## DTC P0193:00 [SKYACTIV-D 2.2]

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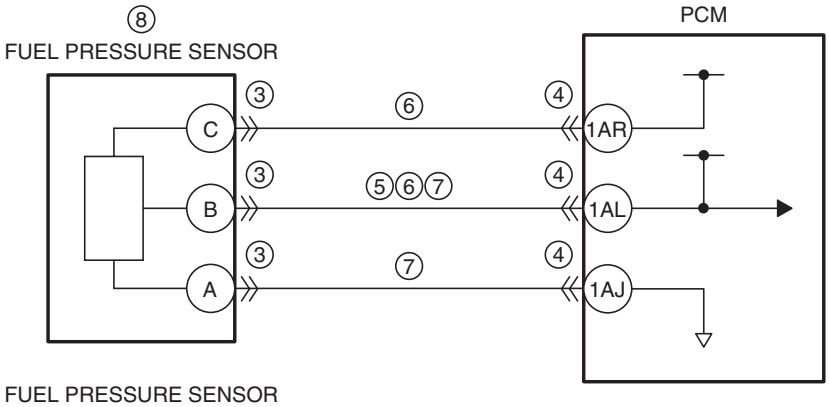
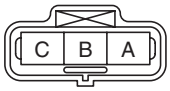
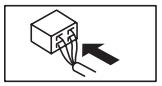
| DTC P0193:00 | Fuel pressure sensor circuit high input |
|---|---|
| DETECTION CONDITION | • If the input voltage at the PCM terminal 1AL is **more than 4.74 V** for **0.7 s**, the PCM determines that the fuel pressure sensor circuit is high.<br>**MONITORING CONDITIONS**<br>— Battery voltage: **8—20 V**<br>**Diagnostic support note**<br>• This is a continuous monitor (fuel system).<br>• The check engine light illuminates if the PCM detects the above malfunction condition during the first drive cycle.<br>• FREEZE FRAME DATA (Mode 2)/Snapshot data is available.<br>• DTC is stored in the PCM memory. |
| FAIL-SAFE FUNCTION | • PCM restricts engine torque.<br>• Inhibits the EGR control.<br>• Inhibits the diesel particulate filter regeneration control.<br>• Inhibits engine-stop by operating the i-stop function.<br>• PCM restricts engine-transaxle integration control. |
| POSSIBLE CAUSE | • Fuel pressure sensor connector or terminals malfunction<br>• PCM connector or terminals malfunction<br>• Short to power supply in wiring harness between fuel pressure sensor terminal B and PCM terminal 1AL<br>• Fuel pressure sensor power supply circuit and signal circuit are shorted to each other<br>• Open circuit in wiring harness between the following terminals:<br>— Fuel pressure sensor terminal B—PCM terminal 1AL<br>— Fuel pressure sensor terminal A—PCM terminal 1AJ<br>• Fuel pressure sensor malfunction<br>• PCM malfunction |

