DTC P0201:00 [SKYACTIV-G 2.0, SKYACTIV-G 2.5]

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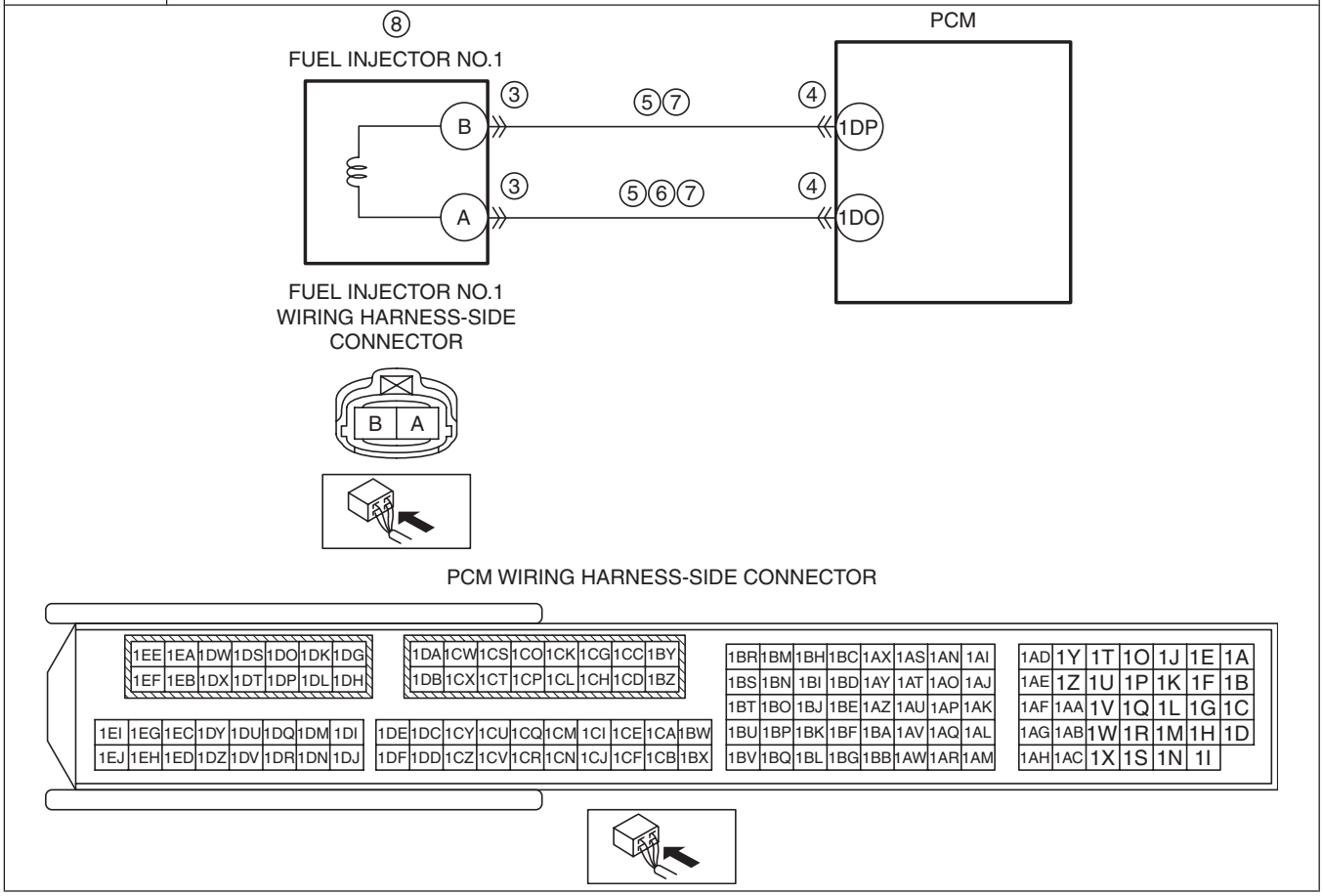
DTC P0201:00	Fuel injector circuit/open cylinder No.1
DETECTION CONDITION	• If the fuel injection verification signal is not input at **25 times** continuously even though the PCM drives the fuel injector No.1, the PCM determines that there is an open circuit in the fuel injector No.1 control circuit. **MONITORING CONDITIONS** — The following conditions are met: • Battery voltage: **10.5 V or more** • Fuel injection control: except during fuel cut **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. • DTC is stored in the PCM memory.
FAIL-SAFE FUNCTION	Not applicable
POSSIBLE CAUSE	• Fuel injector No.1 connector or terminals malfunction • PCM connector or terminals malfunction • Short to ground in wiring harness between the following terminals: — Fuel injector No.1 terminal B—PCM terminal 1DP — Fuel injector No.1 terminal A—PCM terminal 1DO • Short to power supply in wiring harness between fuel injector No.1 terminal A and PCM terminal 1DO • Open circuit in wiring harness between the following terminals: — Fuel injector No.1 terminal B—PCM terminal 1DP — Fuel injector No.1 terminal A—PCM terminal 1DO • Fuel injector No.1 malfunction • PCM malfunction



