DI8D1–01

DTC	C1725 / 21 to C1728 / 24	Suspension Control Actuator Circuit

CIRCUIT DESCRIPTION

The absorber control actuator is step motor that consists of permanent magnet and 2 pairs of stator (electro-magnet). It meticulously rotates the permanent magnet, which is directly connected to the absorber control rod, in accordance with the signals from the suspension control ECU to control the damping force.

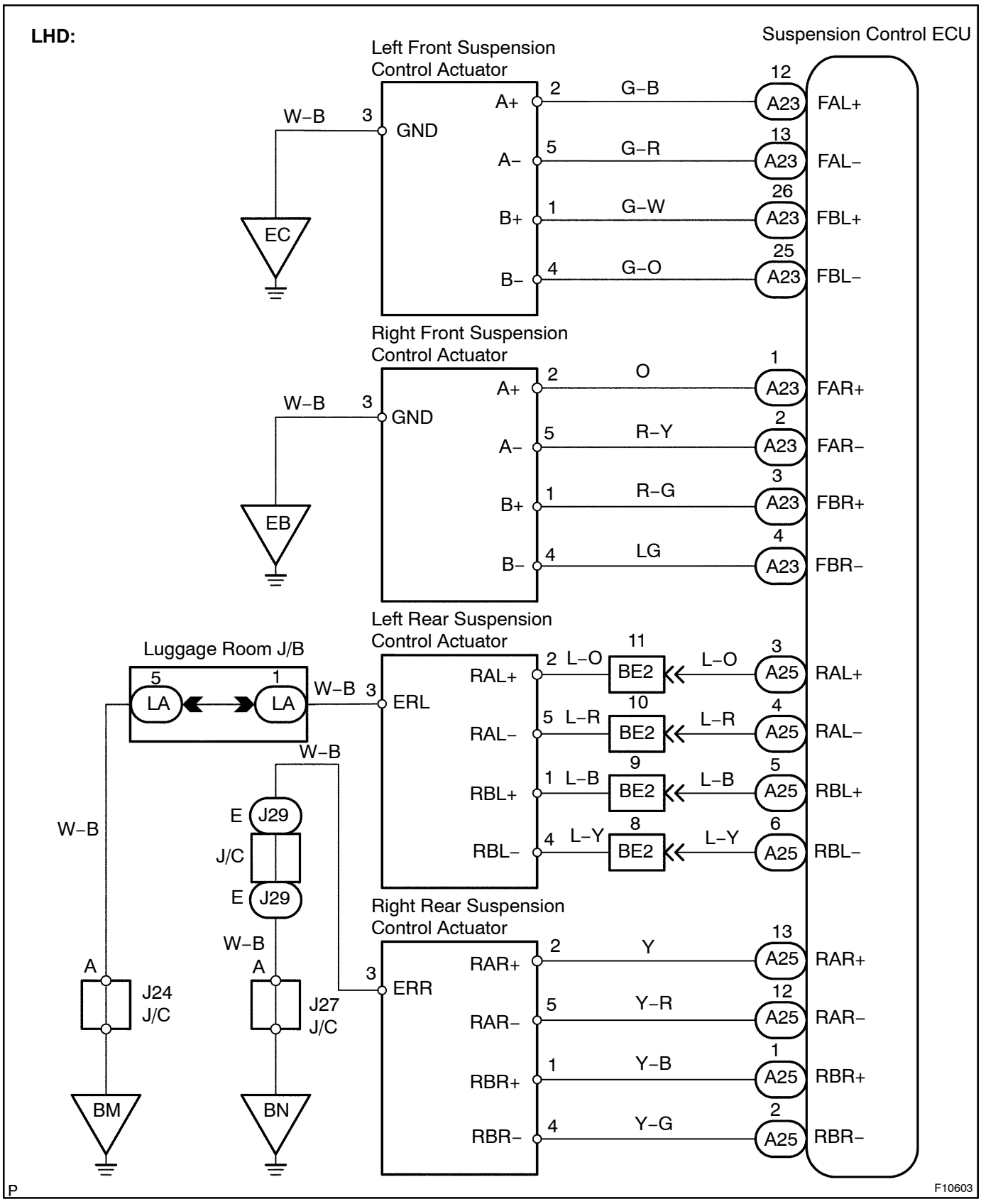
DTC No.	DTC Detecting Condition	Trouble Area
C1725 / 21 C1726 / 22 C1727 / 23 C1728 / 24	Either the condition 1. or 2. is detected: 1. After the engine has started, an open signal of the actuator is detected successively for 1.0 sec. 2. After the ignition switch is turned ON, a short signal of the actuator is detected 8 times successively.	• Right front, left front, right rear, left rear suspension control actuators • Each suspension control actuator circuit • Suspension control ECU

