

DTC	B1000/31	Center Airbag Sensor Assembly Malfunction
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DESCRIPTION

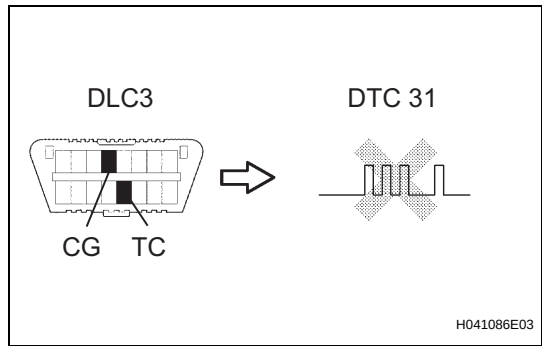
The center airbag sensor assembly consists of the deceleration sensor, the safing sensor, the drive circuit, the diagnosis circuit, the ignition control, etc.
If the center airbag sensor assembly receives signals from the deceleration sensor, it determines whether the SRS should be activated.
DTC B1000/31 is recorded when a malfunction is detected in the center airbag sensor assembly.

DTC No.	DTC Detecting Condition	Trouble Area
B1000/31	Center airbag sensor assembly malfunction	Center airbag sensor assembly

HINT:
When a trouble code is displayed simultaneously with B1000/31, repair the malfunction indicated by this code (except B1000/31) first.

INSPECTION PROCEDURE

1	CHECK CENTER AIRBAG SENSOR ASSEMBLY
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- (a) Turn the power switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (d) Turn the power switch on (IG), and wait for at least 60 seconds.
- (e) Clear the DTCs stored in the memory (See page RS-41).
- (f) Turn the power switch off.
- (g) Turn the power switch on (IG), and wait for at least 60 seconds.
- (h) Check the DTCs (See page RS-41).

OK:
DTC B1000/31 is not output.

NG	REPLACE CENTER AIRBAG SENSOR ASSEMBLY (See page RS-423)
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OK

USE SIMULATION METHOD TO CHECK (See page RS-33)

DTC	B1603/83	Front Satellite Sensor Bus RH Initialization Incomplete
DTC	B1612/83	Lost Communication with Front Airbag Sensor RH
DTC	B1613/83	Front Airbag Sensor RH Initialization Incomplete

DESCRIPTION

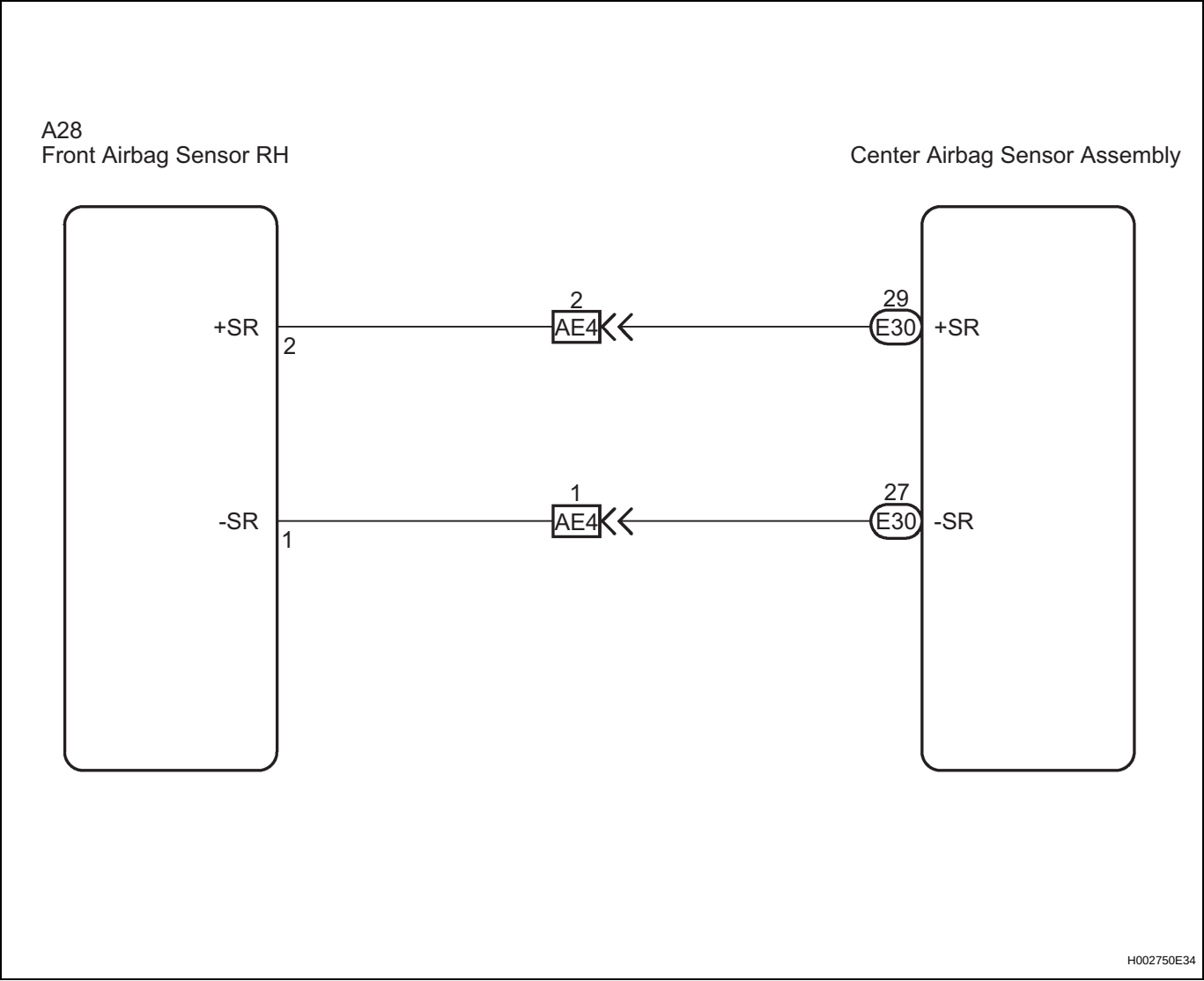
The front airbag sensor RH circuit consists of the center airbag sensor assembly and front airbag sensor RH.

