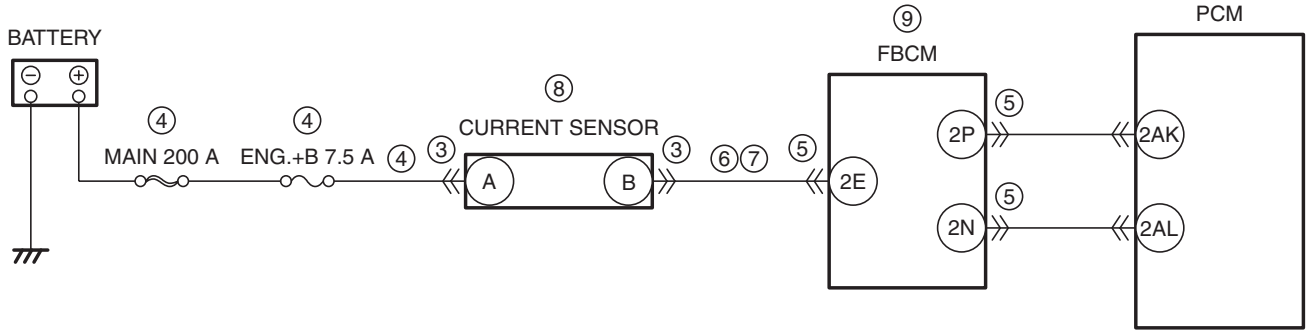
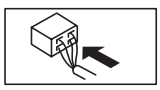
DTC U1007:00 [SKYACTIV-G 2.0, SKYACTIV-G 2.5]

id0102h4855400

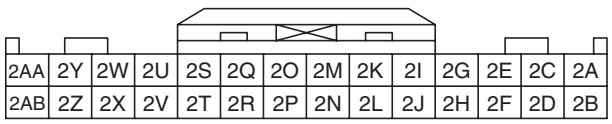
DTC U1007:00	CAN/LIN communication system: current sensor information communication error with front body control module (FBCM)
DETECTION CONDITION	• PCM detects a current sensor information communication error from front body control module (FBCM). **Diagnostic support note** • This is a continuous monitor (other). • The check engine light does not illuminate. • FREEZE FRAME DATA (Mode 2)/Snapshot data is not available. • DTC is stored in the PCM memory.
FAIL-SAFE FUNCTION	• Inhibits engine-stop by operating the i-stop function. • Inhibits a part of the generator output control.
POSSIBLE CAUSE	• Communication line between current sensor and front body control module (FBCM) malfunction • Communication line between front body control module (FBCM) and PCM malfunction • Current sensor connector or terminals malfunction • Short to ground or open circuit in current sensor power supply circuit — Short to ground in wiring harness between MAIN 200 A fuse and current sensor terminal A — MAIN 200 A fuse and/or ENG.+B 7.5 A fuse malfunction — Open circuit in wiring harness between battery positive terminal and current sensor terminal A • Front body control module (FBCM) connector or terminals malfunction • Short to ground in wiring harness between current sensor terminal B and front body control module (FBCM) terminal 2E • Open circuit in wiring harness between current sensor terminal B and front body control module (FBCM) terminal 2E • Current sensor malfunction • Front body control module (FBCM) malfunction

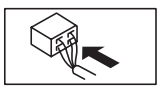


CURRENT SENSOR WIRING HARNESS-SIDE CONNECTOR

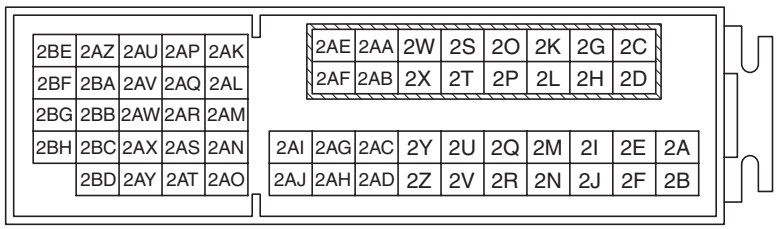


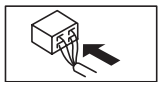
FBCM WIRING HARNESS-SIDE CONNECTOR





PCM WIRING HARNESS-SIDE CONNECTOR





Repeatability Verification Procedure

1. Clear the DTC from the PCM memory using the M-MDS. (See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
2. Start the engine.

Diagnostic Procedure

STEP	INSPECTION		ACTION
1	**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.
2	**VERIFY RELATED PENDING CODE AND/OR DTC** • Switch the ignition off, then ON (engine off). • Perform the Pending Trouble Code Access Procedure and DTC Reading Procedure. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • Are any other PENDING CODEs and/or DTCs present?	Yes	Go to the applicable PENDING CODE or DTC inspection. (See DTC TABLE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
		No	Go to the next step.
3	**INSPECT CURRENT SENSOR CONNECTOR CONDITION** **Note** • Always disconnect current sensor connector before disconnecting the negative battery cable. • Switch the ignition off. • Disconnect the current 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 10.
		No	Go to the next step.

