

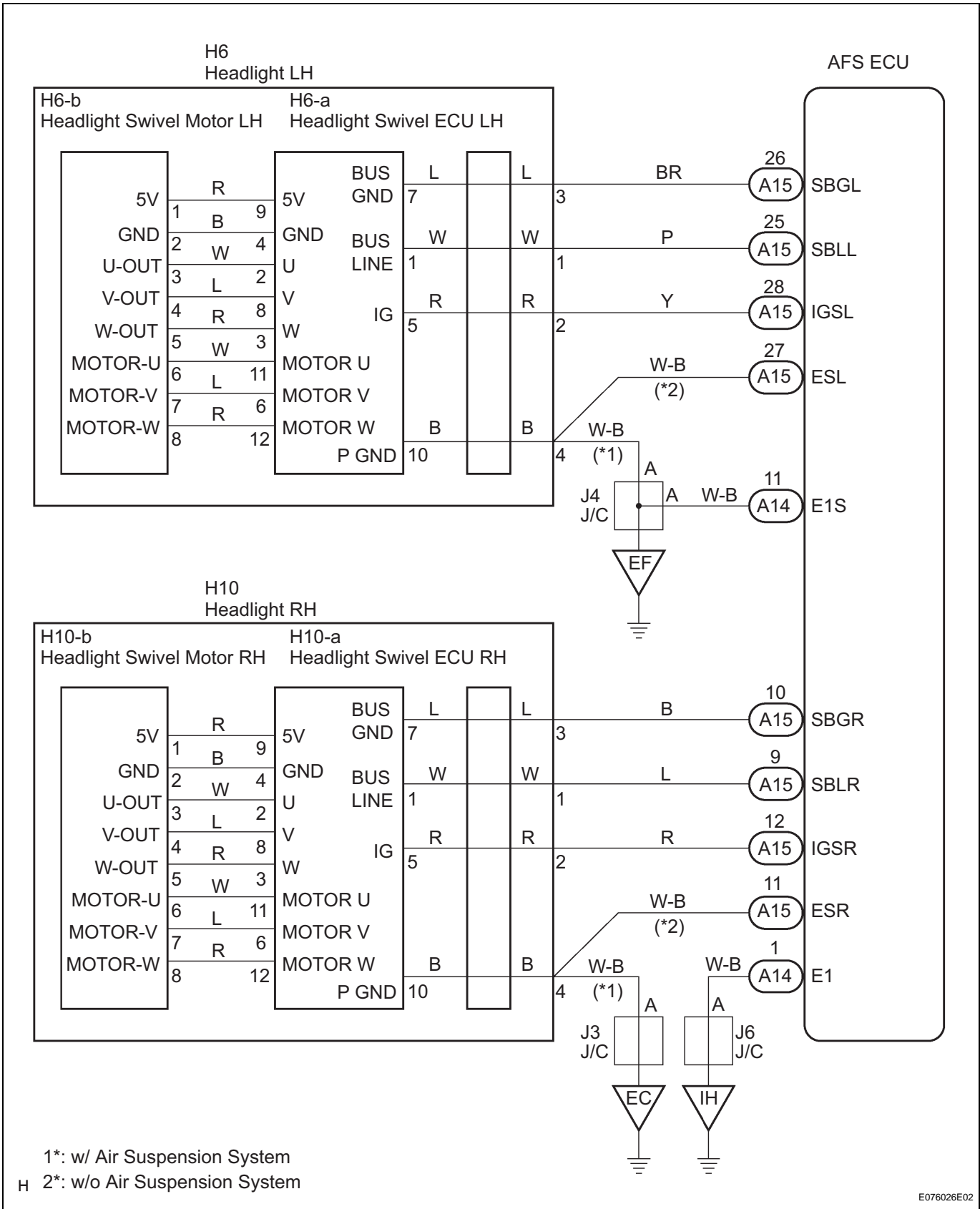
<b>DTC</b>	<b>B2412</b>	<b>Headlight Swivel Motor LH Malfunction</b>
<b>DTC</b>	<b>B2413</b>	<b>Headlight Swivel Motor RH Malfunction</b>

### DESCRIPTION

The swivel actuator receives the signal from the AFS ECU via the headlight swivel ECU to operate and sends the signal regarding direction of the headlight and condition of the headlight swivel motor to the headlight swivel ECU.

