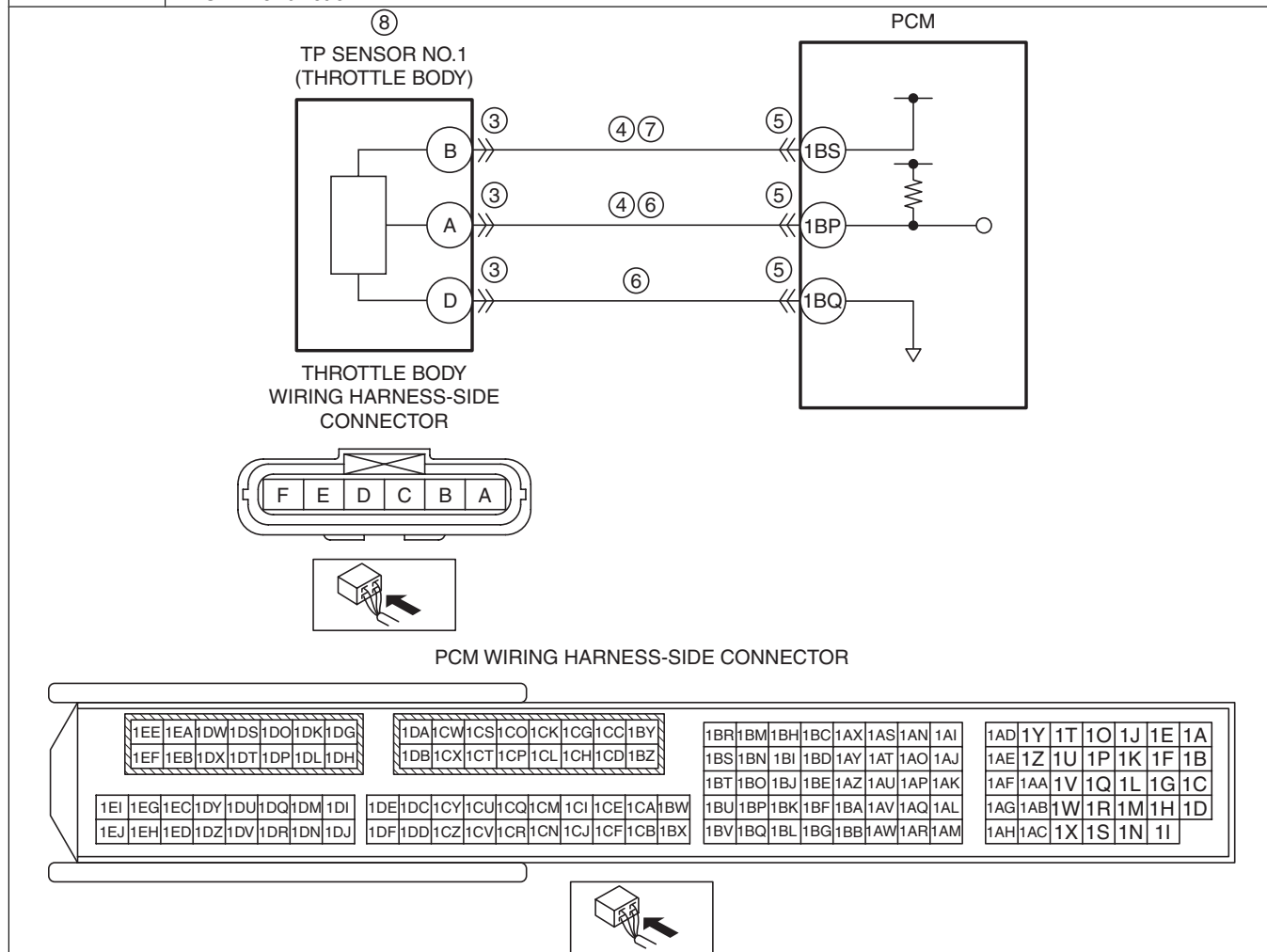


DTC P0122:00	TP sensor No.1 circuit low input
DETECTION CONDITION	<ul style="list-style-type: none"> If the PCM detects that the TP sensor No.1 voltage at the PCM terminal 1BP is below 0.1 V while the engine is running, the PCM determines that the TP sensor No.1 circuit has a malfunction. <p>Diagnostic 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 Short to ground in wiring harness between the following terminals: <ul style="list-style-type: none"> Throttle body terminal B—PCM terminal 1BS Throttle body terminal A—PCM terminal 1BP PCM connector or terminals malfunction TP sensor No.1 signal circuit and ground circuit are shorted to each other Open circuit in wiring harness between throttle body terminal B and PCM terminal 1BS TP sensor No.1 malfunction PCM malfunction



Diagnostic Procedure

STEP	INSPECTION		ACTION
1	VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA HAS BEEN RECORDED	Yes	Go to the next step.
	• Has the FREEZE FRAME DATA (Mode 2)/ snapshot data been recorded?	No	Record the FREEZE FRAME DATA (Mode 2)/snapshot data on the repair order, then go to the next step.

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	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.
4	INSPECT TP SENSOR NO.1 CIRCUIT FOR SHORT TO GROUND <ul style="list-style-type: none"> • Verify that the throttle body connector is disconnected. • Inspect for continuity between the following terminals (wiring harness-side) and body ground: <ul style="list-style-type: none"> — Throttle body terminal B — Throttle body terminal A • 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-G 2.0].) 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.1 SIGNAL CIRCUIT AND GROUND CIRCUIT FOR SHORT TO EACH OTHER <ul style="list-style-type: none"> • Verify that the throttle body and PCM connectors are disconnected. • Inspect for continuity between throttle body terminals A and D (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 TP SENSOR NO.1 POWER SUPPLY CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> • Verify that the throttle body and PCM connectors are disconnected. • Inspect for continuity between throttle body terminal B (wiring harness-side) and PCM terminal 1BS (wiring harness-side). • 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 TP SENSOR NO.1 <ul style="list-style-type: none"> • Reconnect all disconnected connectors. • Inspect the TP sensor No.1. (See THROTTLE POSITION (TP) SENSOR INSPECTION [SKYACTIV-G 2.0].) • Is there any malfunction? 	Yes	Replace the throttle body, then go to the next step. (See INTAKE-AIR SYSTEM REMOVAL/INSTALLATION [SKYACTIV-G 2.0].)
		No	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. <ul style="list-style-type: none"> • 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.