

# Diagnostics with Phenomenon

AUTO HEADLIGHT BEAM LEVELER SYSTEM (DIAGNOSTICS)

## 12. Diagnostics with Phenomenon

### A: INSPECTION

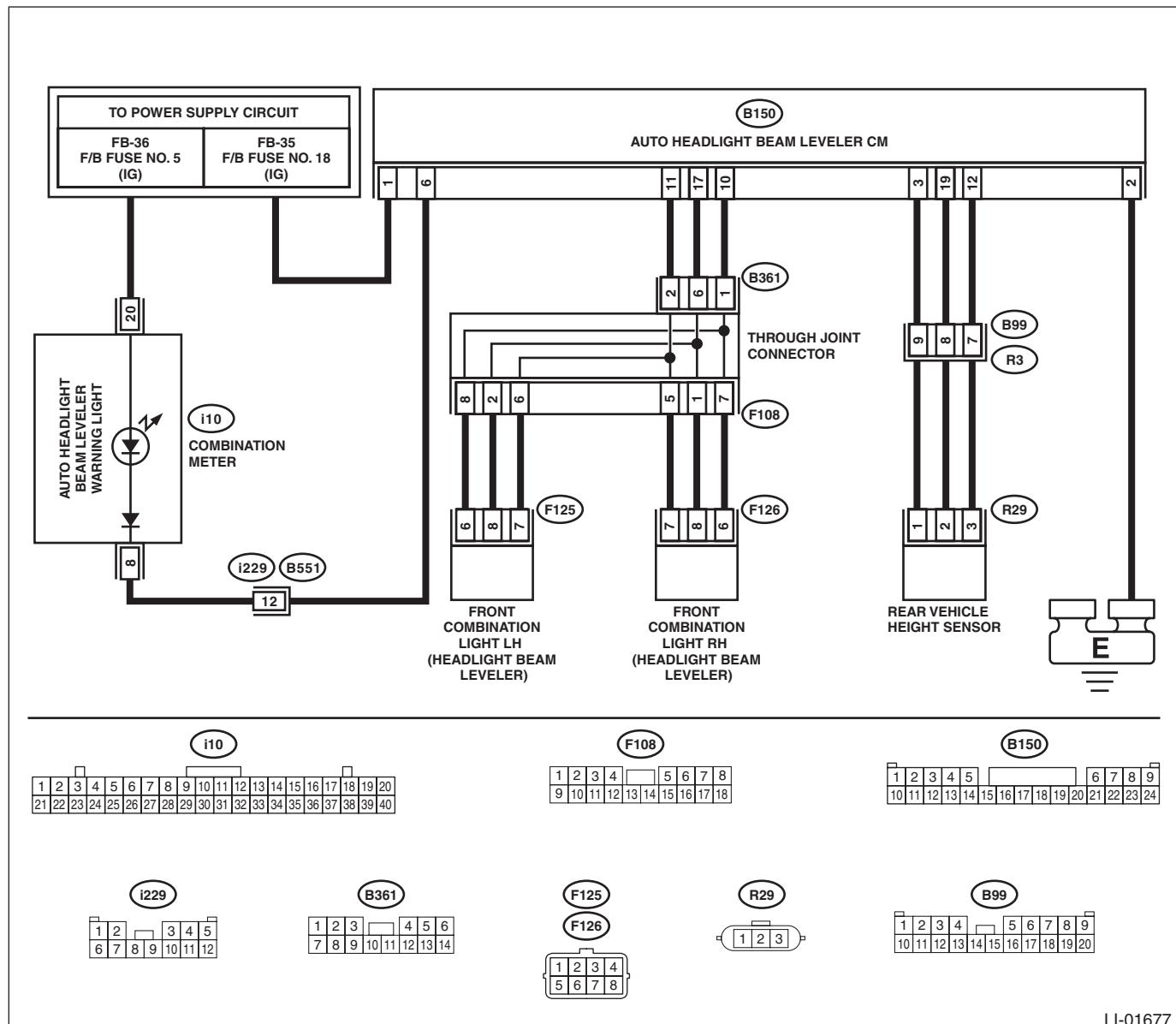
#### 1. BEAM LEVEL CONTROL DOES NOT FUNCTION

##### CAUTION:

- Before performing diagnosis, check the fuse in this circuit.
- 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.>



Step	Check	Yes	No
1 <b>CHECK CURRENT DATA.</b> Display {ECU ACC} using Subaru Select Monitor.	Does the current data indicate the standard value?	Go to step 3.	Go to step 2.

