

DTC P0472:00	Exhaust gas pressure sensor No.1 circuit low input
DETECTION CONDITION	<ul style="list-style-type: none"> If the input voltage at the PCM terminal 1CE is less than 0.33 V for 4 s, the PCM determines that the exhaust gas pressure sensor No.1 circuit has a malfunction. <p>MONITORING CONDITIONS</p> <ul style="list-style-type: none"> Battery voltage: 8—20 V <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. DTC is stored in the PCM memory.
FAIL-SAFE FUNCTION	<ul style="list-style-type: none"> Inhibits the EGR control. Inhibits engine-stop by operating the i-stop function. PCM restricts engine-transaxle integration control.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Exhaust gas pressure sensor No.1 connector or terminals malfunction Short to ground in wiring harness between the following terminals: <ul style="list-style-type: none"> Exhaust gas pressure sensor No.1 terminal C—PCM terminal 1CJ Exhaust gas pressure sensor No.1 terminal B—PCM terminal 1CE PCM connector or terminals malfunction Exhaust gas pressure sensor No.1 signal circuit and ground circuit are shorted to each other Open circuit in wiring harness between the following terminals: <ul style="list-style-type: none"> Exhaust gas pressure sensor No.1 terminal C—PCM terminal 1CJ Exhaust gas pressure sensor No.1 terminal B—PCM terminal 1CE Exhaust gas pressure sensor No.1 malfunction PCM malfunction

⑧

EXHAUST GAS PRESSURE SENSOR NO.1

EXHAUST GAS PRESSURE SENSOR NO.1
WIRING HARNESS-SIDE
CONNECTOR

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 EXHAUST GAS PRESSURE SENSOR NO.1 CONNECTOR CONDITION <ul style="list-style-type: none"> Switch the ignition off. Disconnect the exhaust gas pressure sensor 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 EXHAUST GAS PRESSURE SENSOR NO.1 CIRCUIT FOR SHORT TO GROUND <ul style="list-style-type: none"> Verify that the exhaust gas pressure sensor No.1 connector is disconnected. Inspect for continuity between the following terminals (wiring harness-side) and body ground: <ul style="list-style-type: none"> Exhaust gas pressure sensor No.1 terminal C Exhaust gas pressure sensor No.1 terminal B Is there continuity? 	Yes	If the short to ground circuit could be detected in the wiring harness: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> Replace the PCM (short to ground in the PCM internal circuit). (See PCM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) Go to Step 9.
		No	Go to the next step.
5	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.
6	INSPECT EXHAUST GAS PRESSURE SENSOR NO.1 SIGNAL CIRCUIT AND GROUND CIRCUIT FOR SHORT TO EACH OTHER <ul style="list-style-type: none"> Verify that the exhaust gas pressure sensor No.1 and PCM connectors are disconnected. Inspect for continuity between exhaust gas pressure sensor No.1 terminals B and A (wiring harness-side). Is there continuity? 	Yes	Repair or replace the wiring harness for a possible short to each other, then go to Step 9.
		No	Go to the next step.
7	INSPECT EXHAUST GAS PRESSURE SENSOR NO.1 CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> Verify that the exhaust gas pressure sensor No.1 and PCM connectors are disconnected. Inspect for continuity between the following terminals (wiring harness-side): <ul style="list-style-type: none"> Exhaust gas pressure sensor No.1 terminal C —PCM terminal 1CJ Exhaust gas pressure sensor No.1 terminal B —PCM terminal 1CE 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 EXHAUST GAS PRESSURE SENSOR NO.1 <ul style="list-style-type: none"> Reconnect all disconnected connectors. Inspect the exhaust gas pressure sensor No.1. (See EXHAUST GAS PRESSURE SENSOR INSPECTION [SKYACTIV-D 2.2].) Is there any malfunction? 	Yes	Replace the exhaust gas pressure sensor No.1, then go to the next step. (See EXHAUST GAS PRESSURE SENSOR REMOVAL/ INSTALLATION [SKYACTIV-D 2.2].)
		No	Go to the next step.

STEP	INSPECTION	ACTION	
9	VERIFY DTC TROUBLESHOOTING COMPLETED <ul style="list-style-type: none"> • Always reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the M-MDS. (See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].) • Perform the KOEO or KOER self test. (See KOEO/KOER SELF TEST [SKYACTIV-D 2.2].) • Is the same DTC present? 	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) 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-D 2.2].) • Are any DTCs present? 	Yes	Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-D 2.2].)
		No	DTC troubleshooting completed.