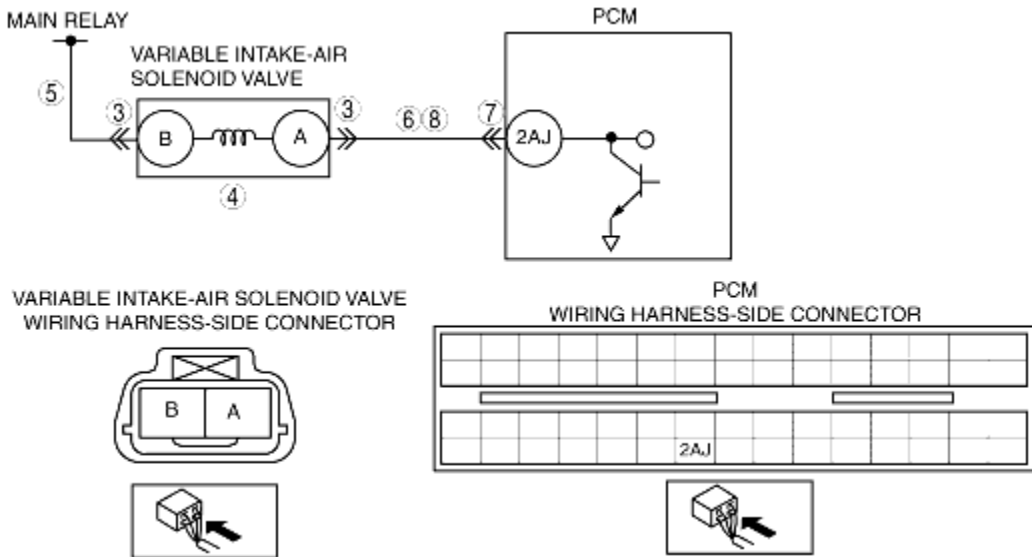


DTC P0661 [LF]

B3E010201088W03

DTC P0661	Variable intake-air solenoid valve circuit low input
DETECTION CONDITION	<ul style="list-style-type: none"> The PCM monitors the variable intake-air solenoid valve control signal at PCM terminal 2AJ. If the PCM turns variable intake-air solenoid valve off but voltage at PCM terminal 2AJ still remains low, the PCM determines that variable intake-air solenoid valve circuit has malfunction. Diagnostic support note <ul style="list-style-type: none"> This is a continuous monitor (other). The MIL does not illuminate. PENDING CODE is available if the PCM detects the above malfunction condition. The FREEZE FRAME DATA is not available. The DTC is stored in the PCM memory.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Variable intake-air solenoid valve malfunction Open circuit in wiring harness between main relay and variable intake-air solenoid valve terminal B Open circuit in wiring harness between variable intake-air solenoid valve terminal A and PCM terminal 2AJ Short to ground in wiring harness between variable intake-air solenoid valve terminal A and PCM terminal 2AJ Connector or terminal malfunction PCM malfunction
	

Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED <ul style="list-style-type: none"> Has 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 <ul style="list-style-type: none"> 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.
	INSPECT VARIABLE INTAKE-AIR SOLENOID	

3	VALVE CONNECTOR FOR POOR CONNECTION <ul style="list-style-type: none"> • Turn the ignition switch off. • Disconnect the variable intake-air solenoid valve connector. • Inspect for poor connection (damaged/pulled-out pins, corrosion, etc.). • Is there malfunction? 	Yes	Repair or replace the terminal, then go to Step 9.
		No	Go to the next step.
4	INSPECT VARIABLE INTAKE-AIR SOLENOID VALVE MALFUNCTION <ul style="list-style-type: none"> • Perform variable intake-air solenoid valve inspection. (See VARIABLE INTAKE-AIR SOLENOID VALVE INSPECTION [LF].) • Is variable intake-air solenoid valve normal? 	Yes	Go to the next step.
		No	Replace the variable intake-air solenoid valve, then go to step 9.
5	INSPECT VARIABLE INTAKE-AIR SOLENOID VALVE POWER SUPPLY CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> • Turn the ignition switch to the ON position (Engine off). • Measure the voltage between variable intake-air solenoid valve terminal B (wiring harness-side) and body ground. • Is the voltage B+? 	Yes	Go to the next step.
		No	Repair or replace the wiring harness for open, then go to Step 9.
6	INSPECT VARIABLE INTAKE-AIR SOLENOID VALVE CONTROL CIRCUIT FOR SHORT TO GROUND <ul style="list-style-type: none"> • Inspect for continuity between variable intake-air solenoid valve terminal A (wiring harness-side) and body ground. • Is there continuity? 	Yes	Repair or replace the wiring harness for short to ground, then go to Step 9.
		No	Go to the next step.
7	INSPECT PCM CONNECTOR FOR POOR CONNECTION <ul style="list-style-type: none"> • Disconnect the PCM connector. • Inspect for poor connection at terminal 2AJ. (damaged/pulled-out pins, corrosion, etc.). • Is there malfunction? 	Yes	Repair the terminal, then go to Step 9.
		No	Go to the next step.
8	INSPECT VARIABLE INTAKE-AIR SOLENOID VALVE CONTROL CIRCUIT FOR OPEN <ul style="list-style-type: none"> • Inspect for continuity between variable intake-air solenoid valve terminal B (wiring harness-side) and PCM terminal 2AJ (wiring harness-side). • Is there continuity? 	Yes	Go to the next step.
		No	Repair or replace the wiring harness for open circuit, then go to the next step.
9	VERIFY TROUBLESHOOTING OF DTC P0661 COMPLETED <ul style="list-style-type: none"> • Make sure to reconnect all disconnected connectors. • Turn the ignition switch to the ON position (Engine off). • Clear the DTC from the PCM memory using the WDS or equivalent. • Access RPM PID. • Increase the engine speed 4,750 rpm or more for 10 times. • Is the same 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.