

DTC P0742 [FN4A-EL]

B3E050219090W19

| DTC P0742 | Torque converter clutch (TCC) stuck on |
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| DETECTION CONDITION | <ul style="list-style-type: none"> • All of the following conditions are satisfied under each of the following throttle conditions. <ul style="list-style-type: none"> - ATF temperature 20 °C {68 °F} or more - Driving in 4GR at D or M range - Engine running - Turbine speed within 225-4,987 rpm - Vehicle speed below 70 km/h {43 mph} - Torque converter clutch (TCC) no operating - Difference between engine speed and turbine speed below 50 rpm - DTC P0734 not output • Throttle conditions <ul style="list-style-type: none"> - Throttle opening angle (TP PID) is above 10% and 5 s or more have passed. - Throttle opening angle (TP PID) is within 3.13-10% and 3 s or more have passed. - Throttle opening angle is at closed throttle position and 5 s or more have passed. <p>Diagnostic support note:</p> <ul style="list-style-type: none"> • This is a continuous monitor (CCM). • The MIL does not illuminate if PCM detects the above malfunction conditions during first the drive cycle. • A PENDING CODE is not available. • FREEZE FRAME DATA is not available. • The AT warning light illuminates. • The DTC is stored in the PCM memory. |
| POSSIBLE CAUSE | <ul style="list-style-type: none"> • ATF level low • Deteriorated ATF • Shift solenoids A, B, C, D, E, and pressure control solenoid stuck • Line pressure low • 2-4 brake band slipping • 3-4 clutch slipping • Control valve stuck • PCM malfunction |

Diagnostic procedure

| STEP | INSPECTION | ACTION |
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| 1 | VERIFY RELATED REPAIR INFORMATION AVAILABILITY | |
| | <ul style="list-style-type: none"> • Verify related Service Bulletins and/or on-line repair information availability. • Is any related repair information available? | <div>Yes</div> Perform repair or diagnosis according to the available repair information. <ul style="list-style-type: none"> • If the vehicle is not repaired, go to the next step. |
| | | <div>No</div> Go to the next step. |
| | INSPECT ATF CONDITION | |
| | <ul style="list-style-type: none"> • Turn the ignition switch to the LOCK position. • Inspect the ATF condition. | <div>Yes</div> Go to the next step. |
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| 2 | <ul style="list-style-type: none"> - Clear red: Normal - Milky: Water mixed in fluid - Reddish brown: Deteriorated ATF <ul style="list-style-type: none"> • Is it normal? (See Automatic Transaxle Fluid (ATF) Condition Inspection.) | No | If the ATF color is milky or reddish brown, replace ATF, then go to Step 4. (See AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT.) |
| 3 | INSPECT ATF LEVEL <ul style="list-style-type: none"> • Start the engine. • Warm up the ATX. • Is the ATF level within the specification? (See Automatic Transaxle Fluid (ATF) Level Inspection.) | Yes | Go to the next step. |
| | | No | Add ATF to the specified level, then go to Step 6. (See Automatic Transaxle Fluid (ATF) Level Inspection.) |
| 4 | INSPECT LINE PRESSURE <ul style="list-style-type: none"> • Start the engine. • Measure the line pressure. <p>Specification</p> <p>Idle: 330-470 kPa {3.4-4.7 kgf/cm², 48-68 psi}</p> <p>Stall:</p> <p>1,090-1,250 kPa {11.2-12.7 kgf/cm², 159-181 psi} (Z6)</p> <p>1,160-1,320 kPa {11.8-13.5 kgf/cm², 168-191 psi} (LF)</p> <ul style="list-style-type: none"> • Are the line pressures within the specifications? (See Line Pressure Test.) | Yes | Go to the next step. |
| | | No | <ul style="list-style-type: none"> • All ranges: Replace the oil pump or control valve body, then go to Step 6. • Any ranges: Replace the ATX, then go to Step 6. (See AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [Z6].) (See AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [LF].) (See ATX Workshop Manual FN4A-EL.) |
| 5 | INSPECT OPERATION OF EACH VALVE AND EACH SPRING <ul style="list-style-type: none"> • Turn the ignition switch to the LOCK position. • Remove the control valve body. • Disassemble the control valve body. • Is each valve operation normal and is the return spring normal? (See CONTROL VALVE BODY REMOVAL.) (See CONTROL VALVE BODY INSTALLATION.) (See ATX Workshop Manual FN4A-EL.) | Yes | Replace the ATX, then go to the next step. (See AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [Z6].) (See AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [LF].) (See ATX Workshop Manual FN4A-EL.) |
| | | No | Repair or replace the shift valve and return spring, then go to the next step. (See CONTROL VALVE BODY REMOVAL.) (See CONTROL VALVE BODY INSTALLATION.) (See ATX Workshop Manual FN4A-EL.) |
| | VERIFY TROUBLESHOOTING OF DTC P0742 COMPLETED <ul style="list-style-type: none"> • Make sure to reconnect all the disconnected connectors. • Clear the DTC from the memory using the WDS or equivalent. • Start the engine. • Warm up engine and ATX. • Drive the vehicle under the following conditions: <ul style="list-style-type: none"> - ATF temperature: 20 °C {68 °F} or more - Drive in the D range, 4GR (TCC not in | Yes | Replace the PCM, then go to the next step. (See PCM REMOVAL/INSTALLATION [ZJ, Z6].) (See PCM REMOVAL/INSTALLATION [LF].) |

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| 6 | <p>operation) - Vehicle speed: below 70 km/h {43 mph}.</p> <ul style="list-style-type: none"> • Throttle conditions <ul style="list-style-type: none"> - Throttle opening angle (TP PID) above 10% and 5 s or more have passed. - Throttle opening angle (TP PID) within 3.13-10% and 3 s or more have passed. - Throttle opening angle at closed throttle position and 5 s or more have passed. • Are any DTCs present? | No | Go to the next step. |
| 7 | <p>VERIFY AFTER REPAIR PROCEDURE</p> <ul style="list-style-type: none"> • Perform the "After Repair Procedure". (See AFTER REPAIR PROCEDURE [FN4A-EL].) • Are any DTCs present? | Yes | Go to the applicable DTC inspection. |
| | | No | DTC troubleshooting completed. |