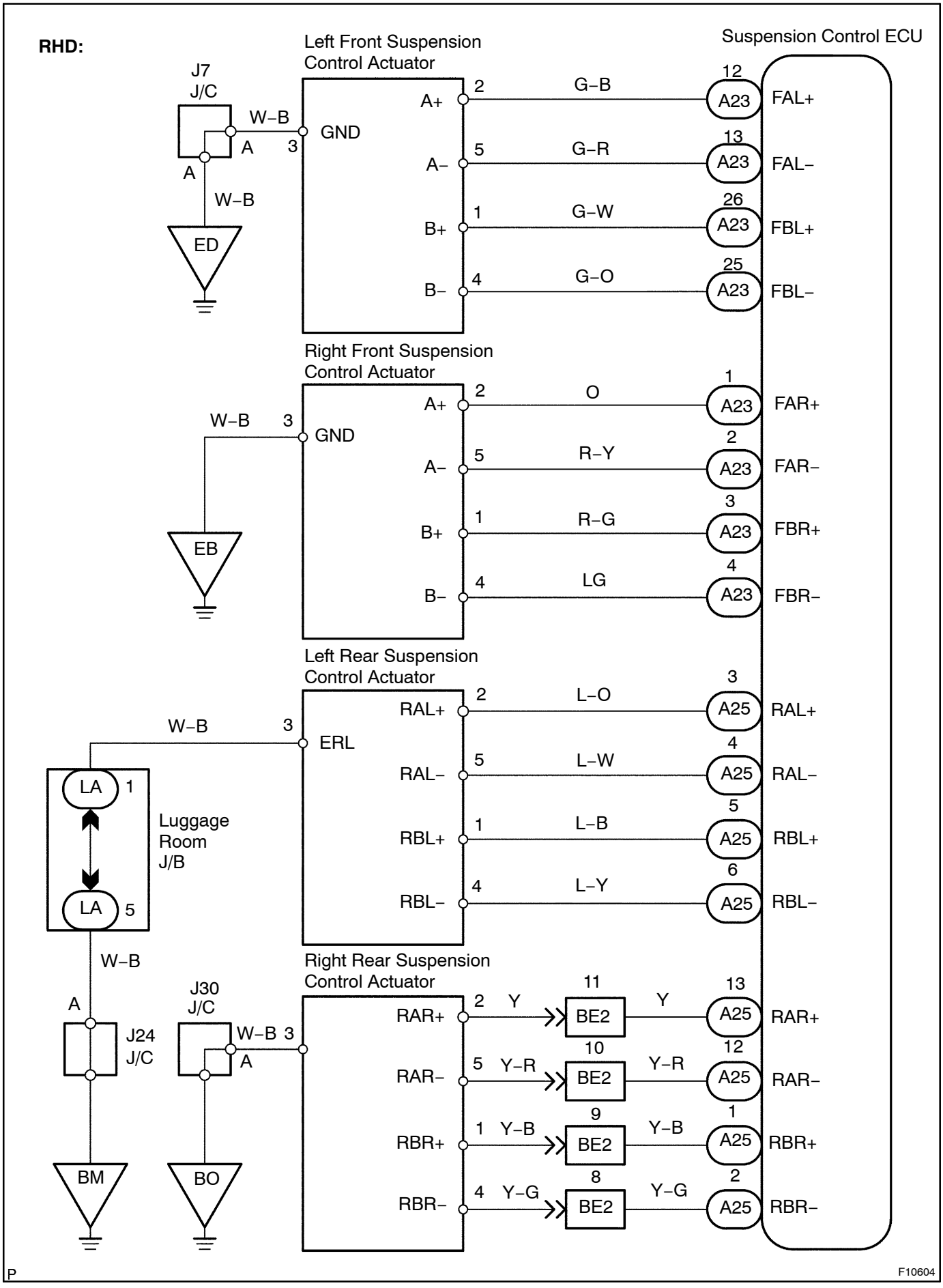
HINT:

- Code C1725 / 21 corresponds to the right front suspension control actuator circuit.
- Code C1726 / 22 corresponds to the left front suspension control actuator circuit.
- Code C1727 / 23 corresponds to the right rear suspension control actuator circuit.
- Code C1728 / 24 corresponds to the left rear suspension control actuator circuit.

