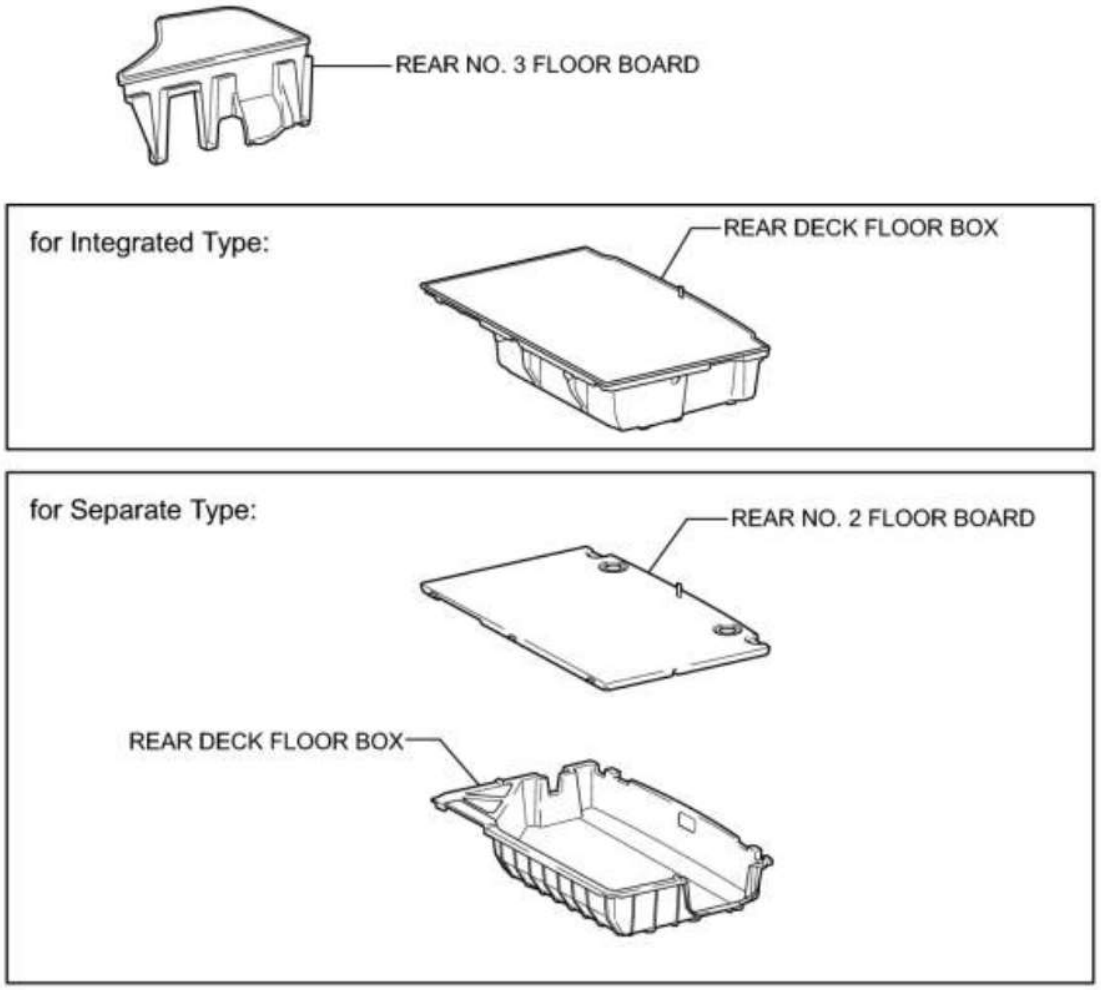
COMPONENTS

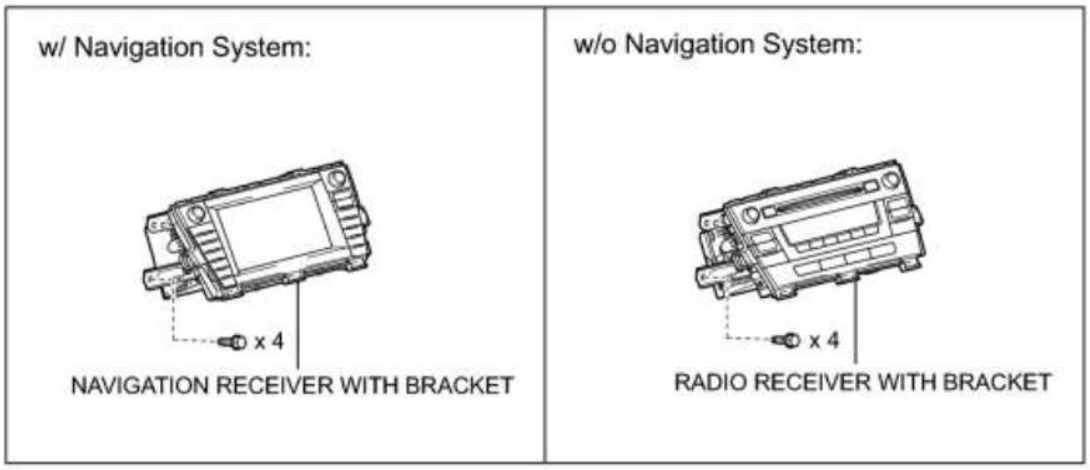
ILLUSTRATION

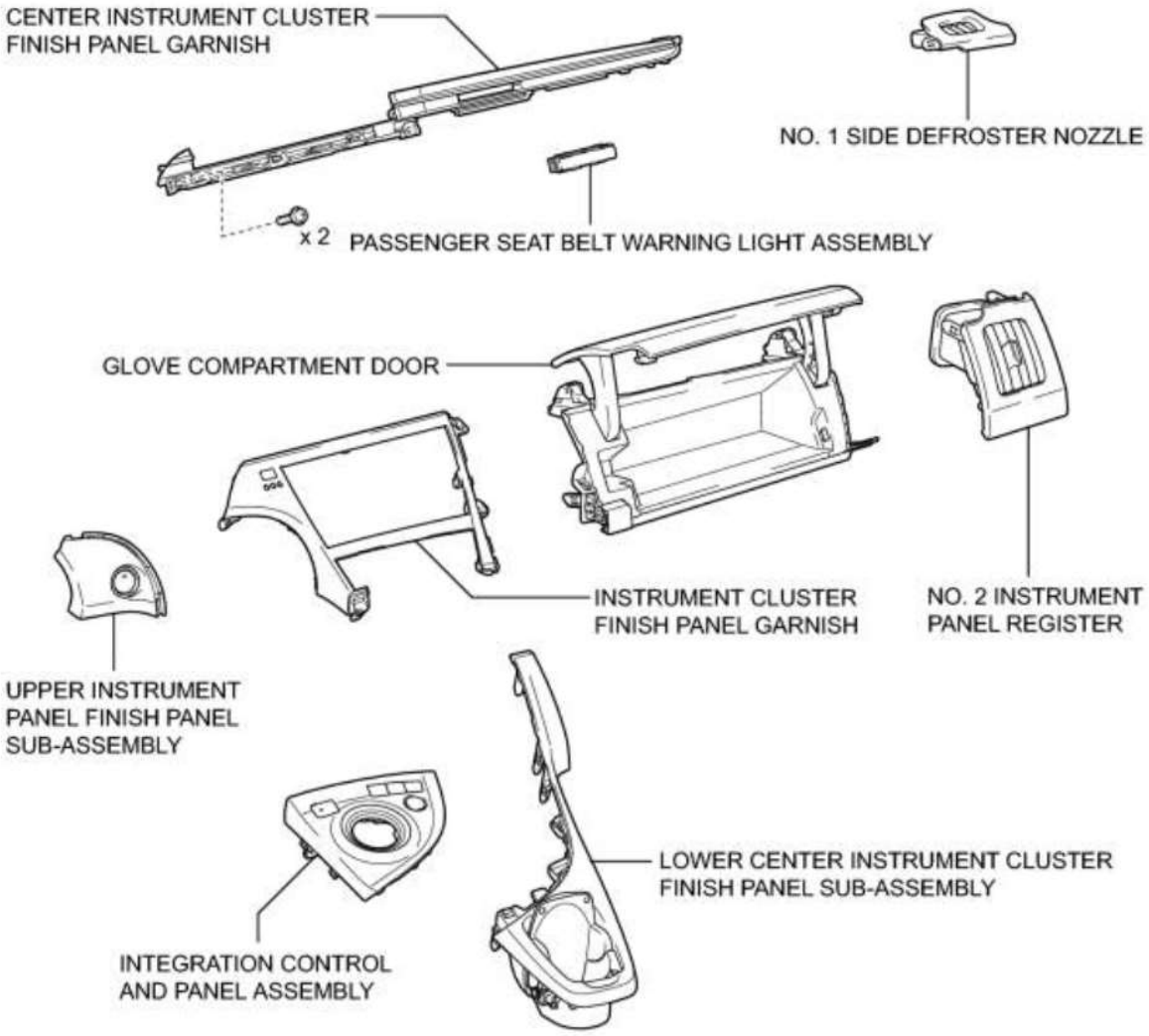


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ILLUSTRATION

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REMOVAL

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO.

2. REMOVE REAR NO. 2 FLOOR BOARD (for Separate Type) INFO

3. REMOVE REAR DECK FLOOR BOX INFO

4. REMOVE REAR NO. 3 FLOOR BOARD INFO

5. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

6. REMOVE INTEGRATION CONTROL AND PANEL ASSEMBLY INFO

7. REMOVE LOWER CENTER INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY INFO

8. REMOVE INSTRUMENT CLUSTER FINISH PANEL GARNISH INFO

9. REMOVE UPPER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY INFO

10. REMOVE RADIO RECEIVER WITH BRACKET (w/o Navigation System) INFO

11. REMOVE NAVIGATION RECEIVER WITH BRACKET (w/ Navigation System) INFO

12. REMOVE NO. 1 SIDE DEFROSTER NOZZLE INFO

13. REMOVE NO. 2 INSTRUMENT PANEL REGISTER INFO

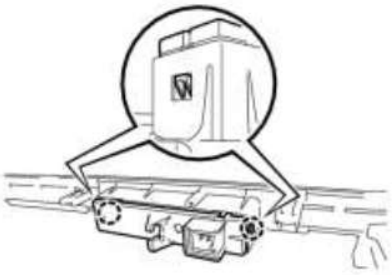
14. REMOVE GLOVE COMPARTMENT DOOR INFO

15. REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL GARNISH INFO

16. REMOVE PASSENGER SEAT BELT WARNING LIGHT ASSEMBLY

(a) Disengage the 2 claws to remove the passenger seat belt warning light assembly.

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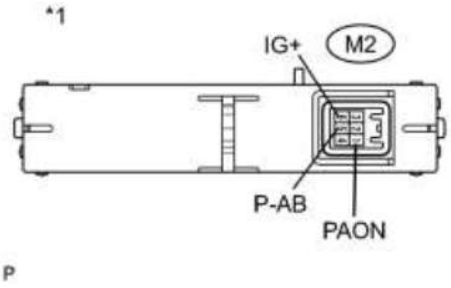


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INSPECTION

1. INSPECT PASSENGER SEAT BELT WARNING LIGHT ASSEMBLY



(a) Apply battery voltage to the connector and check the passenger airbag ON/OFF indicator condition.

Result:

Connection	Result
Battery positive (+) → M2-6 (IG+) Battery negative (-) → M2-1 (PAON)	"ON" comes on
Battery positive (+) → M2-6 (IG+) Battery negative (-) → M2-5 (P-AB)	"OFF" comes on

Text in Illustration

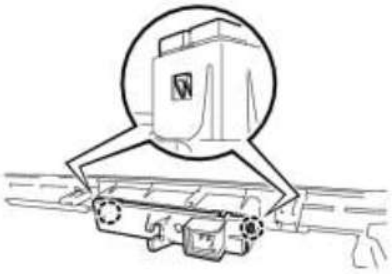
*1	Component without harness connected (Passenger Seat Belt Warning Light Assembly)

If the result is not as specified, replace the passenger seat belt warning light assembly.

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INSTALLATION

1. INSTALL PASSENGER SEAT BELT WARNING LIGHT ASSEMBLY



(a) Engage the 2 claws to install the passenger seat belt warning light assembly.

c

2. INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL GARNISH INFO

3. INSTALL GLOVE COMPARTMENT DOOR INFO

4. INSTALL NO. 2 INSTRUMENT PANEL REGISTER INFO

5. INSTALL NO. 1 SIDE DEFROSTER NOZZLE INFO

6. INSTALL RADIO RECEIVER WITH BRACKET (w/o Navigation System) INFO

7. INSTALL NAVIGATION RECEIVER WITH BRACKET (w/ Navigation System) INFO

8. INSTALL UPPER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY INFO

9. INSTALL INSTRUMENT CLUSTER FINISH PANEL GARNISH INFO

10. INSTALL LOWER CENTER INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY INFO

11. INSTALL INTEGRATION CONTROL AND PANEL ASSEMBLY INFO

12. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

13. INSTALL REAR NO. 3 FLOOR BOARD INFO

14. INSTALL REAR DECK FLOOR BOX INFO

15. INSTALL REAR NO. 2 FLOOR BOARD INFO

16. PERFORM DIAGNOSTIC SYSTEM CHECK

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(a) Perform a diagnostic system check INFO.