<b>DTC No.</b>	<b>DTC Detecting Condition</b>	<b>Trouble Area</b>
B2412	<ul style="list-style-type: none"> <li>• Malfunction of headlight swivel motor LH</li> <li>• Open or short in headlight swivel motor LH circuit</li> </ul>	<ul style="list-style-type: none"> <li>• Headlight swivel motor LH</li> <li>• Headlight swivel ECU LH</li> <li>• Harness or connector</li> <li>• AFS ECU</li> </ul>
B2413	<ul style="list-style-type: none"> <li>• Malfunction of headlight swivel motor RH</li> <li>• Open or short in headlight swivel motor RH circuit</li> </ul>	<ul style="list-style-type: none"> <li>• Headlight swivel motor RH</li> <li>• Headlight swivel ECU RH</li> <li>• Harness or connector</li> <li>• AFS ECU</li> </ul>

WIRING DIAGRAM

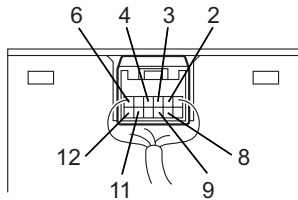


**1 CHECK HARNESS AND CONNECTOR (HEADLIGHT SWIVEL ECU - HEADLIGHT SWIVEL MOTOR)**

Wire Harness View:

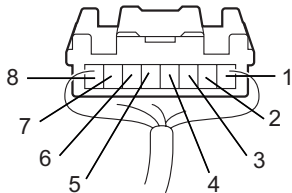
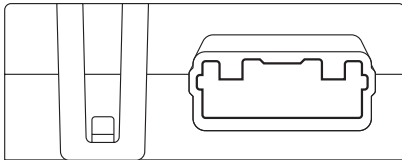
(H6-a) Headlight Swivel ECU LH

(H10-a) Headlight Swivel ECU RH



(H6-b) Headlight Swivel Motor LH

(H10-b) Headlight Swivel Motor RH



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- (a) Disconnect the headlight swivel ECU connector and headlight swivel motor connector.
- (b) Measure the resistance according to the value(s) in the table below.

**Resistance:  
LH Side (B2412)**

Tester connection	Condition	Specified condition
U (H6-a-2) - U-OUT (H6-b-3)	Always	Below 1 Ω
W (H6-a-3) - W-OUT (H6-b-5)	Always	Below 1 Ω
GND (H6-a-4) - GND (H6-b-2)	Always	Below 1 Ω
MOTOR V (H6-a-6) - MOTOR-V (H6-b-7)	Always	Below 1 Ω
V (H6-a-8) - V-OUT (H6-b-4)	Always	Below 1 Ω
5V (H6-a-9) - 5V (H6-b-1)	Always	Below 1 Ω
MOTOR U (H6-a-11) - MOTOR-U (H6-b-6)	Always	Below 1 Ω
MOTOR W (H6-a-12) - MOTOR-W (H6-b-8)	Always	Below 1 Ω

**RH Side (B2413)**

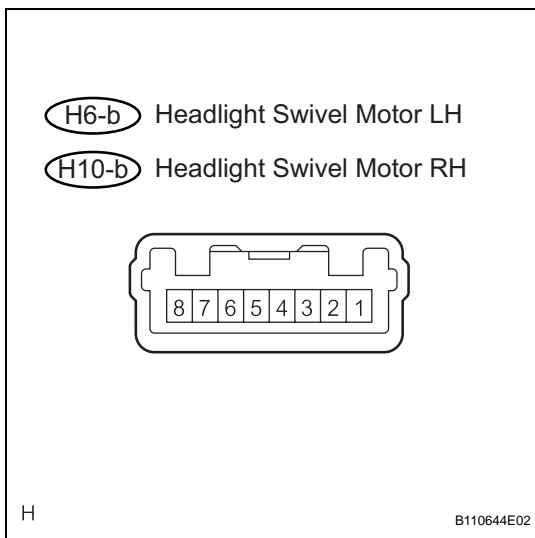
Tester connection	Condition	Specified condition
U (H10-a-2) - U-OUT (H10-b-3)	Always	Below 1 Ω
W (H10-a-3) - W-OUT (H10-b-5)	Always	Below 1 Ω
GND (H10-a-4) - GND (H10-b-2)	Always	Below 1 Ω
MOTOR V (H10-a-6) - MOTOR- V (H10-b-7)	Always	Below 1 Ω

