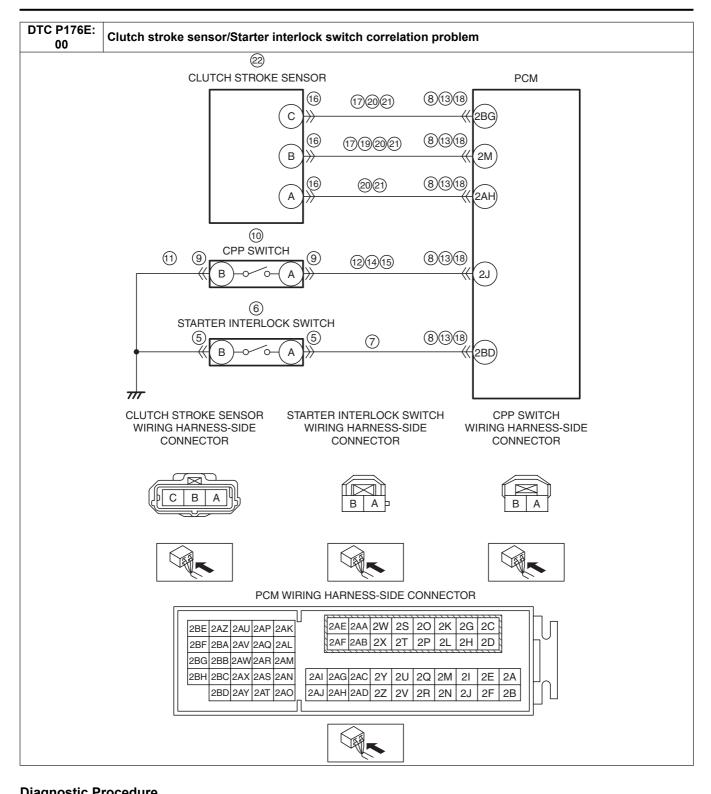
DTC P176E: 00	Clutch stroke sensor/Starter interlock switch correlation problem
DETECTION CONDITION	 Correlation malfunction between clutch stroke sensor and starter interlock switch. If the clutch stroke sensor circuit voltage above 4.9 V or below 0.1 V for 10 s, the PCM determines that the clutch stroke sensor circuit has a malfunction. CPP switch stuck ON or OFF. Starter interlock switch stuck ON. Diagnostic support note 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	Flashes the i-stop warning light (amber) and inhibits engine-stop by operating the i-stop function.
POSSIBLE CAUSE	CPP switch, clutch stroke sensor and/or starter interlock switch loose Starter interlock switch connector or terminals malfunction Starter interlock switch malfunction Short to ground in wiring harness between starter interlock switch terminal A and PCM terminal 2BD PCM connector or terminals malfunction CPP switch connector or terminals malfunction CPP switch malfunction Open circuit in wiring harness between CPP switch terminal B and body ground Short to ground in wiring harness between CPP switch terminal A and PCM terminal 2J Short to power supply in wiring harness between CPP switch terminal A and PCM terminal 2J Open circuit in wiring harness between CPP switch terminal A and PCM terminal 2J Clutch stroke sensor connector or terminals malfunction Short to ground in wiring harness between the following terminals: Clutch stroke sensor terminal C—PCM terminal 2BG Clutch stroke sensor terminal B—PCM terminal 2M Short to power supply in wiring harness between clutch stroke sensor terminal B and PCM terminal 2M Clutch stroke sensor circuits are shorted to each other. Open circuit in wiring harness between the following terminals: Clutch stroke sensor terminal C—PCM terminal 2BG Clutch stroke sensor terminal B—PCM terminal 2AH Clutch stroke sensor terminal A—PCM terminal 2AH Clutch stroke sensor malfunction PCM malfunction



Diagnostic Procedure			
STEP	INSPECTION		ACTION
1	VERIFY RELATED SERVICE INFORMATION	Yes	Perform repair or diagnosis according to the available
	AVAILABILITY		Service Information.
	Verify related Service Information availability.		If the vehicle is not repaired, go to the next step.