17. INSPECT SRS WARNING LIGHT

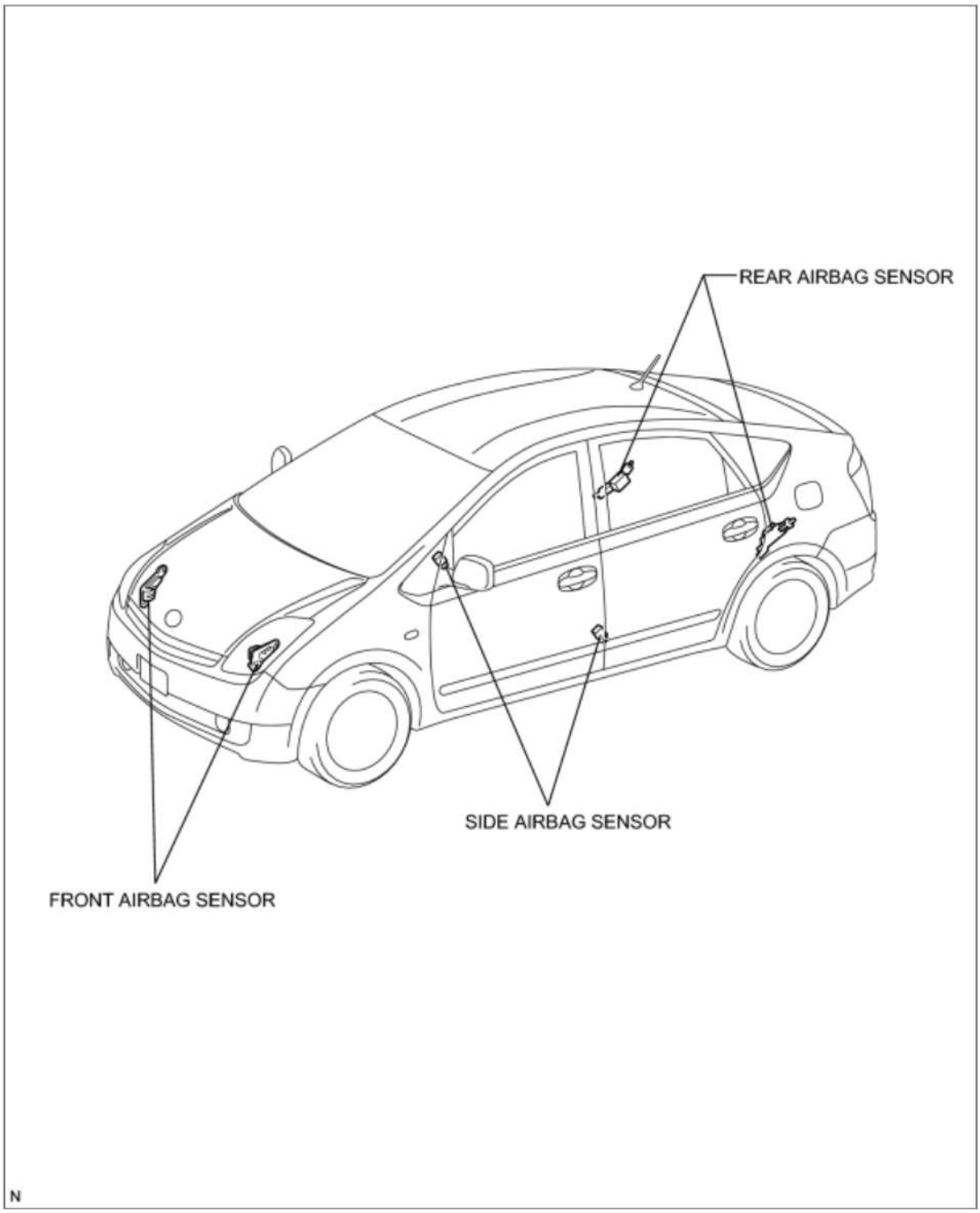
(a) Inspect the SRS warning light INFO.

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: PARTS LOCATION (2009 Prius)

PARTS LOCATION

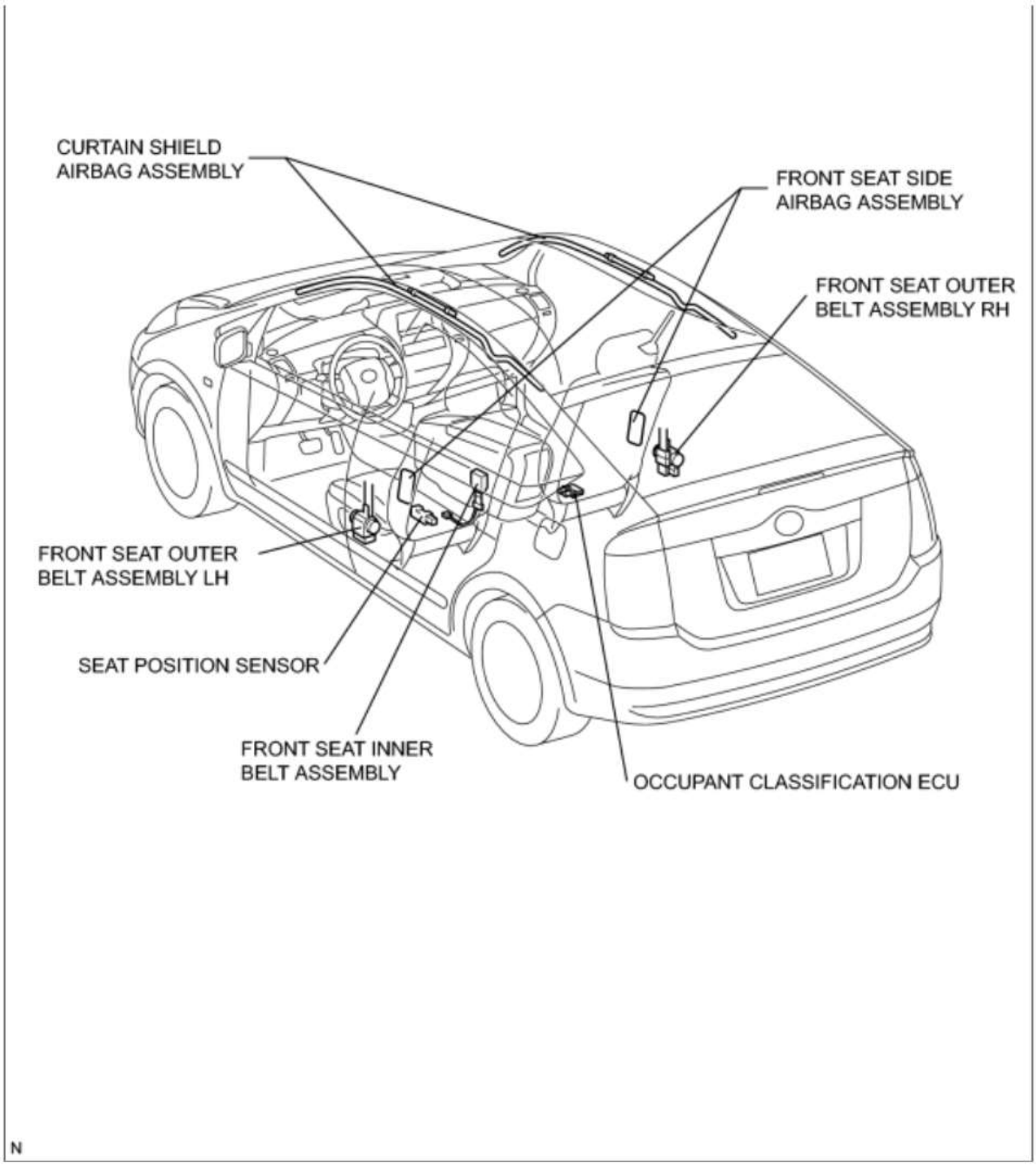
ILLUSTRATION



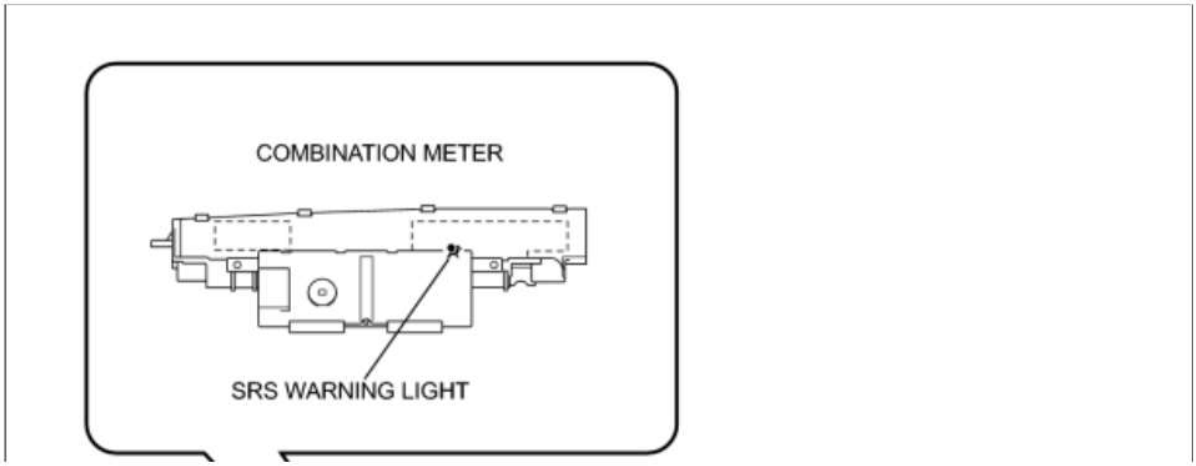
ILLUSTRATION

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: PARTS LOCATION (2009 Prius)

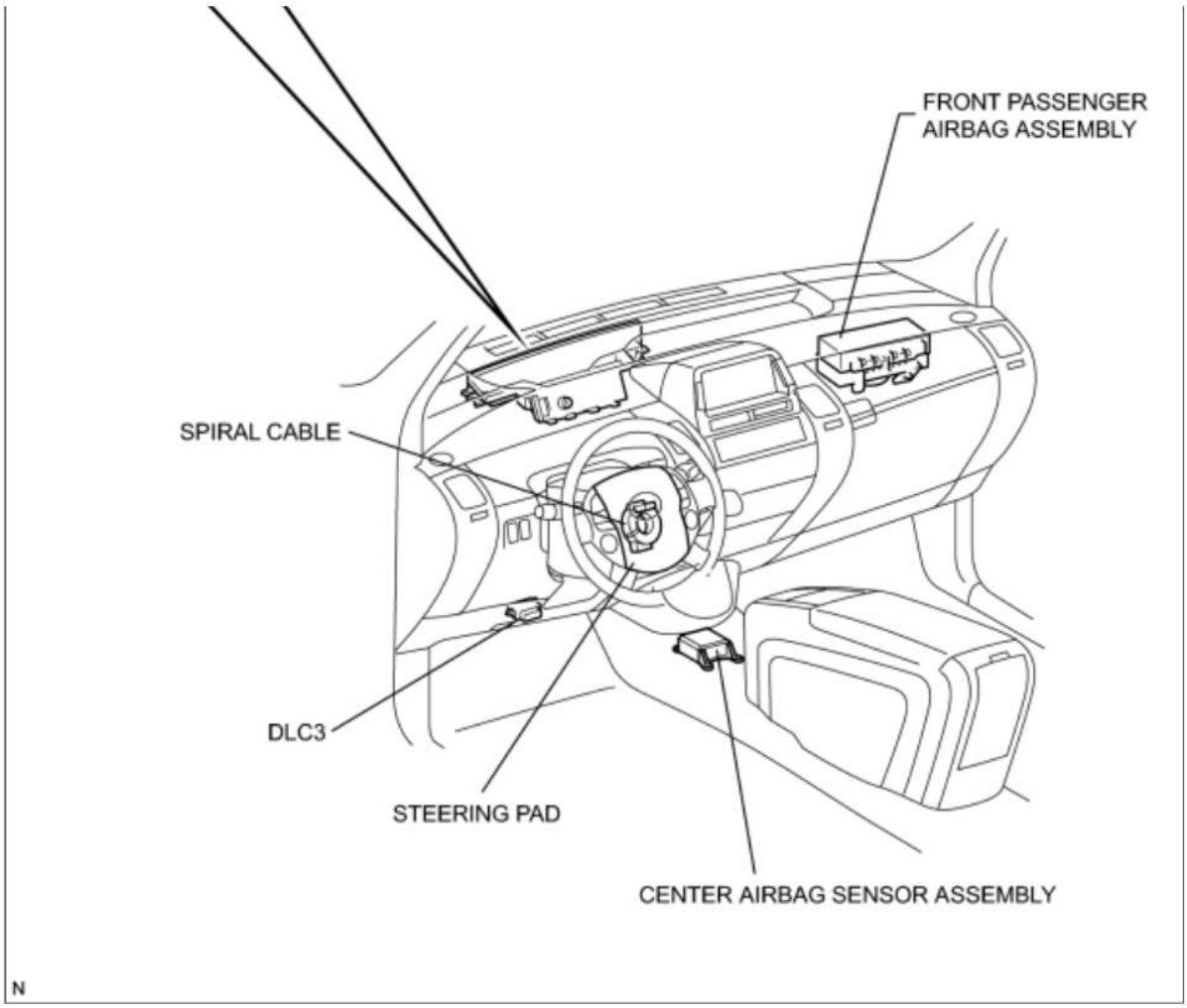


ILLUSTRATION



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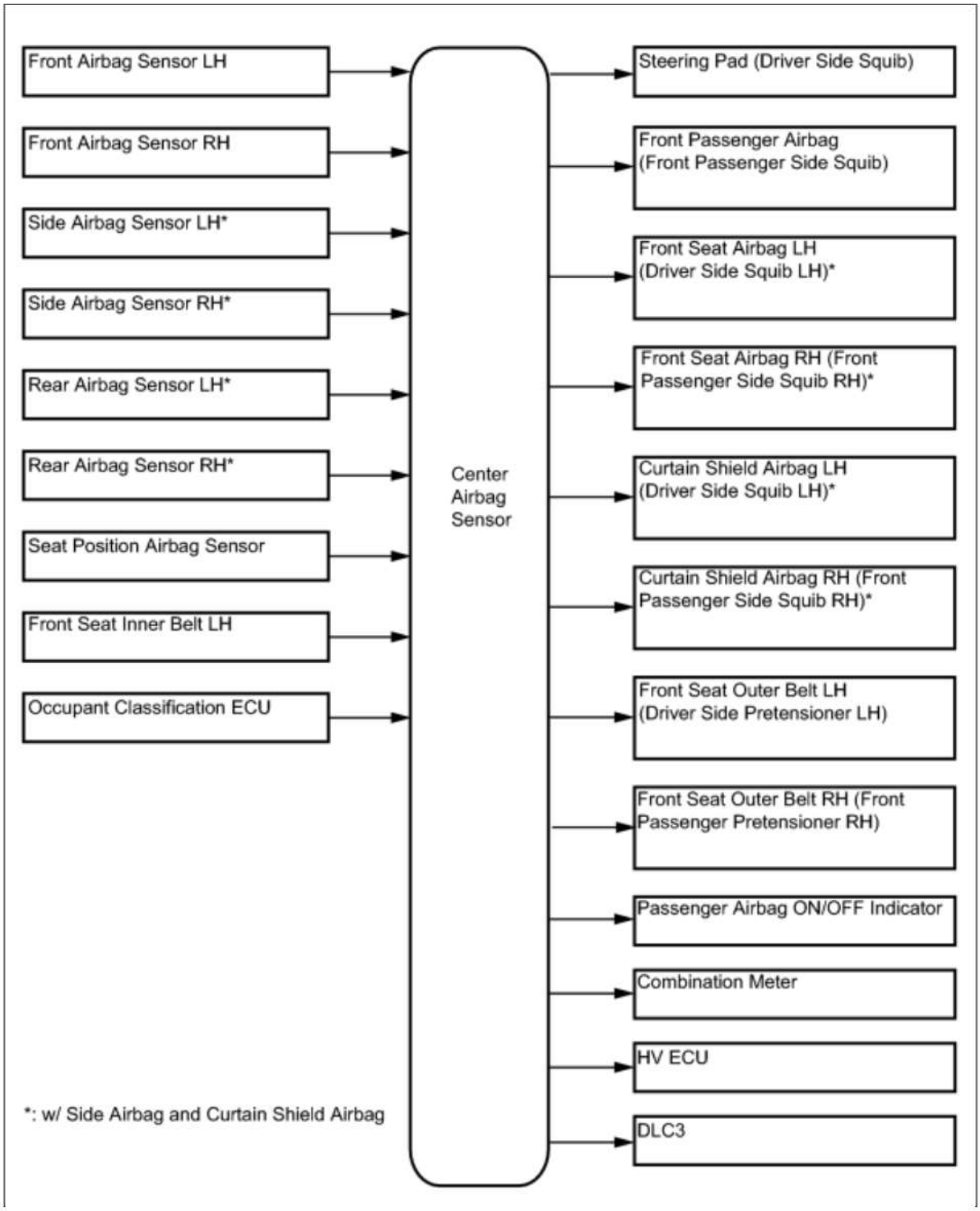
SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: PARTS LOCATION (2009 Prius)



