DTC	B1156/15	Front Airbag Sensor RH Malfunction

DTC	B1157/15	Front Airbag Sensor RH Malfunction

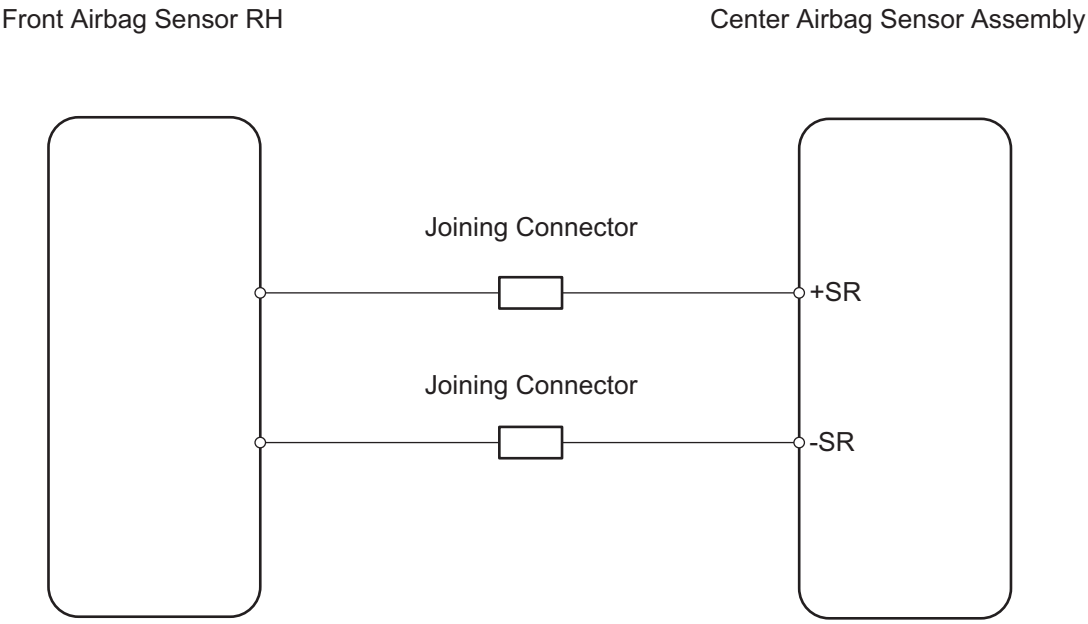
DESCRIPTION

The front airbag sensor RH circuit consists of the center airbag sensor assembly and the front airbag sensor RH. DTC B1156/15 or B1157/15 is recorded when a malfunction is detected in the front airbag sensor RH circuit.

DTC No.	DTC Detection Condition	Trouble Area
B1156/15 B1157/15	• Short circuit in front airbag sensor RH wire harness (to B+) • Short circuit in front airbag sensor RH wire harness (to ground) • Short circuit between +SR wire harness and -SR wire harness of front airbag sensor RH • Open circuit in +SR wire harness or -SR wire harness of front airbag sensor RH • Front airbag sensor RH malfunction • Center airbag sensor assembly malfunction	• Front airbag sensor assembly • Center airbag sensor assembly • Instrument panel wire • Engine room main wire

