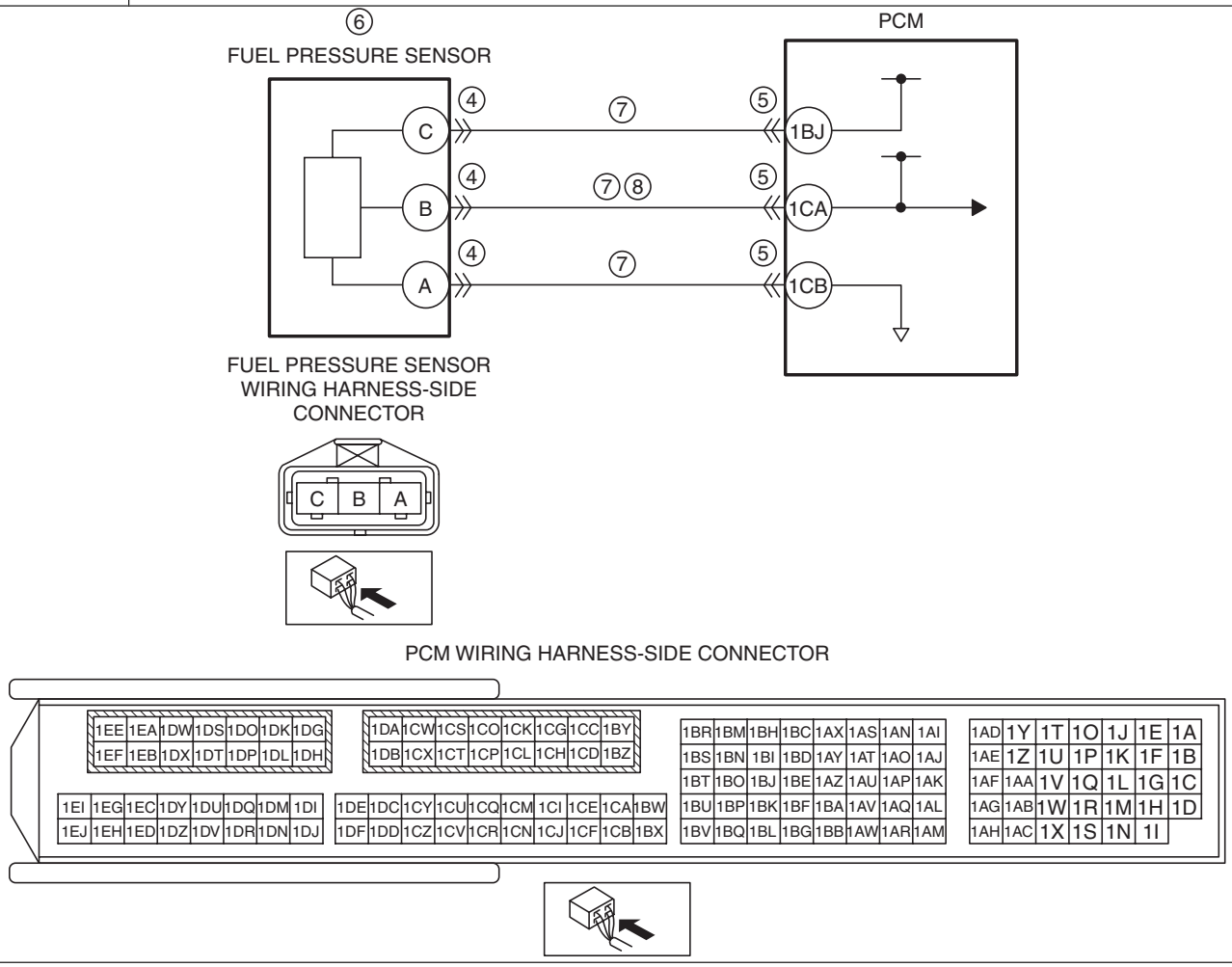
DTC P0193:00 [SKYACTIV-G 2.0]

id0102h1147800

DTC P0193:00	Fuel pressure sensor circuit high input
DETECTION CONDITION	• If the input voltage at the PCM terminal 1CA is **more than 4.86 V** for **5 s**, the PCM determines that the fuel pressure sensor circuit is high. **Diagnostic support note** • 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	• Stops the high pressure fuel pump control. • Limits the intake air amount.
POSSIBLE CAUSE	• Fuel pressure sensor connector or terminals malfunction • PCM connector or terminals malfunction • Fuel pressure sensor malfunction • Short to power supply in wiring harness between fuel pressure sensor terminal B and PCM terminal 1CA • Open circuit in wiring harness between the following terminals: — Fuel pressure sensor terminal B—PCM terminal 1CA — Fuel pressure sensor terminal A—PCM terminal 1CB — Fuel pressure sensor terminal C—PCM terminal 1BJ • PCM malfunction



Diagnostic Procedure

STEP	INSPECTION		ACTION
1	**VERIFY FREEZE FRAME DATA (MODE 2)/SNAPSHOT DATA HAS BEEN RECORDED** • 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.

STEP	INSPECTION		ACTION
2	**VERIFY RELATED SERVICE INFORMATION AVAILABILITY** • 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	**CLASSIFY FUEL PRESSURE SENSOR MALFUNCTION OR WIRING HARNESS MALFUNCTION** • Access the FUEL_PRES PID using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0].) • Verify the FUEL_PRES PID value. • Is the FUEL_PRES PID value **5 V** or **B+**?	Yes	**When the voltage is 5V** • Go to Step 7. **When the voltage is B+** • Go to Step 8.
		No	Go to the next step.
4	**INSPECT FUEL PRESSURE SENSOR CONNECTOR CONDITION** • Switch the ignition to off. • Disconnect the fuel pressure sensor 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** • 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 FUEL PRESSURE SENSOR** • Reconnect all disconnected connectors. • Inspect the fuel pressure sensor. (See FUEL PRESSURE SENSOR INSPECTION [SKYACTIV-G 2.0].) • Is there any malfunction**?**	Yes	Replace the fuel distributor, then go to Step 9. (See FUEL INJECTOR REMOVAL/ INSTALLATION [SKYACTIV-G 2.0].)
		No	Go to Step 9.
7	**INSPECT FUEL PRESSURE SENSOR CIRCUIT FOR OPEN CIRCUIT** • Switch the ignition to off. • Disconnect the fuel pressure sensor connector and PCM connector. • Inspect for continuity between the following terminals (wiring harness-side): — Fuel pressure sensor terminal B—PCM terminal 1CA — Fuel pressure sensor terminal A—PCM terminal 1CB — Fuel pressure sensor terminal C—PCM terminal 1BJ • Is there continuity?	Yes	Replace the fuel distributor, then go to Step 9. (See FUEL INJECTOR REMOVAL/ INSTALLATION [SKYACTIV-G 2.0].)
		No	Repair or replace the wiring harness for a possible open circuit, then go to Step 9.
8	**INSPECT FUEL PRESSURE SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY** • Switch the ignition to off. • Disconnect the fuel pressure sensor connector and PCM connector. • Measure the voltage at the fuel pressure sensor terminal B (wiring harness-side). • Is there any voltage?	Yes	Repair or replace the wiring harness for a possible short to power supply, then go to the next step.
		No	Replace the fuel distributor, then go to the next step. (See FUEL INJECTOR REMOVAL/ INSTALLATION [SKYACTIV-G 2.0].)
9	**VERIFY DTC TROUBLESHOOTING COMPLETED** • 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** • 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.