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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: SYSTEM DIAGRAM (2009 Prius)

SYSTEM DIAGRAM



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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: PRECAUTION (2009 Prius)

PRECAUTION

CAUTION:

- The vehicle is equipped with a Supplemental Restraint System (SRS), which consists of a steering pad, front passenger airbag, curtain shield airbag, front seat side airbag, seat belt pretensioner, center airbag sensor, front airbag sensor, side airbag sensor, rear airbag sensor, occupant classification ECU and seat position airbag sensor. Failure to carry out service procedures in the correct sequence could cause SRS parts to unexpectedly deploy and possibly lead to serious injuries. Furthermore, if a mistake is made when service SRS parts, they may fail to operate when required. Before performing servicing (including installation/removal, inspection and replacement of parts), be sure to read the following precautions.
- Before starting work, wait at least 90 seconds after the power switch is turned OFF and after the cable of the negative (-) battery terminal is disconnected. (SRS parts are equipped with a back-up power source. If work is started within 90 seconds of turning the power switch OFF and disconnecting the cable from the negative (-) battery terminal, SRS parts may deploy.)

  (The SRS is equipped with a back-up power source, so if work is started within 90 seconds of disconnecting the negative (-) terminal cable of the battery, the SRS may be deployed).
- Do not expose the steering pad, front passenger airbag, center airbag sensor, front airbag sensor, front seat inner belt, seat position airbag sensor, occupant classification ECU, front seat airbag, side airbag sensor, curtain shield airbag, rear seat airbag, rear airbag sensor, front seat outer belt or rear seat outer belt directly to hot air or flames.

NOTICE:

- Malfunction symptoms of SRS parts are difficult to confirm. DTCs are the most important source of information when troubleshooting. During troubleshooting, always confirm DTCs before disconnecting the cable from the negative (-) battery terminal.
- Even in the case of a minor collision when the SRS does not deploy, the steering pad, front passenger airbag, center airbag sensor, front airbag sensor, front seat inner belt, seat position airbag sensor, occupant classification ECU, front seat side airbag, side airbag sensor, curtain shield airbag, rear seat airbag, rear airbag sensor, front seat outer belt or rear seat outer belt should be inspected.
- Before repair work, remove airbag sensors as necessary if any kind of impact is likely to occur to an airbag sensor during the operation.
- Never use SRS parts from another vehicle. When replacing SRS parts, replace them with new ones.
- Never disassemble or attempt to repair SRS parts.
- If an SRS part has been dropped, or if there are any cracks, dents or other defects in the case, bracket or connector, replace the SRS part with a new one.
- Use an ohmmeter/voltmeter with high impedance (10 kΩ/V minimum) for troubleshooting the electrical circuits.
- Information labels are attached to the periphery of SRS parts. Follow the cautions and instructions on the labels.
- After work on SRS parts is completed, perform the SRS warning light check INFO .
- When the cable is disconnected from the negative (-) battery terminal, the memory settings of each system will be cleared. Because of this, be sure to write down the settings of each system before starting work. When work is finished, reset the settings of each system as before. Never use a back-up power supply from outside the vehicle to avoid erasing the memory in a system.
- If the vehicle is equipped with a mobile communication system, refer to the precaution in the INTRODUCTION section INFO .
- When disconnecting the cable from the negative (-) battery terminal, initialize the following system(s) after the cable is reconnected.

SYSTEM NAME	SEE PROCEDURE
Power Window Control System	INFO

HINT:

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: PRECAUTION (2009 Prius)

In the airbag system, the center airbag sensor, front airbag sensor LH and RH, side airbag sensor LH and RH, rear airbag sensor LH and RH are collectively referred to as the airbag sensors.

1. HANDLING PRECAUTIONS FOR AIRBAG SENSORS

(a) Before starting the following operations, wait for at least 90 seconds after disconnecting the negative (-) terminal cable from the battery:

(1) Replacement of the airbag sensors.

(2) Adjustment of the front/rear doors of the vehicle equipped with the side airbag and curtain shield airbag (fitting adjustment).

(b) When connecting or disconnecting the airbag sensor connectors, ensure that each sensor is installed in the vehicle.

(c) Do not use the airbag sensors which has been dropped during the operation or transportation.

(d) Do not disassemble the airbag sensors.

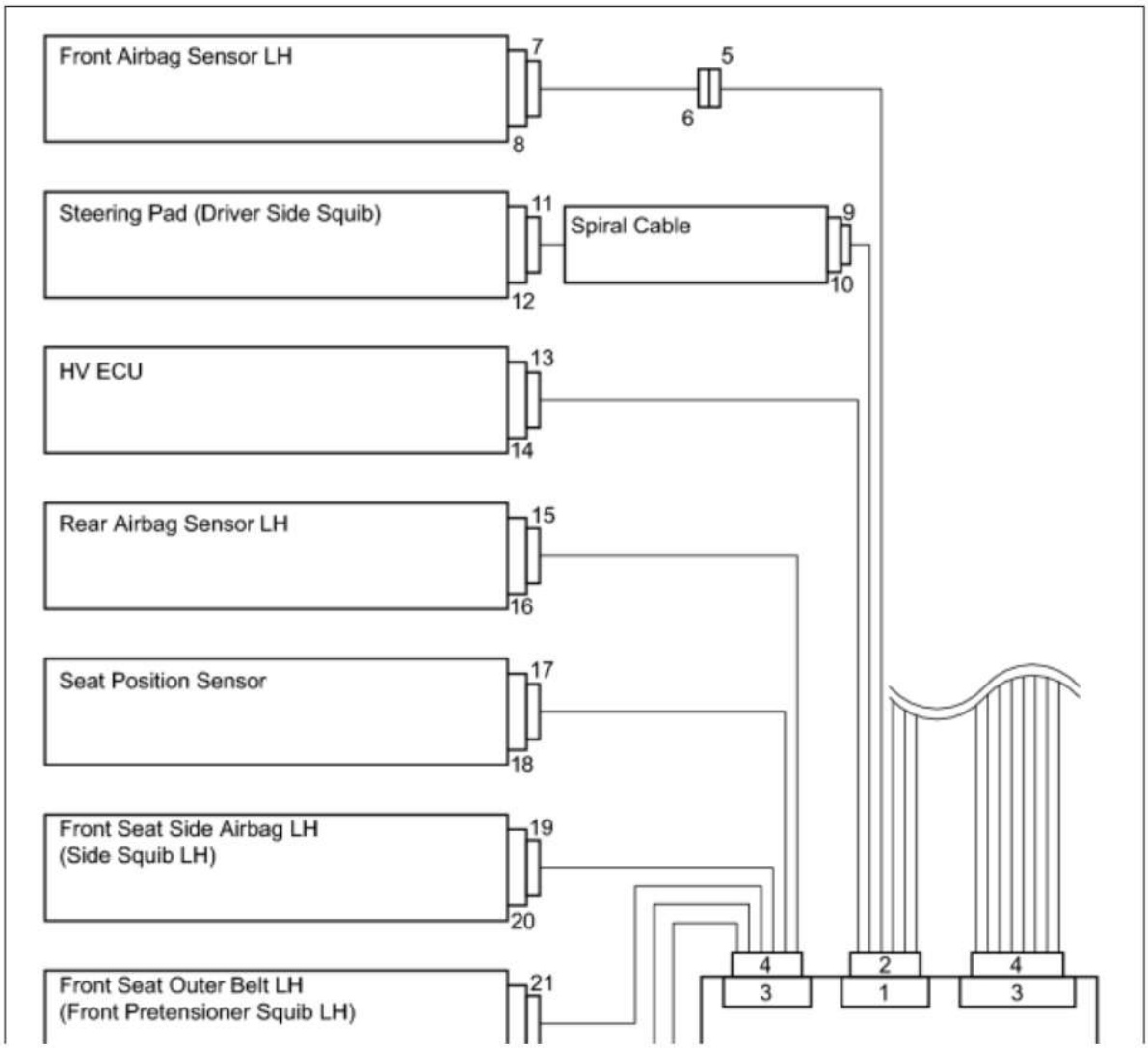
2. INSPECTION PROCEDURE FOR VEHICLE INVOLVED IN ACCIDENT

(a) When the airbag has not deployed, confirm the DTCs by checking the SRS warning light. If there is any malfunction in the SRS airbag system, perform troubleshooting.

(b) When any of the airbags have deployed, replace the airbag sensors and check the installation condition.

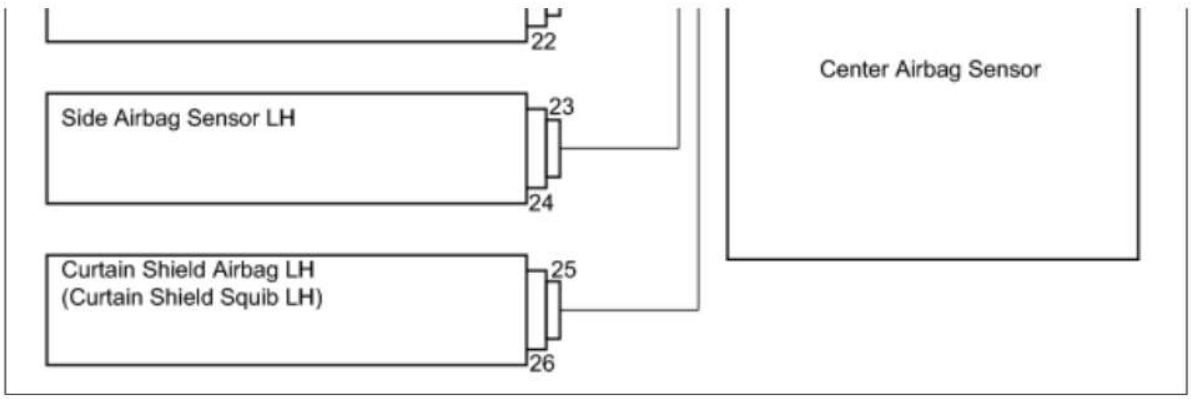
3. SRS CONNECTORS

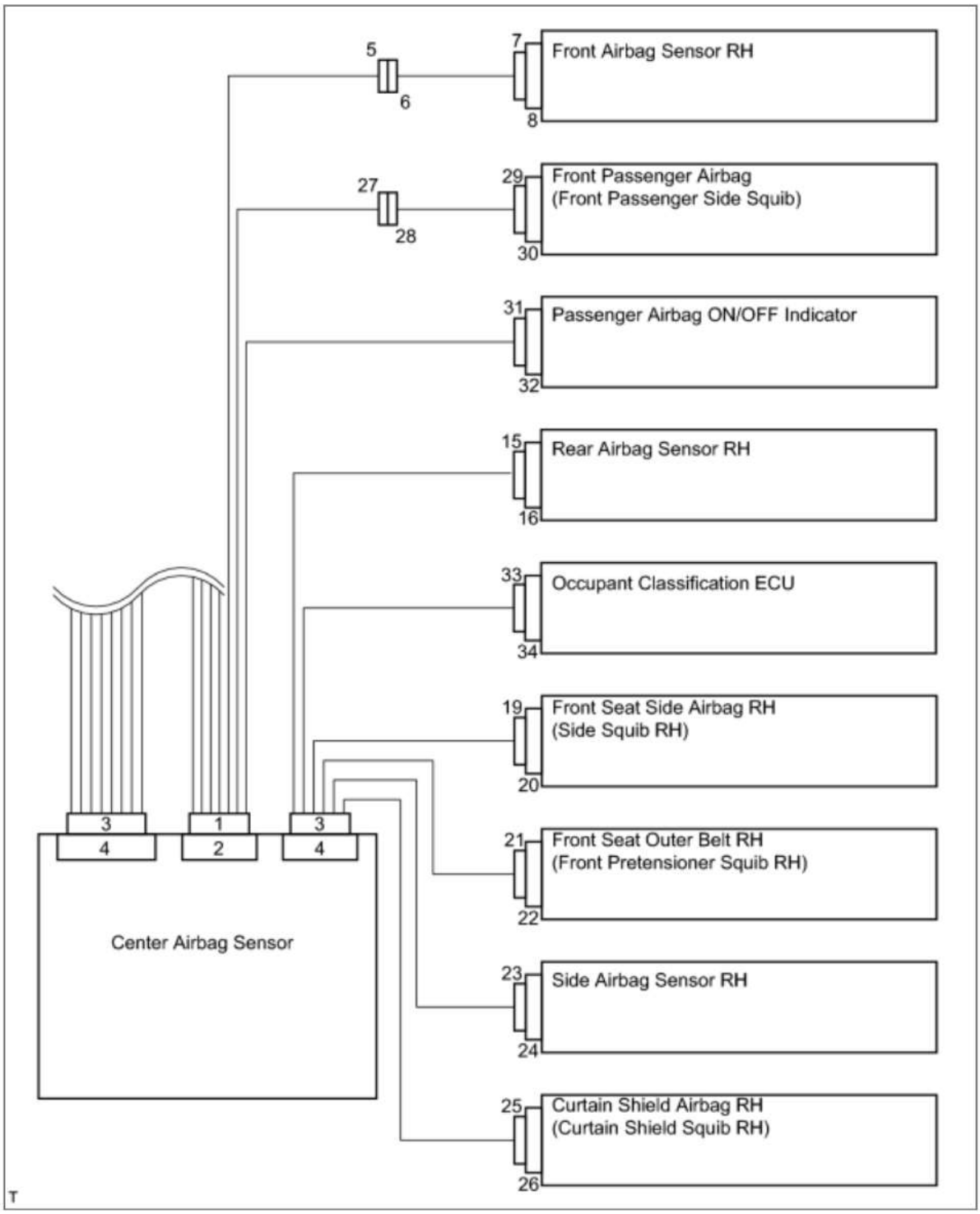
(a) SRS connectors are located as shown in the following illustration.



