

CIRCUIT INSPECTION

DTC	C1711 / 11 to C1713 / 13	Height Control Sensor Circuit
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CIRCUIT DESCRIPTION

Inside each sensor, a brush integrated with the control sensor rotor shaft moves above the resistor, proving linear output. The resistance value between the brush and resistor terminal changes in proportion to the shaft rotation angle, so the fixed voltage applied to the resistor by the ECU is modified by the sensor and output to the ECU as a voltage indication the shaft rotation angle.

DTC No.	DTC Detecting Condition	Trouble Area
C1711 / 11 C1712 / 12 C1713 / 13	When the following condition is consisting and the abnormal signal continued for 1 sec. at the vehicle speed 8 km/h (5 mph) or more: Detecting the abnormal signal (Height control sensor terminal voltage of ECU is 0.3 V or less or 4.7 V or more) for every 0.01 sec. and that continued for 0.2 sec.	<ul style="list-style-type: none"> • Right front, left front, rear height control sensor • Each height control sensor circuit • Suspension control ECU

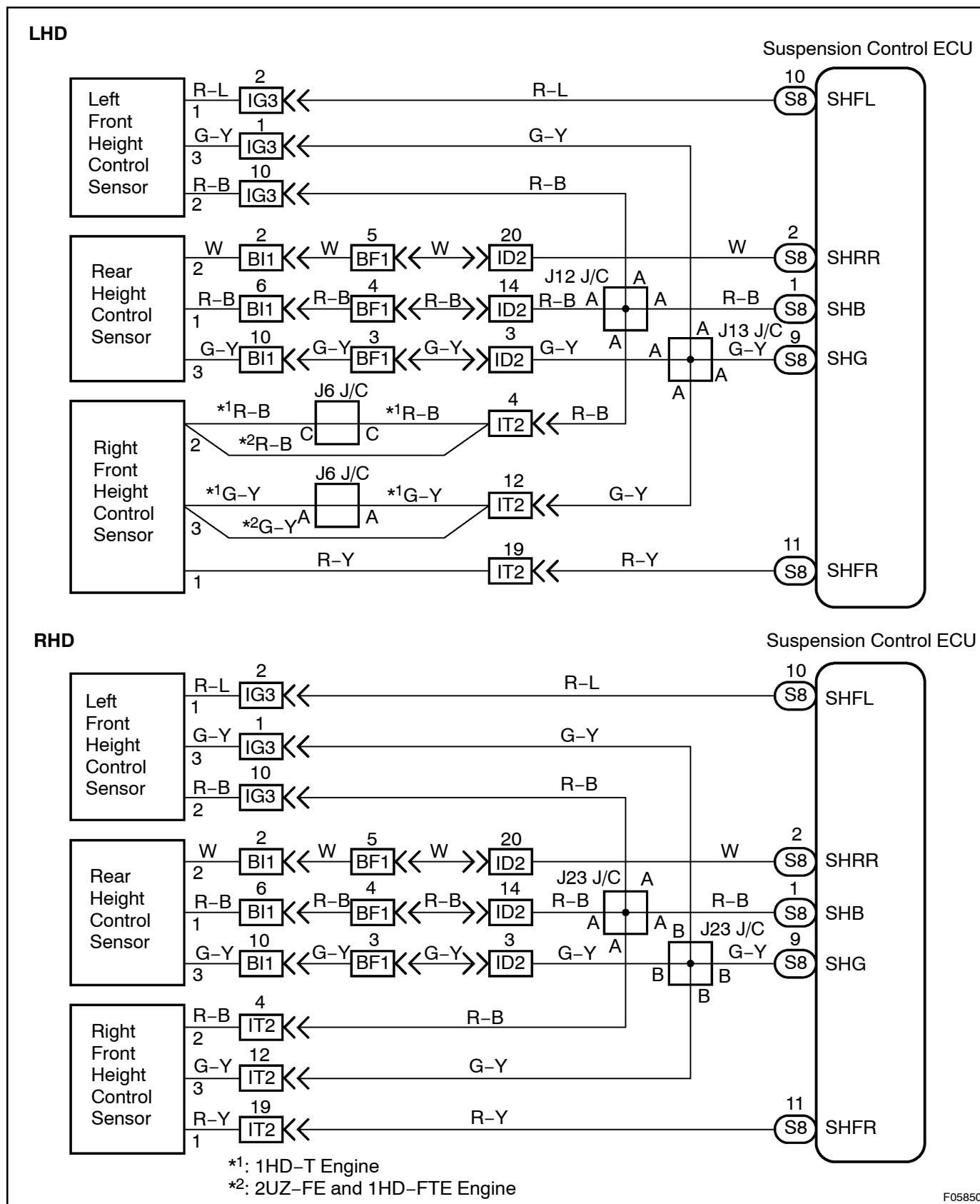
HINT:

- Code C1711 / 11 corresponds to the right front height control sensor circuit.
- Code C1712 / 12 corresponds to the left front height control sensor circuit.
- Code C1713 / 13 corresponds to the rear height control sensor circuit.