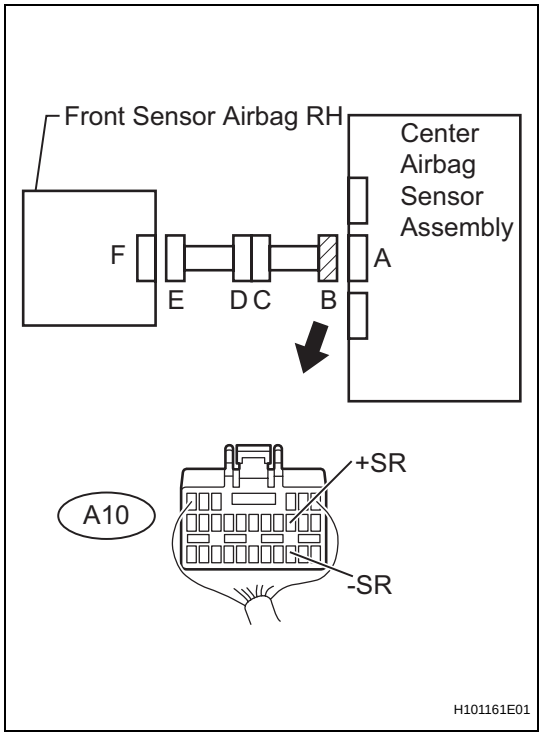
WIRING DIAGRAM

RS



1	**CHECK FRONT AIRBAG SENSOR RH CIRCUIT (TO B+) (CENTER AIRBAG SENSOR ASSEMBLY - FRONT AIRBAG SENSOR RH)**

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Disconnect the connectors between the center airbag sensor assembly and the front airbag sensor RH.
(d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.



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

Standard voltage

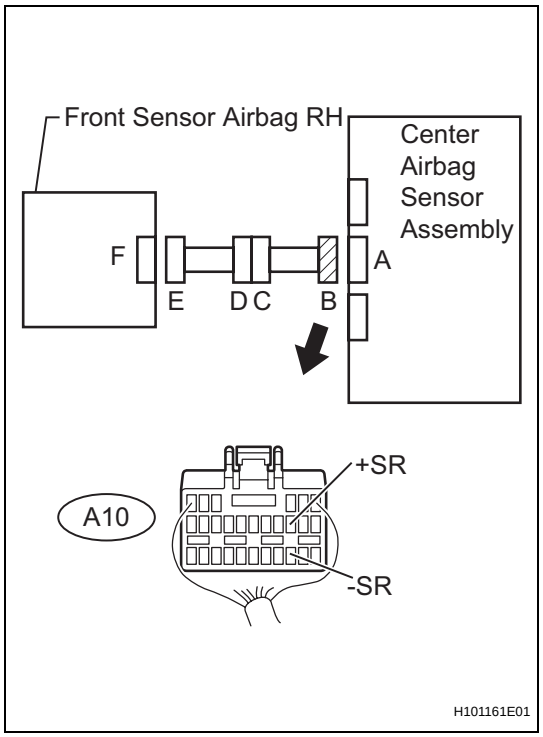
Tester Connection (Connector "B")	Condition	Specified Condition
A10-9 (+SR) - Body ground	Ignition switch ON	Below 1 V
A10-20 (-SR) - Body ground		

RS

NG → **Go to step 7**

OK

2 CHECK FRONT AIRBAG SENSOR RH CIRCUIT (TO GROUND) (FRONT AIRBAG SENSOR RH - CENTER AIRBAG SENSOR ASSEMBLY)



(a) Turn the ignition switch to the LOCK position.
(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

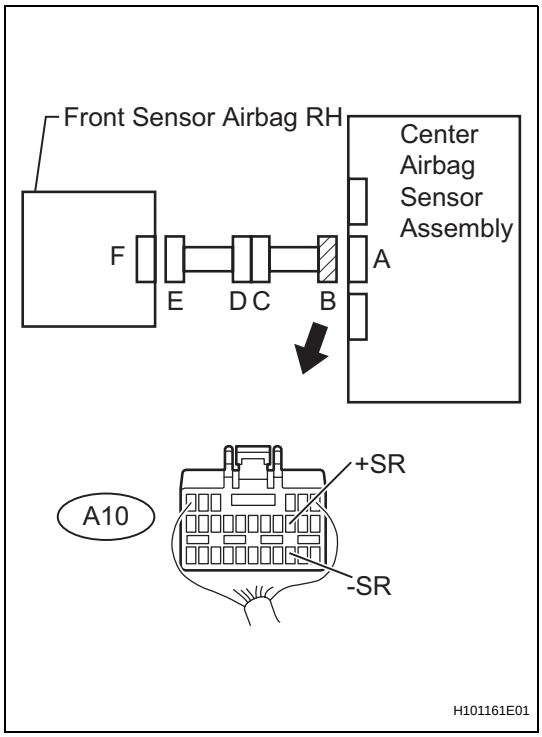
Tester Connection (Connector "B")	Specified Condition
A10-9 (+SR) - Body ground	1 MΩ or higher
A10-20 (-SR) - Body ground	

