DTC B141E:12 [FRONT BODY CONTROL MODULE (FBCM)]

id0902p2008900

System malfunction location	Headlight LO relay (LH) circuit malfunction				
Detection	• The front body control module (FBCM) detects a short to power supply in the headlight LO relay (LH)				
condition	circuit with the ignition switched ON (engine off or on).				
Fail-safe	_				
Possible cause	 Headlight LO relay (LH) malfunction Front body control module (FBCM) connector or terminal malfunction Short to power supply in the wiring harness between headlight LO relay (LH) terminal A and front body control module (FBCM) terminal 1M Front body control module (FBCM) malfunction 				
BATTERY HEADLIGHT LO RELAY (LH)					
	MAIN 200 A E MAIN 200 A W THE STATE OF T				
777	HEADLIGHT LO RELAY (LH) (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 B141E:12 displayed?		'	

Step Inspection Action INSPECT HEADLIGHT LO RELAY (LH) FOR MALFUNCTION 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].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].)	go to Step 5.
MALFUNCTION • 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].)	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].)	go to Otop o.
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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].)	
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DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].)	
[SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].)	
(WITHOUT i-stop)].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].)	
(See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].)	
DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].)	
[SKYACTIV-D 2.2].)	
Demonstration to a self-self to content (LLI)	
• Remove the headlight LO relay (LH).	
• Inspect the headlight LO relay (LH).	
(See RELAY INSPECTION.)	
Is the headlight LO relay (LH) 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	
(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 (LH) Yes Go to the next step.	
CONTROL CIRCUIT FOR SHORT TO POWER No Repair or replace the wiring harness and go	o to the next
SUPPLY step.	
Verify that the headlight LO relay (LH) is	
removed.	
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 ?	

Step	Inspection		Action
5	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 HEAD position. • Perform the front body control module (FBCM) DTC inspection using the M-MDS. (See DTC INSPECTION [FRONT BODY CONTROL MODULE (FBCM)].) • Is DTC B141E:12 displayed?	No	Go to the next step.
6	• 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.