

DTC P0073:00 [SKYACTIV-G 2.0]

id0102h1146000

DTC P0073:00	Ambient temperature sensor circuit high input
DETECTION CONDITION	<ul style="list-style-type: none">The PCM monitors the input signal from the ambient temperature sensor. If the voltage from the ambient temperature sensor is above 4.8 V for 5 s, the PCM determines that the ambient temperature sensor circuit has a malfunction. <p>Diagnostic support note</p> <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.The DTC is stored in the PCM memory.
FAIL-SAFE FUNCTION	—
POSSIBLE CAUSE	<ul style="list-style-type: none">Ambient temperature sensor connector or terminals malfunctionPCM connector or terminals malfunctionAmbient temperature sensor malfunctionShort to power supply in wiring harness between ambient temperature sensor terminal A and PCM terminal 2IOpen circuit in wiring harness between the following terminals:<ul style="list-style-type: none">— Ambient temperature sensor terminal A—PCM terminal 2I— Ambient temperature sensor terminal B—PCM terminal 2AJPCM malfunction

58

AMBIENT TEMPERATURE SENSOR

PCM

AMBIENT TEMPERATURE SENSOR
WIRING HARNESS-SIDE
CONNECTOR

PCM WIRING HARNESS-SIDE CONNECTOR

2BE	2AZ	2AU	2AP	2AK
2BF	2BA	2AV	2AQ	2AL
2BG	2BB	2AW	2AR	2AM
2BH	2BC	2AX	2AS	2AN
2BD	2AY	2AT	2AO	

2AE	2AA	2W	2S	2O	2K	2G	2C
2AF	2AB	2X	2T	2P	2L	2H	2D
2AI	2AG	2AC	2Y	2U	2Q	2M	2I
2AJ	2AH	2AD	2Z	2V	2R	2N	2J
							2E
							2A
							2F
							2B

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.
		No	Go to the next step.
2	CLASSIFY AMBIENT TEMPERATURE SENSOR MALFUNCTION OR WIRING HARNESS MALFUNCTION <ul style="list-style-type: none"> Access the AAT PID using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0].) Verify the AAT PID value. Is the AAT PID value 5 V or B+? 	Yes	Go to Step 6.
		No	Go to the next step.

STEP	INSPECTION	ACTION	
3	INSPECT AMBIENT TEMPERATURE SENSOR CONNECTOR CONDITION <ul style="list-style-type: none"> • Switch the ignition to off. • Disconnect the ambient temperature 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 9.
		No	Go to the next step.
4	INSPECT PCM CONNECTOR CONDITION <ul style="list-style-type: none"> • 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 9.
		No	Go to the next step.
5	INSPECT AMBIENT TEMPERATURE SENSOR <ul style="list-style-type: none"> • Inspect the ambient temperature sensor. (See AMBIENT TEMPERATURE SENSOR INSPECTION [MANUAL AIR CONDITIONER].) (See AMBIENT TEMPERATURE SENSOR INSPECTION [FULL-AUTO AIR CONDITIONER].) • Is there any malfunction? 	Yes	Replace the ambient temperature sensor, then go to Step 9. (See AMBIENT TEMPERATURE SENSOR REMOVAL/INSTALLATION [MANUAL AIR CONDITIONER].) (See AMBIENT TEMPERATURE SENSOR REMOVAL/INSTALLATION [FULL-AUTO AIR CONDITIONER].)
		No	Go to Step 9.
6	CLASSIFY AMBIENT TEMPERATURE SENSOR SIGNAL CIRCUIT MALFUNCTION OR AMBIENT TEMPERATURE SENSOR GROUND CIRCUIT MALFUNCTION <ul style="list-style-type: none"> • Switch the ignition to off. • Disconnect the ambient temperature sensor connector. • Access the AAT PID using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0].) • Verify the AAT PID value. • Is the AAT PID value 5 V or B+? 	Yes	Go to the next step.
		No	Go to Step 8.
7	INSPECT AMBIENT TEMPERATURE SENSOR SIGNAL CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> • Verify that the ambient temperature sensor connector is disconnected. • Switch the ignition to off. • Disconnect the PCM connector. • Inspect for continuity between ambient temperature sensor terminal A (wiring harness-side) and PCM terminal 2I (wiring harness-side). • Is there continuity? 	Yes	Repair or replace the wiring harness for a possible short to power supply, then go to Step 9.
		No	Repair or replace the wiring harness for a possible open circuit, then go to Step 9.
8	INSPECT AMBIENT TEMPERATURE SENSOR GROUND CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> • Verify that the ambient temperature sensor connector is disconnected. • Switch the ignition to off. • Disconnect the PCM connector. • Inspect for continuity between ambient temperature sensor terminal B (wiring harness-side) and PCM terminal 2AJ (wiring harness-side). • Is there continuity? 	Yes	Replace the ambient temperature sensor, then go to the next step. (See AMBIENT TEMPERATURE SENSOR REMOVAL/INSTALLATION [MANUAL AIR CONDITIONER].) (See AMBIENT TEMPERATURE SENSOR REMOVAL/INSTALLATION [FULL-AUTO AIR CONDITIONER].)
		No	Repair or replace the wiring harness for a possible open circuit, then go to the next step.

STEP	INSPECTION		ACTION
9	VERIFY DTC TROUBLESHOOTING COMPLETED <ul style="list-style-type: none"> • 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].) • Start the engine and warm it up completely. • 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 <ul style="list-style-type: none"> • 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.