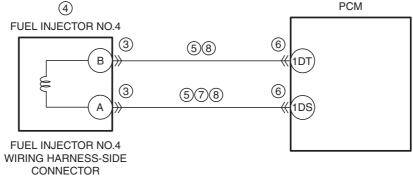
DTC P0204:00 [SKYACTIV-G 2.0]

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DTC P0204:00	Fuel injector circuit/open cylinder No.4
DETECTION CONDITION	 If the fuel injection verification signal is not input at 25 times continuously even though the PCM drives the fuel injector No.4, the PCM determines that there is an open circuit in the fuel injector No.4 control circuit. MONITORING CONDITIONS
FAIL-SAFE FUNCTION	-
POSSIBLE CAUSE	 Fuel injector No.4 connector or terminals malfunction Fuel injector No.4 malfunction Short to ground in wiring harness between the following terminals: Fuel injector No.4 terminal B—PCM terminal 1DT Fuel injector No.4 terminal A—PCM terminal 1DS PCM connector or terminals malfunction Short to power supply in wiring harness between fuel injector No.4 terminal A and PCM terminal 1DS Open circuit in wiring harness between the following terminals: Fuel injector No.4 terminal B—PCM terminal 1DT Fuel injector No.4 terminal A—PCM terminal 1DS PCM malfunction
	4 PCM





PCM WIRING HARNESS-SIDE CONNECTOR

	J							
1EE 1EA 1 DW 1 DS 1 DO 1 DK 1 DG 1 DA 1 CW 1 CS 1 1 1 DF	01CK1CG1CC1BY	\ \ 3						
	1BT 1BO 1BJ 1BE 1AZ 1AU 1AP 1AK 1AF 1AA 1V 1Q 1L 1G 1C Q1CM 1CI 1CE 1CA1BW 1BU 1BP 1BK 1BF 1BA 1AV 1AQ 1AL 1AG 1AB 1W 1R 1M 1H 1E R 1CN 1CJ 1CF 1CB 1BX 1BV 1BQ 1BL 1BG 1BB 1AW 1AR 1AM 1AH 1AC 1X 1S 1N 1I	<u>)</u>						

Diagnostic Procedure

STEP	INSPECTION	ACTION	
1	VERIFY FREEZE FRAME DATA (MODE 2)/	Yes	Go to the next step.
	• Has the FREEZE FRAME DATA (Mode 2)/ snapshot data been recorded?	No	Record the FREEZE FRAME DATA (Mode 2)/snapshot data on the repair order, then go to the next step.
2	VERIFY RELATED SERVICE INFORMATION AVAILABILITY	Yes	Perform repair or diagnosis according to the available 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 FUEL INJECTOR NO.4 CONNECTOR CONDITION	Yes	Repair or replace the connector and/or terminals, then go to Step 9.
	 Switch the ignition to off. Disconnect the fuel injector No.4 connector. Inspect for poor connection (such as damaged/pulled-out pins, corrosion). Is there any malfunction? 	No	Go to the next step.
4	• Inspect the fuel injector No.4 (See FUEL INJECTOR INSPECTION	Yes	Replace the fuel injector No.4, then go to Step 9. (See FUEL INJECTOR REMOVAL/INSTALLATION [SKYACTIV-G 2.0].)
	[SKYACTIV-G 2.0].) • Is there any malfunction?	No	Go to the next step.
5	INSPECT FUEL INJECTOR NO.4 CIRCUIT FOR SHORT TO GROUND • Verify that the fuel injector No.4 connector is disconnected. • Inspect for continuity between the following terminals (wiring harness-side) and body ground: — Fuel injector No.4 terminal B — Fuel injector No.4 terminal A • Is there continuity?	Yes	If the short to ground circuit could be detected in the wiring harness: • Repair or replace the wiring harness for a possible short to ground. If the short to ground circuit could not be detected in the wiring harness: • Replace the PCM (short to ground in the PCM internal circuit). (See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0].) Go to Step 9.
		No	Go to the next step.
6	INSPECT PCM CONNECTOR CONDITION • Disconnect the PCM connector.	Yes	Repair or replace the connector and/or terminals, then go to Step 9.
	 Inspect for poor connection (such as damaged/pulled-out pins, corrosion). Is there any malfunction? 		Go to the next step.
7	INSPECT FUEL INJECTOR NO.4 CIRCUIT FOR	Yes	Go to the next step.
	 SHORT TO POWER SUPPLY Verify that the fuel injector No.4 and PCM connectors are disconnected. Switch the ignition ON (engine off or on). Measure the voltage at the fuel injector No.4 terminal A (wiring harness-side). Is the voltage 0 V? 	No	Repair or replace the wiring harness for a possible short to power supply, then go to Step 9.
8	INSPECT FUEL INJECTOR NO.4 CIRCUIT FOR	Yes	Go to the next step.
	OPEN CIRCUIT Verify that the fuel injector No.4 and PCM connectors are disconnected. Inspect for continuity between the following terminals (wiring harness-side): Fuel injector No.4 terminal B—PCM terminal 1DT Fuel injector No.4 terminal A—PCM terminal 1DS	No	Repair or replace the wiring harness for a possible open circuit, then go to the next step.
	• Is there continuity?		

STEP	INSPECTION		ACTION
9	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.
10	• Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0].) • Are any DTCs present?	Yes No	Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-G 2.0].) DTC troubleshooting completed.