Once the ECU stores DTC C1725 / 21, C1726 / 22, C1727 / 23 or C1728 / 24 in memory, the damping force control is not carried out until a normal signal is input to the ECU from the suspension control actuator. However, the control is resumed if the ignition switch is turned OFF, then ON again.

WIRING DIAGRAM




RHD:
Left Front Suspension Control Actuator
Suspension Control ECU
J7 J/C
W–B
A
3
GND
A+
A–
B+
B–
2
5
1
4
G–B
G–R
G–W
G–O
12 A23 FAL+
13 A23 FAL–
26 A23 FBL+
25 A23 FBL–
ED
Right Front Suspension Control Actuator
W–B 3
GND
O
R–Y
R–G
LG
1 A23 FAR+
2 A23 FAR–
3 A23 FBR+
4 A23 FBR–
EB
Left Rear Suspension Control Actuator
W–B 3
ERL
RAL+
RAL–
RBL+
RBL–
L–O
L–W
L–B
L–Y
3 A25 RAL+
4 A25 RAL–
5 A25 RBL+
6 A25 RBL–
LA 1
LA 5
Luggage Room J/B
Right Rear Suspension Control Actuator
J30 J/C
J24 J/C
W–B 3
A
RAR+
RAR–
RBR+
RBR–
Y
Y–R
Y–B
Y–G
11 BE2
10 BE2
9 BE2
8 BE2
13 A25 RAR+
12 A25 RAR–
1 A25 RBR+
2 A25 RBR–
BM
BO
P
F10604

INSPECTION PROCEDURE

HINT:

- When DTC "C1725/21" is displayed, check the right front suspension control actuator circuit.
- When DTC "C1726/22" is displayed, check the left front suspension control actuator circuit.
- When DTC "C1727/23" is displayed, check the right rear suspension control actuator circuit.
- When DTC "C1728/24" is displayed, check the left rear suspension control actuator circuit.
- When DTC C1725/21, C1726/22, C1727/23 and C1728/24 are displayed, perform inspection of step 2.

1	**Check operation of suspension control actuator.**

In case of using hand–held tester:

PREPARATION:

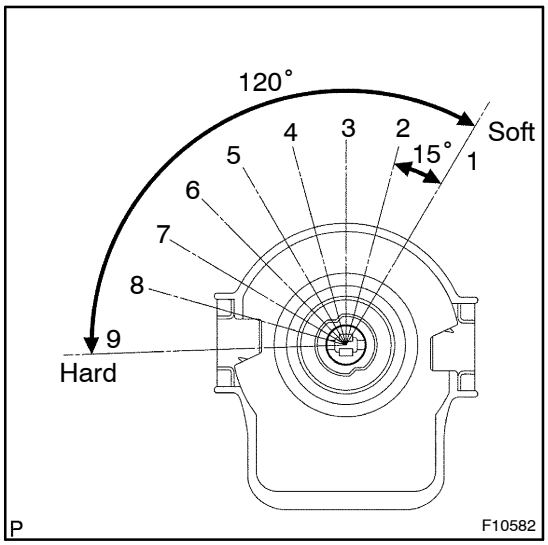
(a) Check the hardness of the suspension.
(b) Connect the hand–held tester to the DLC3.
(c) Start the engine and push the hand–held tester main switch ON.
(d) Select the ACTIVE TEST mode on the hand–held tester.

CHECK:

Check whether or not the actuator operates to harden or soften the suspension with the hand–held tester.

OK:

The actuator operates to harden or soften the suspension.



In case of not using hand–held tester:

PREPARATION:

Front suspension control actuator:

Remove the actuator cover and actuator (See page SA–28).

Rear suspension control actuator:

Remove the actuator cover and actuator (See page SA–99).

CHECK:

(a) Turn the ignition switch ON.
(b) Connect terminals OPB and CG of the DLC3.
(c) Check that the suspension control actuator is driven 1 step further toward the hard side each time the height control switch is turned HIGH.

