CABLE INSPECTION/ADJUSTMENT [LF] .) |
| 6 | INSPECT ACTUATOR CABLE FREE PLAY <ul style="list-style-type: none"> • Is actuator cable adjustments normal? | Yes | Go to the next step. |
| | | No | Adjust actuator cable free play, then go to Step 9. |
| 7 | INSPECT VACUUM HOSE CONNECTION <ul style="list-style-type: none"> • Are vacuum hoses connected completely? (See INTAKE-AIR SYSTEM HOSE ROUTING DIAGRAM [LF].) | Yes | Go to the next step. |
| | | No | Reconnect the vacuum hose accurately, then go to step 9. |
| 8 | VISUAL INSPECT THROTTLE VALVE <ul style="list-style-type: none"> • Remove throttle body. • Is throttle valve fully closed? | Yes | Go to the next step. |
| | | No | Clean or replace the throttle body, then go to the next step. |
| 9 | VERIFY TROUBLESHOOTING OF DTC P0507 COMPLETED <ul style="list-style-type: none"> • Make sure to reconnect all disconnected connectors. • Start engine. • Clear the DTC from the PCM memory using the WDS or equivalent. • Depress brake pedal for 14 s or more. • Is the PENDING CODE for this DTC present? | Yes | Replace the PCM, then go to the next step. (See PCM REMOVAL/INSTALLATION [LF] .) |
| | | No | Go to the next step. |
| 10 | VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> • Perform the "After Repair Procedure". (See AFTER REPAIR PROCEDURE [LF].) • Are any DTC present? | Yes | Go to the applicable DTC troubleshooting. (See DTC TABLE [LF] .) |
| | | No | Troubleshooting completed. |