DTC B10FD:11/B10FD:13/B10FD:87/B10FD:96

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0	B10FD:11: Driver-side side air bag sensor No.1 circuit short to body ground or power supply				
System	• B10FD:13: Driver side side air had sensor No 1 circuit open circuit or resistance high				
• B10FD:87: Signal reception error from driver-side side air bag sensor No.1					
B10FD:96: Driver-side side air bag sensor No.1 internal malfunction					
Detection condition	inspection procedure				
Fail-safe	_				
Possible cause	Driver-side side air bag sensor No.1 connector malfunction Short circuit to power supply or body ground in the wiring harness between the driver-side side air bag sensor No.1 and SAS control module Open circuit in the wiring harness between the driver-side side air bag sensor No.1 and SAS control module Driver-side side air bag sensor No.1 malfunction SAS control module malfunction				
	SAS CONTROL DRIVER-SIDE SIDE AIR BAG SENSOR NO.1 TWISTED PAIR				
_	AS CONTROL MODULE WIRING DRIVER-SIDE SIDE AIR BAG SENSOR NO.1 HARNESS-SIDE CONNECTOR WIRING HARNESS-SIDE CONNECTOR				
1V 1S					

Diagnostic Procedure

Step	Inspection		Action
1	INSPECT DRIVER-SIDE SIDE AIR BAG	Yes	Replace the malfunctioning part, then go to Step 5.
	SENSOR NO.1 CONNECTOR	No	Go to the next step.
	Warning • Handling the component parts improperly can accidentally operate (deploy) the air bag module, which may seriously injure you. Read the service warnings/cautions and the workshop manual before handling the air bag system components. (See AIR BAG SYSTEM SERVICE WARNINGS.) (See AIR BAG SYSTEM SERVICE CAUTIONS.)		
	 Switch the ignition to off. Disconnect the negative battery cable and wait for 1 min or more. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) Remove the driver-side B-pillar lower trim. (See B-PILLAR LOWER TRIM REMOVAL/INSTALLATION.) Disconnect the driver-side side air bag sensor No.1 connector. (See SIDE AIR BAG SENSOR NO. 1 REMOVAL/INSTALLATION.) Inspect the driver-side side air bag sensor No.1 connector. (Corrosion, damage, and disconnected pins) Is there any malfunction of the driver-side side air bag sensor No.1 connector? 		

Step	Inspection		Action
2	INSPECT DRIVER-SIDE SIDE AIR BAG	Yes	Replace the wiring harness for a possible short to ground,
	SENSOR NO.1 CIRCUIT FOR SHORT TO		then go to Step 5.
	GROUND	No	Go to the next step.
	Remove the column cover. (See COLUMN		·
	COVER REMOVAL/INSTALLATION.)		
	Disconnect the clock spring connector. (See		
	CLOCK SPRING REMOVAL/INSTALLATION.)		
	Remove the glove compartment. (See GLOVE)		
	COMPARTMENT REMOVAL/		
	INSTALLATION.)		
	Disconnect the passenger-side air bag module		
	connector. (See PASSENGER-SIDE AIR BAG		
	MODULE REMOVAL/INSTALLATION.)		
	Disconnect the driver and passenger-side front		
	seat connector. (See FRONT SEAT		
	REMOVAL/INSTALLATION.)		
	Remove the headliner. (See HEADLINER PENOVAL (NICTALL ATION)		
	REMOVAL/INSTALLATION.)		
	Disconnect the driver and passenger-side surfair air has module connector. (See		
	curtain air bag module connector. (See CURTAIN AIR BAG MODULE REMOVAL/		
	INSTALLATION.)		
	• Remove the B-pillar lower trim. (See B-PILLAR		
	LOWER TRIM REMOVAL/INSTALLATION.)		
	Disconnect the driver and passenger-side pre-		
	tensioner seat belt connector. (See FRONT		
	SEAT BELT REMOVAL/INSTALLATION.)		
	Remove the rear console. (See REAR		
	CONSOLE REMOVAL/INSTALLATION.)		
	Disconnect the all SAS control module		
	connectors. (See SAS CONTROL MODULE		
	REMOVAL/INSTALLATION.)		
	Inspect for continuity between the following		
	terminals (wiring harness-side) and body		
	ground:		
	SAS control module terminal 10		
	SAS control module terminal 1N		
	Note		
	Inspect for continuity while shaking the		
	wiring harness between the SAS control		
	module and driver-side side air bag sensor		
	No.1.		
	La thorac continuity 2		
	Is there continuity?		

