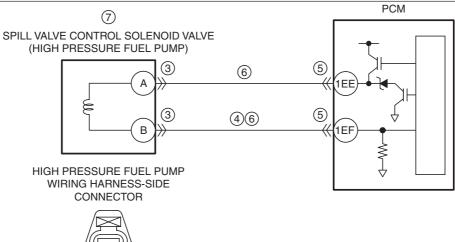
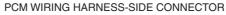
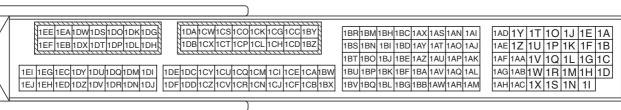
DTC P0091:00 [SKYACTIV-G 2.0]

id0102h1009100

Fuel pressure regulator control circuit low input			
 When the PCM turns the spill valve control solenoid valve off but the spill valve control solenoid valve control circuit voltage is low for 5 s, the PCM determines that the spill valve control solenoid valve control circuit has a malfunction. MONITORING CONDITIONS The following conditions are met: Engine speed: 5,700 rpm or less Battery voltage: 10.5 V or more Diagnostic support note This is a continuous monitor (CCM). The check engine light illuminates if the PCM detects the above malfunction condition during the first drive cycle. FREEZE FRAME DATA (Mode 2)/Snapshot data is available. The DTC is stored in the PCM memory. 			
Stops the high pressure fuel pump control. Limits the intake air amount.			
Limits the intake air amount.			
 High pressure fuel pump connector or terminals malfunction Short to ground in wiring harness between high pressure fuel pump terminal B and PCM terminal 1EF PCM connector or terminals malfunction Open circuit in wiring harness between the following terminals: High pressure fuel pump terminal A—PCM terminal 1EE High pressure fuel pump terminal B—PCM terminal 1EF Spill valve control solenoid valve (built-into high pressure fuel pump) malfunction PCM malfunction 			









Diagnostic Procedure

STEP	INSPECTION	ACTION	
1	VERIFY FREEZE FRAME DATA (MODE 2)/	Yes	Go to the next step.
'	SNAPSHOT DATA HAS BEEN RECORDED	No	Record the FREEZE FRAME DATA (Mode 2)/snapshot data
	Has the FREEZE FRAME DATA (Mode 2)/	INO	on the repair order, then go to the next step.
	snapshot data been recorded?		on the repair order, then go to the next step.
2	VERIFY RELATED SERVICE INFORMATION	Yes	Perform repair or diagnosis according to the available
	AVAILABILITY	163	Service Information.
	Verify related Service Information availability.		If the vehicle is not repaired, go to the next step.
	Is any related Service Information available?	No	Go to the next step.
3	INSPECT HIGH PRESSURE FUEL PUMP	Yes	Repair or replace the connector and/or terminals, then go to
"	CONNECTOR CONDITION	103	Step 8.
	Switch the ignition to off.	No	Go to the next step.
	Disconnect the high pressure fuel pump	140	oo to the next step.
	connector.		
	Inspect for poor connection (such as damaged/		
	pulled-out pins, corrosion).		
	• Is there any malfunction?		
4	INSPECT SPILL VALVE CONTROL SOLENOID	Yes	If the short to ground circuit could be detected in the wiring
	VALVE CONTROL CIRCUIT FOR SHORT TO		harness:
	GROUND		Repair or replace the wiring harness for a possible short to
	Verify that the high pressure fuel pump connector		ground.
	is disconnected.		If the short to ground circuit could not be detected in the
	Inspect for continuity between high pressure fuel		wiring harness:
	pump terminal B (wiring harness-side) and body		Replace the PCM (short to ground in the PCM internal
	ground.		circuit).
	Is there continuity?		(See PCM REMOVAL/INSTALLATION [SKYACTIV-G
			2.0].)
			Go to Step 8.
		No	Go to the next step.
5	INSPECT PCM CONNECTOR CONDITION	Yes	Repair or replace the connector and/or terminals, then go to
	Disconnect the PCM connector.		Step 8.
	• Inspect for poor connection (such as damaged/	No	Go to the next step.
	pulled-out pins, corrosion).		
6	• Is there any malfunction? INSPECT SPILL VALVE CONTROL SOLENOID	Voo	Co to the next sten
0	VALVE CIRCUIT FOR OPEN CIRCUIT	Yes	Go to the next step.
	Verify that the high pressure fuel pump and PCM	No	Repair or replace the wiring harness for a possible open circuit, then go to Step 8.
	connectors are disconnected.		circuit, then go to Step 6.
	Inspect for continuity between the following		
	terminals (wiring harness-side):		
	High pressure fuel pump terminal A—PCM		
	terminal 1EE		
	High pressure fuel pump terminal B—PCM		
	terminal 1EF		
	• Is there continuity?		
7	INSPECT SPILL VALVE CONTROL SOLENOID	Yes	Replace the high pressure fuel pump, then go to the next
	VALVE		step.
	Reconnect all disconnected connectors.		(See HIGH PRESSURE FUEL PUMP REMOVAL/
	Inspect the spill valve control solenoid valve.		ÎNSTALLATION [SKYACTIV-G 2.0].)
	(See HIGH PRESSURE FUEL PUMP	No	Go to the next step.
	INSPECTION [SKYACTIV-G 2.0].)		
	Is there any malfunction?		

STEP	INSPECTION		ACTION
8	VERIFY DTC TROUBLESHOOTING COMPLETED • Make sure to reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the M-MDS. (See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0].) • Start the engine. • Perform the KOEO or KOER self test. (See KOEO/KOER SELF TEST [SKYACTIV-G 2.0].) • Is the same DTC present?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0].) Go to the next step. Go to the next step.
9	 VERIFY AFTER REPAIR PROCEDURE Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0].) Are any DTCs present? 	Yes	Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-G 2.0].) DTC troubleshooting completed.