The front airbag sensor RH detect impacts to the vehicle and send signals to the center airbag sensor assembly to determine if the airbag should be deployed.

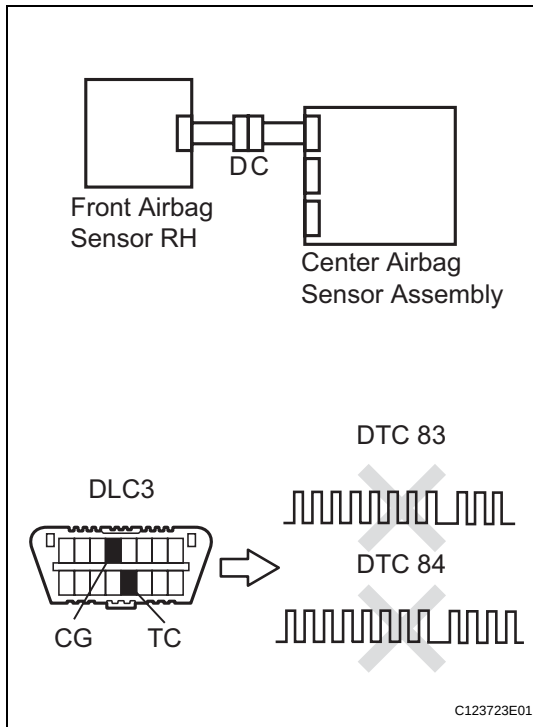
DTC B1603/83, B1612/83, or B1613/83 is recorded when a malfunction is detected in the front airbag sensor RH circuit.

DTC No.	DTC Detecting Condition	Trouble Area
B1603/83 B1612/83 B1613/83	- The airbag sensor assembly center receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the front airbag sensor RH circuit for 2 seconds. - Front airbag sensor RH malfunction - Center airbag sensor assembly malfunction	- Instrument panel wire - Engine room main wire - Front airbag sensor RH - Center airbag sensor assembly

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK DTC

(a) Turn the power switch on (IG), and wait for at least 60 seconds.

(b) Turn the power switch off.

HINT:

If a communication error occurs, DTCs for both the LH and RH sides will be stored simultaneously. To identify the malfunctioning area, turn the power switch off and then on (IG) again.

(c) Turn the power switch on (IG), and wait for at least 60 seconds.

(d) Check the DTCs (See page RS-41).