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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: PRECAUTION (2009 Prius)



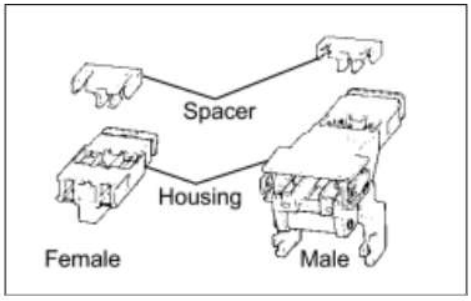


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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: PRECAUTION (2009 Prius)

NO.	ITEM	APPLICATION
(1)	Terminal Twin-Lock Mechanism	Connectors 5, 6, 7, 9, 10, 15, 19, 20, 23, 27, 28
(2)	Activation Prevention Mechanism	Connectors 2, 4, 10, 12, 20, 22, 26, 28, 30
(3)	Half Connection Prevention Mechanism	Connectors 6, 7, 9, 15, 19, 23, 27
(4)	Connector Lock Mechanism (1)	Connectors 11, 21, 25, 29
(5)	Connector Lock Mechanism (2)	Connectors 2, 4
(6)	Improper Connection Prevention Lock Mechanism	Connectors 1, 3

(b) All connectors in the SRS, except the seat position airbag sensor connector, are colored yellow to distinguish them from other connectors. These connectors have special functions, and are specially designed for the SRS. All SRS connectors use durable gold-plated terminals, and are placed in the locations shown above to ensure high reliability.

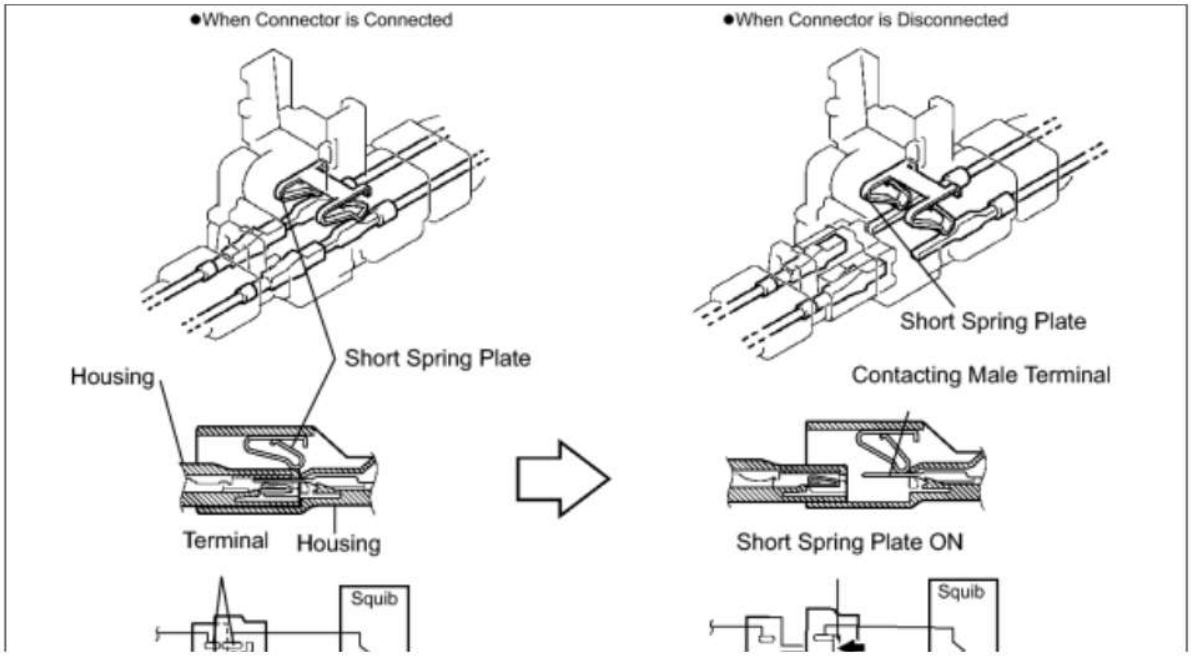


(1) Terminal twin-lock mechanism:

All connectors with a terminal twin-lock mechanism have a two-piece component consisting of a housing and a spacer. This design enables the terminal to be locked securely by two locking devices (the retainer and the lance) to prevent terminals from coming out.

(2) Activation prevention mechanism:

All connectors with an activation prevention mechanism contain a short spring plate. When these connectors are disconnected, the short spring plate creates a short circuit by automatically connecting the positive (+) and negative (-) terminals of the squib.

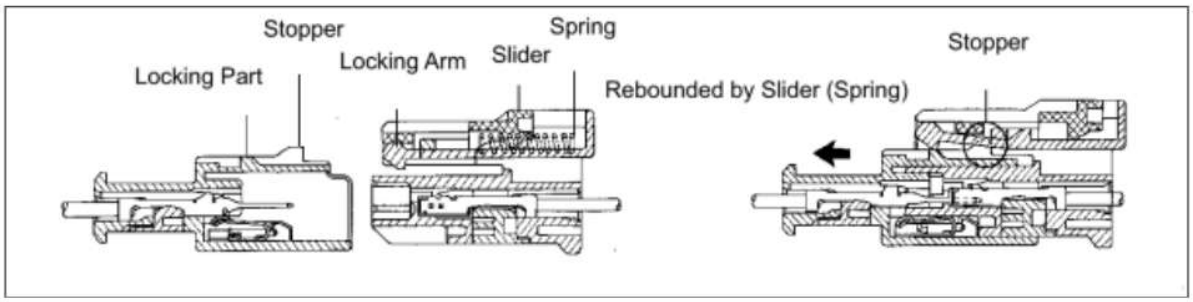


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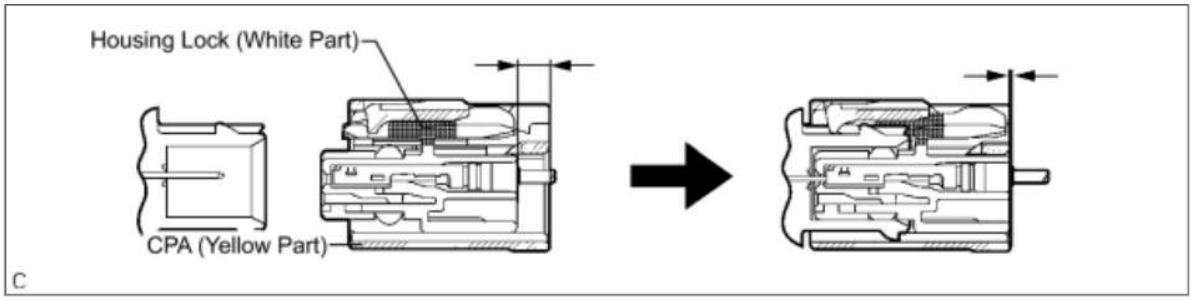
(3) Half connection prevention mechanism:

If the connector is not completely connected, the connector is disconnected due to the spring operation so that no continuity exists.



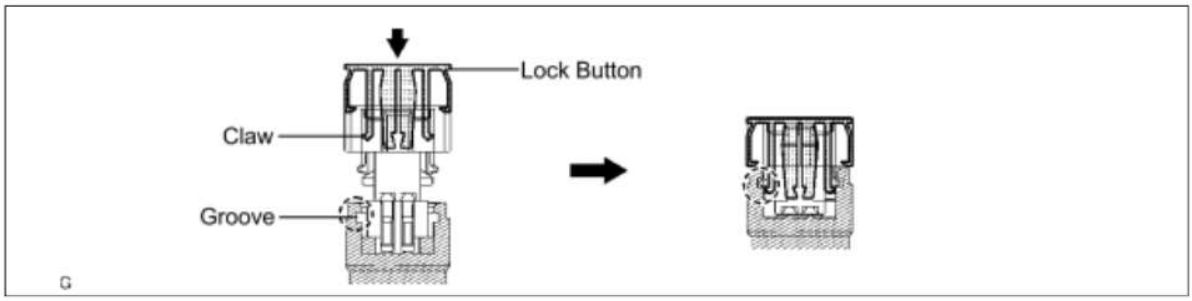
(4) Connector position assurance mechanism:

Only when the housing lock (white part) is completely engaged, the CPA (yellow part) slides, which completes the connector engagement.



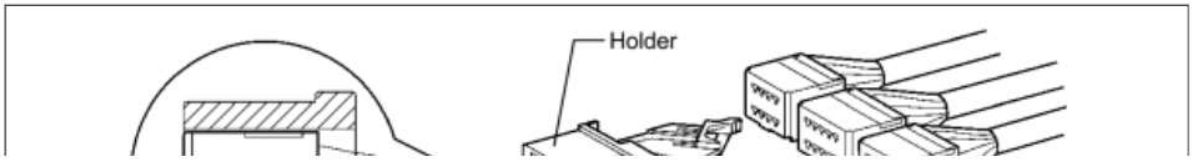
(5) Connector lock mechanism (1):

Locking the connector lock button connects the connector securely.

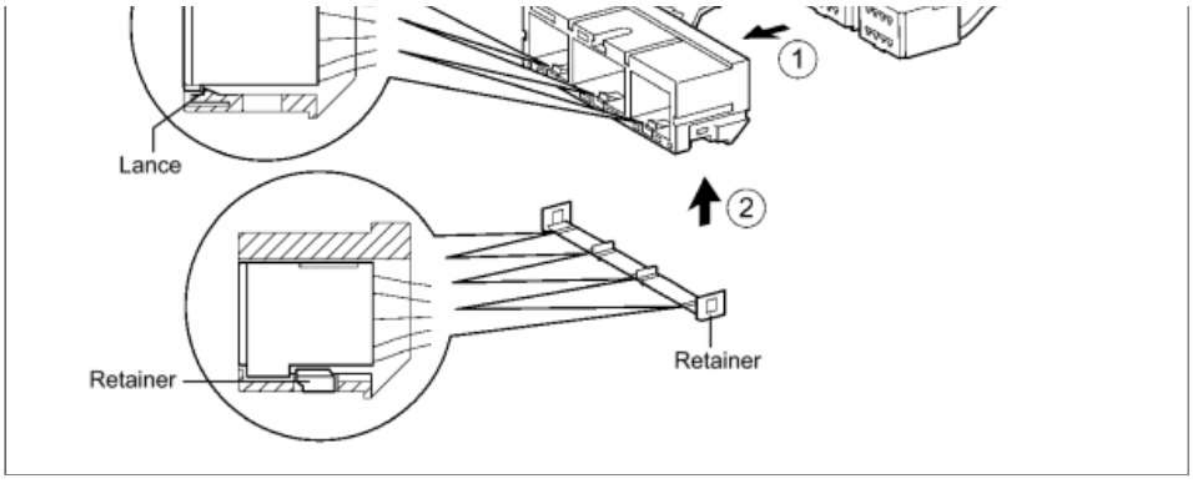


(6) Connector lock mechanism (2):

Both the primary lock with holder lances and the secondary lock with retainer prevent the connectors from being disconnected.

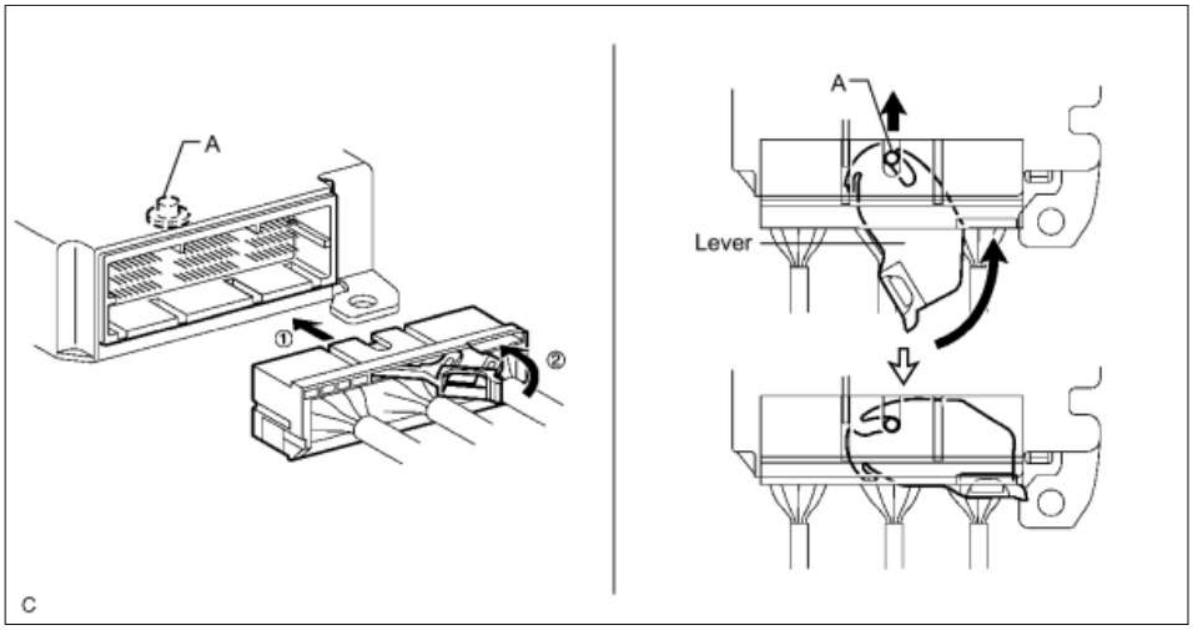


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(7) Improper connection prevention lock mechanism:

When connecting the holder, the lever is pushed into the end by rotating around the A axis to lock the holder securely.