NG → **Go to step 8**

OK

3	CHECK FRONT AIRBAG SENSOR RH CIRCUIT (SHORT) (FRONT AIRBAG SENSOR RH - CENTER AIRBAG SENSOR ASSEMBLY)

RS



(a) Measure the resistance according to the value(s) in the table below.
Standard resistance

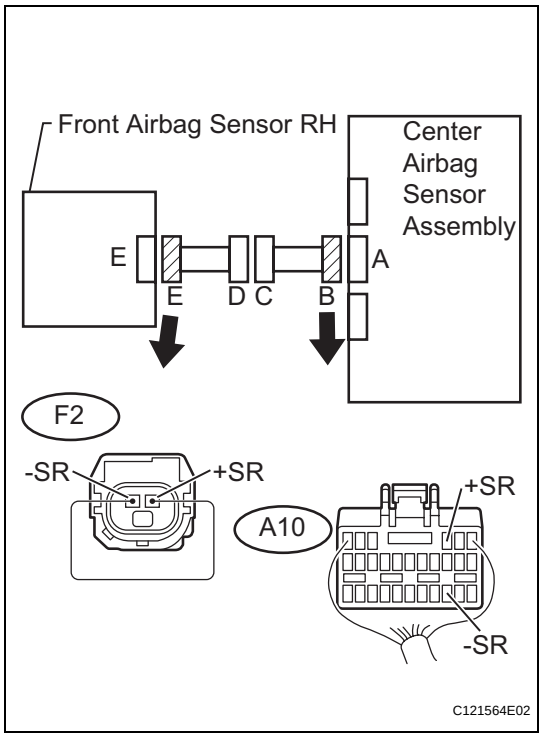
Tester Connection (Connector "B")	Specified Condition
A10-9 (+SR) - A10-20 (-SR)	1 MΩ or higher

NG → **Go to step 9**

OK

4	CHECK FRONT AIRBAG SENSOR RH CIRCUIT (OPEN) (FRONT AIRBAG SENSOR RH - CENTER AIRBAG SENSOR ASSEMBLY)

(a) Using a service wire, connect terminals +SR and -SR of connector "E".
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

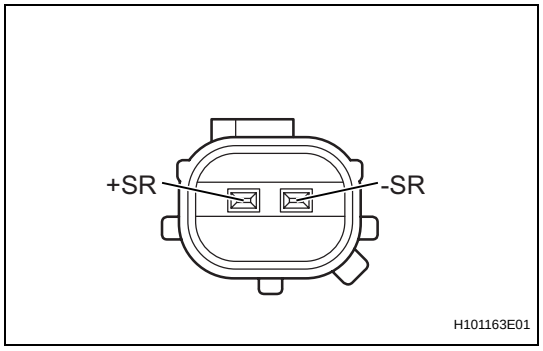
Tester Connection (Connector "B")	Specified Condition
A10-9 (+SR) - A10-20 (-SR)	Below 1 Ω

RS

NG → **Go to step 10**

OK

5 INSPECT FRONT AIRBAG SENSOR RH



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

Standard resistance

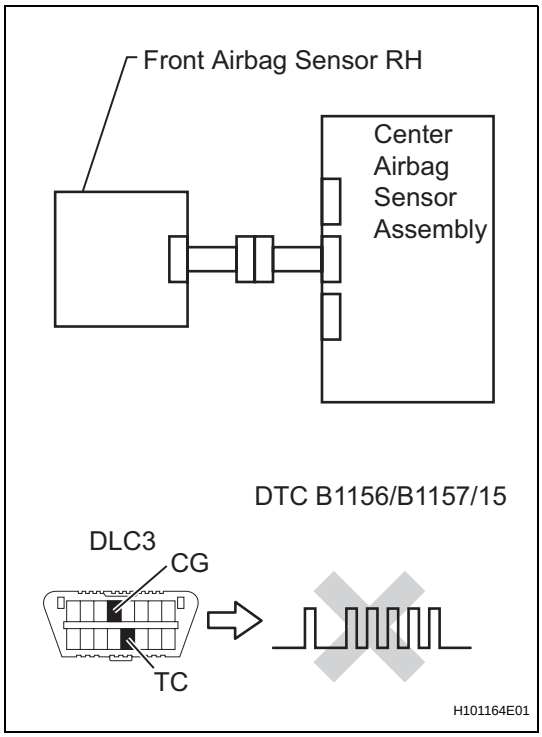
Tester Connection (Connector "B")	Specified Condition
+SR - -SR	738 to 902 Ω