Result

Result	Proceed to
DTC B1603, B1613, or 83 is output.	A
DTC B1618/84 is output.	B
DTC B1603, B1613, or 83 and B1618/84 are not output.	C

HINT:

- DTCs indicating communication errors will be changed to DTCs indicating errors in initialization by turning the power switch off and then on (IG) again.
- Codes other than DTC B1603, B1613, or 83 and B1618/84 may be output at this time, but they are not related to this check.

B

GO TO DTC B1618/84 (See page RS-62)

C

USE SIMULATION METHOD TO CHECK (See page RS-33)

A

2 CHECK CONNECTION OF CONNECTORS

(a) Turn the power switch off.

(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.

(c) Check that the connectors are properly connected to the center airbag sensor assembly and the front airbag sensor RH.

OK:

The connectors are properly connected.

NG

CONNECT CONNECTORS PROPERLY

OK

3

CHECK CONNECTORS

- (a) Disconnect the connectors from the center airbag sensor assembly and front airbag sensor RH.
- (b) Check that the connectors (on the center airbag sensor assembly side and front airbag sensor RH side) are not damaged.

OK:
The connectors are not deformed or damaged.

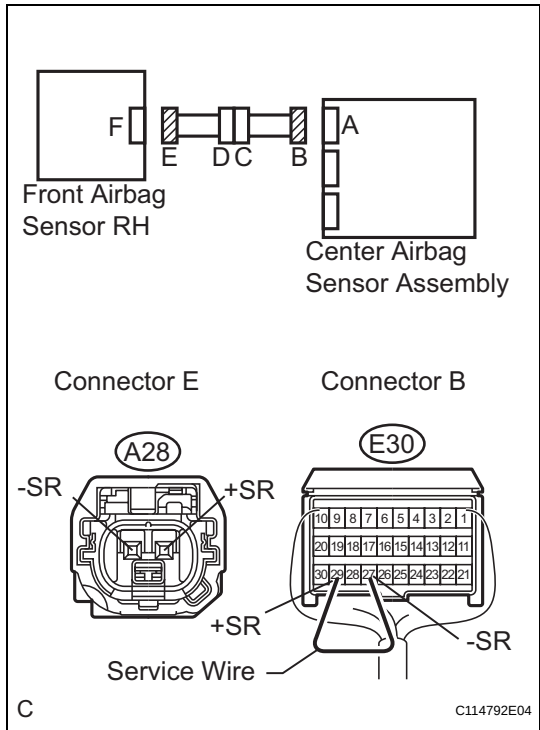
NG

REPAIR OR REPLACE WIRE HARNESS

OK

4

CHECK FRONT AIRBAG SENSOR RH CIRCUIT (OPEN)



- (a) Using a service wire, connect terminals 29 (+SR) and 27 (-SR) of connector B.

NOTICE:
Do not forcibly insert a service wire into the terminals of the connector when connecting.

- (b) Measure the resistance according to the value(s) in the table below.

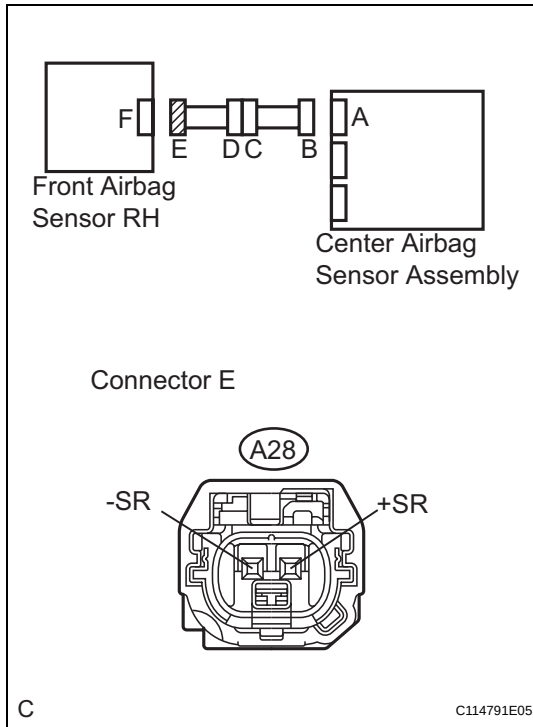
Standard resistance

Tester Connection	Condition	Specified Condition
A28-2 (+SR) - A28-1 (-SR)	Always	Below 1 Ω