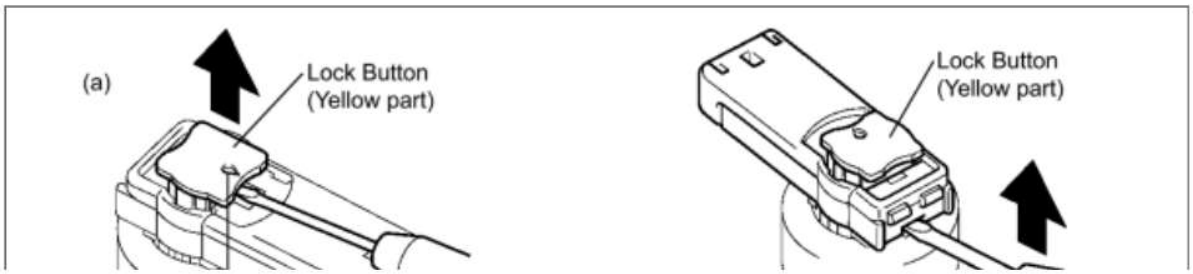
4. DISCONNECTION OF CONNECTORS FOR STEERING PAD, FRONT PASSENGER AIRBAG (SQUIB SIDE), CURTAIN SHIELD AIRBAG AND FRONT SEAT OUTER BELT

HINT:

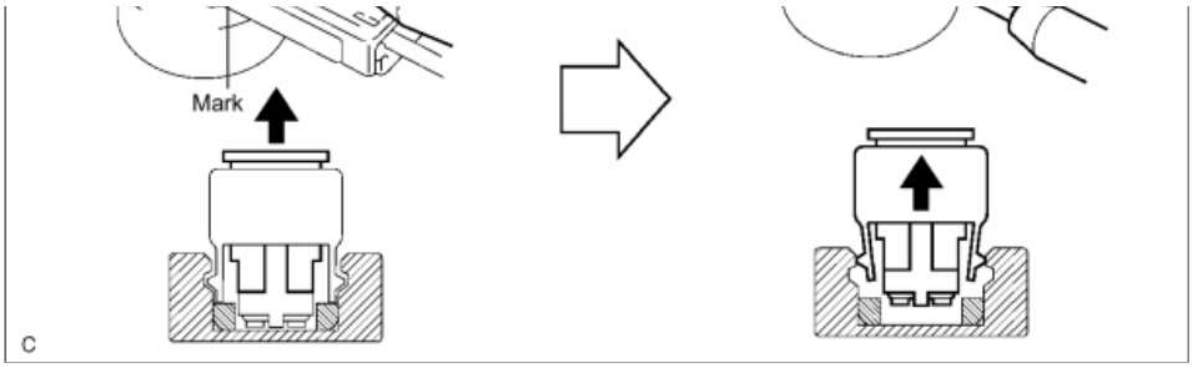
Tape the screwdriver tip before use.

(a) Release the lock button (yellow part) of the connector using a screwdriver.

(b) Insert the screwdriver tip between the connector and the base, and then raise the connector.



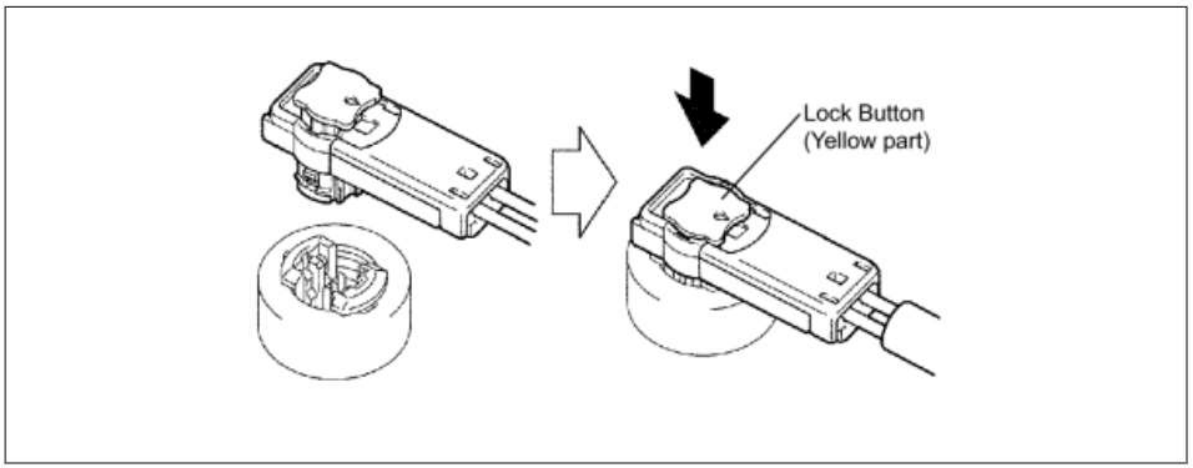
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5. CONNECTION OF CONNECTORS FOR STEERING PAD, FRONT PASSENGER AIRBAG (SQUIB SIDE), CURTAIN SHIELD AIRBAG AND FRONT SEAT OUTER BELT

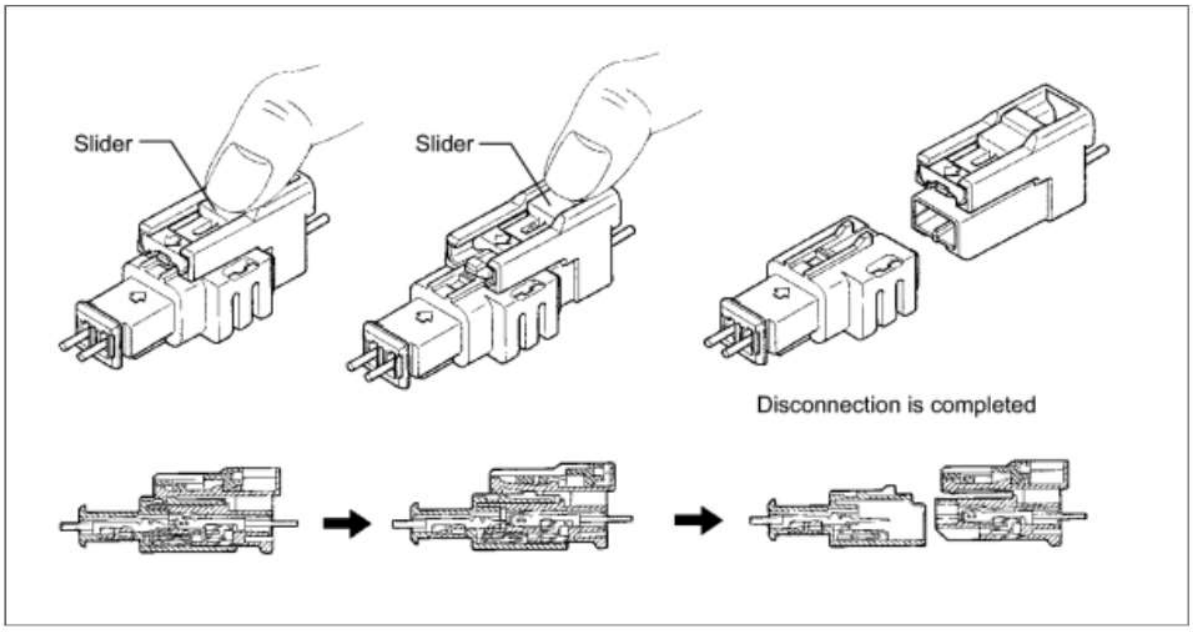
(a) Connect the connector.

(b) Push down securely on the lock button (yellow part) of the connector. When locking, a click sound can be heard.



6. DISCONNECTION OF CONNECTOR FOR FRONT PASSENGER AIRBAG (INSTRUMENT PANEL WIRE SIDE)

(a) Place a finger on the slider, slide the slider to release the lock, and then disconnect the connector.



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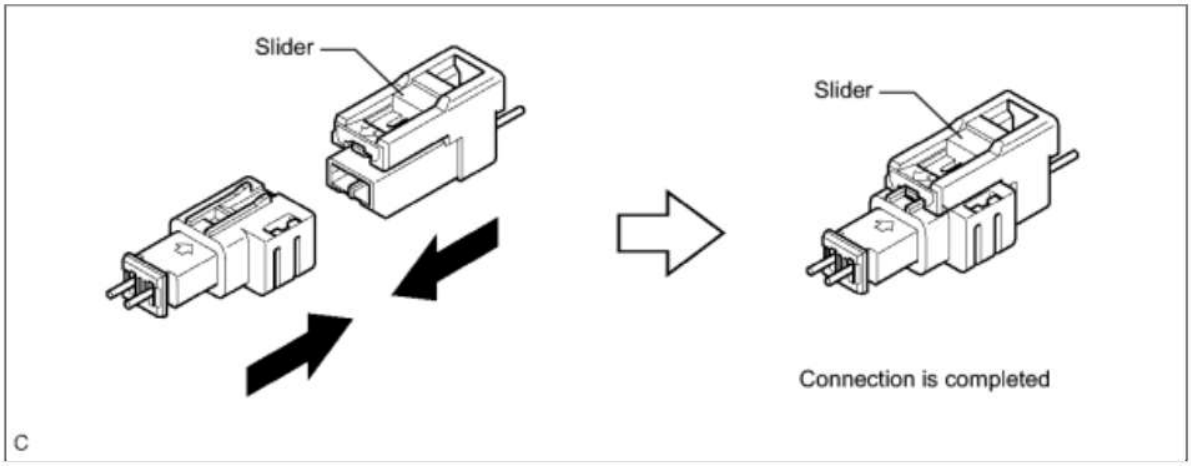
SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: PRECAUTION (2009 Prius)

7. CONNECTION OF CONNECTOR FOR FRONT PASSENGER AIRBAG (INSTRUMENT PANEL WIRE SIDE)

(a) Connect the connector as shown in the illustration. When locking, make sure that the slider returns to its original position and a click sound can be heard.

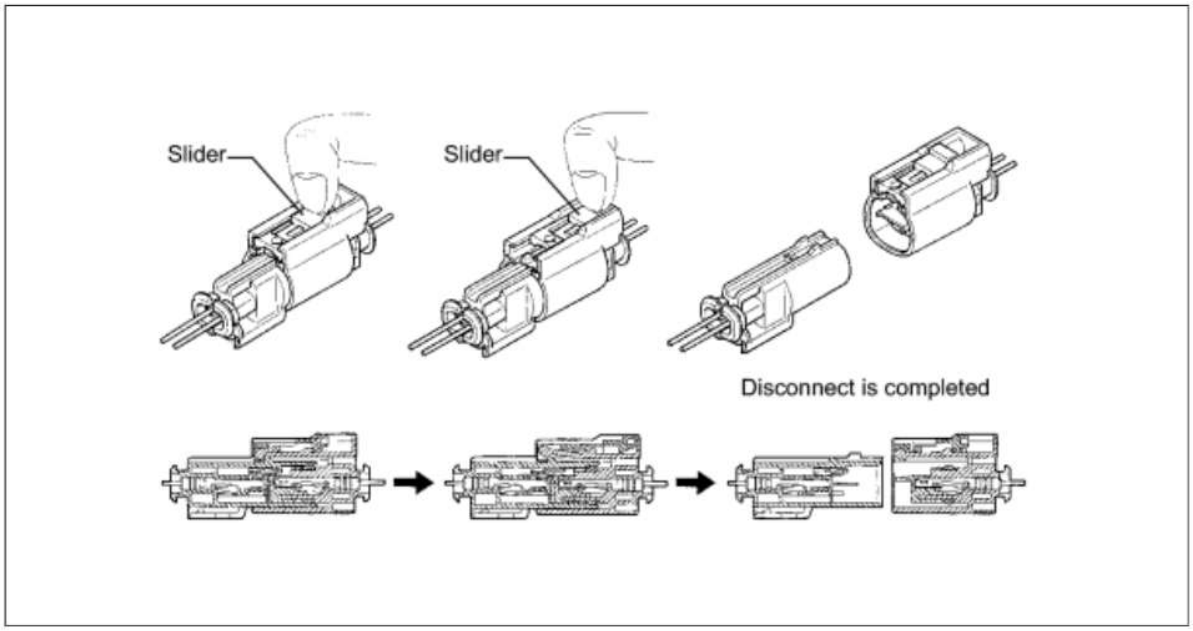
HINT:

When connecting, the slider will slide. Be sure not to touch the slider while connecting, as it may result in an insecure fit.



8. DISCONNECTION OF CONNECTORS FOR FRONT SEAT AIRBAG

(a) Place a finger on the slider, slide the slider to release the lock, and then disconnect the connector.



