## DTC B109A:14 [FRONT BODY CONTROL MODULE (FBCM)]

id0902p2007300

System malfunction location	Headlight HI relay circuit malfunction					
Detection condition	• The front body control module (FBCM) detects an open or short to ground in the headlight HI relay circuit with the ignition switched ON (engine off or on).					
Fail-safe	_					
Possible cause	(FBCM) terminal 2X	adlight HI relay terminal E and front body control module  nt HI relay terminal E and front body control module (FBCM)				
BATTERY	HEADLIGHT HI RELA					
7//	MAIN 200 A H/L HI 20 A A E	FBCM  (2X)				
	HEADLIGHT HI RELAY (RELAY AND FUSE BLOCK)	FBCM WIRING HARNESS-SIDE CONNECTOR				
		2Y 2W 2U 2S 2Q 2O 2M 2K 2I 2G 2E 2C 2A 3 2Z 2X 2V 2T 2R 2P 2N 2L 2J 2H 2F 2D 2B				

Diagnostic Procedure

Step	Inspection		Action
1	VERIFY FRONT BODY CONTROL MODULE	Yes	Go to the next step.
	(FBCM) DTCs AGAIN	No	Go to Step 7.
	Clear front body control module (FBCM) DTCs		
	using the M-MDS.		
	(See CLEARING DTC [FRONT BODY		
	CONTROL MODULE (FBCM)].)		
	<ul> <li>Switch the ignition ON (engine off or on).</li> </ul>		
	• Perform the front body control module (FBCM)		
	DTC inspection using the M-MDS.		
	(See DTC INSPECTION [FRONT BODY		
	CONTROL MODULE (FBCM)].)		
	Is DTC B109A:14 displayed?		

Step	p Inspection		Action	
2	INSPECT HEADLIGHT HI RELAY FOR		Yes Go to the next step.	
	MALFUNCTION	No	Replace the headlight HI relay, then go to Step 6.	
	Switch the ignition to off.		3	
	Disconnect 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].)			
	Remove the headlight HI relay.			
	Inspect the headlight HI relay.			
	(See RELAY INSPECTION.)			
	• Is the headlight HI relay normal?			
3	INSPECT FRONT BODY CONTROL MODULE	Yes	Go to the next step.	
	(FBCM) CONNECTOR CONDITION	No	Repair or replace the connector, then go to Step 6.	
	Disconnect the front body control module		Tropali or replace the delinicator, then go to etop or	
	(FBCM) connector.			
	Inspect the connector engagement and			
	connection condition and inspect the terminals			
	for damage, deformation, corrosion, or			
	disconnection.			
	Is the connector normal?			
4	INSPECT HEADLIGHT HI RELAY CONTROL	Yes	Repair or replace the wiring harness, then go to Step 6.	
	CIRCUIT FOR SHORT TO GROUND	No	Go to the next step.	
	Verify that the headlight HI relay is removed.		·	
	Verify that the front body control module			
	(FBCM) connector is disconnected.			
	Inspect for continuity between front body control			
	module (FBCM) terminal 2X (vehicle wiring			
	harness side) and body ground.			
	Is there continuity?			
5	INSPECT HEADLIGHT HI RELAY CONTROL	Yes	Go to the next step.	
	CIRCUIT FOR OPEN CIRCUIT	No	Repair or replace the wiring harness and go to the next	
	Verify that the headlight HI relay is removed.		step.	
	Verify that the front body control module			
	(FBCM) connector is disconnected.			
	Inspect the wiring harness for continuity			
	between headlight HI relay terminal E (vehicle			
	wiring harness side) and front body control			
	module (FBCM) terminal 2X (vehicle wiring			
	harness side).			
	Is there continuity?			

Step	Inspection		Action
6	VERIFY THAT REPAIRS HAVE BEEN     COMPLETED     Reconnect all the disconnected connectors.     Reconnect the disconnected negative battery cable.	Yes	Repeat the inspection from Step 1.  • If the malfunction recurs, replace the front body control module (FBCM), then go to the next step.  (See FRONT BODY CONTROL MODULE (FBCM) REMOVAL/INSTALLATION.)
	(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].)  • Clear front body control module (FBCM) DTCs using the M-MDS. (See CLEARING DTC [FRONT BODY CONTROL MODULE (FBCM)].)  • Switch the ignition ON (engine off or on).  • Operate the light switch in OFF position.  • Perform the front body control module (FBCM) DTC inspection using the M-MDS. (See DTC INSPECTION [FRONT BODY CONTROL MODULE (FBCM)].)  • Is DTC B109A:14 displayed?	No	Go to the next step.
7	• Are any other DTCs displayed?	Yes	Repair the malfunctioning part according to the applicable DTC troubleshooting. (See DTC TABLE [FRONT BODY CONTROL MODULE (FBCM)].) DTC troubleshooting completed.