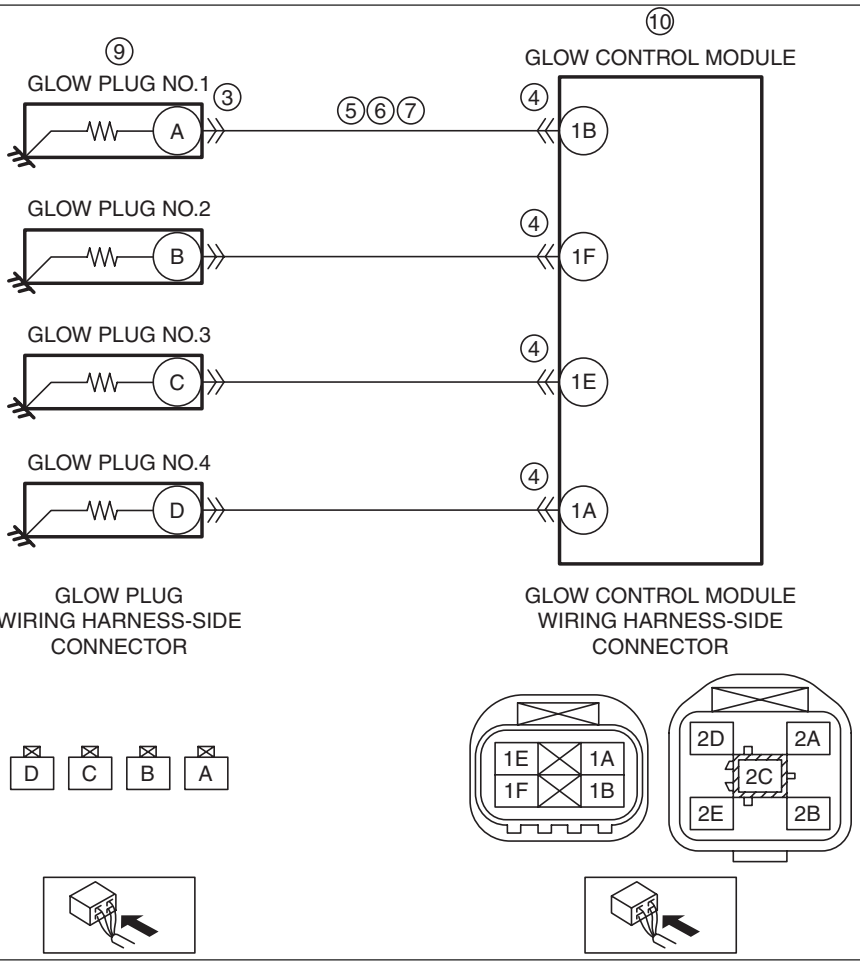
DTC P0671:00 [SKYACTIV-D 2.2]

id0102s4213300

DTC P0671:00	Glow plug No.1 control circuit problem
DETECTION CONDITION	• If the input voltage is **below 5 V** for **5 s**, the PCM determines that the glow plug No.1 circuit problem. **MONITORING CONDITIONS** — Battery voltage: **8—20 V** — Detects that the output duty value of the glow plug is **10 to 90 %** for **1 s or more**. **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. • DTC is stored in the PCM memory.
FAIL-SAFE FUNCTION	• Inhibits engine-stop by operating the i-stop function.
POSSIBLE CAUSE	• Glow plug No.1 connector or terminals malfunction • Glow control module connector or terminals malfunction • Open circuit in wiring harness between glow plug No.1 terminal A and glow control module terminal 1B • Short to ground in wiring harness between glow plug No.1 terminal A and glow control module terminal 1B • Short to power supply in wiring harness between glow plug No.1 terminal A and glow control module terminal 1B • PCM connector or terminals malfunction • Glow plug No.1 malfunction • Glow 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.
3	**INSPECT GLOW PLUG NO.1 CONNECTOR CONDITION** • Switch the ignition off. • Disconnect the glow plug No.1 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 11.
		No	Go to the next step.
4	**INSPECT GLOW CONTROL MODULE CONNECTOR CONDITION** • Disconnect the glow 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 11.
		No	Go to the next step.
5	**INSPECT GLOW PLUG NO.1 CONTROL CIRCUIT FOR OPEN CIRCUIT** • Verify that the glow plug No.1 and glow control module connectors are disconnected. • Inspect for continuity between glow plug No.1 terminal A (wiring harness-side) and glow control module terminal 1B (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 11.
6	**INSPECT GLOW PLUG NO.1 CONTROL CIRCUIT FOR SHORT TO GROUND** • Verify that the glow plug No.1 and glow control module connectors are disconnected. • Inspect for continuity between glow plug No.1 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 11.
		No	Go to the next step.
7	**INSPECT GLOW PLUG NO.1 CONTROL CIRCUIT FOR SHORT TO POWER SUPPLY** • Verify that the glow plug No.1 and glow control module connectors are disconnected. • Switch the ignition ON (engine off). • Measure the voltage at the glow plug No.1 terminal A (wiring harness-side). • 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 11.
8	**INSPECT PCM CONNECTOR CONDITION** • Switch the ignition off. • 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 11.
		No	Go to the next step.
9	**INSPECT GLOW PLUG NO.1** • Inspect the glow plug No.1. (See GLOW PLUG INSPECTION [SKYACTIV-D 2.2].) • Is there any malfunction?	Yes	Replace the glow plug No.1, then go to Step 11. (See GLOW PLUG REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
		No	Go to the next step.
10	**INSPECT GLOW CONTROL MODULE** • Inspect the glow control module. (See GLOW PLUG CONTROL MODULE INSPECTION [SKYACTIV-D 2.2].) • Is there any malfunction?	Yes	Replace the glow control module, then go to the next step. (See GLOW PLUG CONTROL MODULE REMOVAL/ INSTALLATION [SKYACTIV-D 2.2].)
		No	Go to the next step.

STEP	INSPECTION		ACTION
11	**VERIFY DTC TROUBLESHOOTING COMPLETED** • Always reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the M-MDS. (See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].) • Perform the DTC Reading Procedure. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-D 2.2].) • Is the same DTC present?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) Go to the next step.
		No	Go to the next step.
12	**VERIFY AFTER REPAIR PROCEDURE** • Perform the “AFTER REPAIR PROCEDURE”. (See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-D 2.2].)
		No	DTC troubleshooting completed.