9. CONNECTION OF CONNECTORS FOR FRONT SEAT AIRBAG

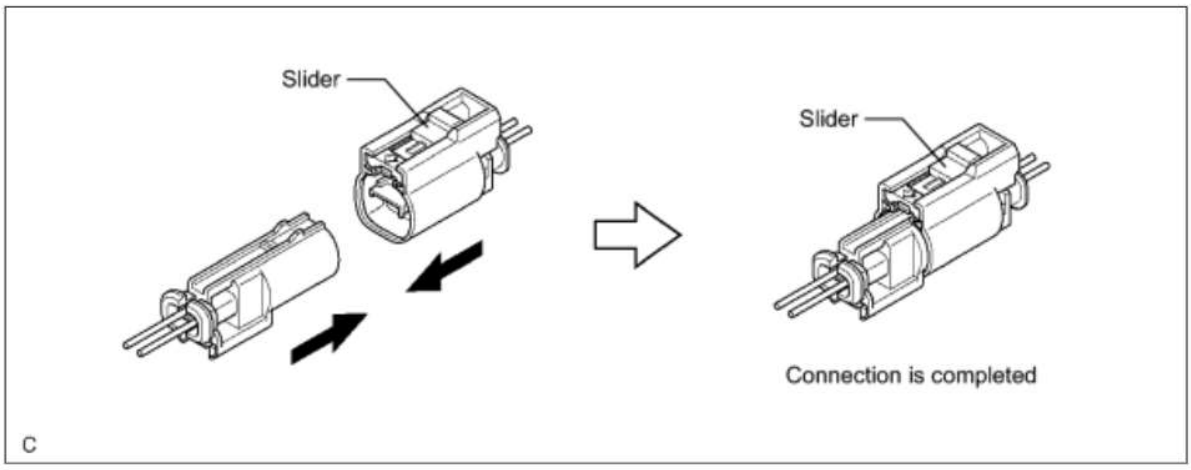
(a) Connect the connector as shown in the illustration. When locking, make sure that the slider returns to its original position and a click sound can be heard.

HINT:

When connecting, the slider will slide. Be sure not to touch the slider while connecting, as it may result in an insecure fit.

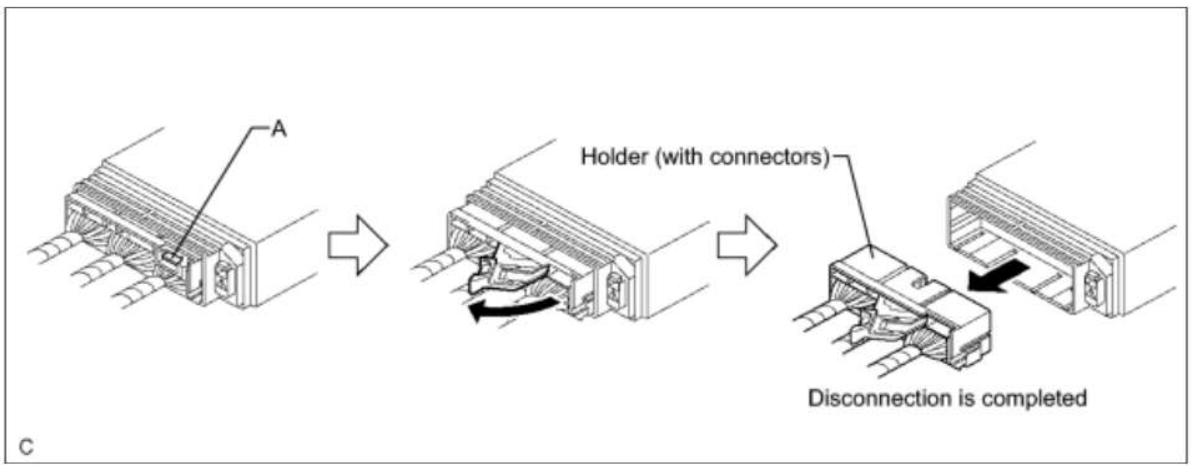
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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: PRECAUTION (2009 Prius)



10. DISCONNECTION OF CONNECTOR FOR CENTER AIRBAG SENSOR

(a) Pull the lever by pushing part A as shown in the illustration and disconnect the holder (with connectors).

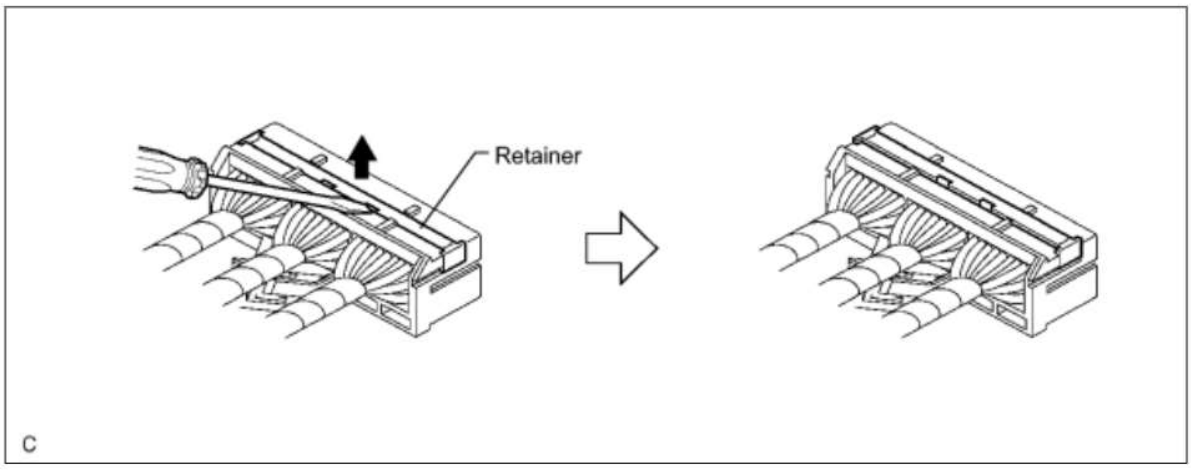


HINT:

Perform the following procedures when replacing the holder.

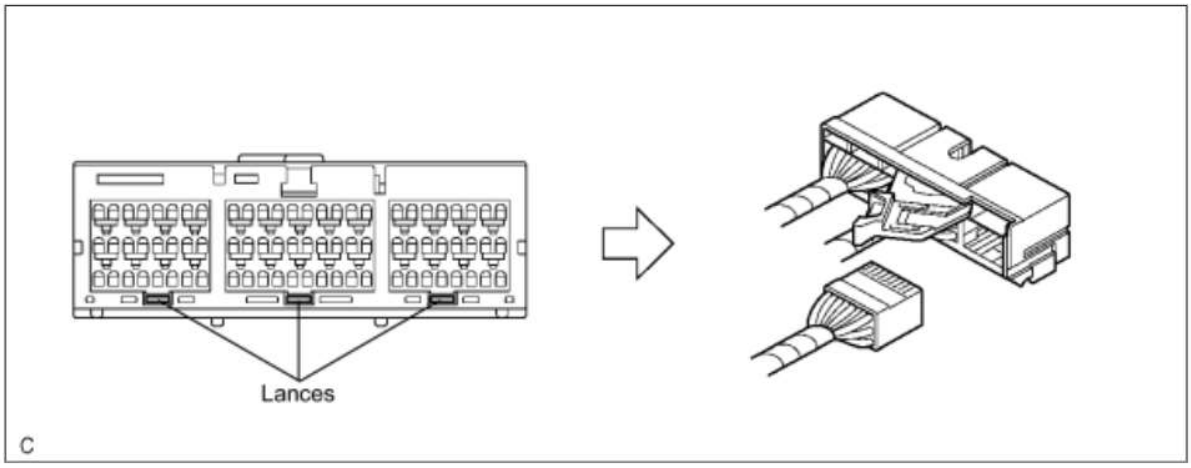
(b) Remove the holder.

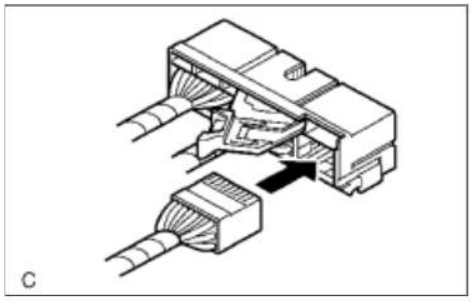
(1) Using a screwdriver, unlock the retainer.



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(2) Release the fitting lance and remove the holder.





(c) Install the holder.

(1) Install the connectors to the holder. When locking, a click sound can be heard.

HINT:

The retainer is locked when the holder is connected.

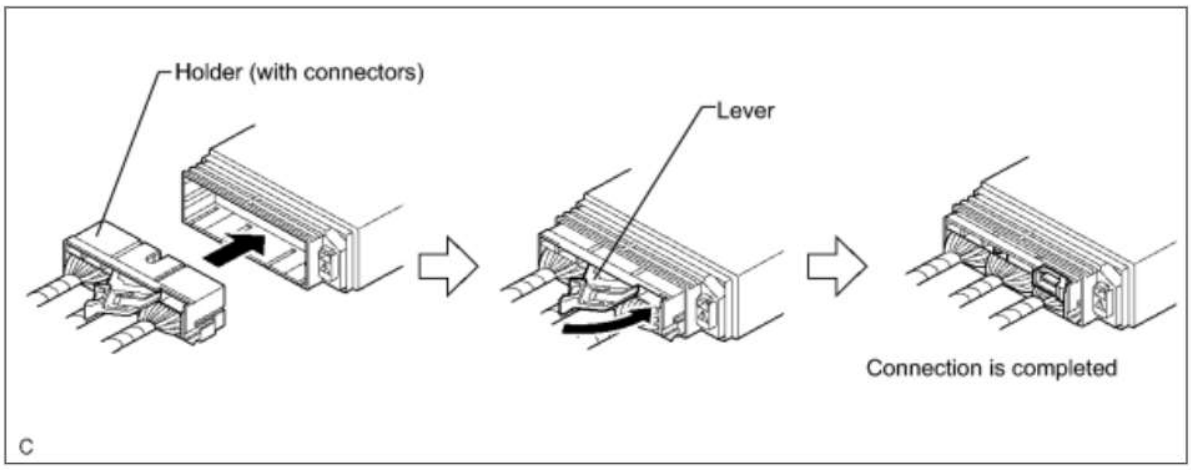
11. CONNECTION OF CONNECTOR FOR CENTER AIRBAG SENSOR

(a) Firmly insert the holder (with connectors) into the center airbag sensor until it cannot be pushed any further.

(b) Push the lever to connect the holder (with connectors). When locking, a click sound can be heard.

HINT:

The holder slides in to the center airbag sensor when it is being connected. Be sure not to hold the holder while connecting, as it may result in an insecure fit.



12. DISCONNECTION OF CONNECTOR FOR FRONT AIRBAG SENSOR

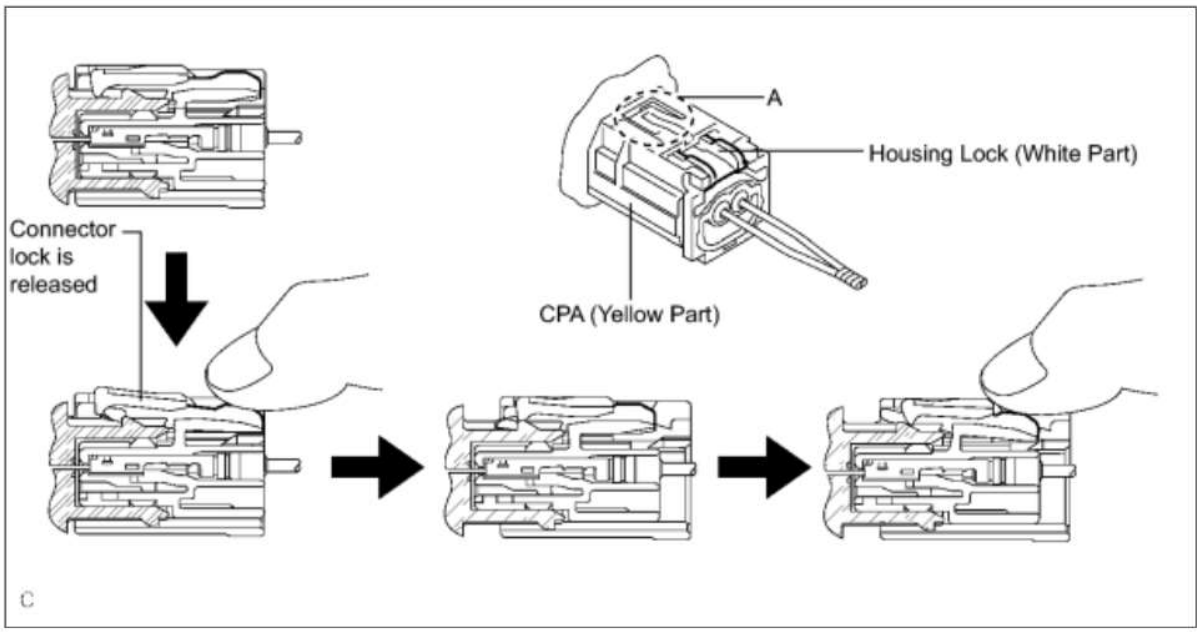
(a) Push down the housing lock (white part) and slide the CPA (yellow part). At this time, the connector cannot be disconnected yet.

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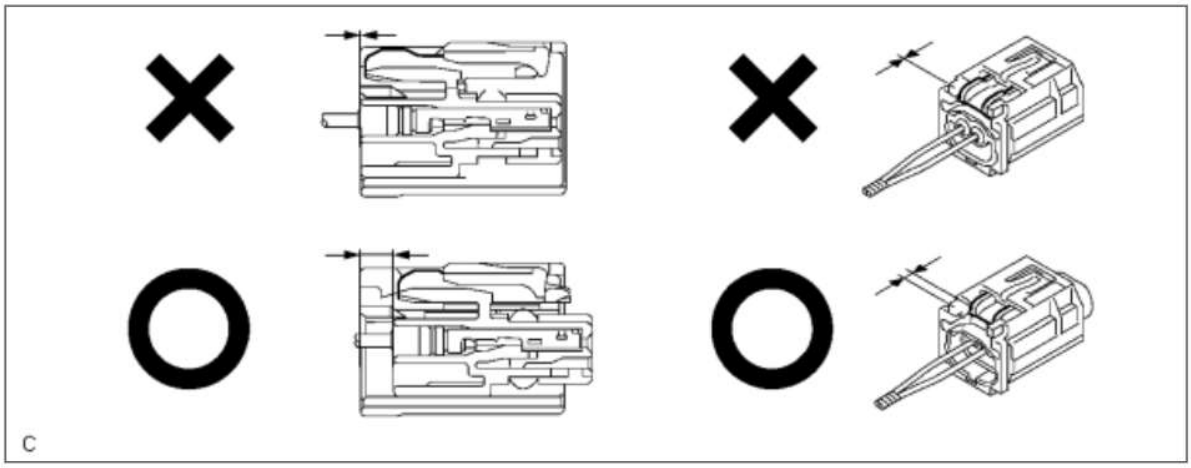
(b) Push down the housing lock (white part) again and disconnect the connector.

