

DTC P0766 [FN4A-EL]

B3E050219090W30

DTC P0766	Shift solenoid D stuck off
DETECTION CONDITION	<ul style="list-style-type: none"> • When any of DTC P0731, P0732, and P0733 not output (correct judgment), and all conditions below are satisfied. <ul style="list-style-type: none"> - ATF temperature 20 °C {68 °F} or more - Driving in 4GR at D range - Engine running - Turbine speed within 225-4,987 rpm - Differential gear case (output) revolution speed 35 rpm or more - Vehicle speed 50 km/h {31 mph} or more - Throttle opening angle at closed throttle position - Revolution ratio of forward clutch drum revolution to differential gear case revolution below 0.6 or 1.249 or more - None of the following present: DTC P0500, P0706, P0707, P0708, P0712, P0713, P0715, P0751, P0752, P0753, P0756, P0757, P0758, P0761, P0762, P0763, P0766, P0767, P0767, P0768, P0771, P0772, P0773 <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 condition in two consecutive drive cycles or in one drive cycle while the DTC for the same malfunction has been stored in the PCM. • The PENDING CODE is available if the PCM detects the above malfunction condition during the first drive cycle. • FREEZE FRAME DATA is 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 solenoid D stuck • Control valve stuck • PCM malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED	Yes
	• Has the FREEZE FRAME DATA been recorded?	No
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY	Yes
	• Verify related Service Bulletins and/or on-line repair information availability. • Is any related repair information available?	No
3	INSPECT ATF CONDITION	Yes
	• Turn the ignition switch to the LOCK position. • Inspect the ATF condition. - Clear red: Normal	If the ATF color is milky or reddish brown,

	<ul style="list-style-type: none"> - 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	replace ATF, then go to Step 5. (See AUTOMATIC TRANSAXLE FLUID (ATF) REPLACEMENT.)
4	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 7. (See Automatic Transaxle Fluid (ATF) Level Inspection.)
5	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 7. • Any ranges: Replace the ATX, then go to Step 7. (See AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [Z6].) (See AUTOMATIC TRANSAXLE REMOVAL/INSTALLATION [LF].) (See ATX Workshop Manual FN4A-EL.)
6	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.)
7	VERIFY TROUBLESHOOTING OF DTC P0766 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 the ATX. • Drive the vehicle under the following conditions and make sure that gears shift smoothly from 1GR to 4GR: <ul style="list-style-type: none"> - ATF temperature: 20 °C {68 °F} or more - Drive in the D range 	Yes	Replace the PCM, then go to the next step. (See PCM REMOVAL/INSTALLATION [ZJ, Z6].) (See PCM REMOVAL/INSTALLATION [LF].)

	<ul style="list-style-type: none"> - Throttle opening angle (TP PID): 0% (4GR only) - Vehicle speed (VSS PID): 50 km/h {31 mph} or more. (4GR only) 	No	Go to the next step.
	• Is the PENDING CODE present?		
8	VERIFY AFTER REPAIR PROCEDURE <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.