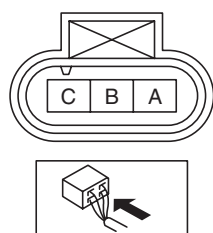
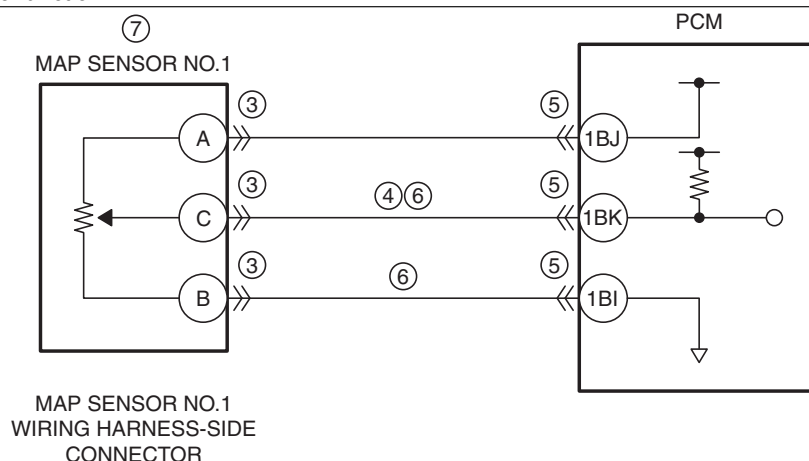
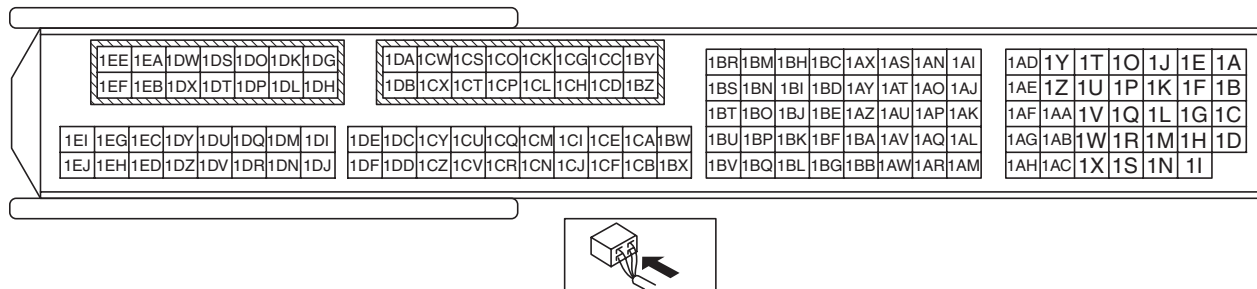


DTC P0237:00	MAP sensor No.1 circuit low input
DETECTION CONDITION	<ul style="list-style-type: none"> The PCM monitors the input voltage from the MAP sensor No.1. If the input voltage at the PCM terminal 1BK is below 0.33 V for 4 s, the PCM determines that the MAP sensor No.1 circuit has a malfunction. <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 engine-stop by operating the i-stop function. PCM restricts engine-transaxle integration control.
POSSIBLE CAUSE	<ul style="list-style-type: none"> MAP sensor No.1 connector or terminals malfunction Short to ground in wiring harness between MAP sensor No.1 terminal C and PCM terminal 1BK PCM connector or terminals malfunction MAP sensor No.1 signal circuit and ground circuit are shorted to each other MAP sensor No.1 malfunction PCM malfunction



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 MAP SENSOR NO.1 CONNECTOR CONDITION <ul style="list-style-type: none"> Switch the ignition off. Disconnect the MAP 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 8.
		No	Go to the next step.
4	INSPECT MAP SENSOR NO.1 CIRCUIT FOR SHORT TO GROUND <ul style="list-style-type: none"> Verify that the MAP sensor No.1 connector is disconnected. Inspect for continuity between MAP sensor No.1 terminal C (wiring harness-side) and body ground. 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-D 2.2].) Go to Step 8.
		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 8.
		No	Go to the next step.
6	INSPECT MAP SENSOR NO.1 SIGNAL CIRCUIT AND GROUND CIRCUIT FOR SHORT TO EACH OTHER <ul style="list-style-type: none"> Verify that the MAP sensor No.1 and PCM connectors are disconnected. Inspect for continuity between MAP sensor No.1 terminals C and B (wiring harness-side). Is there continuity? 	Yes	Repair or replace the wiring harness for a possible short to each other, then go to Step 8.
		No	Go to the next step.
7	INSPECT MAP SENSOR NO.1 <ul style="list-style-type: none"> Reconnect all disconnected connectors. Inspect the MAP sensor No.1. (See MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR INSPECTION [SKYACTIV-D 2.2].) <ul style="list-style-type: none"> Is there any malfunction? 	Yes	Replace the MAP sensor No.1, then go to the next step. (See MANIFOLD ABSOLUTE PRESSURE (MAP) SENSOR REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
		No	Go to the next step.
8	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].) <ul style="list-style-type: none"> Perform the KOEO or KOER self test. (See KOEO/KOER SELF TEST [SKYACTIV-D 2.2].) <ul style="list-style-type: none"> 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.

STEP	INSPECTION		ACTION
9	VERIFY AFTER REPAIR PROCEDURE • 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.