STEP	INSPECTION		ACTION
4	**INSPECT CURRENT SENSOR POWER SUPPLY CIRCUIT FOR SHORT TO GROUND OR OPEN CIRCUIT** • Verify that the current sensor connector is disconnected. • Measure the voltage at the current sensor terminal A (wiring harness-side). • Is the voltage **B+**?	Yes	Go to the next step.
		No	Inspect the MAIN 200 A fuse and ENG.+B 7.5 A fuse. • If the fuse is burnt out: — Refer to the wiring diagram and verify whether or not there is a common connector between MAIN 200 A fuse and current sensor terminal A. **If there is a common connector:** • Determine the malfunctioning part by inspecting the common connector and the terminal for corrosion, damage, or pin disconnection, and the common wiring harness for a short to ground. • Repair or replace the malfunctioning part. **If there is no common connector:** • Repair or replace the wiring harness which has a short to ground. • Replace the fuse. • If the fuse is damaged: — Replace the fuse. • If all fuses are normal: — Refer to the wiring diagram and verify whether or not there is a common connector between battery positive terminal and current sensor terminal A. **If there is a common connector:** • Determine the malfunctioning part by inspecting the common connector and the terminal for corrosion, damage, or pin disconnection, and the common wiring harness for an open circuit. • Repair or replace the malfunctioning part. **If there is no common connector:** • Repair or replace the wiring harness which has an open circuit. Go to Step 10.
5	**INSPECT FRONT BODY CONTROL MODULE (FBCM) CONNECTOR CONDITION** • Disconnect the front body control module (FBCM) 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 10.
		No	Go to the next step.
6	**INSPECT CURRENT SENSOR SIGNAL CIRCUIT FOR SHORT TO GROUND** • Verify that the current sensor and front body control module (FBCM) connectors are disconnected. • Inspect for continuity between current sensor terminal B (wiring harness-side) and body ground. • Is there continuity?	Yes	Refer to the wiring diagram and verify whether or not there is a common connector between current sensor terminal B and front body control module (FBCM) terminal 2E. **If there is a common connector:** • Determine the malfunctioning part by inspecting the common connector and the terminal for corrosion, damage, or pin disconnection, and the common wiring harness for a short to ground. • Repair or replace the malfunctioning part. **If there is no common connector:** • Repair or replace the wiring harness which has a short to ground. Go to Step 10.
		No	Go to the next step.

STEP	INSPECTION		ACTION
7	**INSPECT CURRENT SENSOR SIGNAL CIRCUIT FOR OPEN CIRCUIT** • Verify that the current sensor and front body control module (FBCM) connectors are disconnected. • Inspect for continuity between current sensor terminal B (wiring harness-side) and front body control module (FBCM) terminal 2E (wiring harness-side). • Is there continuity?	Yes	Go to the next step.
		No	Refer to the wiring diagram and verify whether or not there is a common connector between current sensor terminal B and front body control module (FBCM) terminal 2E. **If there is a common connector:** • Determine the malfunctioning part by inspecting the common connector and the terminal for corrosion, damage, or pin disconnection, and the common wiring harness for an open circuit. • Repair or replace the malfunctioning part. **If there is no common connector:** • Repair or replace the wiring harness which has an open circuit. Go to Step 10.
8	**INSPECT CURRENT SENSOR** • Inspect the current sensor. (See CURRENT SENSOR INSPECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • Is there any malfunction?	Yes	Replace the current sensor, then go to Step 10. (See CURRENT SENSOR REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
		No	Go to the next step.
9	**INSPECT FRONT BODY CONTROL MODULE (FBCM)** • Inspect the front body control module (FBCM). (See FRONT BODY CONTROL MODULE (FBCM) INSPECTION.) • Is there any malfunction?	Yes	Replace the front body control module (FBCM), then go to the next step. (See FRONT BODY CONTROL MODULE (FBCM) REMOVAL/INSTALLATION.)
		No	Go to the next step.
10	**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-G 2.0, SKYACTIV-G 2.5].) • Implement the repeatability verification procedure. (See Repeatability Verification Procedure.) • Perform the DTC Reading Procedure. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • Is the same DTC present?	Yes	Repeat the inspection from Step 1.
		No	Go to the next step.
11	**VERIFY AFTER REPAIR PROCEDURE** • Perform the “AFTER REPAIR PROCEDURE”. (See AFTER REPAIR PROCEDURE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
		No	DTC troubleshooting completed.