

CIRCUIT INSPECTION

DTC	11, 12, 13, 14	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
11, 12, 13, 14	Open or short circuit in height control sensor circuit	<ul style="list-style-type: none"> • Harness or connector between ECU and height control sensor • Height control sensor • ECU

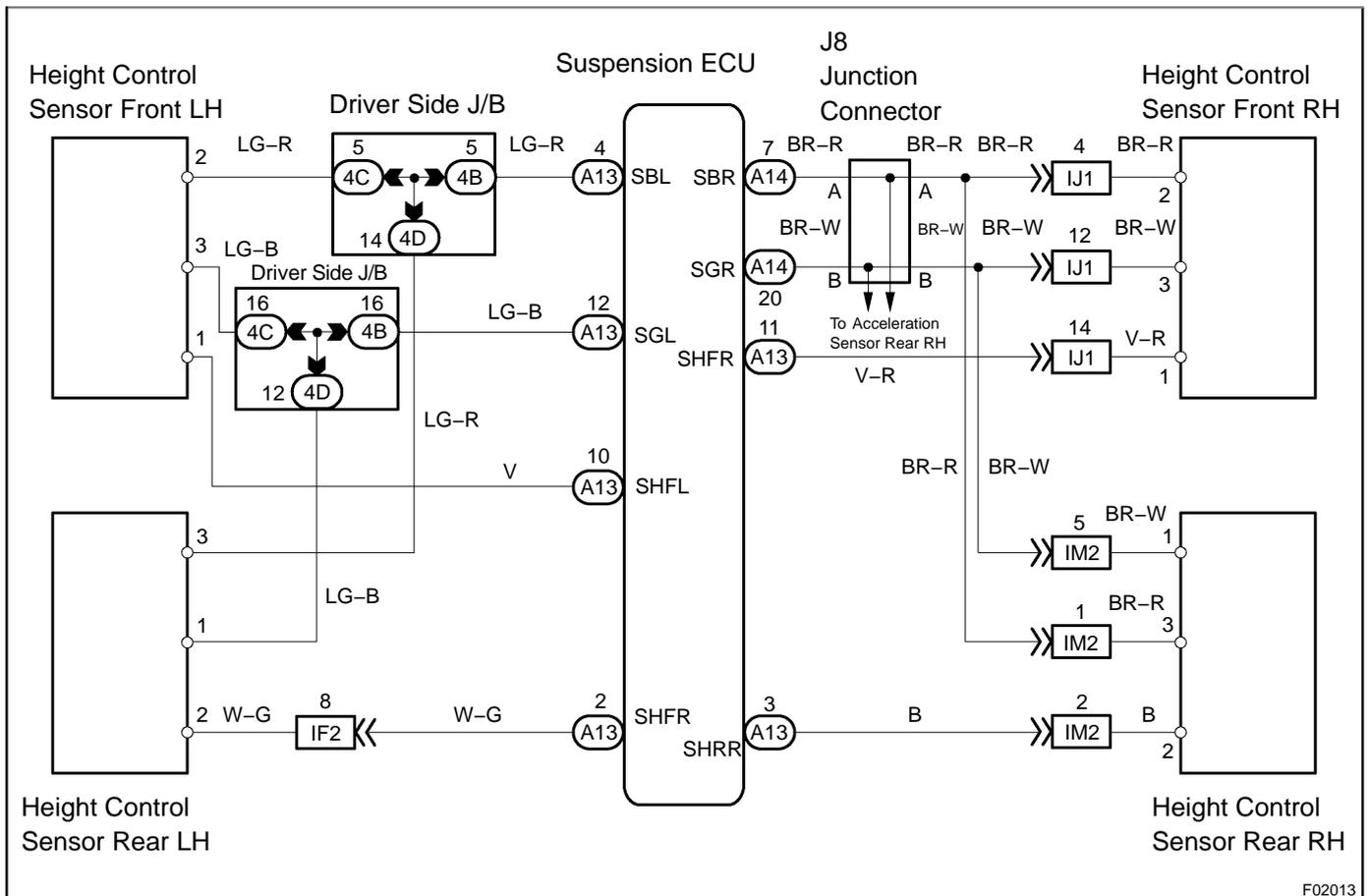
HINT:

- Code 11 corresponds to the front RH height control sensor circuit.
- Code 12 corresponds to the front LH height control sensor circuit.
- Code 13 corresponds to the rear RH height control sensor circuit.
- Code 14 corresponds to the rear LH height control sensor circuit.

Once ECU stores DTC 11, 12, 13, or 14 in memory, vehicle height control, damping force control are not carried out until a normal signal is input to the ECU from the height control sensor.