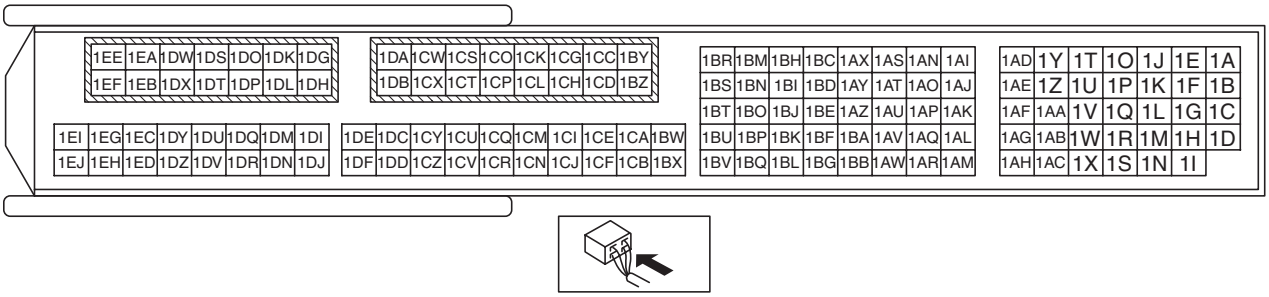



FUEL PRESSURE SENSOR WIRING HARNESS-SIDE CONNECTOR



PCM WIRING HARNESS-SIDE CONNECTOR



**Diagnostic Procedure**

| STEP | INSPECTION | | ACTION |
|---|---|---|---|
| 1 | **VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA AND DIAGNOSTIC MONITORING TEST RESULTS HAVE BEEN RECORDED**<br>• Have the FREEZE FRAME DATA (Mode 2)/ snapshot data and DIAGNOSTIC MONITORING TEST RESULTS (fuel system related) been recorded? | Yes | Go to the next step. |
| | | No | Record the FREEZE FRAME DATA (Mode 2)/snapshot data and DIAGNOSTIC MONITORING TEST RESULTS on the repair order, then go to the next step. |
| 2 | **VERIFY RELATED SERVICE INFORMATION AVAILABILITY**<br>• Verify related Service Information availability.<br>• Is any related Service Information available? | Yes | Perform repair or diagnosis according to the available Service Information.<br>• If the vehicle is not repaired, go to the next step. |
| | | No | Go to the next step. |
| 3 | **INSPECT FUEL PRESSURE SENSOR CONNECTOR CONDITION**<br>• Switch the ignition off.<br>• Disconnect the fuel pressure sensor connector.<br>• Inspect for poor connection (such as damaged/ pulled-out pins, corrosion).<br>• 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 PCM CONNECTOR CONDITION**<br>• Disconnect the PCM connector.<br>• Inspect for poor connection (such as damaged/ pulled-out pins, corrosion).<br>• 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 FUEL PRESSURE SENSOR CIRCUIT FOR SHORT TO POWER SUPPLY**<br>• Verify that the fuel pressure sensor and PCM connectors are disconnected.<br>• Switch the ignition ON (engine off).<br>• Measure the voltage at the fuel pressure sensor terminal B (wiring harness-side).<br>• Is the voltage **0 V**? | Yes | Go to the next step. |
| | | No | Repair or replace the wiring harness for a possible short to power supply, then go to Step 9. |
| 6 | **INSPECT FUEL PRESSURE SENSOR POWER SUPPLY CIRCUIT AND SIGNAL CIRCUIT FOR SHORT TO EACH OTHER**<br>• Verify that the fuel pressure sensor and PCM connectors are disconnected.<br>• Switch the ignition off.<br>• Inspect for continuity between fuel pressure sensor terminals C and B (wiring harness-side).<br>• 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 FUEL PRESSURE SENSOR CIRCUIT FOR OPEN CIRCUIT**<br>• Verify that the fuel pressure sensor and PCM connectors are disconnected.<br>• Inspect for continuity between the following terminals (wiring harness-side):<br>— Fuel pressure sensor terminal B—PCM terminal 1AL<br>— Fuel pressure sensor terminal A—PCM terminal 1AJ<br>• 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 FUEL PRESSURE SENSOR**<br>• Reconnect all disconnected connectors.<br>• Inspect the fuel pressure sensor. (See FUEL PRESSURE SENSOR INSPECTION [SKYACTIV-D 2.2].)<br>• Is there any malfunction**?** | Yes | Replace the common rail, then go to the next step. (See COMMON RAIL REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) |
| | | No | Go to the next step. |

| STEP | INSPECTION | | ACTION |
|---|---|---|---|
| 9 | **VERIFY DTC TROUBLESHOOTING COMPLETED**<br>• Always reconnect all disconnected connectors.<br>• Clear the DTC from the PCM memory using the M-MDS.<br>(See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].)<br>• Start the engine.<br>• Perform the KOEO or KOER self test.<br>(See KOEO/KOER SELF TEST [SKYACTIV-D 2.2].)<br>• Is the same DTC present? | Yes | Repeat the inspection from Step 1.<br>• If the malfunction recurs, replace the PCM.<br>(See PCM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)<br>Go to the next step. |
| | | No | Go to the next step. |
| 10 | **VERIFY AFTER REPAIR PROCEDURE**<br>• Perform the “AFTER REPAIR PROCEDURE”.<br>(See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].)<br>• Are any DTCs present? | Yes | Go to the applicable DTC inspection.<br>(See DTC TABLE [SKYACTIV-D 2.2].) |
| | | No | DTC troubleshooting completed. |