NG

Go to step 9

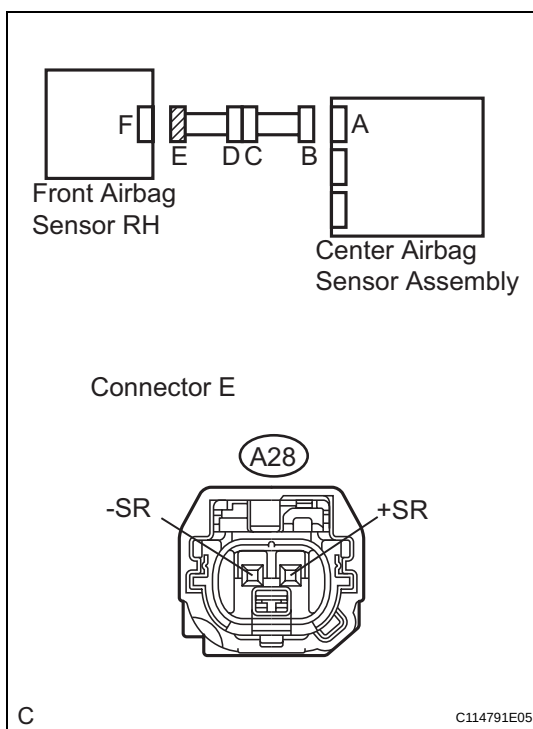
OK

5 CHECK FRONT AIRBAG SENSOR RH CIRCUIT (SHORT)

- (a) Disconnect the service wire from connector B.
 (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
A28-2 (+SR) - A28-1 (-SR)	Always	1 MΩ or higher

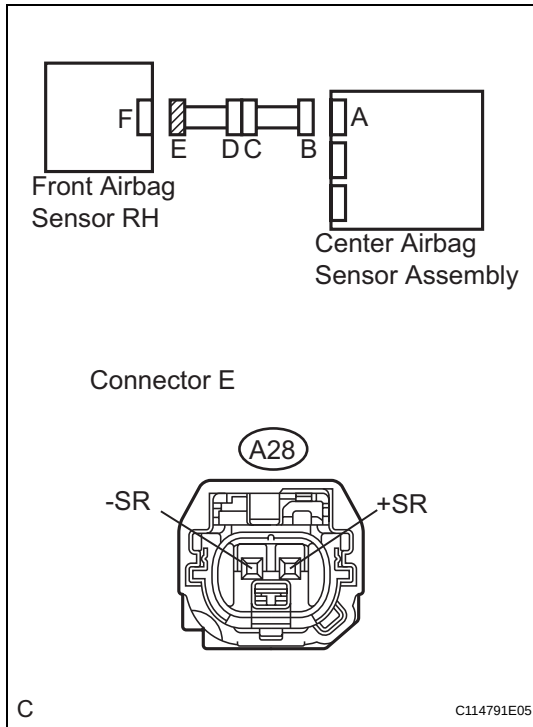
NG**Go to step 10****OK****6 CHECK FRONT AIRBAG SENSOR RH CIRCUIT (SHORT TO B+)**

- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 (b) Turn the power switch on (IG).
 (c) Measure the voltage according to the value(s) in the table below.

Standard voltage

Tester Connection	Condition	Specified Condition
A28-2 (+SR) - Body ground	Power switch on (IG)	Below 1 V
A28-1 (-SR) - Body ground	Power switch on (IG)	Below 1 V

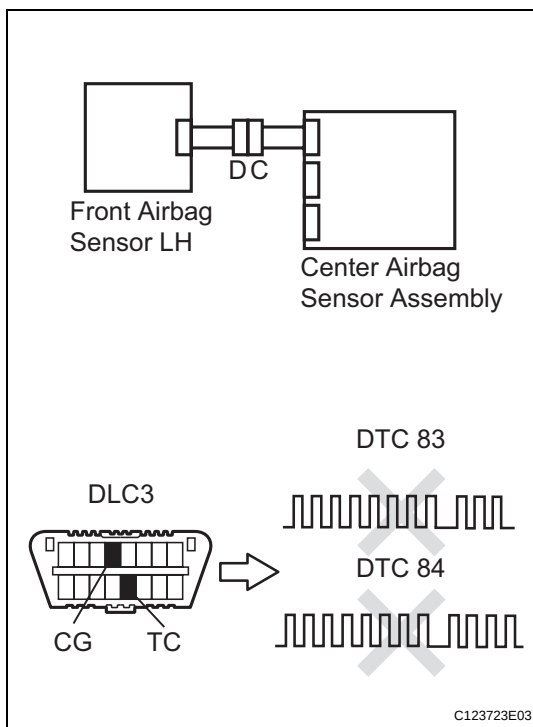
NG**Go to step 11****OK**

7**CHECK FRONT AIRBAG SENSOR RH CIRCUIT (SHORT TO GROUND)**

- (a) Turn the power switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
A28-2 (+SR) - Body ground	Always	1 MΩ or higher
A28-1 (-SR) - Body ground	Always	1 MΩ or higher

