DTC P0A8F:00 [SKYACTIV-G 2.0, SKYACTIV-G 2.5]

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Details On DTCs

DESCRIPTION	Power system: Low input	
DETECTION CONDITION	Determination conditions	• Any one of the following conditions is met: — Battery voltage is **11 V or less** when ignition is switched off after leaving vehicle for **30 days or more**. — Battery voltage is **11 V or less** for a continuous **5 days** when ignition is switched off.
	Preconditions	• Battery voltage difference between right before switch the ignition ON and 30 min before that equals to the specified value or less. • Battery currents right before switch the ignition ON and 30 min before that equal to the specified value or less.
	Drive cycle	• 2
	Self test type	• CMDTC self test
	Sensor used	• Current sensor
FAIL-SAFE FUNCTION	• Inhibits engine-stop by operating the i-stop function.	
VEHICLE STATUS WHEN DTCs ARE OUTPUT	• Flashes the i-stop warning light (amber) • Illuminates master warning light. • The engine cannot be started or the engine may stall due to battery voltage decrease.	
POSSIBLE CAUSE	• Battery malfunction • Current sensor malfunction • Front body control module (FBCM) malfunction • PCM malfunction	

System Wiring Diagram

- Not applicable

Function Explanation (DTC Detection Outline)

- The battery assures voltage for engine starting and while the vehicle is being driven, and for the vehicle's electrical devices when the engine is stopped by i-stop. (Addition necessary for both domestic and overseas)
- The PCM determines a dendrite malfunction by the condition in which the battery voltage value continues to be low for the specified time. In this case, the PCM determines a malfunction in a battery-related part and stores a DTC.

Repeatability Verification Procedure

1. Start the engine

PID Item/Simulation Item Used In Diagnosis

- Not applicable

Function Inspection Using M-MDS

STEP	INSPECTION	RESULTS	ACTION
1	**PURPOSE: 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	**PURPOSE: VERIFY IF BATTERY VOLTAGE IS FALSELY RECOGNIZED BY DTC RELATED CURRENT SENSOR** • 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].) • Is the PENDING CODE/DTC P058A:00 also present?	Yes	Go to the applicable PENDING CODE or DTC inspection. (See DTC P058A:00 [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
		No	Go to the next step.

STEP	INSPECTION	RESULTS	ACTION
3	**PURPOSE: VERIFY IF BATTERY VOLTAGE IS FALSELY RECOGNIZED BY DTC RELATED CAN OR LIN COMMUNICATION** • Perform the PCM and front body control module (FBCM) DTC inspection using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See DTC INSPECTION [FRONT BODY CONTROL MODULE (FBCM)].) • Are DTCs related CAN or LIN communication recorded?	Yes	Repair or replace the malfunctioning part according to the applicable DTC troubleshooting. (See DTC TABLE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See DTC TABLE [FRONT BODY CONTROL MODULE (FBCM)].)
		No	Go to the next step.
4	**PURPOSE: DETERMINE BATTERY MALFUNCTION BY VERIFYING DTC** • Retrieve the PCM DTCs using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • Is the DTC P0A8F:00 also present?	Yes	Replace the battery. (See BATTERY REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5]) Go to the troubleshooting procedure to perform the procedure from Step 2.
		No	Go to the troubleshooting procedure to perform the procedure from Step 1.

Troubleshooting Diagnostic Procedure
Intention of troubleshooting procedure

- Step 1
  - — Perform a unit inspection of the battery.
- Step 2—3
  - — Verify that the primary malfunction is resolved and there are no other malfunctions.

STEP	INSPECTION	RESULTS	ACTION
1	**PURPOSE: DETERMINE INTEGRITY OF BATTERY** • Inspect the battery. (See BATTERY INSPECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See BATTERY INSPECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • Is there any malfunction?	Yes	Replace the battery, then go to the next step. (See BATTERY REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
		No	Go to the next step.
2	**PURPOSE: VERIFICATION OF VEHICLE REPAIR COMPLETION** • 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 Pending Trouble Code Access Procedure. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) • Is the PENDING CODE for this DTC present?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) Go to the next step.
		No	Go to the next step.
3	**PURPOSE: VERIFY IF THERE IS ANY OTHER MALFUNCTION** • Is any other DTC or pending code stored?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
		No	DTC troubleshooting completed.