

DTC P111A:00 [SKYACTIV-D 2.2]

id0102s4415000

DTC P111A:00	Engine coolant temperature is high
DETECTION CONDITION	<ul style="list-style-type: none"> The engine coolant temperature is 110 °C {230 °F} or more for 2.5 s. Diagnostic support note <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> PCM restricts the intake air amount.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Cooling system malfunction High engine speed condition continues ECT sensor malfunction PCM malfunction
SYSTEM WIRING DIAGRAM	Not applicable

Diagnostic Procedure

STEP	INSPECTION		ACTION
1	VERIFY RELATED SERVICE INFORMATION AVAILABILITY <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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-D 2.2].) Are any other PENDING CODEs and/or DTCs present? 	Yes	Go to the applicable PENDING CODE or DTC inspection. (See DTC TABLE [SKYACTIV-D 2.2].)
		No	Go to the next step.
3	INSPECT EFFECT OF VEHICLE CONDITION FOR MALFUNCTION <ul style="list-style-type: none"> Verify how the customer drives the vehicle by asking the customer the following: <ul style="list-style-type: none"> Engine speed is high and remains high for continuous long periods like when climbing a long steep grade. Is the engine generating excessive heat when driven? 	Yes	Go to the next step.
		No	Go to Step 5.
4	INSPECT FOR MALFUNCTION DUE TO OVERHEATING <p>Caution</p> <ul style="list-style-type: none"> While performing this step, always operate the vehicle in a safe and lawful manner. When the M-MDS is used to observe monitor system status while driving, be sure to have another technician with you, or record the data in the M-MDS using the PID/DATA MONITOR AND RECORD capturing function and inspect later. <ul style="list-style-type: none"> Access the ECT PID using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-D 2.2].) Is the ECT PID value less than 110 °C {230 °F} while the vehicle is driven on a flat road? 	Yes	Explain to the customer that the vehicle is normal. Go to Step 6.
		No	The cause of this concern could be from the cooling system overheating. <ul style="list-style-type: none"> Perform the symptom troubleshooting “NO.22 COOLING SYSTEM CONCERNS-OVERHEATING”. (See NO.22 COOLING SYSTEM CONCERNS-OVERHEATING [SKYACTIV-D 2.2].)

STEP	INSPECTION		ACTION
5	INSPECT ECT SENSOR <ul style="list-style-type: none"> Inspect the ECT sensor. (See ENGINE COOLANT TEMPERATURE (ECT) SENSOR INSPECTION [SKYACTIV-D 2.2].) Is there any malfunction? 	Yes	Replace the ECT sensor, then go to the next step. (See ENGINE COOLANT TEMPERATURE (ECT) SENSOR REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
		No	Go to the next step.
6	VERIFY DTC TROUBLESHOOTING COMPLETED <ul style="list-style-type: none"> Clear the DTC from the PCM memory using the M-MDS. (See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].) Start the engine and warm it up completely. Drive the vehicle. 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. <ul style="list-style-type: none"> 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.
7	VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> 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.