NG**Go to step 12****OK****8****CHECK FRONT AIRBAG SENSOR RH**

- (a) Connect the connectors to the center airbag sensor assembly.
- (b) Interchange the front airbag sensor LH with RH and connect the connectors to them.
- (c) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (d) Turn the power switch on (IG), and wait for at least 60 seconds.
- (e) Clear the DTCs stored in the memory (See page RS-41).
- (f) Turn the power switch off.
- (g) Turn the power switch on (IG), and wait for at least 60 seconds.
- (h) Check the DTCs (See page RS-41).

Result

Result	Proceed to
DTC B1603, B1612, B1613, or 83 is output.	A
DTC B1608, B1617, B1618, or 84 is output.	B
DTC B1603, B1612, B1613, or 83 and B1608, B1617, B1618, or 84 are not output.	C

HINT:

Codes other than DTC B1603, B1612, B1613, or 83 and B1608, B1617, B1618, or 84 may be output at this time, but they are not related to this check.

A

REPLACE CENTER AIRBAG SENSOR ASSEMBLY (See page [RS-423](#))

B

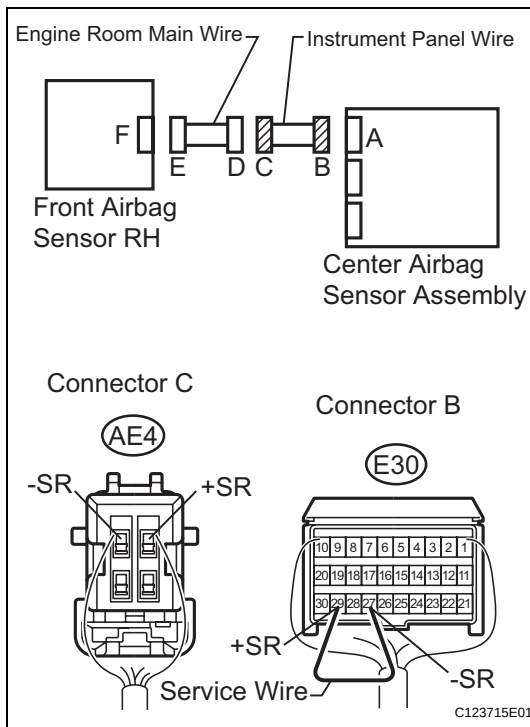
REPLACE FRONT AIRBAG SENSOR RH (See page [RS-428](#))

C

USE SIMULATION METHOD TO CHECK (See page [RS-33](#))

9

CHECK INSTRUMENT PANEL WIRE (OPEN)



- (a) Disconnect the instrument panel wire connector from the engine room main wire.

HINT:

The service wire has already been inserted into connector B.

- (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
AE4-2 (+SR) - AE4-1 (-SR)	Always	Below 1 Ω

NG

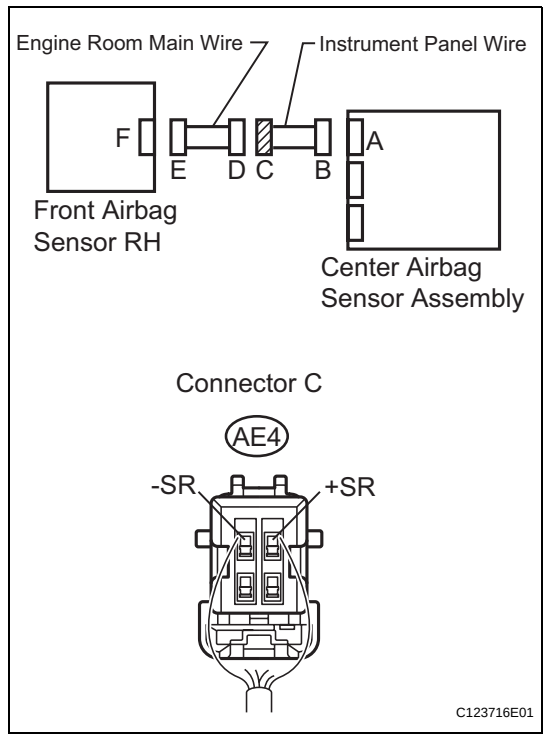
REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