	Is any related Service Information available?	No	Go to the next step.

STEP	INSPECTION		ACTION
2	VERIFY RELATED PENDING CODE AND/OR DTC	Yes	Go to the applicable PENDING CODE or DTC inspection. (See DTC P0704:00 [SKYACTIV-G 2.0, SKYACTIV-G
	Switch the ignition off, then ON (engine off).		2.5].)
	Perform the Pending Trouble Code Access	No	Go to the next step.
	Procedure and DTC Reading Procedure.		
	(See ON-BOARD DIAGNOSTIC TEST		
	[SKYACTIV-G 2.0, SKYACTIV-G 2.5].)		
	• Is the PENDING CODE/DTC P0704:00 also		
3	present?	Voo	Co to the next sten
3	INSPECT INSTALLATION OF CPP SWITCH, CLUTCH STROKE SENSOR AND STARTER	Yes No	Go to the next step. Retighten the malfunctioning switch and/or sensor, then go
	INTERLOCK SWITCH		to Step 23.
	Inspect installation of CPP switch, clutch stroke anner and starter interlegic switch		
	sensor and starter interlock switch. • Are the CPP switch, clutch stroke sensor and		
	starter interlock switch installed securely?		
4	DETERMINE MALFUNCTIONING SYSTEM	Yes	If the PCM terminal 2BD voltage is not normal:
-	• Inspect the following:	103	• Go to the next step.
	(See ON-BOARD DIAGNOSTIC TEST		If the CPP PID (OFF/ON) is not normal:
	[SKYACTIV-G 2.0, SKYACTIV-G 2.5].)		• Go to Step 9.
	— PCM PID:		If the CPP PID (%) is not normal:
	• CPP (OFF/ON)		Go to Step 16.
	• CPP (%)	No	Intermittent concern exists.
	— PCM terminal 2BD voltage		Perform the "INTERMITTENT CONCERN TRANSPIRED TO A TO
	• Is there any malfunction?		TROUBLESHOOTING" procedure.
	(See PCM INSPECTION [SKYACTIV-G 2.0,		(See INTERMITTENT CONCERN TROUBLESHOOTING
5	SKYACTIV-G 2.5].) INSPECT STARTER INTERLOCK SWITCH	Yes	[SKYACTIV-G 2.0, SKYACTIV-G 2.5].) Repair or replace the connector and/or terminals, then go to
3	CONNECTOR CONDITION	165	Step 23.
	Switch the ignition off.	No	Go to the next step.
	Disconnect the starter interlock switch connector.	110	Go to the next step.
	Inspect for poor connection (such as damaged/		
	pulled-out pins, corrosion).		
	Is there any malfunction?		
6	INSPECT STARTER INTERLOCK SWITCH	Yes	Replace the starter interlock switch, then go to Step 23.
	Inspect the starter interlock switch. (See STARTER INTERLOCK SWITCH)	No	Go to the next step.
	(See STARTER INTERLOCK SWITCH INSPECTION [SKYACTIV-G 2.0, SKYACTIV-G		
	2.5].)		
	• Is there any malfunction?		
7	INSPECT STARTER INTERLOCK SWITCH	Yes	If the short to ground circuit could be detected in the wiring
	SIGNAL CIRCUIT FOR SHORT TO GROUND		harness:
	Verify that the starter interlock switch connector is		Repair or replace the wiring harness for a possible short to
	disconnected.		ground.
	Inspect for continuity between starter interlock switch terminal A (wiring harness-side) and body		If the short to ground circuit could not be detected in the wiring harness:
	ground.		Replace the PCM (short to ground in the PCM internal
	Is there continuity?		circuit).
			(See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0,
			SKYACTIV-G 2.5].) Go to Step 23.
		No	Go to step 25.
8	INSPECT PCM CONNECTOR CONDITION	Yes	Repair or replace the connector and/or terminals, then go to
	Disconnect the PCM connector.		Step 23.
	Inspect for poor connection (such as damaged/	No	Go to the next step.
	pulled-out pins, corrosion).		
