

|            |                 |                                                |
|------------|-----------------|------------------------------------------------|
| <b>DTC</b> | <b>C1715/15</b> | <b>RIGHT FRONT ACCELERATION SENSOR CIRCUIT</b> |
| <b>DTC</b> | <b>C1716/16</b> | <b>LEFT FRONT ACCELERATION SENSOR CIRCUIT</b>  |
| <b>DTC</b> | <b>C1717/17</b> | <b>REAR ACCELERATION SENSOR CIRCUIT</b>        |
| <b>DTC</b> | <b>C1791/91</b> | <b>RIGHT FRONT ACCELERATION SENSOR CIRCUIT</b> |
| <b>DTC</b> | <b>C1792/92</b> | <b>LEFT FRONT ACCELERATION SENSOR CIRCUIT</b>  |
| <b>DTC</b> | <b>C1793/93</b> | <b>REAR ACCELERATION SENSOR CIRCUIT</b>        |

## CIRCUIT DESCRIPTION

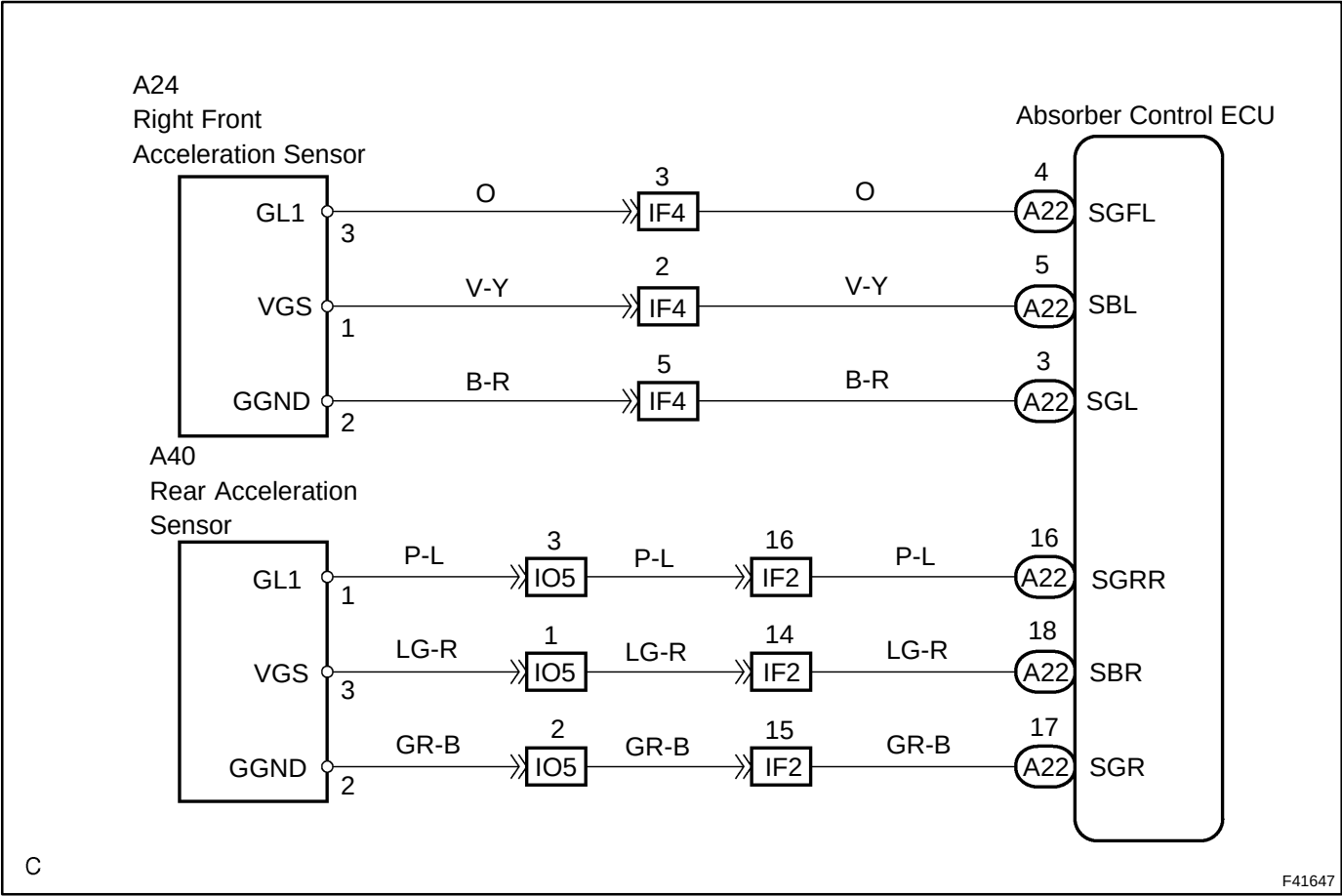
The acceleration sensor (assy) detect the up-and-down acceleration of the vehicle. The acceleration sensor (assy) 3 in total are mounted in the absorber control ECU, at the forward of the glove compartment door at the instrument panel safety pad position and in the rear luggage, and detect the up-and down acceleration of the vehicle, respectively. The acceleration sensor (assy) convert the resistance into electrical signal and output to the absorber control ECU.

