

<b>DTC</b>	<b>B1156/15</b>	<b>FRONT AIRBAG SENSOR (RH) MALFUNCTION</b>
------------	-----------------	-------------------------------------------------

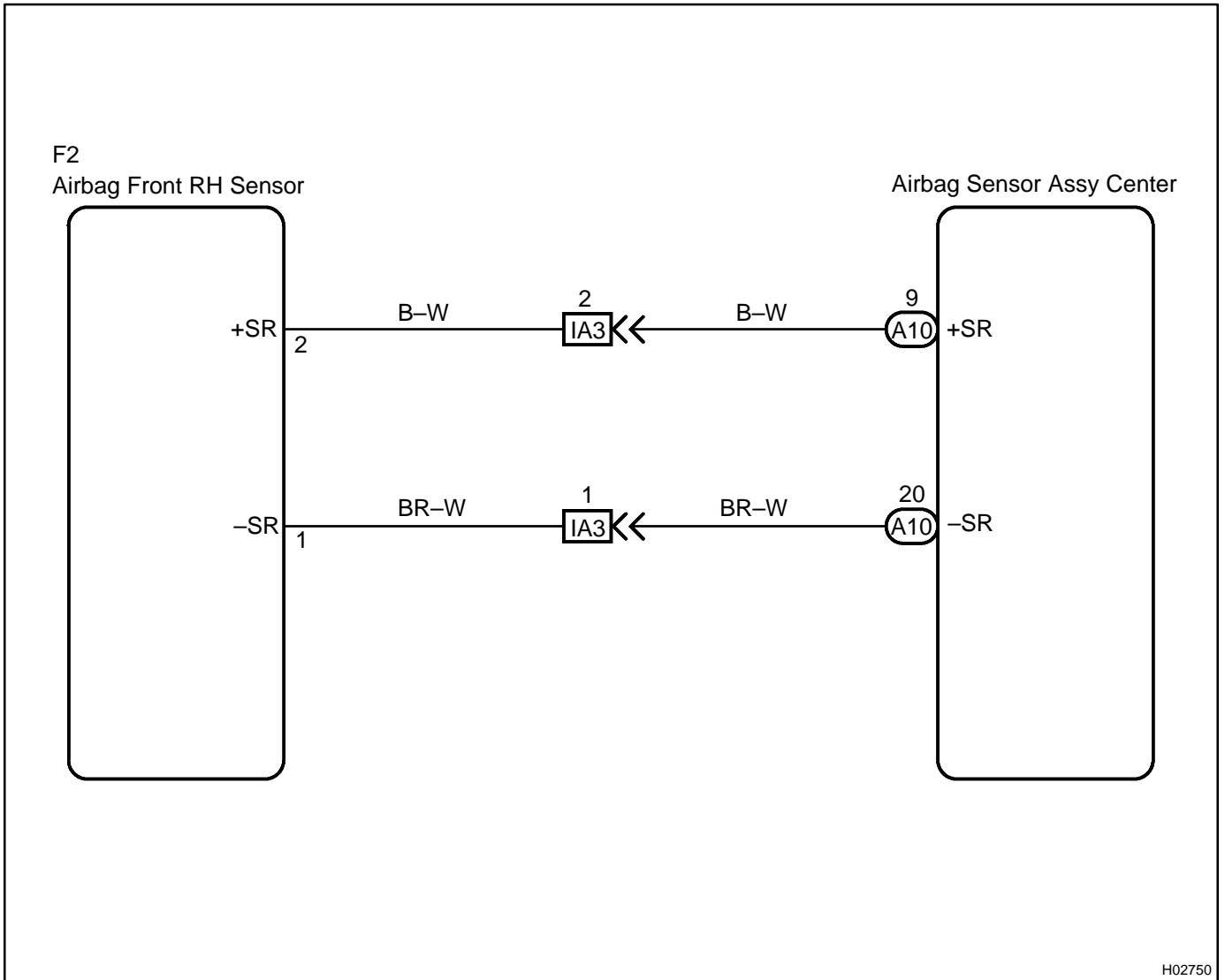
<b>DTC</b>	<b>B1157/15</b>	<b>FRONT AIRBAG SENSOR (RH) MALFUNCTION</b>
------------	-----------------	-------------------------------------------------