	• Is there any malfunction?	V	Danis an analysis the second second second second
9	INSPECT CPP SWITCH CONNECTOR CONDITION	Yes	Repair or replace the connector and/or terminals, then go to Step 23.
	Switch the ignition off.	No	Go to the next step.
	Disconnect the CPP switch connector.		
	• Inspect for poor connection (such as damaged/		
	pulled-out pins, corrosion).		
	Is there any malfunction?		

STEP	INSPECTION		ACTION
10	INSPECT CPP SWITCH	Yes	Replace the CPP switch, then go to Step 23.
'0	Inspect the CPP switch.	103	(See CLUTCH PEDAL POSITION SWITCH REMOVAL/
	(See CLUTCH PEDAL POSITION (CPP)		INSTALLATION [C66M-R, C66MX-R].)
	SWITCH INSPECTION [SKYACTIV-G 2.0,	No	Go to the next step.
	SKYACTIV-G 2.5].)	110	Ou to the next step.
	• Is there any malfunction?		
11	INSPECT CPP SWITCH GROUND CIRCUIT FOR	Yes	Go to the next step.
	OPEN CIRCUIT	No	Repair or replace the wiring harness for a possible open
	Verify that the CPP switch connector is		circuit, then go to Step 23.
	disconnected.		3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
	 Inspect for continuity between CPP switch 		
	terminal B (wiring harness-side) and body ground.		
	Is there continuity?		
12	INSPECT CPP SWITCH SIGNAL CIRCUIT FOR	Yes	If the short to ground circuit could be detected in the wiring
	SHORT TO GROUND		harness:
	 Verify that the CPP switch connector is 		Repair or replace the wiring harness for a possible short to
	disconnected.		ground.
	Inspect for continuity between CPP switch		If the short to ground circuit could not be detected in the
	terminal A (wiring harness-side) and body ground.		wiring harness:
	Is there continuity?		Replace the PCM (short to ground in the PCM internal
			circuit).
			(See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0,
			SKYACTIV-G 2.5].)
			Go to Step 23.
		No	Go to the next step.
13	INSPECT PCM CONNECTOR CONDITION	Yes	Repair or replace the connector and/or terminals, then go to
	Disconnect the PCM connector.	NI-	Step 23.
	Inspect for poor connection (such as damaged/ pulled out pine correction)	No	Go to the next step.
	pulled-out pins, corrosion). • Is there any malfunction?		
14	INSPECT CPP SWITCH SIGNAL CIRCUIT FOR	Yes	Go to the next step.
14	SHORT TO POWER SUPPLY	No	Repair or replace the wiring harness for a possible short to
	Verify that the CPP switch and PCM connectors	110	power supply, then go to Step 23.
	are disconnected.		power suppry, then go to stop 20.
	Switch the ignition ON (engine off).		
	Measure the voltage at the CPP switch terminal A		
	(wiring harness-side).		
	• Is the voltage 0 V ?		
15	INSPECT CPP SWITCH SIGNAL CIRCUIT FOR	Yes	Repeat Step 4.
	OPEN CIRCUIT	No	Repair or replace the wiring harness for a possible open
	Verify that the CPP switch and PCM connectors		circuit, then go to Step 23.
	are disconnected.		
	Switch the ignition off.		
	Inspect for continuity between CPP switch		
	terminal A (wiring harness-side) and PCM		
	terminal 2J (wiring harness-side).		
	Is there continuity?		
16	INSPECT CLUTCH STROKE SENSOR	Yes	Repair or replace the connector and/or terminals, then go to
	CONNECTOR CONDITION	L.,	Step 23.
	Switch the ignition off.	No	Go to the next step.
	Disconnect the clutch stroke sensor connector.		
	Inspect for poor connection (such as damaged/		
	pulled-out pins, corrosion).		
	Is there any malfunction?		

CTED	INSPECTION		ACTION
STEP 17	INSPECTION INSPECT CLUTCH STROKE SENSOR CIRCUIT	Yes	ACTION If the short to ground circuit could be detected in the wiring
17	FOR SHORT TO GROUND	165	harness:
	Verify that the clutch stroke sensor connector is		Repair or replace the wiring harness for a possible short to
	disconnected.		ground.
