DTC B10A8:12 [FRONT BODY CONTROL MODULE (FBCM)]

id0902p2007400

System malfunction location	Headlight LO relay circuit malfunction			
Detection	• The front body control module (FBCM) detects a short to power supply in the headlight LO relay circuit			
condition	with the ignition switched ON (engine off or on).			
Fail-safe	_			
Possible cause	 Headlight LO relay malfunction Front body control module (FBCM) connector or terminal malfunction Short to power supply in the wiring harness between headlight LO relay terminal A and front body control module (FBCM) terminal 1M Front body control module (FBCM) malfunction 			
BATTE	HEADLIGHT LO RELAY B MAIN 200 A E MAIN 200 A			
<i>711</i>	HEADLIGHT LO RELAY FBCM (RELAY AND FUSE BLOCK) WIRING HARNESS-SIDE CONNECTOR			
	B C D FRONT IS 1Q 10 1M 1K 1I 1G 1E 1C 1A 1T 1R 1P 1L 1J 1F 1D 1B			

Diagnostic Procedure

Step	Inspection		Action	
1	VERIFY FRONT BODY CONTROL MODULE	Yes	Go to the next step.	
	(FBCM) DTCs AGAIN	No	Go to Step 6.	
	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). Perform the front body control module (FBCM) DTC inspection using the M-MDS. (See DTC INSPECTION [FRONT BODY CONTROL MODULE (FBCM)].) Is DTC B10A8:12 displayed?		•	

Step	Inspection		Action	
2	INSPECT HEADLIGHT LO RELAY FOR	Yes	Go to the next step.	
	MALFUNCTION	No	Replace the headlight LO relay, then go to Step 5.	
	Switch the ignition to off.			
	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 LO relay.			
	Inspect the headlight LO relay.			
	(See RELAY INSPECTION.)			
	• Is the headlight LO 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 5.	
	Disconnect the front body control module	''	Tropan of replace the connector, then go to ctop o.	
	(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 LO RELAY CONTROL	Yes	Go to the next step.	
	CIRCUIT FOR SHORT TO POWER SUPPLY	No	Repair or replace the wiring harness and go to the next	
	Verify that the headlight LO relay is removed.		step.	
	Verify that the front body control module			
	(FBCM) connector is 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 front body control			
	module (FBCM) terminal 1M (vehicle wiring			
	harness side).			
	• Is the voltage 0 V ?			
	io the voltage v v:			

04			
	•		11001011
Step 5	Inspection VERIFY THAT REPAIRS HAVE BEEN COMPLETED • Reconnect all the disconnected connectors. • Reconnect the disconnected 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].) • Clear front body control module (FBCM) DTCs using the M-MDS. (See CLEARING DTC [FRONT BODY CONTROL MODULE (FBCM)].)	Yes	Action 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.) Go to the next step.
6	Switch the ignition ON (engine off or on). Perform the front body control module (FBCM) DTC inspection using the M-MDS. (See DTC INSPECTION [FRONT BODY CONTROL MODULE (FBCM)].) Is DTC B10A8:12 displayed? VERIFY IF OTHER DTCs DISPLAYED Are any other DTCs displayed?	Yes	Repair the malfunctioning part according to the applicable DTC troubleshooting. (See DTC TABLE [FRONT BODY CONTROL MODULE (FBCM)].)
		No	727
		No	DTC troubleshooting completed.