## CIRCUIT DESCRIPTION

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

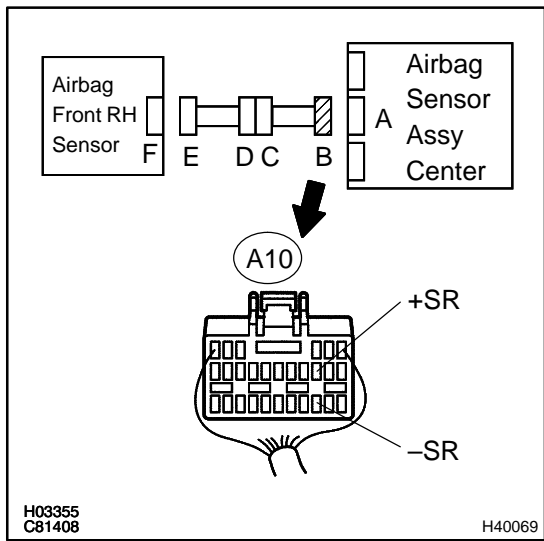
DTC No.	DTC Detecting Condition	Trouble Area
B1156/15 B1157/15	<ul style="list-style-type: none"> <li>• Short circuit in airbag front RH sensor wire harness (to B+)</li> <li>• Short circuit in airbag front RH sensor wire harness (to ground)</li> <li>• Short circuit between +SR wire harness and –SR wire harness of airbag front RH sensor</li> <li>• Open circuit in +SR wire harness or –SR wire harness of airbag front RH sensor</li> <li>• Airbag front RH sensor malfunction</li> <li>• Airbag sensor assy center malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Airbag front RH sensor</li> <li>• Airbag sensor assy center</li> <li>• Instrument panel wire</li> <li>• Engine room main wire</li> </ul>

### WIRING DIAGRAM



**INSPECTION PROCEDURE**

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



- (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 airbag sensor assy center and the airbag front RH sensor.
- (d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (e) Measure the voltage according to the value(s) in the table below.

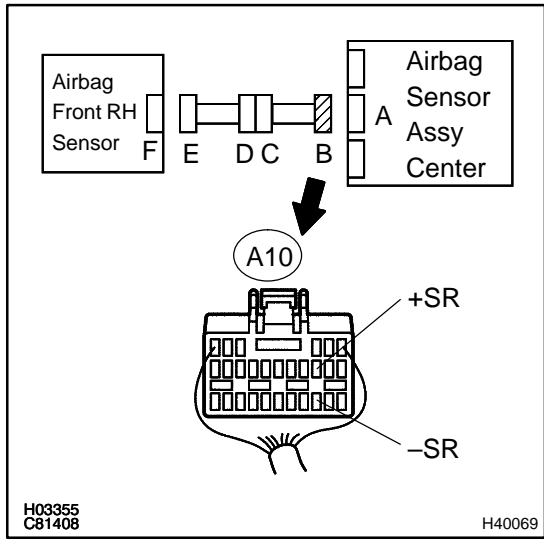
**Standard:**

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

**NG** Go to step 7

**OK**

**2 CHECK FRONT AIRBAG SENSOR (RH) CIRCUIT (TO GROUND)(AIRBAG SENSOR ASSY - AIRBAG FRONT RH SENSOR)**



- (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.

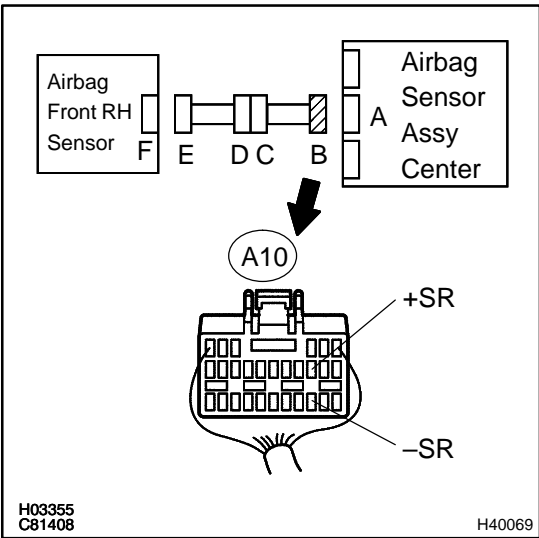
**Standard:**

Tester connection (Connector "B")	Condition	Specified condition
A10-9 (+SR) - Body ground	Always	1 MΩ or Higher
A10-20 (-SR) - Body ground	Always	1 MΩ or Higher

**NG** Go to step 8

**OK**

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



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

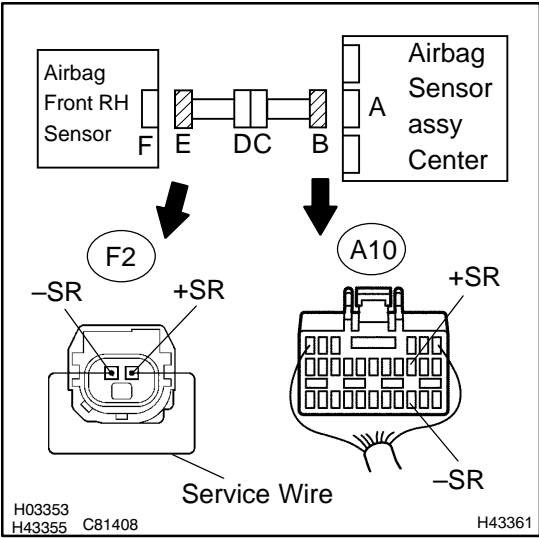
**Standard:**

Tester connection (Connector "B")	Condition	Specified condition
A10-9 (+SR) - A10-20 (-SR)	Always	1 MΩ or Higher

**NG** Go to step 9

**OK**

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



(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.

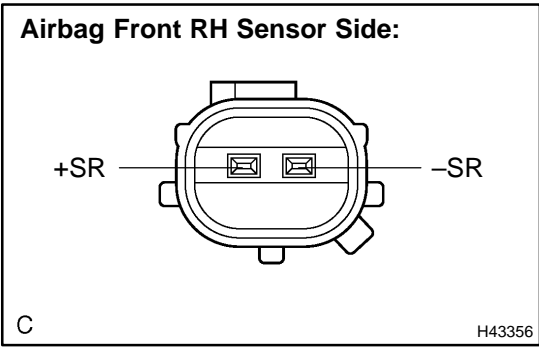
**Standard:**

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

**NG** Go to step 10

**OK**

**5 INSPECT AIR BAG FRONT RH SENSOR**



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

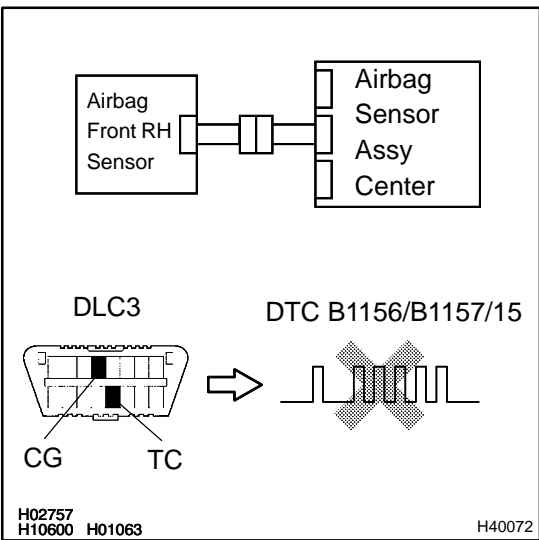
**Standard:**

Tester connection	Condition	Specified condition
+SR --SR	Always	738 to 902 Ω

**NG** → **REPLACE AIR BAG FRONT RH SENSOR**

**OK**

**6 CHECK AIR BAG SENSOR ASSY CENTER**



- (a) Connect the connectors to the airbag front RH sensor and the airbag sensor assy center.  
 (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 05-453).  
 (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 the DTCs (See page 05-453).

**OK:**

**DTC B1156/15 or B1157/15 is not output.**

**HINT:**

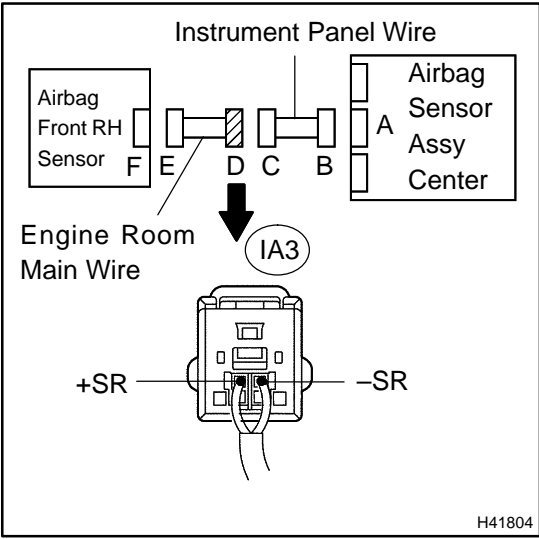
Codes other than code B1156/15 or B1157/15 may be output at this time, but they are not related to this check.

**NG** → **REPLACE AIR BAG SENSOR ASSY CENTER**

**OK**

**USE SIMULATION METHOD TO CHECK**

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



- (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 least 2 seconds.
- (e) Measure the voltage according to the value(s) in the table below.

**Standard:**

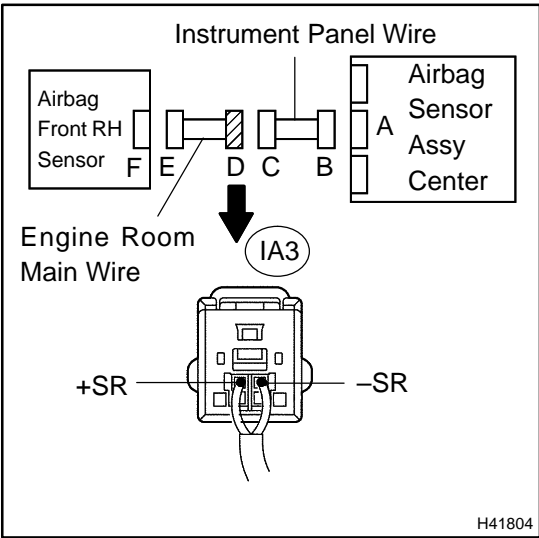
Tester connection (Connector "D")	Condition	Specified condition
IA3-2 (+SR) - Body ground	Ignition switch ON	Below 1 V
IA3-1 (-SR) - Body ground	Ignition switch ON	Below 1 V

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

**OK**

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

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



- (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:**

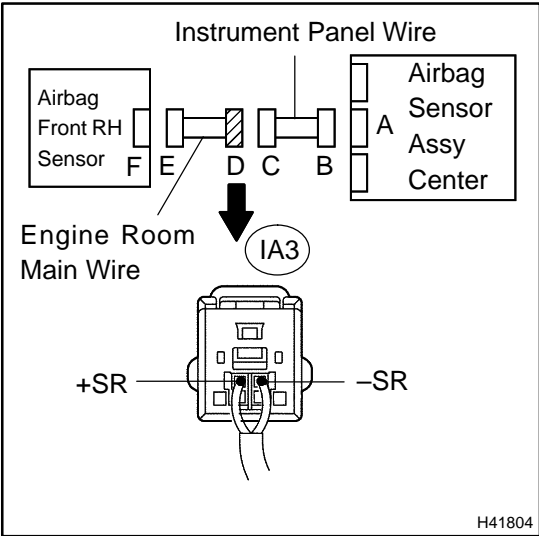
Tester connection (Connector "D")	Condition	Specified condition
IA3-2 (+SR) - Body ground	Always	1 MΩ or Higher
IA3-1 (-SR) - Body ground	Always	1 MΩ or Higher

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

**OK**

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

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



- (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:**

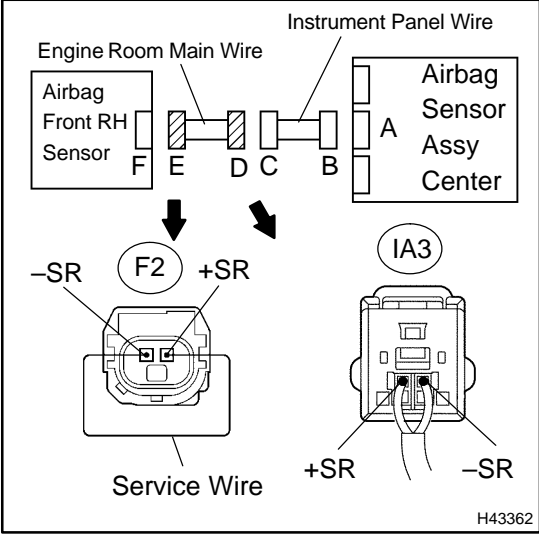
Tester connection (Connector "D")	Condition	Specified condition
IA3-2 (+SR) - IA3-1 (-SR)	Always	1 MΩ or Higher

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

**OK**

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

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



- (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 each other using the service wire.

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

**Standard:**

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

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

**OK**

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**