SINSPECT DRIVER-SIDE SIDE AIR BAG SENSOR NO.1 CIRCUIT FOR OPEN CIRCUIT Driver-side side air bag sensor No.1 and SAS control module connectors are disconnected. Inspect for continuity between the following terminals (wiring harness-side): Driver-side side air bag sensor No.1 terminal A—SAS control module terminal 10 Driver-side side air bag sensor No. 1 terminal B—SAS control module terminal 1N Note Inspect for continuity while shaking the wiring harness between the SAS control module and driver-side side air bag sensor No.1. Is there continuity? INSPECT DRIVER-SIDE SIDE AIR BAG SENSOR No.1 CIRCUIT FOR SHORT TO POWER SUPPLY Driver-side side air bag sensor No.1 and SAS control module connectors are disconnected. Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION) (SKYACTIV-G 2.0, SKYACTIV-G 2.5).) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION (SKYACTIV-G 2.2).) Switch the ignition ON (engine off or on). Measure the voltage at the following terminals (wiring harness-side): — SAS control module terminal 10 — Measure the voltage while shaking the wiring harness between the SAS control module and driver-side side air bag sensor No.1.	Step	Inspection		Action
Driver-side side air bag sensor No.1 and SAS control module connectors are disconnected. Inspect for continuity between the following terminals (wiring harness-side): Driver-side side air bag sensor No.1 terminal 10 Driver-side side air bag sensor No. 1 terminal B—SAS control module terminal 1N Note Inspect for continuity while shaking the wiring harness between the SAS control module and driver-side side air bag sensor No.1. Is there continuity? INSPECT DRIVER-SIDE SIDE AIR BAG SENSOR NO.1 CIRCUIT FOR SHORT TO POWER SUPPLY Driver-side side air bag sensor No.1 and SAS control module connectors are disconnected. Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION) (SKYACTIV-D 2.2].) Switch the ignition ON (engine of or on). Measure the voltage at the following terminals (wiring harness-side): SAS control module terminal 10 Mote Measure the voltage while shaking the wiring harness between the SAS control module and driver-side side air bag sensor No.1. then go to the next step. (See SIDE AIR BAG SENSOR NO.1 REMOVAL/INSTALLATION.) No substance the driver-side side air bag sensor No.1, then go to the next step. (See SIDE AIR BAG SENSOR NO.1 REMOVAL/INSTALLATION.) No substance the driver-side side air bag sensor No.1, then go to the next step. (See SIDE AIR BAG SENSOR NO.1 REMOVAL/INSTALLATION.) No substance the driver-side side air bag sensor No.1, then go to the next step. (See SIDE AIR BAG SENSOR NO.1 REMOVAL/INSTALLATION.) No substance the driver-side side air bag sensor No.1, then go to the next step. (See SIDE AIR BAG SENSOR NO.1 REMOVAL/INSTALLATION.) No substance the driver-side side air bag sensor No.1, then go to the next step. (See SIDE AIR BAG SENSOR NO.1 REMOVAL			Yes	Go to the next step.
Inspect for continuity while shaking the wiring harness between the SAS control module and driver-side side air bag sensor No.1. Is there continuity? INSPECT DRIVER-SIDE SIDE AIR BAG SENSOR NO.1 CIRCUIT FOR SHORT TO POWER SUPPLY Driver-side side air bag sensor No.1 and SAS control module connectors are disconnected. Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION) [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION) [SKYACTIV-D 2.2].) Switch the ignition ON (engine off or on). Measure the voltage at the following terminals (wiring harness-side): — SAS control module terminal 10 — SAS control module terminal 1N Note Measure the voltage while shaking the wiring harness between the SAS control module and driver-side side air bag sensor No.1, then go to the next step. (See SIDE AIR BAG SENSOR NO. 1 REMOVAL/INSTALLATION.) No Replace the driver-side side air bag sensor No.1, then go to the next step. (See SIDE AIR BAG SENSOR NO. 1 REMOVAL/INSTALLATION.) No Replace the driver-side side air bag sensor No.1, then go to the next step. (See SIDE AIR BAG SENSOR NO. 1 REMOVAL/INSTALLATION.) No Replace the wiring harness for a possible short to power supply, then go to the next step.		Driver-side side air bag sensor No.1 and SAS control module connectors are disconnected. Inspect for continuity between the following terminals (wiring harness-side): Driver-side side air bag sensor No.1 terminal A—SAS control module terminal 10 Driver-side side air bag sensor No. 1terminal B—SAS control module terminal	No	Replace the wiring harness for a possible open circuit, then go to Step 5.
4 INSPECT DRIVER-SIDE AIR BAG SENSOR NO.1 CIRCUIT FOR SHORT TO POWER SUPPLY • Driver-side side air bag sensor No.1 and SAS control module connectors are disconnected. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) • Switch the ignition ON (engine off or on). • Measure the voltage at the following terminals (wiring harness-side): — SAS control module terminal 1N Note • Measure the voltage while shaking the wiring harness between the SAS control module and driver-side side air bag sensor No.1, then go to the next step. (See SIDE AIR BAG SENSOR NO. 1 REMOVAL/INSTALLATION.) No Replace the driver-side side air bag sensor No.1, then go to the next step. (See SIDE AIR BAG SENSOR NO. 1 REMOVAL/INSTALLATION.) No Replace the driver-side side air bag sensor No.1, then go to the next step. (See SIDE AIR BAG SENSOR NO. 1 REMOVAL/INSTALLATION.) No Replace the driver-side side air bag sensor No.1, then go to the next step. (See SIDE AIR BAG SENSOR NO. 1 REMOVAL/INSTALLATION.) No Replace the driver-side side air bag sensor No.1, then go to the next step. (See SIDE AIR BAG SENSOR NO. 1 REMOVAL/INSTALLATION.) No Replace the driver-side side air bag sensor No.1, then go to the next step. (See SIDE AIR BAG SENSOR NO. 1 REMOVAL/INSTALLATION.) No the next step. (See SIDE AIR BAG SENSOR NO. 1 REMOVAL/INSTALLATION.) No the next step. (See SIDE AIR BAG SENSOR NO. 1 REMOVAL/INSTALLATION.) No the next step. (See SIDE AIR BAG SENSOR NO. 1 REMOVAL/INSTALLATION.) No the next step. (See SIDE AIR BATTERY CABLE DISCONNECTION.		 Inspect for continuity while shaking the wiring harness between the SAS control module and driver-side side air bag sensor No.1. 		
SENSOR NO.1 CIRCUIT FOR SHORT TO POWER SUPPLY • Driver-side side air bag sensor No.1 and SAS control module connectors are disconnected. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) • Switch the ignition ON (engine off or on). • Measure the voltage at the following terminals (wiring harness-side): — SAS control module terminal 10 — SAS control module terminal 1N Note • Measure the voltage while shaking the wiring harness between the SAS control module and driver-side side air bag sensor		·		
control module connectors are disconnected. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) • Switch the ignition ON (engine off or on). • Measure the voltage at the following terminals (wiring harness-side): — SAS control module terminal 10 — SAS control module terminal 1N Note • Measure the voltage while shaking the wiring harness between the SAS control module and driver-side side air bag sensor	4	SENSOR NO.1 CIRCUIT FOR SHORT TO POWER SUPPLY		to the next step. (See SIDE AIR BAG SENSOR NO. 1 REMOVAL/INSTALLATION.)
		control module connectors are disconnected. Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) Switch the ignition ON (engine off or on). Measure the voltage at the following terminals (wiring harness-side): — SAS control module terminal 10 — SAS control module terminal 1N Note Measure the voltage while shaking the wiring harness between the SAS control module and driver-side side air bag sensor No.1.	NO	
• Is the voltage 0V ?		• Is the voltage 0V ?		
		 Measure the voltage while shaking the wiring harness between the SAS control module and driver-side side air bag sensor 		

Step	Inspection		Action
5 5	PERFORM SAS CONTROL MODULE DTC	Yes	Replace the SAS control module. (See SAS CONTROL
	INSPECTION	103	MODULE REMOVAL/INSTALLATION.)
	Switch the ignition to off.	No	DTC troubleshooting completed.
	Disconnect the negative battery cable and wait	110	b to troubled flooting completed.
	for 1min or more .		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0, SKYACTIV-G 2.5].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0, SKYACTIV-G 2.5		
	(WITHOUT i-stop)].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	Connect the SAS control module connectors.		
	Reconnect all disconnected connectors.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0, SKYACTIV-G 2.5].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0, SKYACTIV-G 2.5		
	(WITHOUT i-stop)].)		
	(See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].) • Switch the ignition ON (engine off or on).		
	Clear the DTC for the SAS control module using		
	the M-MDS. (See CLEARING DTC.)		
	Perform the DTC inspection for the SAS control		
	module using the M-MDS. (See DTC		
	INSPECTION.)		
	Are the same DTCs present?		