

DTC P0137:00 [SKYACTIV-G 2.0]

id0102h1300300

DTC P0137:00	HO2S circuit low input
DETECTION CONDITION	<ul style="list-style-type: none">• The PCM monitors input voltage from HO2S. If the input voltage from the HO2S is below -1.15 V or HO2S bias voltage is below 1.3 V for 5 s or the voltage from the HO2S is below -0.15 V for 25 s while the HO2S is active, the PCM determines that the HO2S circuit input is low. <p>Diagnostic support note</p> <ul style="list-style-type: none">• This is a continuous monitor (A/F sensor, HO2S).• The check engine light illuminates if the PCM detects the above malfunction condition in two consecutive drive cycles or in one drive cycle while the DTC for the same malfunction has been stored in the PCM.• PENDING CODE is available if the PCM detects the above malfunction condition during first drive cycle.• FREEZE FRAME DATA (Mode 2)/Snapshot data is available.• The DTC is stored in the PCM memory.
FAIL-SAFE FUNCTION	—
POSSIBLE CAUSE	<ul style="list-style-type: none">• HO2S connector or terminals malfunction• Short to ground in wiring harness between HO2S terminal A and PCM terminal 2AI• PCM connector or terminals malfunction• Open circuit in wiring between the following terminals:<ul style="list-style-type: none">— HO2S terminal A—PCM terminal 2AI— HO2S terminal B—PCM terminal 2AG• HO2S malfunction• PCM malfunction

⑨
HO2S

HO2S
WIRING HARNESS-SIDE
CONNECTOR

PCM
WIRING HARNESS-SIDE CONNECTOR

2BE	2AZ	2AU	2AP	2AK	2AE	2AA	2W	2S	2O	2K	2G	2C		
2BF	2BA	2AV	2AQ	2AL	2AF	2AB	2X	2T	2P	2L	2H	2D		
2BG	2BB	2AW	2AR	2AM	2AI	2AG	2AC	2Y	2U	2Q	2M	2I	2E	2A
2BH	2BC	2AX	2AS	2AN	2AJ	2AH	2AD	2Z	2V	2R	2N	2J	2F	2B
2BD	2AY	2AT	2AO											

Diagnostic Procedure

Diagnostic Procedure		
STEP	INSPECTION	ACTION
1	IDENTIFY TRIGGER DTC FOR FREEZE FRAME DATA (MODE 2) <ul style="list-style-type: none">Perform the Freeze Frame PID Data Access Procedure. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0].)Is the DTC P0137:00 on FREEZE FRAME DATA (Mode 2)?	Yes Go to the next step.
		No Go to the troubleshooting procedure for DTC on FREEZE FRAME DATA (Mode 2). (See DTC TABLE [SKYACTIV-G 2.0].)

STEP	INSPECTION		ACTION
2	VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA AND DIAGNOSTIC MONITORING TEST RESULTS HAVE BEEN RECORDED <ul style="list-style-type: none"> Have the FREEZE FRAME DATA (Mode 2)/ snapshot data and DIAGNOSTIC MONITORING TEST RESULTS (A/F sensor, HO2S related) been recorded? 	Yes	Go to the next step.
		No	Record the FREEZE FRAME DATA (Mode 2)/snapshot data and DIAGNOSTIC MONITORING TEST RESULTS on the repair order, then go to the next step.
3	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.
4	VERIFY RELATED PENDING CODE AND/OR DTC <ul style="list-style-type: none"> Switch the ignition to off, then to ON (engine off). Perform the Pending Trouble Code Access Procedure and DTC Reading Procedure. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0].) 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].)
		No	Go to the next step.
5	INSPECT HO2S CONNECTOR CONDITION <ul style="list-style-type: none"> Switch the ignition to off. Disconnect the HO2S 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 HO2S SIGNAL CIRCUIT FOR SHORT TO GROUND <ul style="list-style-type: none"> Verify that the HO2S connector is disconnected. Inspect for continuity between HO2S terminal A (wiring harness-side) and body ground. Is there continuity? 	Yes	If the short to ground circuit could be detected in the wiring harness: • Repair or replace the wiring harness for a possible short to ground. If the short to ground circuit could not be detected in the wiring harness: • Replace the PCM (short to ground in the PCM internal circuit). (See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0].) Go to Step 10.
		No	Go to the next step.
7	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 10.
		No	Go to the next step.
8	INSPECT HO2S CIRCUIT FOR OPEN CIRCUIT <ul style="list-style-type: none"> Verify that the HO2S and PCM connectors are disconnected. Inspect for continuity between the following terminals (wiring harness-side): <ul style="list-style-type: none"> HO2S terminal A—PCM terminal 2AI HO2S terminal B—PCM terminal 2AG 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 10.
9	INSPECT HO2S <ul style="list-style-type: none"> Reconnect all disconnected connectors. Inspect the HO2S. (See HEATED OXYGEN SENSOR (HO2S) INSPECTION [SKYACTIV-G 2.0].) Is there any malfunction? 	Yes	Replace the HO2S, then go to the next step. (See HEATED OXYGEN SENSOR (HO2S) REMOVAL/ INSTALLATION [SKYACTIV-G 2.0].)
		No	Intermittent concern exists. • Perform the “INTERMITTENT CONCERN TROUBLESHOOTING” procedure. (See INTERMITTENT CONCERN TROUBLESHOOTING [SKYACTIV-G 2.0].)

STEP	INSPECTION	ACTION	
10	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].) • Perform the Pending Trouble Code Access Procedure. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0].) • 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].) Go to the next step.
		No	Go to the next step.
11	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.