DI5XR–01

CIRCUIT INSPECTION

DTC	11 – 14	Height Control Sensor Circuit

CIRCUIT DESCRIPTION

Inside each sensor, a brush integrated with the control sensor rotor shaft moves above the resister, providing 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.

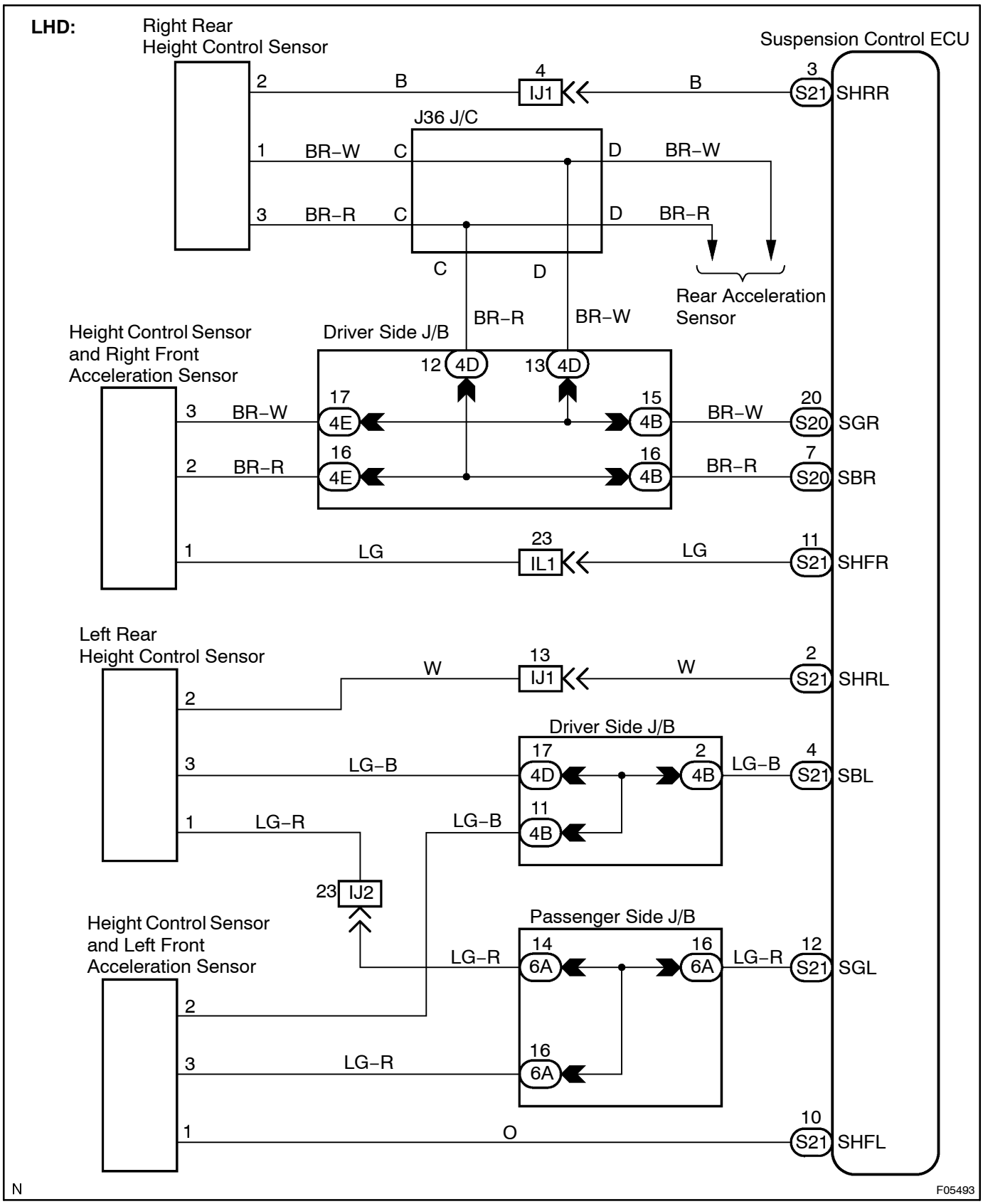
DTC No.	DTC Detecting Condition	Trouble Area
11 12 13 14	With the ignition switch ON, when a voltage of 4.7 V or more or 0.3 V or less at each height control sensor is detected for 2 sec.	• Right front, left front, right rear, left rear height control sensor • Each height control sensor circuit • Suspension control ECU

