

DTC	Normal	Source Voltage Drop
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CIRCUIT DESCRIPTION

The SRS is equipped with a voltage-increase circuit (DC-DC converter) in the airbag sensor assembly in case the source voltage drops.

When the battery voltage drops, the voltage-increase circuit (DC-DC converter) functions to increase the voltage of the SRS to normal voltage.

The diagnosis system malfunction display for this circuit is differ from the other circuits in that when the SRS warning light remains on and the DTC shows a normal code, source voltage drop is indicated.

Malfunction in this circuit is not recorded in the airbag sensor assembly, and when the source voltage returns to normal, the SRS warning light automatically goes off.

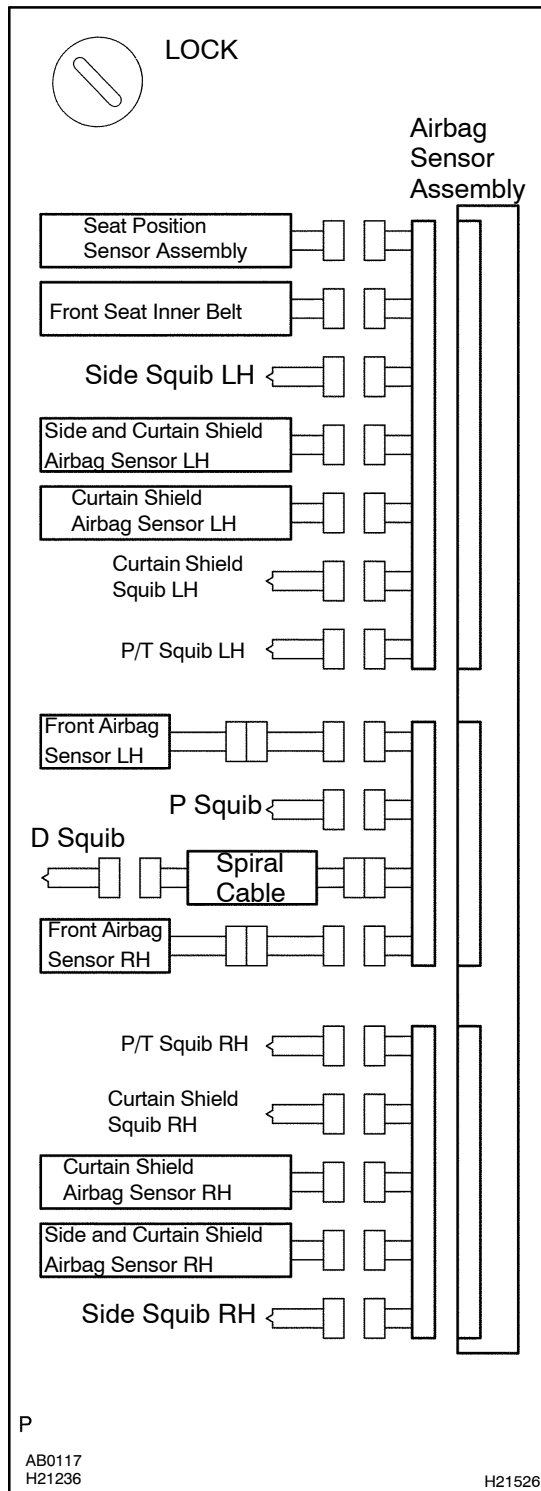
DTC No.	Diagnosis
(Normal)	Source voltage drop

The diagram illustrates the electrical connections for the Airbag Sensor Assembly (H21559). The main components and their connections are as follows:

- Ignition SW (I18):** Terminal 7 (AM2 IG2) is connected to terminal 6 (B-R) of the J8 J/C.
- J8 J/C:** Terminal 6 (B-R) is connected to terminal 4 (3E) of the Cowl Side J/B RH.
- Cowl Side J/B RH:** Terminal 4 (3E) is connected to terminal 3 (3F) via an IGN component. Terminal 3 (3F) is connected to terminal 5 (C32 IG2) of the Airbag Sensor Assembly.
- Engine Room J/B:** Terminal 9 (1B) is connected to terminal 1 (1C) via an AM2 component. Terminal 1 (1C) is connected to terminal 2 (B-G) of the F16 FL Block.
- F16 FL Block:** Terminal 2 (B-G) is connected to terminal 28 (C32 E2) of the Airbag Sensor Assembly.
- Cowl Side J/B LH:** Terminal 41 (2E) is connected to terminal 10 (2A) via a W-R component. Terminal 10 (2A) is connected to terminal 9 (3F) of the Cowl Side J/B RH.
- Cowl Side J/B RH:** Terminal 9 (3F) is connected to terminal 28 (C32 E2) via a W-B component. Terminal 6 (3F) is connected to terminal 27 (C32 E1) via a W-B component. Terminal 40 (3Q) is connected to terminal 14 (2Q) of the Cowl Side J/B LH via an SB component.
- Cowl Side J/B LH:** Terminal 14 (2Q) is connected to terminal 14 (2Q) of the Cowl Side J/B LH.
- Battery:** The positive terminal is connected to terminal 7 (AM2 IG2) of the Ignition SW. The negative terminal is connected to the ground.