Diagnostic Procedure

STEP	INSPECTION		ACTION
1	**VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA HAS BEEN RECORDED** • Has the FREEZE FRAME DATA (Mode 2)/ snapshot data been recorded?	Yes	Go to the next step.
		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** • Verify related Service Information availability. • Is any related Service Information available?	Yes	Perform repair or diagnosis according to the available Service Information. • If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
3	**INSPECT FUEL INJECTOR NO.1 CONNECTOR CONDITION** • Switch the ignition off. • Disconnect the fuel injector No.1 connector. • Inspect for poor connection (such as damaged/ pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector and/or terminals, then go to Step 9.
		No	Go to the next step.
4	**INSPECT PCM CONNECTOR CONDITION** • Disconnect the PCM connector. • Inspect for poor connection (such as damaged/ pulled-out pins, corrosion). • Is there any malfunction?	Yes	Repair or replace the connector and/or terminals, then go to Step 9.
		No	Go to the next step.
5	**INSPECT FUEL INJECTOR NO.1 CIRCUIT FOR SHORT TO GROUND** • Verify that the fuel injector No.1 and PCM connectors are disconnected. • Inspect for continuity between the following terminals (wiring harness-side) and body ground: — Fuel injector No.1 terminal B — Fuel injector No.1 terminal A • Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to ground, then go to Step 9.
		No	Go to the next step.
6	**INSPECT FUEL INJECTOR NO.1 CIRCUIT FOR SHORT TO POWER SUPPLY** • Verify that the fuel injector No.1 and PCM connectors are disconnected. • Switch the ignition ON (engine off). **Note** • Another DTC may be stored by the PCM detecting an open circuit. • Measure the voltage at the fuel injector No.1 terminal A (wiring harness-side). • Is the voltage **0 V**?	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible short to power supply, then go to Step 9.
7	**INSPECT FUEL INJECTOR NO.1 CIRCUIT FOR OPEN CIRCUIT** • Verify that the fuel injector No.1 and PCM connectors are disconnected. • Switch the ignition off. • Inspect for continuity between the following terminals (wiring harness-side): — Fuel injector No.1 terminal B—PCM terminal 1DP — Fuel injector No.1 terminal A—PCM terminal 1DO • Is there continuity?	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible open circuit, then go to Step 9.
8	**INSPECT FUEL INJECTOR NO.1** • Inspect the fuel injector No.1. (See FUEL INJECTOR INSPECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • Is there any malfunction?	Yes	Replace the fuel injector No.1, then go to the next step. (See FUEL INJECTOR REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
		No	Go to the next step.

STEP	INSPECTION		ACTION
9	**VERIFY DTC TROUBLESHOOTING COMPLETED** • Always reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the M-MDS. (See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • Start the engine. • Perform the KOEO or KOER self test. (See KOEO/KOER SELF TEST [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • 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, SKYACTIV-G 2.5].) Go to the next step.
		No	Go to the next step.
10	**VERIFY AFTER REPAIR PROCEDURE** • Perform the “AFTER REPAIR PROCEDURE”. (See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
		No	DTC troubleshooting completed.