Tester connection	Condition	Specified condition
V (H10-a-8) - V-OUT (H10-b-4)	Always	Below 1 Ω
5V (H10-a-9) - 5V (H10-b-1)	Always	Below 1 Ω
MOTOR U (H10-a-11) - MOTOR-U (H10-b-6)	Always	Below 1 Ω
MOTOR W (H10-a-12) - MOTOR-W (H10-b-8)	Always	Below 1 Ω

**NG** → REPAIR OR REPLACE HARNESS OR CONNECTOR

**OK**

**2 INSPECT HEADLIGHT SWIVEL MOTOR**



- (a) Disconnect the headlight swivel motor connector.
- (b) Measure the resistance according to the value(s) in the table below.

**Resistance:**  
**LH Side (B2412)**

Tester connection	Condition	Specified condition
MOTOR-U (H6-b-6) - MOTOR-V (H6-b-7)	Always	8.5 to 10.5 Ω
MOTOR-V (H6-b-7) - MOTOR-W (H6-b-8)	Always	8.5 to 10.5 Ω
MOTOR-W (H6-b-8) - MOTOR-U (H6-b-6)	Always	8.5 to 10.5 Ω

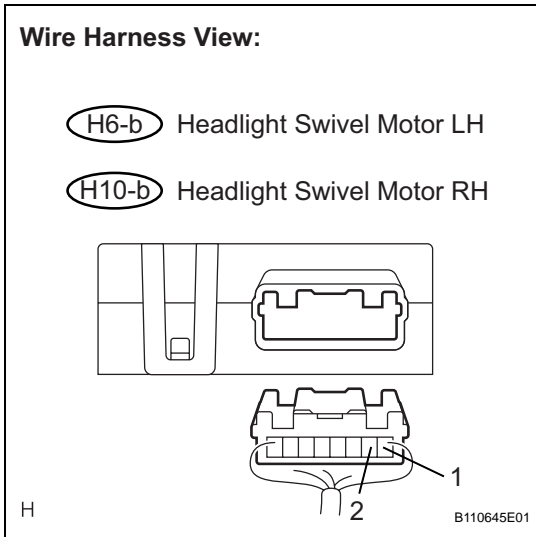
**RH Side (B2413)**

Tester connection	Condition	Specified condition
MOTOR-U (H10-b-6) - MOTOR-V (H10-b-7)	Always	8.5 to 10.5 Ω
MOTOR-V (H10-b-7) - MOTOR-W (H10-b-8)	Always	8.5 to 10.5 Ω
MOTOR-W (H10-b-8) - MOTOR-U (H10-b-6)	Always	8.5 to 10.5 Ω

**NG** → REPLACE HEADLIGHT SWIVEL MOTOR

**OK**

**3 INSPECT HEADLIGHT SWIVEL ECU**



- (a) Disconnect the headlight swivel motor connector.
- (b) Measure the voltage according to the value(s) in the table below.

**Voltage:**  
**LH Side (B2412)**

Tester connection	Condition	Specified condition
5V (H6-b-1) - GND (H6-b-2)	Ignition switch OFF → ON	Below 1 V → 4.5 to 5.5 V

**RH Side (B2413)**

Tester connection	Condition	Specified condition
5V (H10-b-1) - GND (H10-b-2)	Ignition switch OFF → ON	Below 1 V → 4.5 to 5.5 V

**Result**

Condition	Proceed to
OK	A
NG (When checking from the PROBLEM SYMPTOMS TABLE)	B
NG (When checking from the DTC)	C

**B** → PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE

**C** → REPLACE HEADLIGHT SWIVEL ECU

**A**

**4 REPLACE HEADLIGHT SWIVEL MOTOR**

**OK:**  
Returns to normal operation.

**NG** → Go to step 5

**OK**

**END**

<b>5</b>	<b>REPLACE HEADLIGHT SWIVEL ECU</b>
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**OK:**  
Returns to normal operation.

<b>NG</b>	<b>REPLACE AFS ECU</b>
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<b>OK</b>
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<b>END</b>
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