INSPECTION PROCEDURE

1 Prepare for inspection.

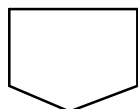


PREPARATION:

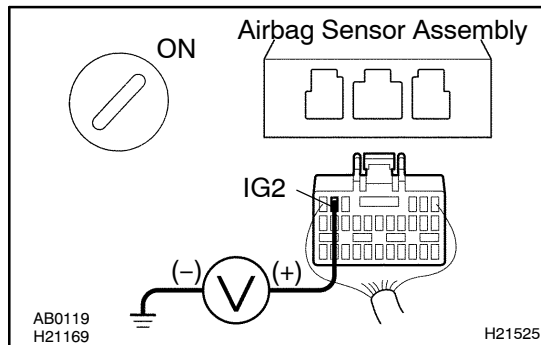
- Disconnect the negative (-) terminal cable from the battery, and wait at least for 90 seconds.
- Remove the steering wheel pad (See page [SR-14](#)).
- Disconnect the connector of the front passenger airbag assembly (See page [RS-29](#)).
- Disconnect the connector of the side airbag assembly RH and LH (See page [RS-42](#)).
- Disconnect the connector of the curtain shield airbag assembly RH and LH (See page [RS-57](#)).
- Disconnect the connector of the seat belt pretensioner RH and LH (See page [BO-171](#)).
- Disconnect the connectors of the airbag sensor assembly (See page [RS-68](#)).
- Disconnect the connector of the front airbag sensor RH and LH (See page [RS-73](#)).
- Disconnect the connector of the side and curtain shield airbag sensor assembly RH and LH (See page [RS-78](#)).
- Disconnect the connector of the curtain shield airbag sensor assembly RH and LH (See page [RS-84](#)).
- Disconnect the connector of the seat position sensor assembly (See page [RS-89](#)).
- Disconnect the front seat inner belt LH connector (See page [BO-136](#)).

CAUTION:

Store the steering wheel pad, front passenger airbag assembly, side airbag assembly and curtain shield airbag assembly with the front surface facing upward.



2 Check source voltage.



PREPARATION:

- Deactivate the LEXUS link system (See page [DI-706](#)).
- Connect the negative (-) terminal cable to the battery.

CHECK:

- Turn the ignition switch to ON.
- Measure the voltage between the body ground and IG2 on the airbag sensor assembly and operate electric system (defogger, wiper, headlight, heater blower, etc.).

OK:

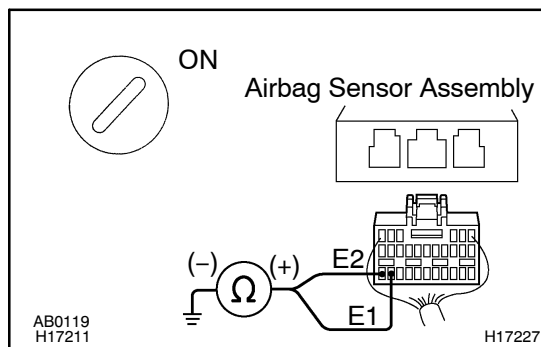
Voltage: 10 – 14 V

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Check harness between battery and airbag sensor assembly, and check battery and charging system.

OK

3 Check airbag sensor assembly connector.



CHECK:

Measure the resistance between the body ground and each of E1 and E2 of the airbag sensor assembly connector.

OK:

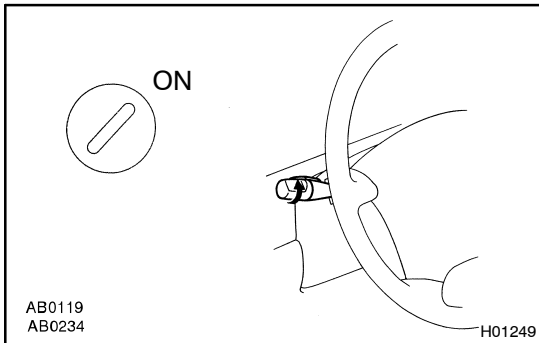
Resistance: 0 Ω (Continuity)

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Replace airbag sensor assembly connector.

OK

4 Does SRS warning light turn off?



PREPARATION:

- (a) Turn the ignition switch to LOCK.
- (b) Connect the steering wheel pad connector.
- (c) Connect the front passenger airbag assembly connector.
- (d) Connect the side airbag assembly connectors.
- (e) Connect the seat belt pretensioner connectors.
- (f) Connect the airbag sensor assembly connectors.
- (g) Connect the front airbag sensor connectors.
- (h) Connect the side and curtain shield airbag sensor assembly connectors.
- (i) Connect the curtain shield airbag assembly connectors.
- (j) Connect the curtain shield airbag sensor assembly connectors.
- (k) Connect the seat position sensor assembly connector.
- (l) Connect the front seat inner belt LH connector.

CHECK:

- (a) Turn the ignition switch to ON.
- (b) Operate electric system (defogger, wiper, headlight, heater blower, etc.) and check that SRS warning light goes off.

NO

Check for DTCs. If a DTC is output, perform troubleshooting for the DTC. If a normal code is output, replace airbag sensor assembly.

YES

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.