DTC B13FE:14 [FRONT BODY CONTROL MODULE (FBCM)]

id0902p2009000

| System malfunction location | Headlight LO relay (RH) circuit malfunction | | | | | |
|-----------------------------|--|--|--|--|--|--|
| Detection | • The front body control module (FBCM) detects an open or short circuit to ground in the headlight LO relay | | | | | |
| condition | (RH) circuit with the ignition switched ON (engine off or on). | | | | | |
| Fail-safe | _ | | | | | |
| Possible cause | Headlight LO relay (RH) malfunction Front body control module (FBCM) connector or terminal malfunction Short to ground in the wiring harness between headlight LO relay (RH) terminal E and front body control module (FBCM) terminal 2V Open circuit in the wiring harness between headlight LO relay (RH) terminal E and front body control module (FBCM) terminal 2V Front body control module (FBCM) malfunction | | | | | |
| BATTERY | HEADLIGHT LO RELAY (RH) | | | | | |
| ⊕ ⊕ | MAIN 200 A HID R 15 A A WE | | | | | |
| | HEADLIGHT LO RELAY (RH) FBCM (RELAY AND FUSE BLOCK) WIRING HARNESS-SIDE CONNECTOR | | | | | |
| | C FRONT | | | | | |
| | | | | | | |

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)].) | | | |
| | 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 B13FE:14 displayed? | | | |

| 2 INSPECT HEADLIGHT LO RELAY (RH) 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].) | then go to Step 6. |
|--|--------------------|
| 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 | then go to Step 6. |
| 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].) | Ç . |
| (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-G 2.0, SKYACTIV-G 2.5 | |
| DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 | |
| [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 | |
| DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 | |
| [SKYACTIV-G 2.0, SKYACTIV-G 2.5 | |
| | |
| | |
| (See NEGATIVE BATTERY CABLE | |
| DISCONNECTION/CONNECTION | |
| [SKYACTIV-D 2.2].) | |
| • Remove the headlight LO relay (RH). | |
| • Inspect the headlight LO relay (RH). | |
| (See RELAY INSPECTION.) | |
| • Is the headlight LO relay (RH) 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 | go to otop 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 (RH) Yes Repair or replace the wiring harness, | then go to Step 6. |
| CONTROL CIRCUIT FOR SHORT TO GROUND No Go to the next step. | |
| Verify that the headlight LO relay (RH) is | |
| removed. | |
| Verify that the front body control module | |
| (FBCM) connector is disconnected. | |
| Inspect for continuity between front body control | |
| module (FBCM) terminal 2V (vehicle wiring | |
| harness side) and body ground. | |
| • Is there continuity? | |
| 5 INSPECT HEADLIGHT LO RELAY (RH) Yes Go to the next step. | |
| CONTROL CIRCUIT FOR OPEN CIRCUIT No Repair or replace the wiring harness a | and go to the next |
| Verify that the headlight LO relay (RH) is step. | |
| removed. | |
| Verify that the front body control module | |
| (FBCM) connector is disconnected. | |
| Inspect the wiring harness for continuity | |
| between headlight LO relay (RH) terminal E | |
| (vehicle wiring harness side) and front body | |
| control module (FBCM) terminal 2V (vehicle | |
| wiring harness side). | |
| Is there continuity? | |

| Step | Inspection | | Action |
|-----------|--|-----|---|
| Step 6 | 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)].) 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)].) | 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. |
| | • Is DTC B13FE:14 displayed? | | |
| 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. |