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Step	Check	Yes	No
<b>2 CHECK HARNESS BETWEEN POWER SUPPLY — AUTO HEADLIGHT BEAM LEVELER CM.</b> 1) Disconnect the auto headlight beam leveler CM connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between the auto headlight beam leveler CM connector and chassis ground. <b>Connector &amp; terminal</b> <i>(B150) No. 1 (+) — Chassis ground (-):</i>	Is the voltage 8 — 16 V?	Replace the auto headlight beam leveler CM. <Ref. to LI-92, Auto Headlight Beam Leveler Control Module.>	Repair or replace the harness.
<b>3 CHECK INDICATOR OUTPUT.</b> Turn the ignition switch to ON.	Does the warning indicator turn on for three seconds?	Go to step 5.	Go to step 4.
<b>4 CHECK CURRENT DATA.</b> 1) Display {Indicator Signal} using Subaru Select Monitor. 2) Turn the ignition switch to ON.	Is it set as ON for 3 seconds?	Go to step 6.	Replace the auto headlight beam leveler CM. <Ref. to LI-92, Auto Headlight Beam Leveler Control Module.>
<b>5 CHECK INDICATOR OUTPUT.</b> Leave the ignition switch to ON for 10 seconds.	Does the warning indicator light go off?	Go to step 9.	Go to step 13.
<b>6 CHECK HARNESS BETWEEN BATTERY — INDICATOR BULB — AUTO HEADLIGHT BEAM LEVELER CM.</b> 1) Disconnect the auto headlight beam leveler CM connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between the auto headlight beam leveler CM (indicator bulb) connector and chassis ground. <b>Connector &amp; terminal</b> <i>(B150) No. 6 (+) — Chassis ground (-):</i>	Is the voltage 12 V?	Replace the auto headlight beam leveler CM. <Ref. to LI-92, Auto Headlight Beam Leveler Control Module.>	Go to step 7.
<b>7 CHECK INDICATOR BULB.</b> 1) Disconnect the combination meter connector. 2) Measure the continuity between combination meter terminals. <b>Connector &amp; terminal</b> <i>(i10) No. 20 — (i10) No. 8:</i>	Is there continuity?	Go to step 8.	Replace the meter case assembly. <Ref. to IDI-20, Combination Meter.>
<b>8 CHECK HARNESS BETWEEN AUTO HEADLIGHT BEAM LEVELER CM AND INDICATOR BULB.</b> 1) Turn the ignition switch to OFF. 2) Measure the continuity between the auto headlight beam leveler CM and the combination meter. <b>Connector &amp; terminal</b> <i>(B150) No. 6 — (i10) No. 8:</i>	Is there continuity?	Replace the auto headlight beam leveler CM. <Ref. to LI-92, Auto Headlight Beam Leveler Control Module.>	Repair the open circuit and poor contact of the connector in the harness between the auto headlight beam leveler CM and indicator.

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Step	Check	Yes	No
9 <b>CHECK HEADLIGHT ASSEMBLY (ACTUATOR) DRIVE.</b> 1) Connect the auto headlight beam leveler CM connector. 2) Turn the ignition switch to ON, and within 10 seconds, repeat the OFF → 2 (HEAD) operation of headlight switch 5 times. 3) Check that the headlight beam drops once, then returns to normal. 4) Then, after waiting for 30 seconds or more with the ignition ON, turn the ignition switch to OFF.	Does the headlight beam drop down once, and then return?	Replace the auto headlight beam leveler CM. <Ref. to LI-92, Auto Headlight Beam Leveler Control Module.>	Go to step 10.
10 <b>CHECK HEADLIGHT ASSEMBLY (ACTUATOR) OUTPUT.</b> 1) Display {Actuator Signal} using Subaru Select Monitor. 2) Turn the ignition switch to ON, and within 10 seconds, repeat the OFF → 2 (HEAD) operation of headlight switch 5 times. 3) Check that the headlight beam drops once, then returns to normal. 4) Then, after waiting for 30 seconds or more with the ignition ON, turn the ignition switch to OFF.	Does the current data indicate the standard value? (Does the value change at 10 — 90%?)	Go to step 11.	Replace the auto headlight beam leveler CM. <Ref. to LI-92, Auto Headlight Beam Leveler Control Module.>
11 <b>CHECK OUTPUT VOLTAGE BETWEEN HEADLIGHT ASSEMBLY (ACTUATOR).</b> 1) Disconnect the auto headlight beam leveler CM connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between the auto headlight beam leveler CM connector and chassis ground. <i>Connector &amp; terminal (B150) No. 10 (+) — Chassis ground (-):</i>	Is the voltage 12 V?	Replace the headlight assembly. <Ref. to LI-29, Headlight Assembly.>	Go to step 12.
12 <b>CHECK HARNESS BETWEEN AUTO HEADLIGHT BEAM LEVELER CM AND HEADLIGHT ASSEMBLY (ACTUATOR).</b> 1) Disconnect the connector of headlight assembly. 2) Measure the continuity between the auto headlight beam leveler CM connector and headlight assembly (actuator) connector. <i>Connector &amp; terminal</i> • Headlight beam leveler RH (B150) No. 10 — (F126) No. 6: (B150) No. 17 — (F126) No. 8: (B150) No. 11 — (F126) No. 7: • Headlight beam leveler LH (B150) No. 10 — (F125) No. 6: (B150) No. 17 — (F125) No. 8: (B150) No. 11 — (F125) No. 7:	Is there continuity?	Replace the auto headlight beam leveler CM. <Ref. to LI-92, Auto Headlight Beam Leveler Control Module.>	Repair the open circuit or poor contact of the connector in the harness between headlight assembly and auto headlight beam leveler CM.
13 <b>CHECK DTC.</b> Display DTC using the Subaru Select Monitor.	Is DTC displayed?	Perform the diagnosis according to DTC. <Ref. to AL(diag)-13, LIST, List of Diagnostic Trouble Code (DTC).>	Replace the auto headlight beam leveler CM. <Ref. to LI-92, Auto Headlight Beam Leveler Control Module.>

# STEERING RESPONSIVE FOG LIGHTS (DIAGNOSTICS)

## *SRF(diag)*

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