

## **Diagnostic Procedure with Diagnostic Trouble Code (DTC)**

AUTO HEADLIGHT BEAM LEVELER SYSTEM (DIAGNOSTICS)

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### **11.Diagnostic Procedure with Diagnostic Trouble Code (DTC)**

#### **A: DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF**

Detected when CAN line abnormality is detected.

**NOTE:**

Perform the diagnosis for LAN system. <Ref. to LAN(w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <Ref. to LAN(HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

#### **B: DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE**

Detected when CAN data (vehicle speed signal) is not received from VDC.

**NOTE:**

Perform the diagnosis for LAN system. <Ref. to LAN(w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <Ref. to LAN(HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

#### **C: DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE**

Detected when CAN data (headlights ON signal) is not received from the body integrated unit.

**NOTE:**

Perform the diagnosis for LAN system. <Ref. to LAN(w/o HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.> <Ref. to LAN(HEV)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

AUTO HEADLIGHT BEAM LEVELER SYSTEM (DIAGNOSTICS)

## D: DTC B2900 AHLCU ERROR

### DTC DETECTING CONDITION:

Detected when internal malfunction occurs in the auto headlight beam leveler CM.

### TROUBLE SYMPTOM:

The auto headlight beam leveler does not operate.

### CAUTION:

Initialization is required after replacing the auto headlight beam leveler CM.

Step		Check	Yes	No
1	<b>CHECK DTC.</b> 1) Turn the ignition switch to OFF → ON. 2) Turn on the headlight low beam. 3) Using the Subaru Select Monitor, clear the auto headlight beam leveler system memory. 4) Turn the ignition switch to OFF → ON. 5) Use the Subaru Select Monitor and read DTCs.	Is DTC B2900 displayed? (current malfunction)	Replace the auto headlight beam leveler CM. <Ref. to LI-92, Auto Headlight Beam Leveler Control Module.>	System is normal. It is possible that temporary poor contact occurs.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## AUTO HEADLIGHT BEAM LEVELER SYSTEM (DIAGNOSTICS)

### E: DTC B2902 REAR HEIGHT SENSOR ERROR

#### DTC DETECTING CONDITION:

Detected when error occurs in the rear height sensor.

#### TROUBLE SYMPTOM:

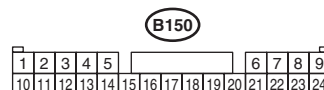
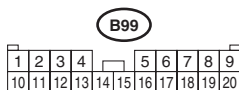
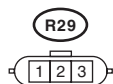
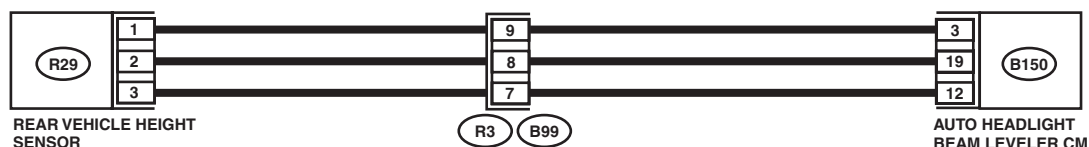
The auto headlight beam leveler does not operate.

#### CAUTION:

**Initialization is required after replacing the auto headlight beam leveler CM.**

#### WIRING DIAGRAM:

Headlight beam leveler system <Ref. to WI(w/o HEV)-136, WIRING DIAGRAM, Headlight Beam Leveler System.> <Ref. to WI(HEV)-134, WIRING DIAGRAM, Headlight Beam Leveler System.>



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Step	Check	Yes	No
<b>1</b> <b>CHECK DTC.</b> 1) Turn the ignition switch to OFF → ON. 2) Turn on the headlight low beam. 3) Using the Subaru Select Monitor, clear the auto headlight beam leveler system memory. 4) Turn the ignition switch to OFF → ON. 5) Use the Subaru Select Monitor and read DTCs.	Is DTC B2902 displayed? (current malfunction)	Go to step 2.	System is normal. It is possible that temporary poor contact occurs.
<b>2</b> <b>CHECK CURRENT DATA.</b> Display {R Sensor Signal} using Subaru Select Monitor.	Does the data indicate the standard value?	Replace the auto headlight beam leveler CM. <Ref. to LI-92, Auto Headlight Beam Leveler Control Module.>	Go to step 3.
<b>3</b> <b>CHECK CURRENT DATA.</b> 1) Display {R Sensor Signal} using Subaru Select Monitor. 2) Change the vehicle posture.	Does the data change?	Go to step 6.	Go to step 4.

# Diagnostic Procedure with Diagnostic Trouble Code (DTC)

## AUTO HEADLIGHT BEAM LEVELER SYSTEM (DIAGNOSTICS)

Step	Check	Yes	No
<b>4</b> <b>CHECK OUTPUT VOLTAGE BETWEEN AUTO HEADLIGHT BEAM LEVELER CM AND VEHICLE HEIGHT SENSOR.</b> 1) Disconnect the vehicle height sensor connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between the vehicle height sensor connector and chassis ground. <b>Connector &amp; terminal</b> <b>(R29) No. 3 (+) — Chassis ground (-):</b>	Is the voltage 5±0.25 V?	Go to step 5.	Replace the auto headlight beam leveler CM. <Ref. to LI-92, Auto Headlight Beam Leveler Control Module.>
<b>5</b> <b>CHECK REAR HEIGHT SENSOR.</b> 1) Remove the rear vehicle height sensor. 2) Perform the inspection of rear height sensor unit. <Ref. to LI-95, INSPECTION, Rear Height Sensor.>	Is the rear height sensor normal?	Go to step 6.	Replace the rear height sensor. <Ref. to LI-94, Rear Height Sensor.>
<b>6</b> <b>CHECK HARNESS.</b> 1) Disconnect the auto headlight beam leveler CM connector. 2) Using a tester, measure the resistance between the auto headlight beam leveler CM connector and rear height sensor connector. <b>Connector &amp; terminal</b> <b>(B150) No. 3 — (R29) No. 1:</b> <b>(B150) No. 19 — (R29) No. 2:</b> <b>(B150) No. 12 — (R29) No. 3:</b>	Is there continuity?	Go to step 7.	Repair or replace the open circuit of harness.
<b>7</b> <b>CHECK HARNESS.</b> Using a tester, measure the resistance between the auto headlight beam leveler CM connector and chassis ground. <b>Connector &amp; terminal</b> <b>(B150) No. 3 — Chassis ground:</b> <b>(B150) No. 19 — Chassis ground:</b> <b>(B150) No. 12 — Chassis ground:</b>	Is the resistance 10 kΩ or more?	Replace the auto headlight beam leveler CM. <Ref. to LI-92, Auto Headlight Beam Leveler Control Module.>	Repair or replace the short circuit of the harness.

## F: DTC B2903 VDC DATA ERROR

### DTC DETECTING CONDITION:

Detected when data (vehicle speed signal) from VDC CM is abnormal.

### TROUBLE SYMPTOM:

The auto headlight beam leveler does not operate.

### NOTE:

Perform the diagnosis for VDC. <Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>