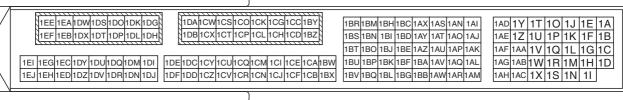
DTC P004D: 00	Wastegate solenoid valve control circuit high input				
DETECTION CONDITION	Diagnostic support note				
FAIL-SAFE FUNCTION	Inhibits engine-stop by operating the i-stop function. PCM restricts engine-transaxle integration control.				
POSSIBLE CAUSE	Wastegate solenoid valve connector or terminals malfunction PCM connector or terminals malfunction PcM connector or terminals malfunction Short to power supply in wiring harness between wastegate solenoid valve terminal B and PCM terminal 1CL.				
	RELAY INAL C (6) WASTEGATE SOLENOID VALVE (3) ENGINE 2 15 A (A) (A) (B) (1CL)				
	WASTEGATE SOLENOID VALVE WIRING HARNESS-SIDE CONNECTOR B A				

PCM WIRING HARNESS-SIDE CONNECTOR





Diagnostic Procedure

STEP	INSPECTION		ACTION
1	VERIFY FREEZE FRAME DATA (MODE 2)/	Yes	Go to the next step.
	SNAPSHOT DATA HAS BEEN RECORDED	No	Record the FREEZE FRAME DATA (Mode 2)/snapshot data
	 Has the FREEZE FRAME DATA (Mode 2)/ 		on the repair order, then go to the next step.
	snapshot data been recorded?		
2	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
3	INSPECT WASTEGATE SOLENOID VALVE	Yes	Repair or replace the connector and/or terminals, then go to
	CONNECTOR CONDITION		Step 7.
	Switch the ignition off.	No	Go to the next step.
	Disconnect the wastegate solenoid valve		
	connector.		
	Inspect for poor connection (such as damaged/		
	pulled-out pins, corrosion).		
	Is there any malfunction?		
4	INSPECT PCM CONNECTOR CONDITION	Yes	Repair or replace the connector and/or terminals, then go to
	Disconnect the PCM connector.		Step 7.
	Inspect for poor connection (such as damaged/	No	Go to the next step.
	pulled-out pins, corrosion).		
	Is there any malfunction?		
5	INSPECT WASTEGATE SOLENOID VALVE	Yes	
	CONTROL CIRCUIT FOR SHORT TO POWER	No	Repair or replace the wiring harness for a possible short to
	SUPPLY		power supply, then go to Step 7.
	Verify that the wastegate solenoid valve and PCM		
	connectors are disconnected.		
	• Switch the ignition ON (engine off).		
	Measure the voltage at the wastegate solenoid valve terminal B (wiring borness side)		
	valve terminal B (wiring harness-side). • Is the voltage 0 V ?		
6	INSPECT WASTEGATE SOLENOID VALVE	Yes	Replace the wastegate solenoid valve, then go to the next
6	Inspect the wastegate solenoid valve.	165	step.
	(See WASTEGATE SOLENOID VALVE		(See WASTEGATE SOLENOID VALVE REMOVAL/
	INSPECTION [SKYACTIV-D 2.2].)		INSTALLATION [SKYACTIV-D 2.2].)
	• Is there any malfunction?	No	Go to the next step.
7	VERIFY DTC TROUBLESHOOTING	Yes	Repeat the inspection from Step 1.
'	COMPLETED		If the malfunction recurs, replace the PCM.
	Always reconnect all disconnected connectors.		(See PCM REMOVAL/INSTALLATION [SKYACTIV-D
	Clear the DTC from the PCM memory using the		2.2].)
	M-MDS.		Go to the next step.
	(See AFTER REPAIR PROCEDURE	No	Go to the next step.
	[SKYACTIV-D 2.2].)		·
	Perform the KOEO or KOER self test.		
	(See KOEO/KOER SELF TEST [SKYACTIV-D		
	2.2].)		
	Is the same DTC present?		
8	VERIFY AFTER REPAIR PROCEDURE	Yes	Go to the applicable DTC inspection.
	Perform the "AFTER REPAIR PROCEDURE".		(See DTC TABLE [SKYACTIV-D 2.2].)
	(See AFTER REPAIR PROCEDURE	No	DTC troubleshooting completed.
	[SKYACTIV-D 2.2].)		
	Are any DTCs present?		