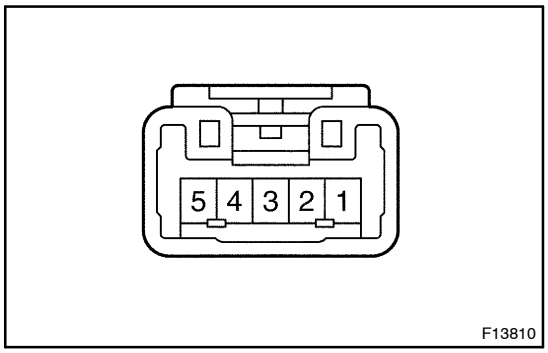
OK:

The actuator operates.

OK	**Proceed to next circuit inspection shown on problem symptoms table (See page DI–263).**

NG

2	**Check suspension control actuator.**



PREPARATION:

Front suspension control actuator:

(a) Remove the actuator cover and actuator (See page SA–28).

(b) Disconnect the actuator connector.

Rear suspension control actuator:

(a) Remove the actuator cover and actuator (See page SA–99).

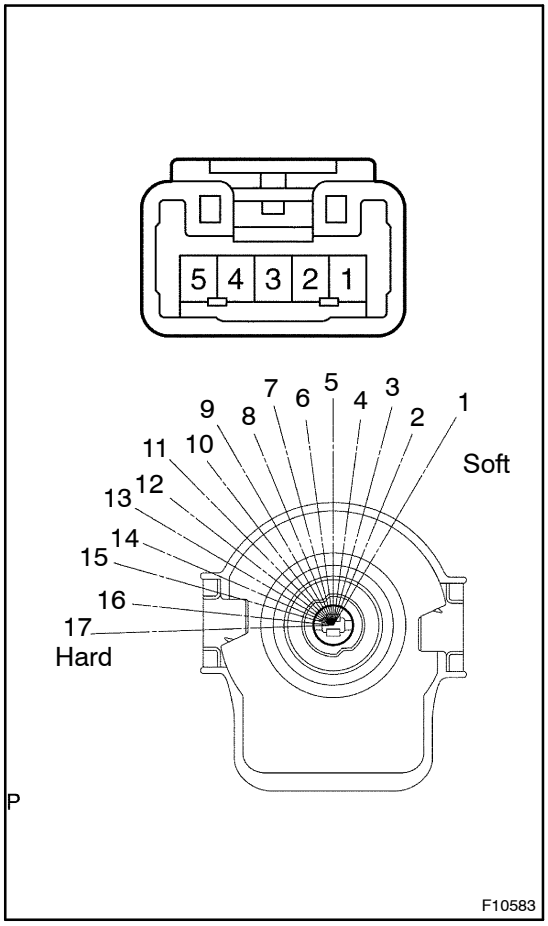
(b) Disconnect the actuator connector.

CHECK:

Measure resistance between the terminals of the suspension control actuator connector shown below.

OK:

Terminals	Resistance
1 – 3	12.0 – 12.8 Ω
2 – 3	12.0 – 12.8 Ω
3 – 4	12.0 – 12.8 Ω
3 – 5	12.0 – 12.8 Ω



CHECK:

(a) Using a screwdriver, locate the output shaft of the actuator in soft position.

(b) Check that the suspension control actuator is driven 1 step further toward the hard side when battery voltage is applied to the terminals of the suspension control actuator connector shown below.

OK:

Battery ⊕	Battery ⊖	Position
1 and 5	3	Soft 1 → 2
4 and 5	3	2 → 3
2 and 4	3	3 → 4
1 and 2	3	4 → 5
1 and 5	3	5 → 6
4 and 5	3	6 → 7
2 and 4	3	7 → 8
1 and 2	3	8 → 9
1 and 5	3	9 → 10
4 and 5	3	10 → 11
2 and 4	3	11 → 12
1 and 2	3	12 → 13
1 and 5	3	13 → 14
4 and 5	3	14 → 15
2 and 4	3	15 → 16
1 and 2	3	16 → 17 Hard

NG → **Replace suspension control actuator.**

OK

3	Check for open and short circuit in harness and connector between suspension control ECU and actuator, actuator and body ground (See page IN–35).

NG → Repair or replace harness or connectors.

OK

Proceed to next circuit inspection shown on problem symptoms table (See page DI–263).*1

*1: However, when DTC C1725 / 21, C1726 / 22, C1727 / 23 or C1728 / 24 is displayed, check and replace suspension control ECU.