| DTC No.              | DTC Detecting Condition                           | Trouble Area                                                                                                                                                                |
|----------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| C1715/15<br>C1791/91 | Acceleration sensor signal is fixed to 0 V or 5 V | <ul style="list-style-type: none"> <li>• Right front acceleration sensor assy</li> <li>• Right front acceleration sensor circuit</li> <li>• Absorber control ECU</li> </ul> |
| C1716/16<br>C1792/92 |                                                   | <ul style="list-style-type: none"> <li>• Absorber control ECU<br/>(Left front acceleration sensor is a built-in equipment)</li> </ul>                                       |
| C1717/17<br>C1793/93 |                                                   | <ul style="list-style-type: none"> <li>• Rear acceleration sensor</li> <li>• Rear acceleration sensor circuit</li> <li>• Absorber control ECU</li> </ul>                    |

### HINT:

- DTC No. C1715/15 and C1791/91 is the right front acceleration sensor assy.
- DTC No. C1716/16 and C1792/92 is the left front acceleration sensor (left front acceleration sensor is a built-in equipment).
- DTC No. C1717/17 and C1793/93 is the rear acceleration sensor.

WIRING DIAGRAM



## INSPECTION PROCEDURE

### HINT:

Start the inspection from the step 1 in case of using hand-held tester and start from step 2 (right front acceleration sensor assy) or step 3 (rear acceleration sensor) in case of not using hand-held tester.

### 1 READ VALUE OF HAND-HELD TESTER

- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the ignition switch to ON and turn the hand-held tester main switch ON.
- (c) Select the item "G (UP & DOWN) FR (R)" in the DATA LIST and read its value displayed on the hand-held tester.
- (d) Check that the acceleration value of the acceleration sensor observed in the hand-held tester is changing when the vehicle is bounced.

### OK:

**Acceleration value must be changing.**

### HINT:

- For the right front acceleration sensor assy failure, go to step (A).
- For the rear acceleration sensor failure, go to step (B).