REPAIR OR REPLACE ENGINE ROOM MAIN WIRE

10

CHECK INSTRUMENT PANEL WIRE (SHORT)



- (a) Disconnect the instrument panel wire connector from the engine room main wire.
- (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

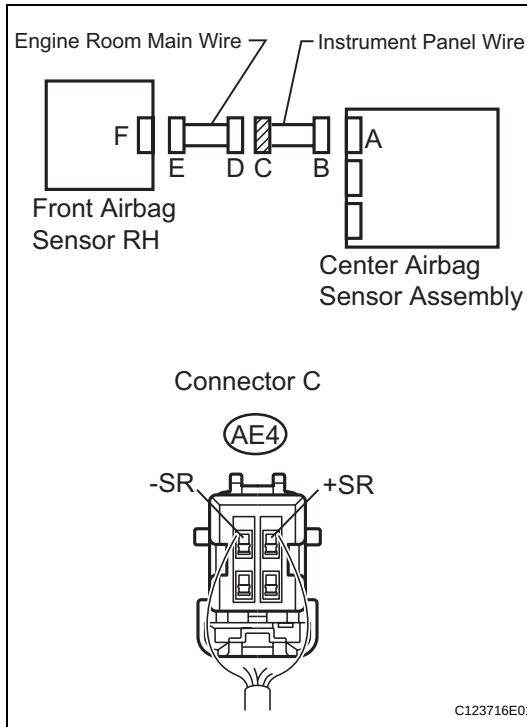
Tester Connection	Condition	Specified Condition
AE4-2 (+SR) - AE4-1 (-SR)	Always	1 MΩ or higher

NG

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

REPAIR OR REPLACE ENGINE ROOM MAIN WIRE

11 CHECK INSTRUMENT PANEL WIRE (SHORT TO B+)

- Turn the power switch off.
- Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- Disconnect the instrument panel wire connector from the engine room main wire.
- Connect the negative (-) terminal cable to battery, and wait for at least 2 seconds.
- Turn the power switch on (IG).
- Measure the voltage according to the value(s) in the table below.

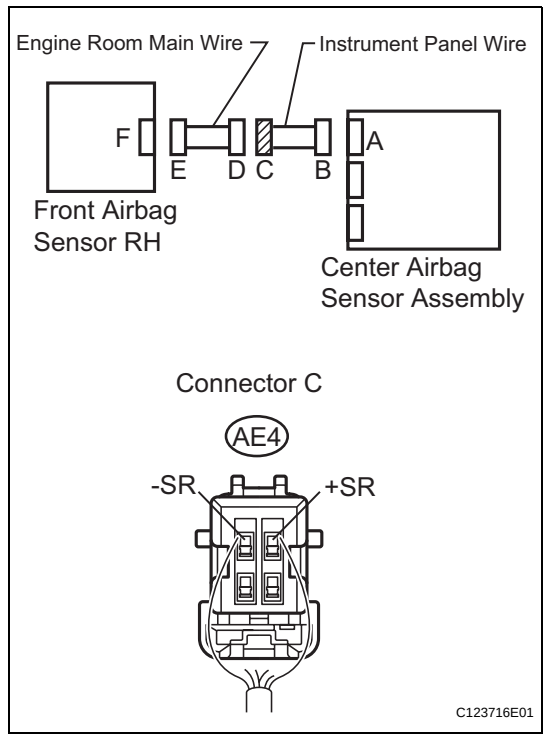
Standard voltage

Tester Connection	Condition	Specified Condition
AE4-2 (+SR) - Body ground	Power switch on (IG)	Below 1 V
AE4-1 (-SR) - Body ground	Power switch on (IG)	Below 1 V

NG**REPAIR OR REPLACE INSTRUMENT PANEL WIRE****OK****REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

12

CHECK INSTRUMENT PANEL WIRE (SHORT TO GROUND)



OK

- (a) Disconnect the instrument panel wire connector from the engine room main wire.
- (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified Condition
AE4-2 (+SR) - Body ground	Always	1 MΩ or higher
AE4-1 (-SR) - Body ground	Always	1 MΩ or higher

NG

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

REPAIR OR REPLACE ENGINE ROOM MAIN WIRE