HINT:

Do not push down the A part shown in the illustration when disconnecting.

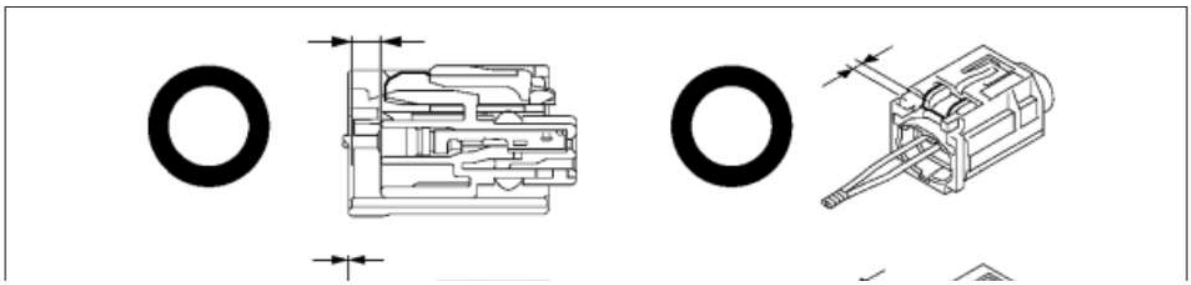


(c) After disconnecting the connector, check that the position of the housing lock (white part) is as shown in the illustration.



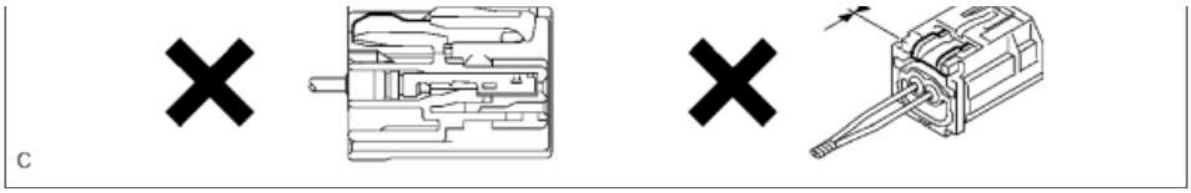
13. CONNECTION OF CONNECTOR FOR FRONT AIRBAG SENSOR

(a) Before connecting the connectors, check that the position of the housing lock (white part) is as shown in the illustration.



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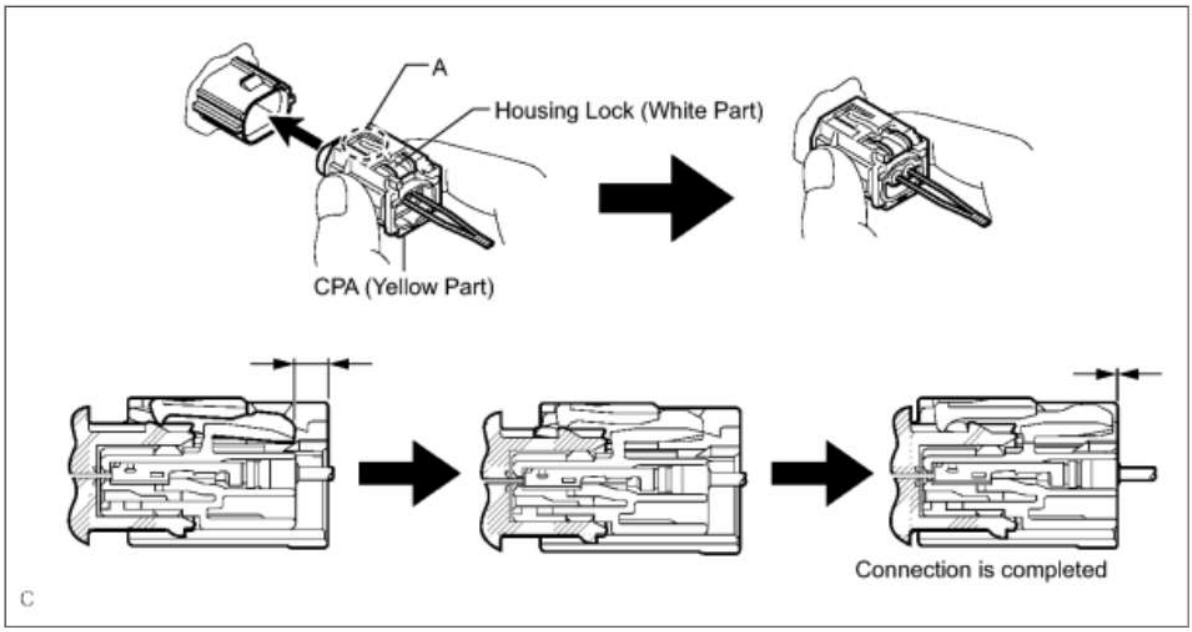
SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: PRECAUTION (2009 Prius)



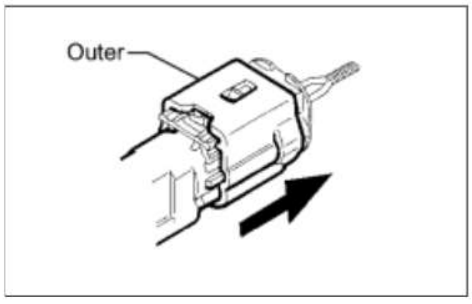
(b) Be sure to engage the connectors until they are locked. When locking, make sure that a click sound can be heard.

HINT:

When connecting them, the housing lock (white part) slides. Be sure not to hold the housing lock (white part) and part A, as it may result in an insecure fit.



14. DISCONNECTION OF CONNECTORS FOR SIDE AIRBAG SENSOR AND REAR AIRBAG SENSOR

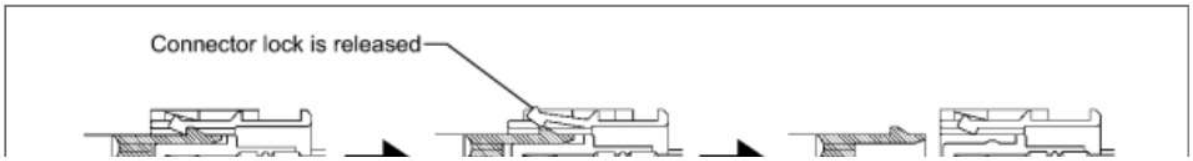


(a) While holding both the sides of the outer connector locking sleeve, slide the outer in the direction shown by the arrow.

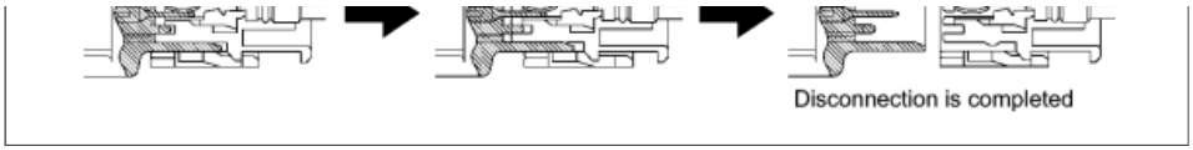
(b) When the connector lock is released, the connectors are disconnected.

HINT:

Be sure to hold both outer flank sides. Holding the top and bottom will make disconnection difficult.



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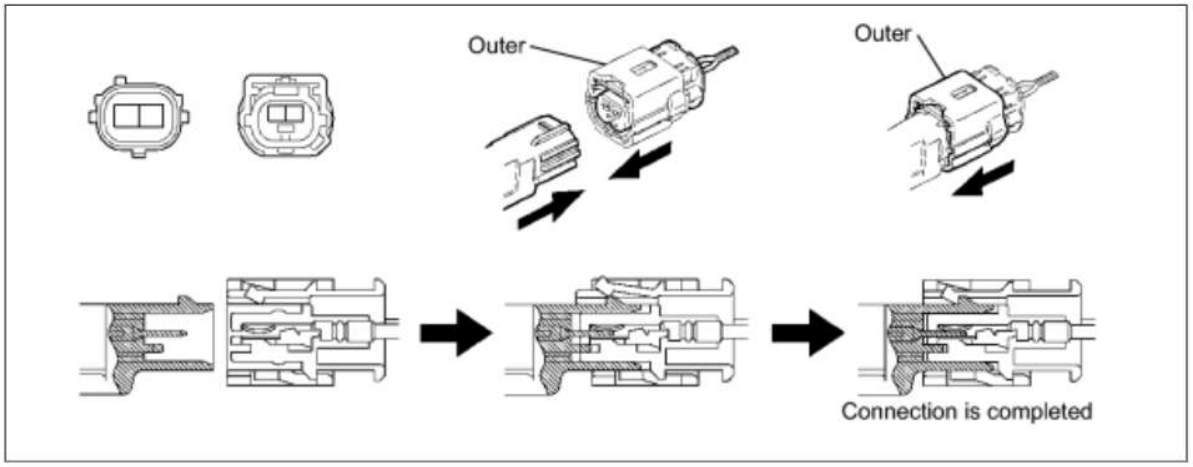


15. CONNECTION OF CONNECTORS FOR SIDE AIRBAG SENSOR AND REAR AIRBAG SENSOR

(a) Connect the connector as shown in the illustration When locking, make sure that the outer returns to its original position and a click sound can be heard.

HINT:

When connecting, the outer will slide. Be sure not to hold the outer while connecting, as it may result in an insecure fit.



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SYSTEM DESCRIPTION

1. SRS AIRBAG SYSTEM OUTLINE

(a) FRONTAL COLLISION

(1) The driver and front passenger airbag are designed to supplement seat belts in the event of a front collision in order to help reduce shock to the head and chest of the driver and front passenger.

(2) Frontal collisions are detected by the center airbag sensor and two front airbag sensors. The driver and front passenger airbag and the seat belt pretensioner then operate simultaneously.

(3) Electrical deceleration sensors are built into the two front airbag sensors in the engine compartment in order to detect the severity of the impact during the initial stage of the collision. The deployment of the driver and front passenger airbags are controlled in two stages according to the severity of the impact.

(b) SIDE COLLISION

(1) The front seat airbag and curtain shield airbag are designed to help reduce shock to the driver, front passenger and rear outer passenger. The curtain shield airbag was designed to help reduce shock to the front and rear passengers in the event of a side collision.

(2) Side collisions are detected by the side airbag sensor installed in the bottom of the center pillar and the rear airbag sensor installed in the bottom of the rear pillar. Front side collisions are detected by the side airbag sensor, causing the front seat side airbag and curtain shield airbag to deploy simultaneously. Rear side collisions are detected by the rear airbag sensor to deploy only the curtain shield airbag.

2. CONSTRUCTION AND OPERATION

(a) FRONT AIRBAG SENSOR

(1) The front airbag sensors are installed on the right and left side members.

(2) The deceleration sensor and safing sensor are built into the airbag sensor front and distortion that is created in the sensor is converted into an electric signal based on the vehicle deceleration rate during a frontal collision. Accordingly, the extent of the initial collision can be detected in detail.

(b) SIDE AIRBAG SENSOR

(1) The side airbag sensors are installed on the right and left center pillars.

(2) The side airbag sensor consists of the deceleration sensor, safing sensor, ignition control circuit, and diagnostic circuit. The side airbag sensor receives signals from the deceleration sensor and determines whether the front seat side airbag and curtain shield airbag should be activated, and diagnoses system malfunctions simultaneously.

(c) REAR AIRBAG SENSOR

(1) The rear airbag sensor is installed on the bottom of the right and left rear pillars respectively.

(2) The deceleration sensor and safing sensor are built into the rear airbag sensor and the distortion that is created in the sensor is converted into an electric signal based on the vehicle deceleration rate during a rear side collision.

(d) CENTER AIRBAG SENSOR

(1) General

- The center airbag sensor is installed on the center floor under the instrument panel.
- The center airbag sensor consists of the deceleration sensor, safing sensor, electrical safing sensor, ignition control circuit and diagnostic circuit.
- The center airbag sensor receives signals from the deceleration sensors and safing sensors built into the center airbag sensor and front airbag sensor.
- The center airbag sensor causes the front seat side airbag and the curtain shield airbag to deploy when receiving signals from the deceleration sensor and the safing sensor built into the side airbag sensor.
- The center airbag sensor receives signals from the deceleration sensors and the electrical safing sensors built into the center airbag sensor and the rear airbag sensor, and determines whether or

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sensors built into the center airbag sensor and the rear airbag sensor, and determines whether or not the curtain shield airbag should be activated, and then diagnoses system malfunctions.

- The center airbag sensor can be check using check mode, which can detect and output DTCs. If the malfunction does not recur during troubleshooting, joggling each connector or driving on various type of roads with the center airbag sensor in check mode as a simulation method makes it possible to obtain more accurate information.

(2) Deceleration sensor and ignition control circuit

- The deceleration sensor is built into the center airbag sensor, and the distortion created based on the deceleration of the vehicle during a frontal or rear side collision is converted into an electric signal.
- The ignition control circuit performs calculations based on the signal output from the deceleration sensors of the center airbag sensor and front airbag sensor. If the calculated values are greater than the specified values, the airbag deploy.

(3) Safing sensor

- The safing sensor is built into the center airbag sensor. During a frontal collision, the sensor turns on and outputs an ON signal to the center airbag sensor if a deceleration rate greater than the specified value is applied to the safing sensor.

(4) Electronic safing sensor

- The electronic safing sensor is built into the center airbag sensor. During a rear side collision, the sensor turns on and outputs an ON signal to the center airbag sensor if a deceleration rate greater than the specified value is applied to the electronic safing sensor.

(5) Back-up power source

- The back-up power source consists of a condenser and a DC-DC converter. When the power system does not function during a collision, the condenser discharges and supplies electric power to the system. The DC-DC converter operates as a boosting transformer when the battery voltage falls below a predetermined level.

(6) Diagnostic circuit

- This circuit constantly diagnoses the system malfunctions. When a malfunction is detected, it lights up the SRS warning light on the combination meter to inform the driver.

(7) Memory circuit

- When a malfunction is detected in the diagnostic circuit, it is coded and stored in the memory circuit.