NG → **REPLACE FRONT AIRBAG SENSOR RH**

OK

6 CHECK CENTER AIRBAG SENSOR ASSEMBLY

(a) Connect the connectors to the front airbag sensor RH and the center airbag sensor assembly.
(b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(c) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(d) Clear the stored DTCs in the memory (see page RS-21).
(e) Turn the ignition switch to the LOCK position.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.



(g) Check for the DTCs (see page RS-21).
OK:
DTC B1156/15 or B1157/15 is not output.
HINT:
Codes other than code B1156/15 or B1157/15 may be output at this time, but they are not related to this check.

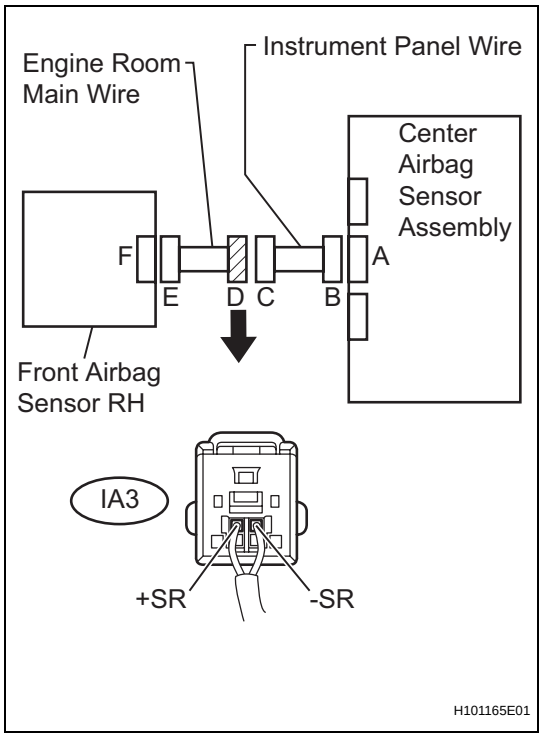
NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

PROBLEM SYMPTOMS SIMULATION

7	CHECK ENGINE ROOM MAIN WIRE HARNESS (TO B+) (CONNECTOR - FRONT AIRBAG SENSOR RH)

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Disconnect the engine room main wire connector from the instrument panel wire.
(d) Connect the negative (-) terminal cable to the battery, and wait for at lest 2 seconds.



(e) Measure the voltage according to the value(s) in the table below.

Standard voltage

Tester Connection (Connector "D")	Condition	Specified Condition
IA3-2 (+SR) - Body ground	Ignition switch ON	Below 1 V
IA3-1 (-SR) - Body ground		

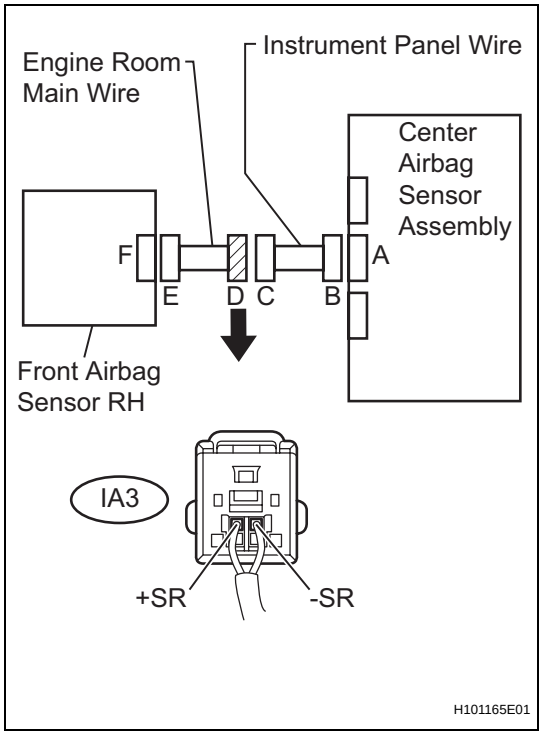
RS

NG → **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

8 CHECK ENGINE ROOM MAIN WIRE HARNESS (TO GROUND) (CONNECTOR - FRONT AIRBAG SENSOR RH)



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

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

Standard resistance

Tester Connection (Connector "D")	Specified Condition
IA3-2 (+SR) - Body ground	1 MΩ or higher
IA3-1 (-SR) - Body ground	