	Inspect for continuity between the following		If the short to ground circuit could not be detected in the
	terminals (wiring harness-side) and body ground:		wiring harness:
	 Clutch stroke sensor terminal C 		Replace the PCM (short to ground in the PCM internal
	Clutch stroke sensor terminal B		circuit).
	Is there continuity?		(See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0,
			SKYACTIV-G 2.5].) Go to Step 23.
		No	Go to the next step.
18	INSPECT PCM CONNECTOR CONDITION	Yes	Repair or replace the connector and/or terminals, then go to
10	Disconnect the PCM connector.	103	Step 23.
	Inspect for poor connection (such as damaged/	No	Go to the next step.
	pulled-out pins, corrosion).		- Control of the cont
	Is there any malfunction?		
19	INSPECT CLUTCH STROKE SENSOR CIRCUIT	Yes	Go to the next step.
	FOR SHORT TO POWER SUPPLY	No	Repair or replace the wiring harness for a possible short to
	Verify that the clutch stroke sensor and PCM		power supply, then go to Step 23.
	connectors are disconnected.		
	Switch the ignition ON (engine off).Measure the voltage at the clutch stroke sensor		
	terminal B (wiring harness-side).		
	• Is the voltage 0 V ?		
20	INSPECT CLUTCH STROKE SENSOR CIRCUIT	Yes	Repair or replace the wiring harness for a possible short to
	FOR SHORT TO EACH OTHER		each other, then go to Step 23.
	Verify that the clutch stroke sensor and PCM	No	Go to the next step.
	connectors are disconnected.		
	Switch the ignition off.		
	• Inspect for continuity between clutch stroke sensor terminals C, B and A (wiring harness-side).		
	• Is there continuity?		
21	INSPECT CLUTCH STROKE SENSOR CIRCUIT	Yes	Go to the next step.
	FOR OPEN CIRCUIT	No	Repair or replace the wiring harness for a possible open
	Verify that the clutch stroke sensor and PCM		circuit, then go to Step 23.
	connectors are disconnected.		
	Inspect for continuity between the following		
	terminals (wiring harness-side):		
	Clutch stroke sensor terminal C—PCM terminal 2BG		
	Clutch stroke sensor terminal B—PCM		
	terminal 2M		
	Clutch stroke sensor terminal A—PCM		
	terminal 2AH		
	Is there continuity?		
22	INSPECT CLUTCH STROKE SENSOR	Yes	Replace the clutch master cylinder, then go to the next step.
	Inspect the clutch stroke sensor. (See CLUTCH STROKE SENSOR INSPECTION.)		(See CLUTCH MASTER CYLINDER REMOVAL/
	(See CLUTCH STROKE SENSOR INSPECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)	No	INSTALLATION [C66M-R, C66MX-R].)
	• Is there any malfunction?	No	Repeat Step 4.
23	VERIFY DTC TROUBLESHOOTING	Yes	Repeat the inspection from Step 1.
	COMPLETED	. 03	If the malfunction recurs, replace the PCM.
	Always reconnect all disconnected connectors.		(See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0,
	Clear the DTC from the PCM memory using the		SKYACTIV-G 2.5].)
	M-MDS.		Go to the next step.
	(See AFTER REPAIR PROCEDURE	No	Go to the next step.
	[SKYACTIV-G 2.0, SKYACTIV-G 2.5].)		
	Perform the KOEO or KOER self test.		
	(See KOEO/KOER SELF TEST [SKYACTIV-G		
	2.0, SKYACTIV-G 2.5].) • Is the same DTC present?		
	- 19 the same DTO present!		

STEP	INSPECTION		ACTION
24	VERIFY AFTER REPAIR PROCEDURE	Yes	Go to the applicable DTC inspection.
	Perform the "AFTER REPAIR PROCEDURE".		(See DTC TABLE [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
	(See AFTER REPAIR PROCEDURE	No	DTC troubleshooting completed.
	[SKYACTIV-G 2.0, SKYACTIV-G 2.5].)		
	Are any DTCs present?		