However, control is resumed if the ignition switch is turned off, then on again.

WIRING DIAGRAM

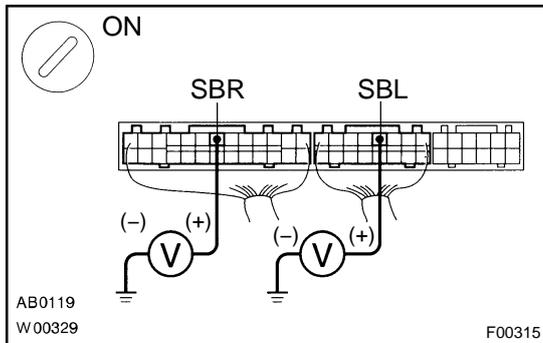


INSPECTION PROCEDURE

HINT:

- When DTC 11 is displayed, check front RH height control sensor circuit.
- When DTC 12 is displayed, check front LH height control sensor circuit.
- When DTC 13 is displayed, check rear RH height control sensor circuit.
- When DTC 14 is displayed, check rear LH height control sensor circuit.

1 Check voltage between terminals SBR, SBL of suspension ECU connector and body ground.



PREPARATION:

- Remove the instrument panel box assembly. (See page BO-83)
- Turn the ignition switch ON.

CHECK:

Measure the voltage between terminals SBR, SBL of suspension ECU connector and body ground.

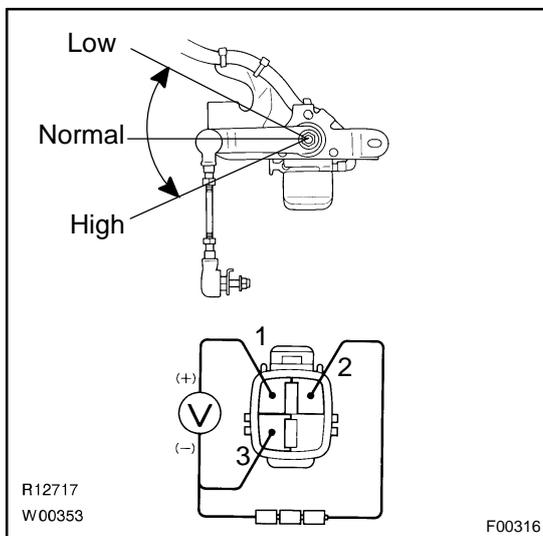
OK:

Voltage: Approx. 5 V

NG Check and replace suspension ECU.

OK

2 Check height control sensor.



1. FRONT HEIGHT CONTROL SENSOR

PREPARATION:

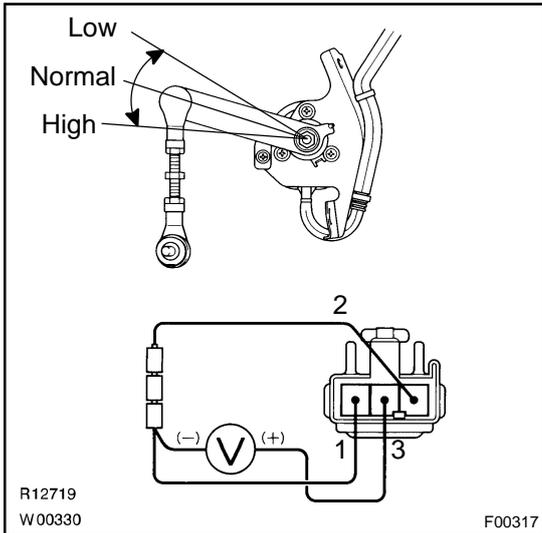
- Remove the front wheel and front fender liner.
- Disconnect the height control sensor connector.
- Remove the height control sensor.

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.
- Check the voltage between terminals 1 and 3, when the link is slowly moved up and down.

OK:

Position	Voltage
High	Approx. 2.5 – 4.5 V
Normal	Approx. 2.5 V
Low	Approx. 0.5 – 2.5 V



2. FOR REAR HEIGHT CONTROL SENSOR

PREPARATION:

- (a) Remove the rear wheel.
- (b) Disconnect the height control sensor connector.
- (c) Remove the height control sensor.

CHECK:

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

OK:

Position	Voltage
High	Approx. 2.5 – 4.5 V
Normal	Approx. 2.5 V
Low	Approx. 0.5 – 2.5 V

NG Replace height control sensor.

OK

3 Check harness and connector between suspension ECU and height control sensor (See page [IN-30](#)).

NG Repair or replace harness or connector.

OK

Proceed to next circuit inspection shown on problem symptoms table (See page [DI-247](#)).