DTC P0628:00 [SKYACTIV-G 2.0]

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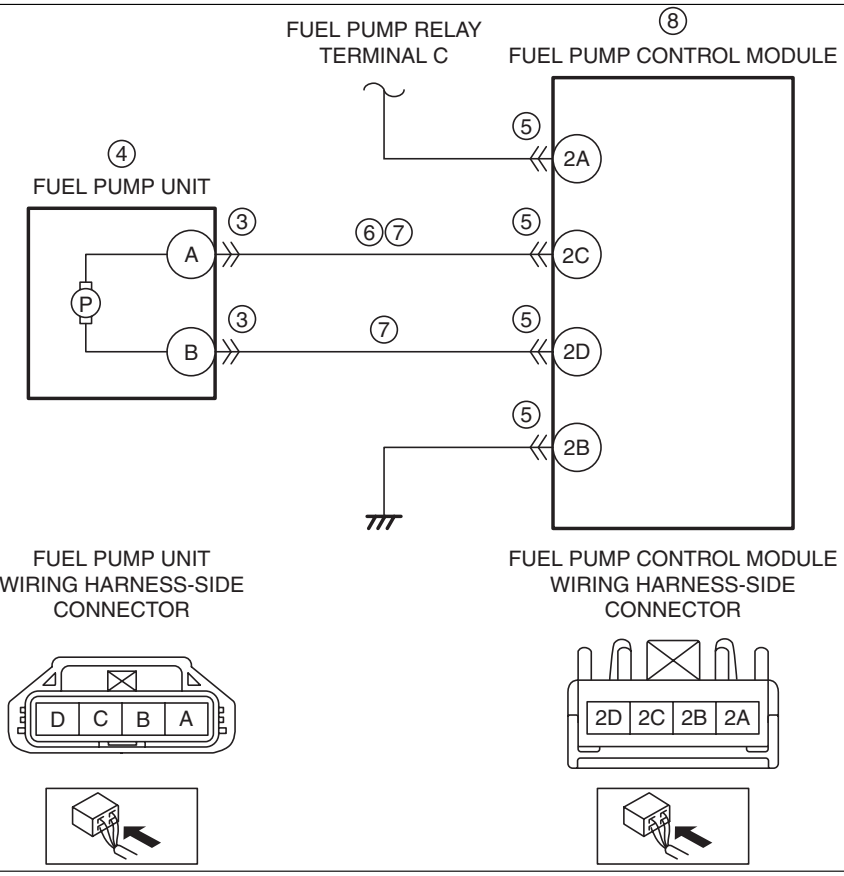
DTC P0628:00	Fuel pump control module circuit low input
DETECTION CONDITION	• When the PCM outputs a duty signal to the fuel pump control module, the difference in voltage between fuel pump unit terminals B and D is **less than 1.5 V** for a continuous **5 s**. **Diagnostic support note** • This is a 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	—
POSSIBLE CAUSE	• Fuel pump unit connector or terminals malfunction • Fuel pump unit malfunction • Fuel pump control module connector or terminals malfunction • Short to ground in wiring harness between fuel pump unit terminal A and fuel pump control module terminal 2C • Open circuit in wiring harness between the following terminals: — Fuel pump unit terminal A—Fuel pump control module terminal 2C — Fuel pump unit terminal B—Fuel pump control module terminal 2D • Fuel pump control module malfunction • 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.
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.

STEP	INSPECTION		ACTION
3	**INSPECT FUEL PUMP UNIT CONNECTOR CONDITION** • Switch the ignition to off. • Disconnect the fuel pump unit 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 FUEL PUMP UNIT** • Inspect the fuel pump unit. (See FUEL PUMP UNIT INSPECTION [SKYACTIV-G 2.0].) • Is there any malfunction?	Yes	Replace the fuel pump unit, then go to Step 9. (See FUEL PUMP UNIT REMOVAL/INSTALLATION [SKYACTIV-G 2.0].)
		No	Go to the next step.
5	**INSPECT FUEL PUMP CONTROL MODULE CONNECTOR CONDITION** • Disconnect the fuel pump control module 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 PUMP UNIT CONTROL CIRCUIT FOR SHORT TO GROUND** • Verify that the fuel pump unit and fuel pump control module connectors are disconnected. • Inspect for continuity between fuel pump unit terminal A (wiring harness-side) and body ground. • Is there continuity?	Yes	Repair or replace the wiring harness for a possible short to ground, then go to Step 9.
		No	Go to the next step.
7	**INSPECT FUEL PUMP UNIT CIRCUIT FOR OPEN CIRCUIT** • Verify that the fuel pump unit and fuel pump control module connectors are disconnected. • Inspect for continuity between the following terminals (wiring harness-side): — Fuel pump unit terminal A—Fuel pump control module terminal 2C — Fuel pump unit terminal B—Fuel pump control module terminal 2D • 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 PUMP CONTROL MODULE** • Inspect the fuel pump control module. (See FUEL PUMP CONTROL MODULE INSPECTION [SKYACTIV-G 2.0].) • Is there any malfunction?	Yes	Replace the fuel pump control module, then go to the next step. (See FUEL PUMP CONTROL MODULE REMOVAL/ INSTALLATION [SKYACTIV-G 2.0].)
		No	Go to the next step.
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].) • 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.