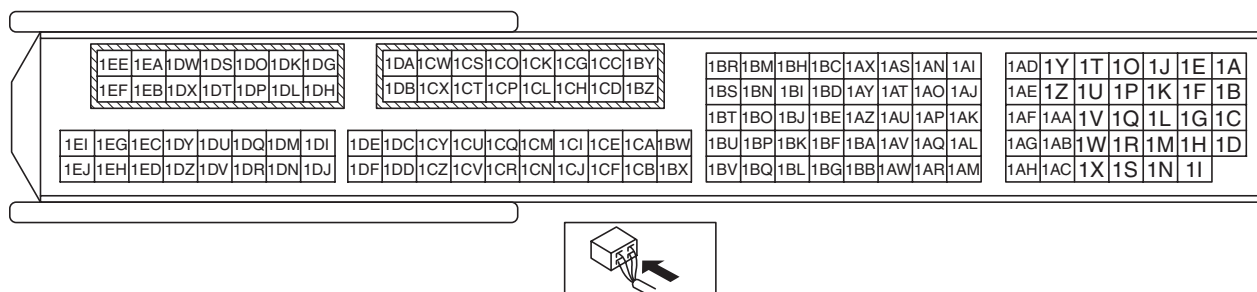
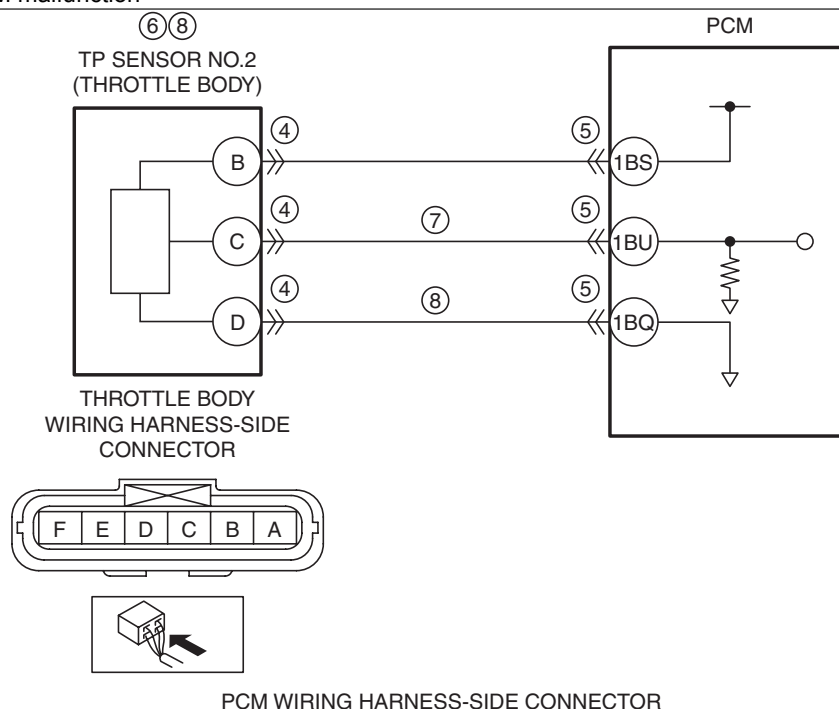


DTC P0223:00 [SKYACTIV-G 2.0]

id0102h1702900

DTC P0223:00	TP sensor No.2 circuit high input
DETECTION CONDITION	<ul style="list-style-type: none"> If the PCM detects that the TP sensor No.2 voltage at the PCM terminal 1BU is above 4.9 V, the PCM determines that the TP sensor No.2 circuit has a malfunction. <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	<ul style="list-style-type: none"> Restricts the upper limit of the engine speed.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Throttle body connector or terminals malfunction PCM connector or terminals malfunction TP sensor No.2 malfunction Short to power supply in wiring harness between throttle body terminal C and PCM terminal 1BU Open circuit in wiring harness between throttle body terminal D and PCM terminal 1BQ PCM malfunction



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? 	<p>Yes: Go to the next step.</p> <p>No: Record the FREEZE FRAME DATA (Mode 2)/snapshot data on the repair order, then go to the next step.</p>

STEP	INSPECTION		ACTION
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.
		No	Go to the next step.
3	CLASSIFY TP SENSOR NO.2 MALFUNCTION OR WIRING HARNESS MALFUNCTION <ul style="list-style-type: none"> Access the TP2 PID using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0].) Verify the TP2 PID value. Is the TP2 PID value 5 V or B+? 	Yes	Go to Step 7.
		No	Go to the next step.
4	INSPECT THROTTLE BODY CONNECTOR CONDITION <ul style="list-style-type: none"> Switch the ignition to off. Disconnect the throttle body 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 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 TP SENSOR NO.2 <ul style="list-style-type: none"> Reconnect all disconnected connectors. Inspect the TP sensor No.2. (See THROTTLE POSITION (TP) SENSOR INSPECTION [SKYACTIV-G 2.0].) Is there any malfunction? 	Yes	Replace the throttle body, then go to Step 9. (See INTAKE-AIR SYSTEM REMOVAL/INSTALLATION [SKYACTIV-G 2.0].)
		No	Go to Step 9.
7	INSPECT TP SENSOR NO.2 SIGNAL CIRCUIT FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> Switch the ignition to off. Disconnect the throttle body connector. Access the TP2 PID using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0].) Verify the TP2 PID value. Is the TP2 PID value 5 V or B+? 	Yes	Repair or replace the wiring harness for a possible short to power supply, then go to Step 9.
		No	Go to the next step.
8	INSPECT TP SENSOR NO.2 GROUND CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> Verify that the throttle body connector is disconnected. Switch the ignition to off. Disconnect the PCM connector. Inspect for continuity between throttle body terminal D (wiring harness-side) and PCM terminal 1BQ (wiring harness-side). Is there continuity? 	Yes	Replace the throttle body, then go to the next step. (See INTAKE-AIR SYSTEM REMOVAL/INSTALLATION [SKYACTIV-G 2.0].)
		No	Repair or replace the wiring harness for a possible open circuit, then go to the next step.
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 and warm it up completely. 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.

STEP	INSPECTION		ACTION
10	VERIFY AFTER REPAIR PROCEDURE • 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.