Headlight Relay Circuit

DESCRIPTION
The headlight dimmer switch sends a signal to the main body ECU.

WIRING DIAGRAM

w/o Daytime running light system:

[DIAGRAM]

w/ Daytime running light system:

[DIAGRAM]

INSPECTION PROCEDURE

1. PERFORM ACTIVE TEST BY INTELLIGENT TESTER (HEAD LIGHT)

(a) Connect the intelligent tester with CAN VIM to the DLC3.
(b) Turn the ignition switch ON.
(c) Turn the intelligent tester main switch on.
(d) Select the item below in the ACTIVE TEST and then check the relay operation.

<table>
<thead>
<tr>
<th>Item</th>
<th>Test Details</th>
<th>Diagnostic Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEAD LIGHT</td>
<td>Headlight relay ON / OFF</td>
<td>-</td>
</tr>
</tbody>
</table>
OK:
Headlight assembly (low) illuminates.

OK
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

NG

2 INSPECT HEADLIGHT RELAY

(a) Remove the HEAD relay from the engine room R/B No. 2.
(b) Measure the resistance.
Standard resistance

<table>
<thead>
<tr>
<th>Tester connection</th>
<th>Specified Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 - 5</td>
<td>10 kΩ or higher</td>
</tr>
<tr>
<td>3 - 5</td>
<td>Below 1 Ω (When battery voltage is applied between terminals 1 and 2)</td>
</tr>
</tbody>
</table>
(c) Reinstall the HEAD relay.

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REPLACE HEADLIGHT RELAY

OK

3 CHECK HARNESS AND CONNECTOR (BATTERY - HEADLIGHT RELAY)

(a) Remove the HEAD relay from the engine room R/B No. 2.
(b) Measure the voltage.
Standard voltage

<table>
<thead>
<tr>
<th>Tester connection</th>
<th>Condition</th>
<th>Specified Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEAD relay terminal 1 -</td>
<td>Always</td>
<td>11 to 14 V</td>
</tr>
<tr>
<td>Body ground</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(c) Reinstall the HEAD relay.

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REPAIR OR REPLACE HARNESS OR CONNECTOR

OK
4  CHECK HARNESS AND CONNECTOR (HEADLIGHT RELAY - MAIN BODY ECU)

(a) Remove the HEAD relay from the engine room R/B No. 2.
(b) Disconnect the 1B main body ECU connector.
(c) Measure the resistance.
   **Standard resistance**

<table>
<thead>
<tr>
<th>Tester connection</th>
<th>Specified Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEAD relay terminal 2 - 1B-8 (HRLY)</td>
<td>Below 1 Ω</td>
</tr>
<tr>
<td>HEAD relay terminal 2 or 1B-8 (HRLY) - Body ground</td>
<td>10 kΩ or higher</td>
</tr>
</tbody>
</table>

(d) Reinstall the HEAD relay.
(e) Reconnect the main body ECU connector.

NG  REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE