

Diag. Code 15 Open in Front Airbag Sensor Circuit

CIRCUIT DESCRIPTION

The front airbag sensor detects the deceleration force in a frontal collision and is located in the radiator upper support.

For details of the function of each component, see FUNCTION OF COMPONENTS on page AB-7.

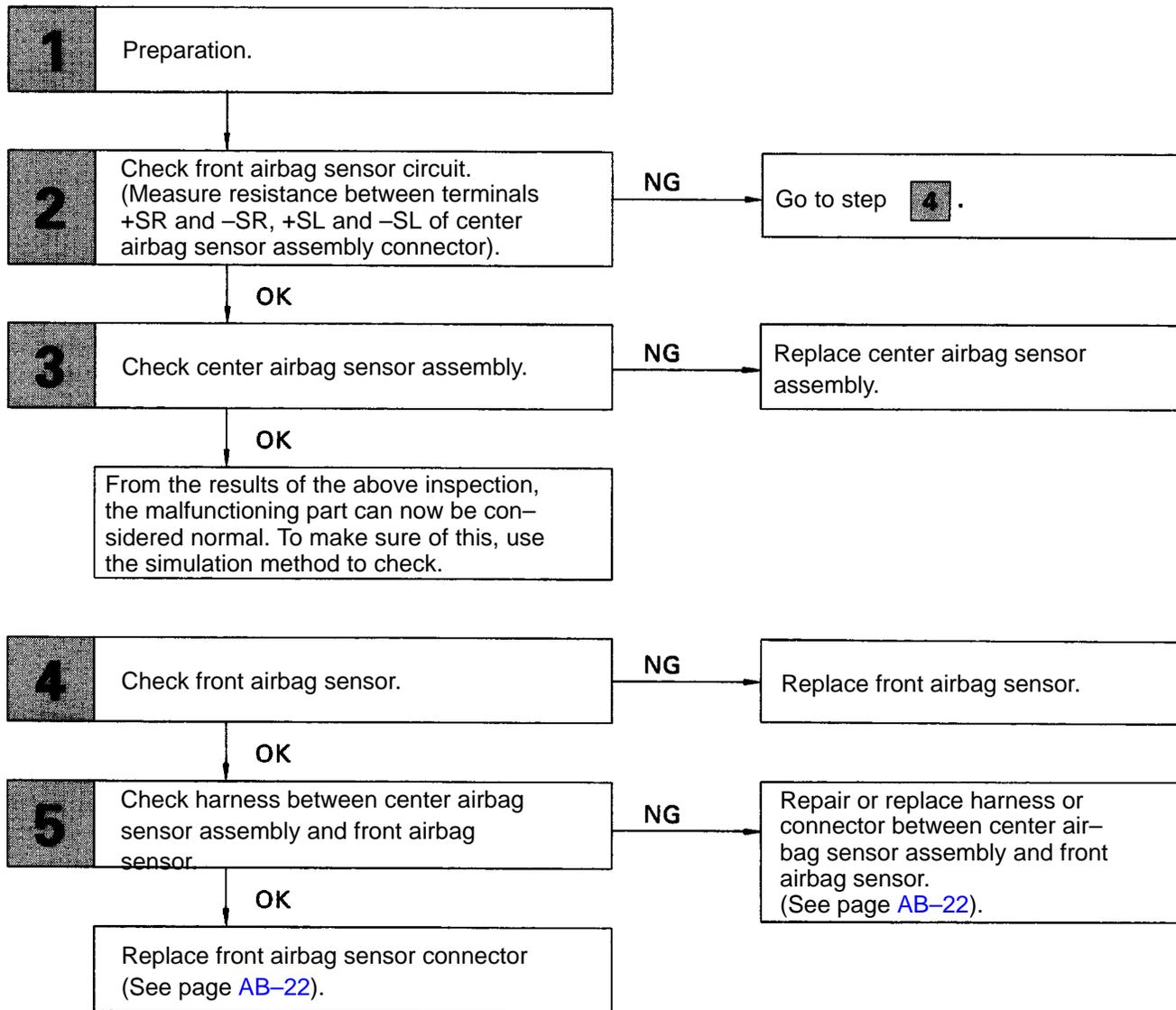
Diagnostic code 15 is recorded when an open is detected in the squib circuit.

NOTICE: The front airbag sensor connector is equipped with an electrical connection check mechanism for the purpose of detecting an open in the front airbag sensor (See page AB-9). This mechanism is constructed so that when the terminals of the front airbag sensor have been connected (when the connector housing lock is in the locked condition), the connection detection pin on the wire harness side connects with the terminals for diagnosis use on the sensor side. If the connector is not properly connected, the diagnosis system may detect only a malfunction code, even though the airbag system is functioning normally.

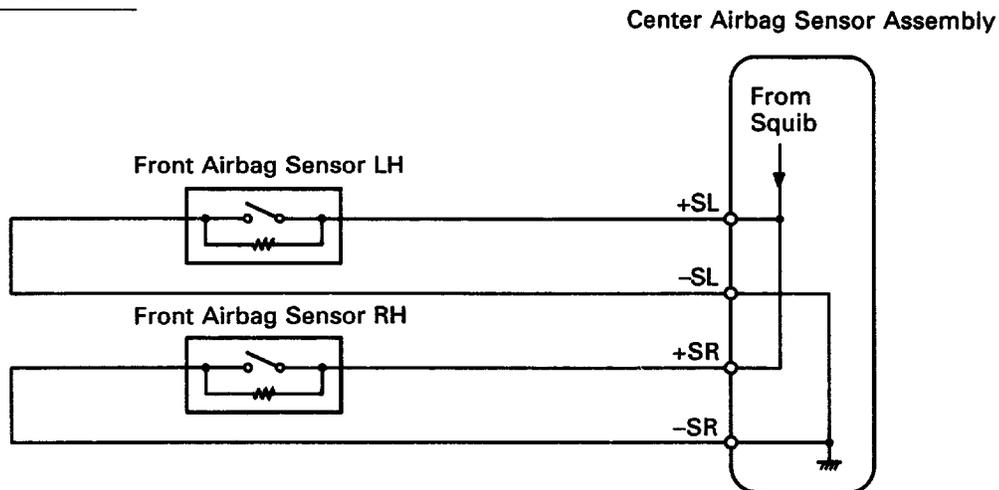
When connecting the front airbag sensor connector, make sure it is connected properly. If diagnostic code 15 is displayed after the front airbag sensor connector has been connected, check again that it is properly connected.

Code No.	Diagnosis
15	<ul style="list-style-type: none"> • Open circuit in +S wire harness or –S wire harness of front airbag sensor. • Front airbag sensor malfunction. • Malfunction of electrical connection check mechanism of front airbag sensor. • Center airbag sensor assembly malfunction.

DIAGNOSTIC CHART

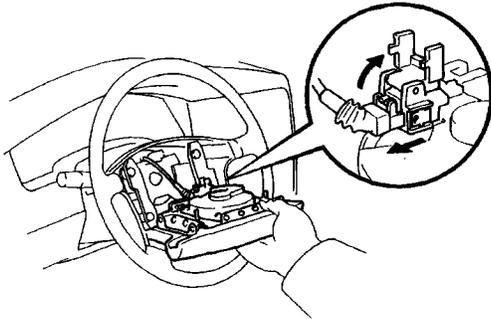


WIRING DIAGRAM



INSPECTION PROCEDURES

P Preparation **C** Check

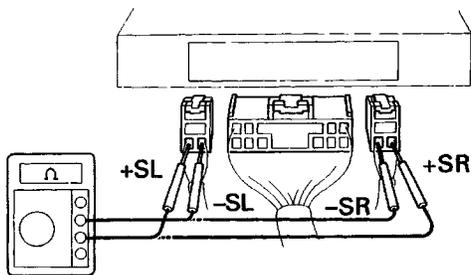
1**Preparation.****LOCK**

AB0117
AB0267

- P** (1) Disconnect battery negative (-) terminal cable, and wait at least 20 seconds.
(2) Remove steering wheel pad (See page AB-15).

Caution

When storing steering wheel pad, keep upper surface of pad facing upward.

**2****Check front airbag sensor circuit (Measure resistance between terminals +SR and -SR, +SL and -SL of center airbag sensor assembly connector).****Center Airbag Sensor Assembly**

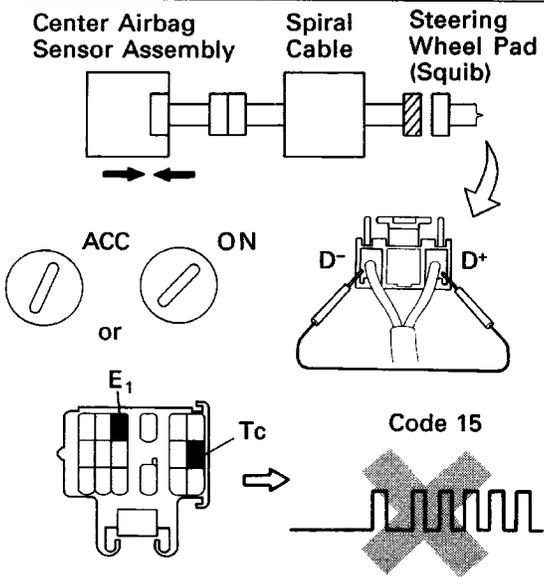
AB0097

- P** Disconnect center airbag sensor assembly connectors.
- C** Measure resistance between terminals +SR and -SR, +SL and -SL of harness side connector of center airbag sensor assembly.
- OK** **Resistance: 755 Ω - 885 Ω**



NG Go to step **4**.

3 Check center airbag sensor assembly.



AB0074
AB0069
AB0118 AB0119
SH-18-1 AB0058

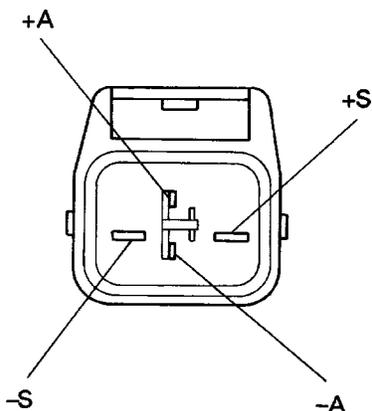
- P** (1) Connect connectors to center airbag sensor assembly.
 (2) Using a service wire, connect D+ and D- on spiral cable side of connector between spiral cable and steering wheel pad.
 (3) Connect negative (-) terminal cable to battery, and wait at least 2 seconds.
- C** (1) Turn ignition switch ACC or ON, and wait at least 20 seconds.
 (2) Using SST, connect terminals Tc and E1 of check connector.
 SST 09843-18020
 (3) Check diagnostic code.
- OK** **Diagnostic code 15 is not output.**
- Hint** Codes other than code 15 may be output at this time, but this is not relevant to this check.

OK

NG Replace center airbag sensor assembly.

From the results of the above inspection, the malfunctioning part can now be considered normal. To make sure of this, use the simulation method to check.

4 Check front airbag sensor.



AB0034

- P** Disconnect front airbag sensor connector.
- C** Measure resistance between each terminal of front airbag sensor.

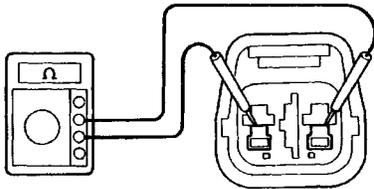
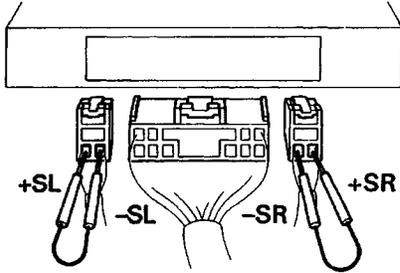
OK

Terminal	Resistance
(+) S - (+) A	755Ω - 885Ω
(+) S - (-) S	∞
(-) S - (-) A	Less than 1Ω

- Notice**
- Do not touch ohmmeter probes strongly against terminals of front airbag sensor.
 - Make sure the front airbag sensor connector is properly connected.

OK

NG Replace front airbag sensor.

5**Check harness between center airbag sensor assembly and front airbag sensor.****Center Airbag Sensor Assembly**AB0098
AB0039

- P** (1) Disconnect center airbag sensor assembly connectors.
 (2) Using a service wires, connect +SR and -SR, +SL and -SL on the wire harness side of the center airbag sensor assembly connectors.

- C** Measure resistance between terminals +SR and -SR, +SL and -SL of harness side connector of front airbag sensor.

OK Resistance: Less than 1Ω

Notice

- Lightly touch ohmmeter probes at position shown in illustration.
- Make sure the front airbag sensor connector is properly connected.

OK**NG**

Repair or replace harness or connector between center airbag sensor assembly and front airbag sensor (See page [AB-22](#)).

Replace front airbag sensor connector (See page [AB-22](#)).