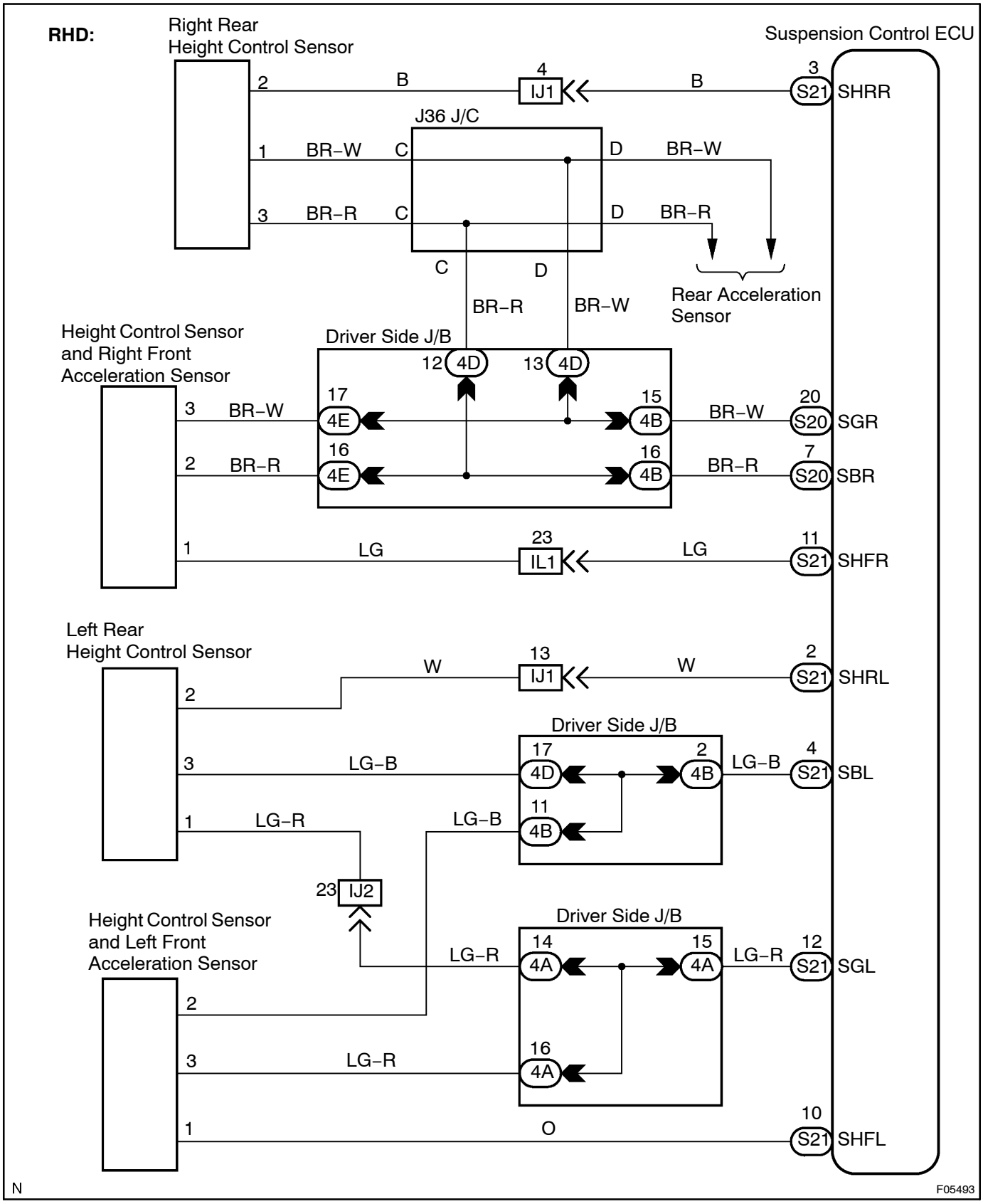
HINT:

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

Once ECU stores DTC 11, 12, 13, or 14 in memory, vehicle height control and 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



