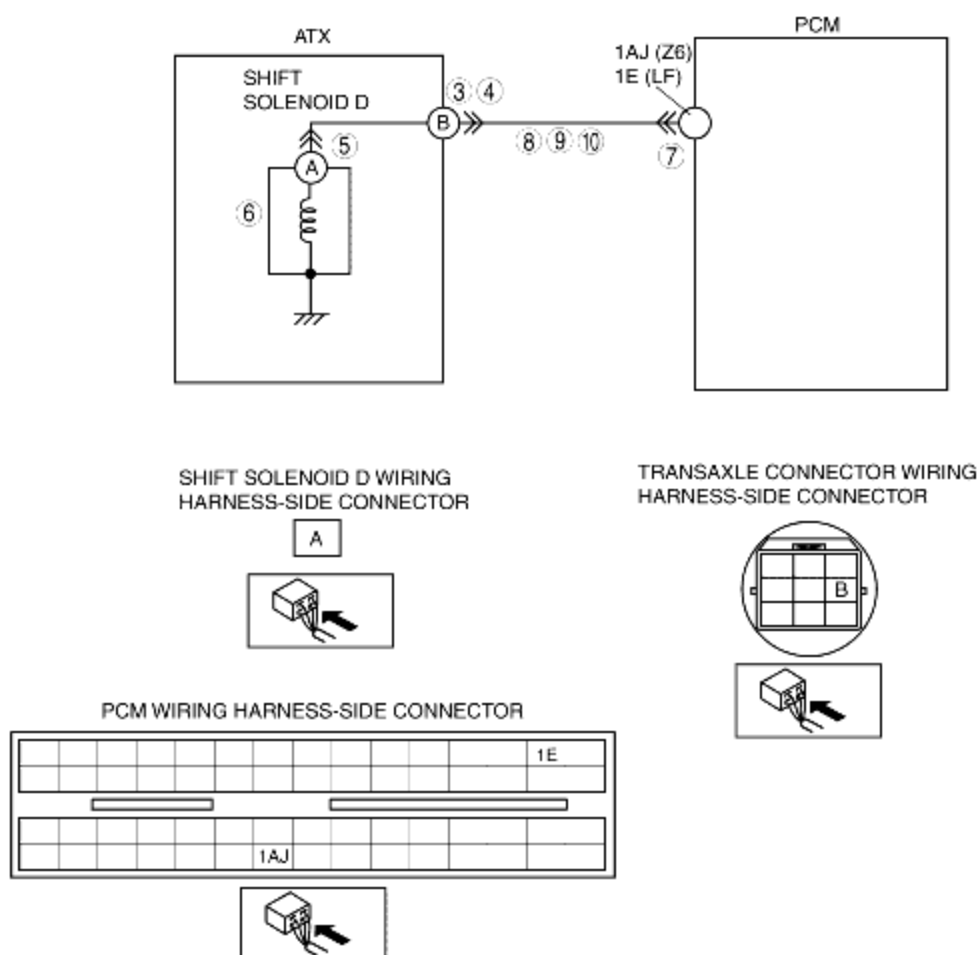


DTC P0768 [FN4A-EL]

B3E050219090W32

DTC P0768	Shift solenoid D malfunction (electrical)
DETECTION CONDITION	<ul style="list-style-type: none"> • If PCM detects either of the following conditions while driving in 4GR at D range, the PCM determines that shift solenoid D circuit has a malfunction. <ul style="list-style-type: none"> - Shift solenoid D voltage stuck at B+ after engine start - Shift solenoid D voltage stuck at 0 V after engine start <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 during the first drive cycle. • A PENDING CODE is not available. • 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"> • Shift solenoid D malfunction • Short to ground in wiring harness between ATX terminal B and PCM terminal 1AJ (Z6)/1E (LF) • Short to power supply in wiring harness between ATX terminal B and PCM terminal 1AJ (Z6)/1E (LF) • Open circuit in wiring harness between shift solenoid D terminal A and ATX terminal B • Open circuit in wiring harness between ATX terminal B and PCM terminal 1AJ (Z6)/1E (LF) • Damaged connector between shift solenoid D and PCM • PCM malfunction



Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED • Has the FREEZE FRAME DATA been recorded?	Yes Go to the next step.
		No Record the FREEZE FRAME DATA on the repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY • Verify related Service Bulletins and/or on-line 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	INSPECT ATX CONNECTOR FOR POOR CONNECTION • Turn the ignition switch to the LOCK position. • Disconnect the ATX connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Is the connection normal?	Yes Go to the next step.
		No Repair or replace the connector and/or terminals, then go to Step 11.
4	INSPECT RESISTANCE • Inspect the resistance between ATX terminal B (transaxle case side) and body ground. • Is the resistance within 10.9-26.2 ohms ? (See Resistance Inspection (On-Vehicle))	Yes Go to Step 7.
		No Go to the next step.

	Inspection .)		
5	INSPECT SHIFT SOLENOID D CONNECTOR FOR POOR CONNECTION <ul style="list-style-type: none"> • Disconnect the shift solenoid D connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Is the connection normal? 	Yes	Go to the next step.
		No	Repair or replace the connector and/or terminals, then go to Step 11.
6	INSPECT RESISTANCE <ul style="list-style-type: none"> • Inspect the resistance between shift solenoid D terminal A (part-side) and body ground. • Is the resistance within 10.9-26.2 ohms? (See Resistance Inspection (On-Vehicle Inspection).) 	Yes	Replace the solenoid wiring harness, then go to Step 11.
		No	Verify shift solenoid D installation. • If solenoid installed correctly, replace the solenoid, then go to Step 11. (See SOLENOID VALVE REMOVAL/INSTALLATION .)
7	INSPECT PCM CONNECTOR FOR POOR CONNECTION <ul style="list-style-type: none"> • Disconnect the PCM connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion). • Is the connection normal? 	Yes	Go to the next step.
		No	Repair or replace the connector and/or terminals, then go to Step 11.
8	INSPECT ATX CONNECTOR CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> • Inspect for continuity between PCM terminal 1AJ (Z6)/1E (LF) (wiring harness-side) and ATX terminal B (wiring harness-side). • Is there continuity between terminals? 	Yes	Go to the next step.
		No	Repair or replace the wiring harness, then go to Step 11.
9	INSPECT ATX CONNECTOR CIRCUIT FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Turn the ignition switch to the ON position (engine off). • Inspect the voltage at ATX terminal B (wiring harness-side). • Is the voltage 0 V? 	Yes	Go to the next step.
		No	Repair or replace the wiring harness, then go to Step 11.
10	INSPECT PCM CIRCUIT FOR SHORT TO GROUND <ul style="list-style-type: none"> • Turn the ignition switch to the LOCK position. • Inspect for continuity between PCM terminal 1AJ (Z6)/1E (LF) (wiring harness-side) and body ground. • Is there continuity? 	Yes	Repair or replace the wiring harness, then go to Step 11.
		No	Go to the next step.
11	VERIFY TROUBLESHOOTING OF DTC P0768 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. • Drive the vehicle in D range and make sure that gears shift smoothly from 1GR to 4GR. • Are any DTCs present? 	Yes	Replace the PCM, then go to the next step. (See PCM REMOVAL/INSTALLATION [ZJ, Z6] .) (See PCM REMOVAL/INSTALLATION [LF] .)
		No	No concern is detected. Go to the next step.
12	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.