

DTC P0404:00	Circuit malfunction in EGR valve DC motor control system
DETECTION CONDITION	<ul style="list-style-type: none">The EGR valve DC motor drive current exceeds the specification for a continuous 3 s when the following condition is met: MONITORING CONDITIONS<ul style="list-style-type: none">DC motor drive circuit temperature: 175 °C {347 °F} or more Diagnostic support note <ul style="list-style-type: none">This is a continuous monitor (CCM).The check engine light illuminates if the PCM detects the above malfunction condition during the first drive cycle.FREEZE FRAME DATA (Mode 2)/Snapshot data is available.DTC is stored in the PCM memory.
FAIL-SAFE FUNCTION	<ul style="list-style-type: none">Inhibits the two-stage turbo control.Inhibits the EGR control.Inhibits engine-stop by operating the i-stop function.PCM restricts engine-transaxle integration control.
POSSIBLE CAUSE	<ul style="list-style-type: none">EGR valve/EGR valve position sensor connector or terminals malfunctionShort to ground in wiring harness between the following terminals:<ul style="list-style-type: none">EGR valve/EGR valve position sensor terminal E—PCM terminal 1BREGR valve/EGR valve position sensor terminal A—PCM terminal 1BMPCM connector or terminals malfunctionShort to power supply in wiring harness between the following terminals:<ul style="list-style-type: none">EGR valve/EGR valve position sensor terminal E—PCM terminal 1BREGR valve/EGR valve position sensor terminal A—PCM terminal 1BMEGR valve malfunctionPCM malfunction

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EGR VALVE
(EGR VALVE/EGR VALVE POSITION SENSOR)

EGR VALVE/EGR VALVE POSITION SENSOR
WIRING HARNESS-SIDE CONNECTOR

PCM WIRING HARNESS-SIDE CONNECTOR

1EE	1EA	1DW	1DS	1DO	1DK	1DG	1DA	1CW	1CS	1CO	1CK	1CG	1CC	1BY	1BR	1BM	1BH	1BC	1AX	1AS	1AN	1AI	1AD	1Y	1T	1O	1J	1E	1A			
1EF	1EB	1DX	1DT	1DP	1DL	1DH	1DB	1CX	1CT	1CP	1CL	1CH	1CD	1BZ	1BS	1BN	1BI	1BD	1AY	1AT	1AO	1AJ	1AE	1Z	1U	1P	1K	1F	1B			
1EI	1EG	1EC	1DY	1DU	1DQ	1DM	1DI	1DE	1DC	1CY	1CU	1CQ	1CM	1CI	1CE	1CA	1BW	1BT	1BO	1BJ	1BE	1AZ	1AU	1AP	1AK	1AF	1AA	1V	1Q	1L	1G	1C
1EJ	1EH	1ED	1DZ	1DV	1DR	1DN	1DJ	1DF	1DD	1CZ	1CV	1CR	1CN	1CJ	1CF	1CB	1BX	1BU	1BP	1BK	1BF	1BA	1AV	1AQ	1AL	1AG	1AB	1W	1R	1M	1H	1D
															1BV	1BQ	1BL	1BG	1BB	1AW	1AR	1AM	1AH	1AC	1X	1S	1N	1I				

Diagnostic Procedure

STEP	INSPECTION		ACTION
1	VERIFY FREEZE FRAME DATA (MODE 2)/ SNAPSHOT DATA HAS BEEN RECORDED <ul style="list-style-type: none"> Has the FREEZE FRAME DATA (Mode 2)/ snapshot data been recorded? 	Yes	Go to the next step.
		No	Record the FREEZE FRAME DATA (Mode 2)/snapshot data on the repair order, then go to the next step.
2	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.
3	INSPECT EGR VALVE/EGR VALVE POSITION SENSOR CONNECTOR CONDITION <ul style="list-style-type: none"> Switch the ignition off. Disconnect the EGR valve/EGR valve position 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 8.
		No	Go to the next step.
4	INSPECT EGR VALVE POSITION SENSOR CIRCUIT FOR SHORT TO GROUND <ul style="list-style-type: none"> Verify that the EGR valve/EGR valve position sensor connector is disconnected. Inspect for continuity between the following terminals (wiring harness-side) and body ground: <ul style="list-style-type: none"> EGR valve/EGR valve position sensor terminal E EGR valve/EGR valve position sensor terminal A 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-D 2.2].) Go to Step 8.
		No	Go to the next step.
5	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 8.
		No	Go to the next step.
6	INSPECT EGR VALVE CIRCUIT FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> Verify that the EGR valve/EGR valve position sensor and PCM connectors are disconnected. Switch the ignition ON (engine off). Measure the voltage at the following terminals (wiring harness-side): <ul style="list-style-type: none"> EGR valve/EGR valve position sensor terminal E EGR valve/EGR valve position sensor terminal A Is the voltage 0 V? 	Yes	Go to the next step.
		No	Repair or replace the wiring harness for a possible short to power supply, then go to Step 8.
7	INSPECT EGR VALVE <ul style="list-style-type: none"> Inspect the EGR valve. (See EGR VALVE INSPECTION [SKYACTIV-D 2.2].) Is there any malfunction? 	Yes	Replace the EGR valve, then go to the next step. (See EGR VALVE REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
		No	Go to the next step.
8	VERIFY DTC TROUBLESHOOTING COMPLETED <ul style="list-style-type: none"> Always reconnect all disconnected connectors. Clear the DTC from the PCM memory using the M-MDS. (See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].) 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. • 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.

STEP	INSPECTION		ACTION
9	VERIFY AFTER REPAIR PROCEDURE • 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.