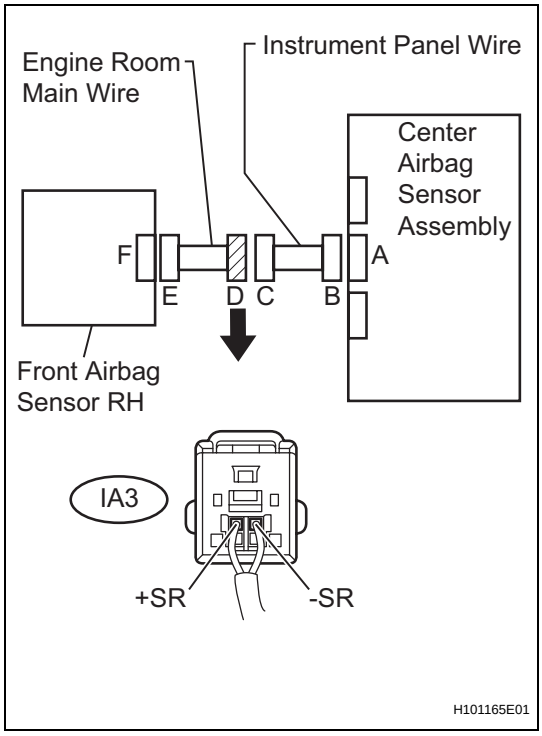
NG → **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

RS

9	CHECK ENGINE ROOM MAIN WIRE HARNESS (SHORT) (CONNECTOR - FRONT AIRBAG SENSOR RH)



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

Standard resistance

Tester Connection (Connector "D")	Specified Condition
IA3-2 (+SR) - IA3-1 (-SR)	1 MΩ or higher

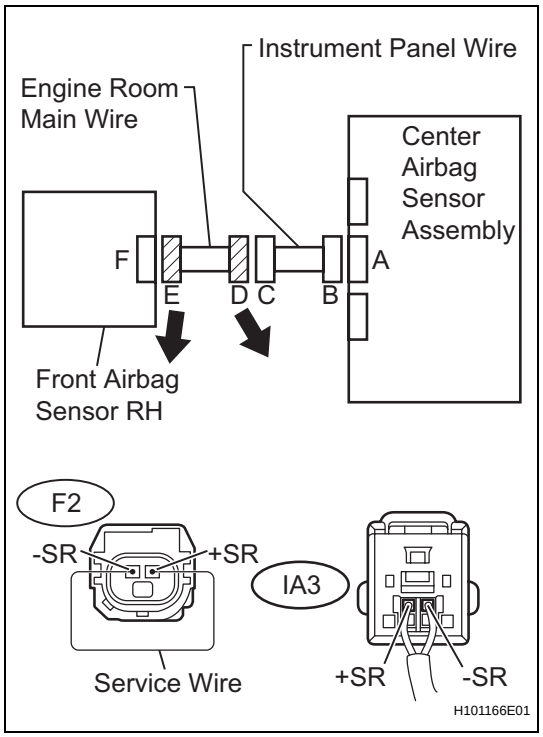
NG → **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

10	CHECK ENGINE ROOM MAIN WIRE HARNESS (OPEN) (CONNECTOR - FRONT AIRBAG SENSOR RH)

(a) Disconnect the engine room main wire connector from the instrument panel wire.
HINT:
Terminals +SR and -SR of connector "E" have already been connected with each other using the service wire.



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

Standard resistance

Tester Connection (Connector "D")	Specified Condition
IA3-2 (+SR) - IA3-1 (-SR)	Below 1 Ω

NG → **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

RS