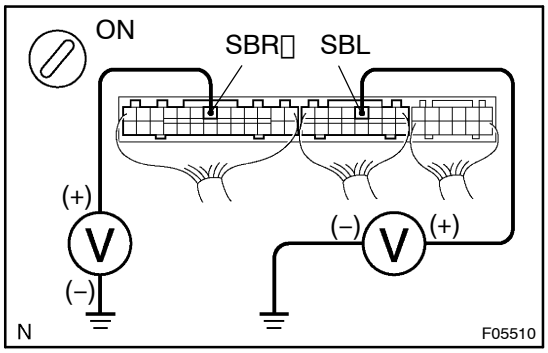

RHD:
Right Rear
Height Control Sensor
Suspension Control ECU
2
B
4
IJ1
B
3
S21
SHRR
J36 J/C
1
BR–W
C
D
BR–W
3
BR–R
C
D
BR–R
C
D
BR–R
BR–W
Rear Acceleration
Sensor
Height Control Sensor
and Right Front
Acceleration Sensor
Driver Side J/B
12
4D
13
4D
3
BR–W
17
4E
15
4B
BR–W
20
S20
SGR
2
BR–R
16
4E
16
4B
BR–R
7
S20
SBR
1
LG
23
IL1
LG
11
S21
SHFR
Left Rear
Height Control Sensor
W
13
IJ1
W
2
S21
SHRL
2
Driver Side J/B
3
LG–B
17
4D
2
4B
LG–B
4
S21
SBL
1
LG–R
LG–B
11
4B
23
IJ2
Height Control Sensor
and Left Front
Acceleration Sensor
Driver Side J/B
LG–R
14
4A
15
4A
LG–R
12
S21
SGL
2
3
LG–R
16
4A
1
O
10
S21
SHFL
N
F05493

INSPECTION PROCEDURE

HINT:

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

1	**Check voltage between each of terminals SBR and SBL of suspension control ECU connector and body ground.**



PREPARATION:

(a) LHD:
Remove the RH scuff plate, instrument panel under cover No. 2, glove compartment and CD changer (See page BO–96).

(b) RHD:
Remove the RH scuff plate, instrument panel under cover No. 1, instrument panel lower pad and heater to register duct No. 2 (See page BO–96).

CHECK:

(a) Turn the ignition switch ON.

(b) Measure the voltage between each of terminals SBR and SBL of suspension control ECU connector and body ground.

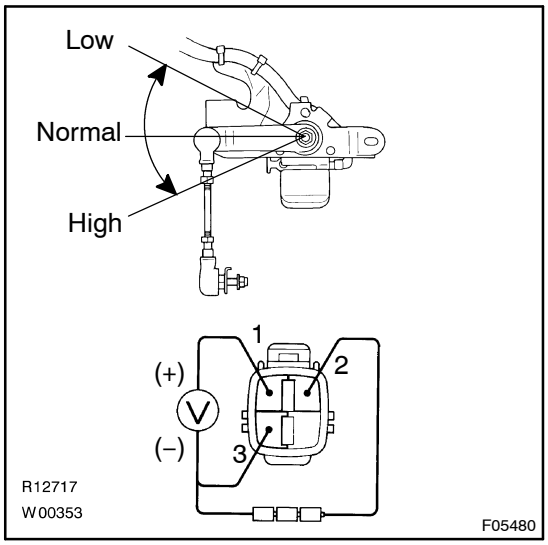
OK:

Voltage: 4.75 – 5.25 V

NG	**Check and replace suspension control ECU.**

OK

2	Check height control sensor.



Front height control sensor:

PREPARATION:

(a) Remove the front wheel and front fender liner.

(b) Disconnect the height control sensor connector.

(c) Remove the height control sensor (See page SA–129).

CHECK:

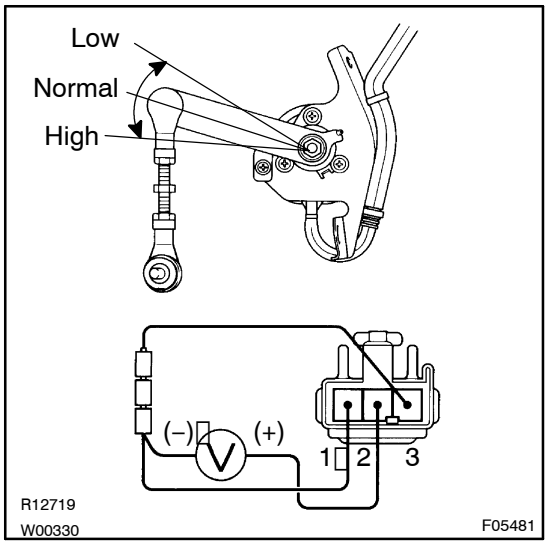
(a) Connect 3 dry batteries of 1.5 V in series.

(b) 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.

(c) Check the voltage between terminals 1 and 3, when the height control sensor 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



Rear height control sensor:

PREPARATION:

(a) Remove the luggage compartment floor mat and trim front cover.

(b) Disconnect the height control sensor connector.

(c) Remove the height control sensor (See page SA–132).

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 1 and 3.

(c) Check the voltage between terminals 1 and 2, when the height control sensor 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 for open and short circuit in harness and connector between suspension control 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–79).