Fail safe function:

If a trouble occurs in the height control sensor circuit, the height control is prohibited after the ECU has adjusted the vehicle height to the standard (fluid pressure correspond to the standard height).

WIRING DIAGRAM



INSPECTION PROCEDURE

1 Check output value of height control sensor.

IN CASE OF USING HAND-HELD TESTER:

PREPARATION:

- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the ignition switch ON and push the hand-held tester main switch ON.
- (c) Select the DATALIST mode on the hand-held tester.

CHECK:

Check that the vehicle height value of the height control sensor displayed by the hand-held tester is changing when pushing the "UP" or "DOWN" button of the height select switch.

OK:

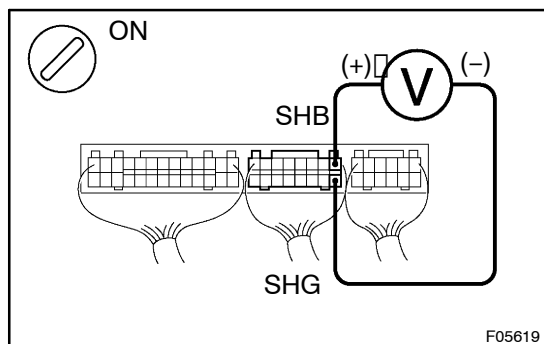
Vehicle height value must be changing.

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Go to step 2.

OK

Clear the DTC (See page DI-208).



IN CASE OF NOT USING HAND-HELD TESTER:

PREPARATION:

Remove the suspension control ECU with connectors still connected.

CHECK:

- (a) Turn the ignition switch ON.
- (b) Measure voltage between terminals SHB and SHG of suspension control ECU connector.

OK:

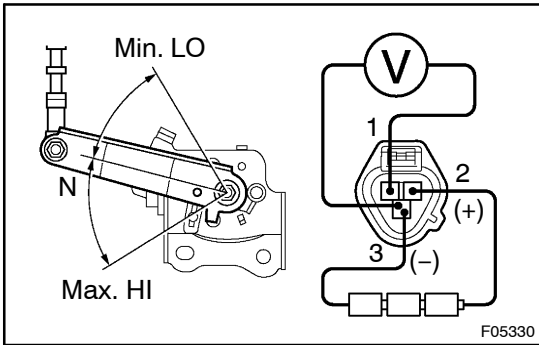
Voltage: Approx. 5 V

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Check and replace suspension control ECU.

OK

2 Check height control sensor.



FRONT HEIGHT CONTROL SENSOR

PREPARATION:

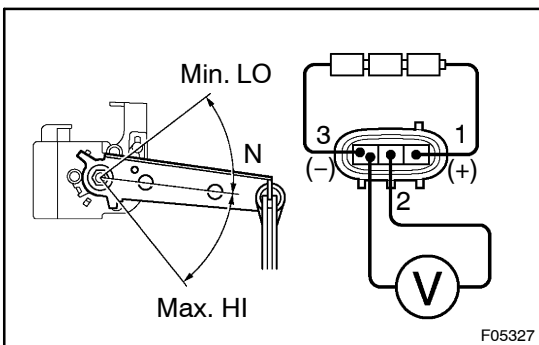
- Disconnect the height control sensor connector.
- Remove the height control sensor.

CHECK:

- Connect 3 dry batteries of 1.5 V in series.
- Connect terminal 2 to the batteries' positive (+) terminal, and terminal 3 to the batteries' negative (-) terminal, then apply voltage about 4.5 V between terminals 2 and 3.
- Measure the voltage between terminals 1 and 3, when the height control sensor link is slowly moved up and down.

OK:

Sensor Link Position	Voltage
Max. HI	Approx. 4.05 V
N	Approx. 2.25 V
Min. LO	Approx. 0.45 V



REAR HEIGHT CONTROL SENSOR

PREPARATION:

- Disconnect the height control sensor connector.
- Remove the height control sensor.

CHECK:

- Connect 3 dry batteries of 1.5 V in series.
- Connect terminal 1 to the batteries' positive (+) terminal, and terminal 3 to the batteries' negative (-) terminal, then apply voltage about 4.5 V between terminals 2 and 3.
- Measure the voltage between terminals 2 and 3, when the height control sensor link is slowly moved up and down.

OK:

Sensor Link Position	Voltage
Max. HI	Approx. 4.05 V
N	Approx. 2.25 V
Min. LO	Approx. 0.45 V

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Replace height control sensor.

OK

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|---|---|
| 3 | Check for open and short circuit in harness and connector between height control sensor, fluid pressure sensor, fluid temp. sensor and suspension control ECU (See page IN-35). |
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Repair or replace harness or connector.

OK

Clear the DTC (See page DI-208).