

DTC P0201:00	Fuel injector circuit/open cylinder No.1
DETECTION CONDITION	<ul style="list-style-type: none"> 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. <p>MONITORING CONDITIONS</p> <ul style="list-style-type: none"> The following conditions are met: <ul style="list-style-type: none"> Battery voltage: 10.5 V or more Fuel injection control: except during fuel cut <p>Diagnostic support note</p> <ul style="list-style-type: none"> 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.
FAIL-SAFE FUNCTION	—
POSSIBLE CAUSE	<ul style="list-style-type: none"> Fuel injector No.1 connector or terminals malfunction Fuel injector No.1 malfunction Short to ground in wiring harness between the following terminals: <ul style="list-style-type: none"> Fuel injector No.1 terminal B—PCM terminal 1DP Fuel injector No.1 terminal A—PCM terminal 1DO PCM connector or terminals malfunction 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: <ul style="list-style-type: none"> Fuel injector No.1 terminal B—PCM terminal 1DP Fuel injector No.1 terminal A—PCM terminal 1DO PCM malfunction

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FUEL INJECTOR NO.1

FUEL INJECTOR NO.1 WIRING HARNESS-SIDE CONNECTOR

PCM

PCM WIRING HARNESS-SIDE CONNECTOR

Diagnostic Procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA HAS BEEN RECORDED <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Switch the ignition to 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 FUEL INJECTOR NO.1 <ul style="list-style-type: none"> Inspect the fuel injector No.1. (See FUEL INJECTOR INSPECTION [SKYACTIV-G 2.0].) Is there any malfunction? 	Yes Replace the fuel injector No.1, then go to Step 9. (See FUEL INJECTOR REMOVAL/INSTALLATION [SKYACTIV-G 2.0].)
		No Go to the next step.
5	INSPECT FUEL INJECTOR NO.1 CIRCUIT FOR SHORT TO GROUND <ul style="list-style-type: none"> Verify that the fuel injector No.1 connector is disconnected. Inspect for continuity between the following terminals (wiring harness-side) and body ground: <ul style="list-style-type: none"> Fuel injector No.1 terminal B Fuel injector No.1 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 <ul style="list-style-type: none"> 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.
7	INSPECT FUEL INJECTOR NO.1 CIRCUIT FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> Verify that the fuel injector No.1 and PCM connectors are disconnected. Switch the ignition ON (engine off or on). 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.
8	INSPECT FUEL INJECTOR NO.1 CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> Verify that the fuel injector No.1 and PCM connectors are disconnected. Inspect for continuity between the following terminals (wiring harness-side): <ul style="list-style-type: none"> 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 the next step.

STEP	INSPECTION	ACTION	
9	VERIFY DTC TROUBLESHOOTING COMPLETED <ul style="list-style-type: none"> • 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.
		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 [SKYACTIV-G 2.0].) • Are any DTCs present? 	Yes	Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-G 2.0].)
		No	DTC troubleshooting completed.