NG(A) Go to step 2

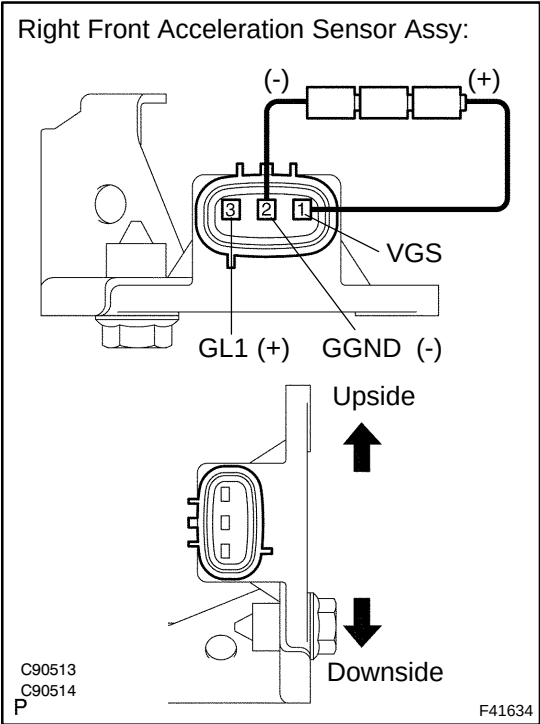
NG(B) Go to step 3

OK

**CHECK AND REPLACE ABSORBER CONTROL ECU(See page 01-31 )**

2

INSPECT ACCELERATION SENSOR ASSY(RIGHT FRONT)



- (a) Remove the right front acceleration sensor assy.
- (b) Connect 3 dry batteries of 1.5 V in series.
- (c) Connect the terminal 1 (VGS) to the batteries' positive (+) terminal, and terminal 2 (GGND) to the batteries' negative (-) terminal, then apply voltage of approximately 4.5 V between terminals 2 (GGND) and 3 (GL1) for the following conditions.

OK:

| Sensor condition            | Voltage                            |
|-----------------------------|------------------------------------|
| Sensor stationary           | Approx. 2.3 V                      |
| Sensor vibrating vertically | Change between approx. 1.0 - 4.0 V |

NOTICE:

- Do not apply more than a voltage of 6 V.
- Do not drop the acceleration sensor assy. If it is dropped, replace it with a new one.
- The acceleration sensor assy removed from the vehicle must not be placed upside down.

HINT:

When the acceleration sensor assy is tilted, it may output a different value.

OK

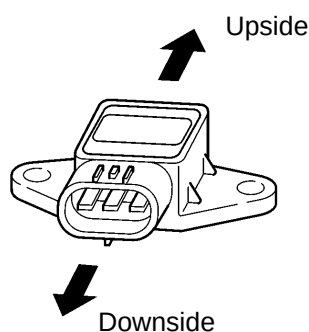
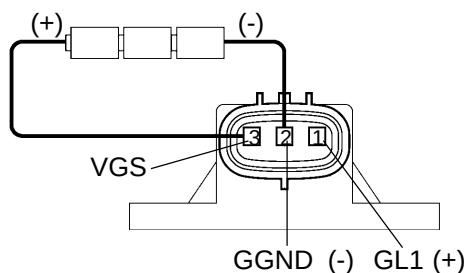
Go to step 4

NG

REPLACE ACCELERATION SENSOR ASSY

### 3 INSPECT ACCELERATION SENSOR(REAR)

Rear Acceleration Sensor:

C91693  
C65181

F41635

- Remove the rear acceleration sensor.
- Connect 3 dry batteries of 1.5 V in series.
- Connect the terminal 3 (VGS) to the batteries' positive (+) terminal, and terminal 2 (GGND) to the batteries' negative (-) terminal, then apply voltage of approximately 4.5 V between terminals 1 (GL1) and 2 (GGND) for the following conditions.

**OK:**

| Sensor condition            | Voltage                            |
|-----------------------------|------------------------------------|
| Sensor stationary           | Approx. 2.3 V                      |
| Sensor vibrating vertically | Change between approx. 1.0 - 4.0 V |

**NOTICE:**

- Do not apply more than a voltage of 6 V.
- Do not drop the acceleration sensor. If it is dropped, replace it with a new one.
- The acceleration sensor removed from the vehicle must not be placed upside down.

**HINT:**

When the acceleration sensor is tilted, it may output the different value.

**NG****REPLACE ACCELERATION SENSOR****OK**

### 4 CHECK HARNESS AND CONNECTOR(RIGHT FRONT(REAR) ACCELERATION SENSOR(ASSY) - ABSORBER CONTROL ECU)

- Check for open and short circuit in harness and connector between right front (rear) acceleration sensor (assy) and absorber control ECU (See page [01-31](#) ).

**NG****REPAIR OR REPLACE HARNESS OR CONNECTOR****OK****CHECK AND REPLACE ABSORBER CONTROL ECU(See page [01-31](#) )**