(e) SRS WARNING LIGHT

(1) The SRS warning light is located on the combination meter. The SRS warning light informs the driver of detected malfunctions in the diagnostic circuit of the center airbag sensor or the SRS airbag system. Under normal operating conditions when the power switch is turned on, the SRS warning light comes on for approximately 6 seconds and then goes off.

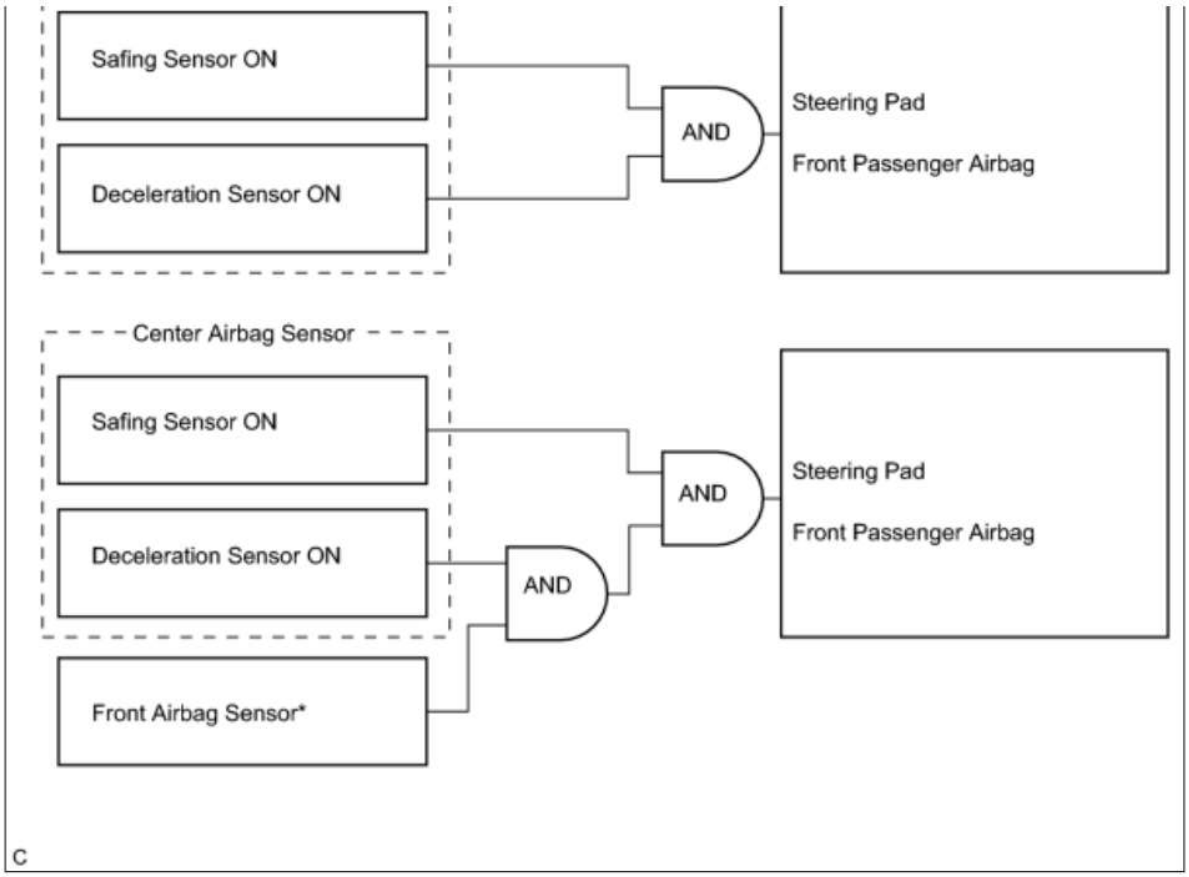
3. DEPLOYMENT CONDITION

When the vehicle collides and the shock is greater than the specified value, the SRS is activated automatically. The center airbag sensor includes the safing sensor and deceleration sensor. The safing sensor was designed to the turned on at a smaller deceleration rate than the deceleration sensor.

(a) The center airbag sensor determines whether or not ignition is necessary based on signals from the deceleration sensor and the front airbag sensor*. If the deceleration sensor, front airbag sensor* and safing sensor turn on simultaneously, current flows to the squibs to deploy the SRS as shown in the illustration below.



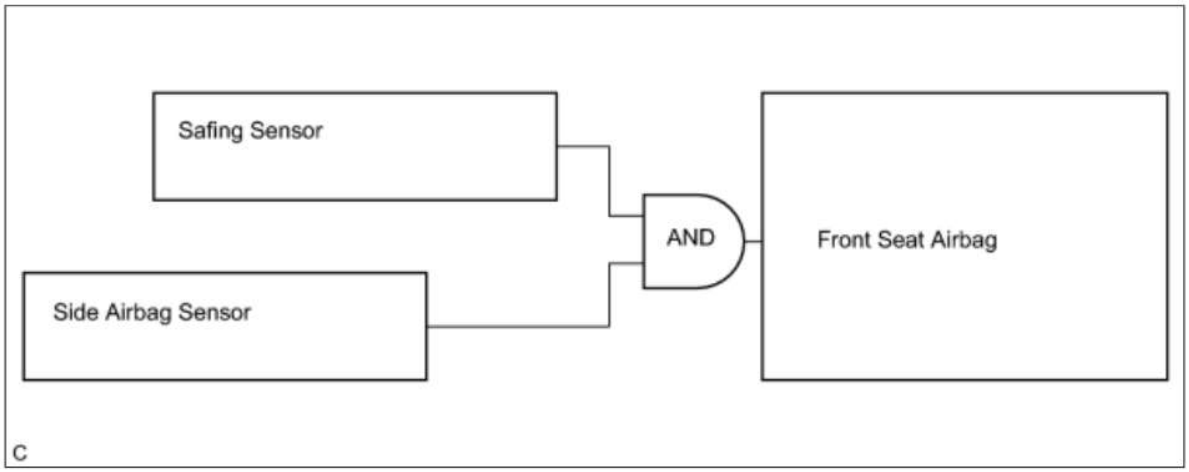
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HINT:

***: In case of front collision, the ignition signal could be output with the deceleration sensor ON signal even without a signal from the front airbag sensor.**

(b) The center airbag sensor determines whether or not ignition is necessary based on signals from the side airbag sensor. If the side airbag sensor and safing sensor turn on simultaneously, current flows to the squib to deploy the SRS as shown in the illustration below.

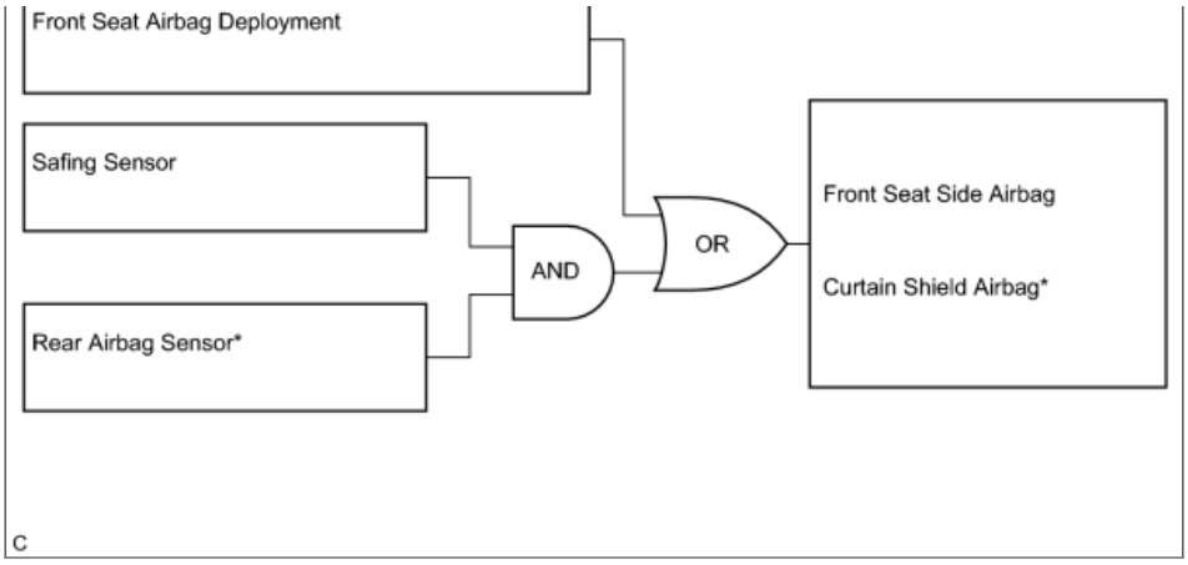


(c) The center airbag sensor determines whether or not ignition is necessary based on signals from the rear airbag sensor. If the rear airbag sensor and safing sensor turn on simultaneously, current flows to the squib to deploy the SRS as shown in the illustration below.



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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: SYSTEM DESCRIPTION (2009 Prius)



HINT:

***: If the front seat side airbag deploys, the curtain shield airbag will also deploy, regardless of whether the signal is output from the rear airbag sensor.**

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: HOW TO PROCEED WITH TROUBLESHOOTING (2009 Prius)

HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

- Use these procedures to troubleshoot the airbag system.
- *: Use the Techstream.

1.	**VEHICLE BROUGHT TO WORKSHOP**

NEXT

2.	**INSPECT BATTERY VOLTAGE**

Standard voltage:
11 to 14 V

If the voltage is below 11 V, recharge or replace the battery before proceeding.

NEXT

3.	**CHECK MULTIPLEX COMMUNICATION SYSTEM***

(a) Check the DTC INFO .

Result:

RESULT	PROCEED TO
DTC is not output	A
DTC is output	B

B **CHECK MULTIPLEX COMMUNICATION SYSTEM**

A

4	**CHECK CAN COMMUNICATION SYSTEM***

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4.	CHECK CAN COMMUNICATION SYSTEM*

(a) Check the DTC INFO .

Result:

RESULT	PROCEED TO
DTC is not output	A
DTC is output	B

B ▶ CHECK CAN COMMUNICATION CIRCUIT

A ▼

5.	WARNING LIGHT CHECK

NEXT ▼

6.	CHECK DTC (Present and Past DTCs)*

(a) Check the DTC INFO .

Result:

RESULT	PROCEED TO
DTC is not output	A
DTC is output	B

B ▶ PROBLEM SYMPTOMS TABLE

A ▼

7.	DTC CHART

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NEXT

8.	**CIRCUIT INSPECTION**

NEXT

9.	**REPAIR**

NEXT

10.	**CLEAR DTC (Present and Past DTCs)***

NEXT

11.	**CHECK DTC (Present and Past DTCs)***

(a) Check the DTC INFO .

Result:

RESULT	PROCEED TO
DTC is not output	A
DTC is output	B

B Go to step 6

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: HOW TO PROCEED WITH TROUBLESHOOTING (2009 Prius)

A

12.	**CONFIRMATION TEST**

NEXT END

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: PROBLEM SYMPTOMS TABLE (2009 Prius)

PROBLEM SYMPTOMS TABLE

HINT:

- Use the table below to help determine the cause of the problem symptom. The potential causes of the symptoms are listed in order of probability in the "Suspected area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.
- Inspect the fuses and relays related to this system before inspecting the suspected areas below.

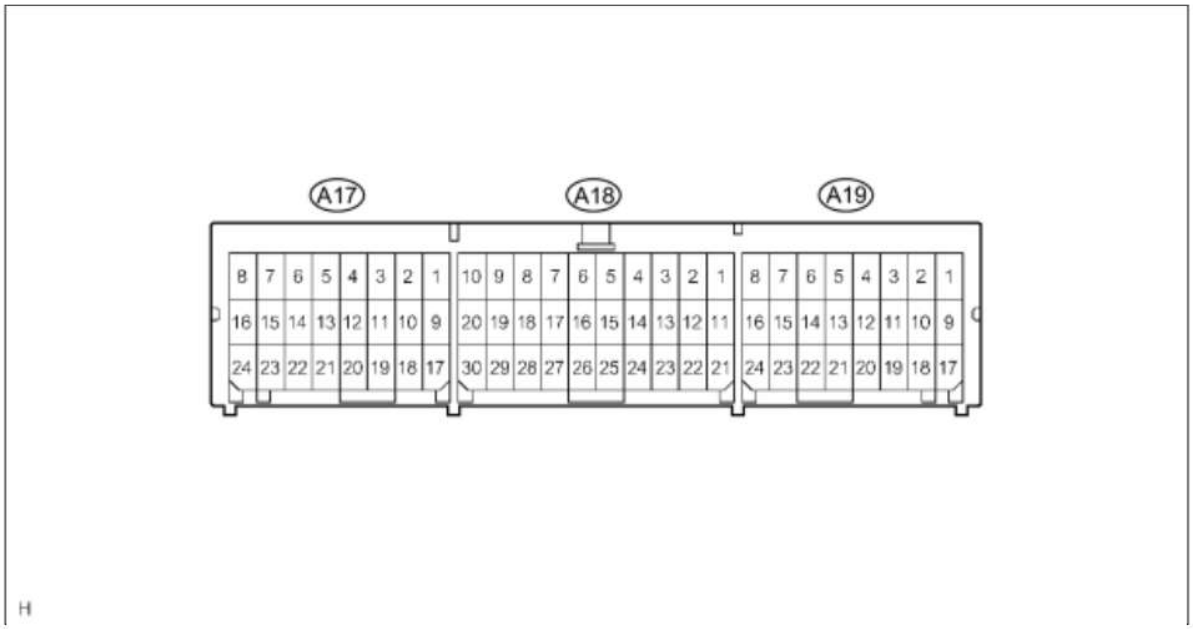
Airbag System

SYMPTOM	SUSPECTED AREA	SEE PAGE
The SRS warning light goes off after the primary check, but comes on.	Source Voltage Drop	INFO
When the power switch is on (IG), the SRS warning light sometimes comes on after approximately 6 seconds.	SRS Warning Light Remains ON	INFO
The SRS warning light remains on when DTC is not output.	SRS Warning Light Remains ON	INFO
The SRS warning light does not come on with the power switch on (IG).	SRS Warning Light does not Come ON	INFO
SRS warning light is blink.	TC and CG Terminal Circuit	INFO
DTC cannot read.	TC and CG Terminal Circuit	INFO

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: TERMINALS OF ECU (2009 Prius)

TERMINALS OF ECU



TERMINAL NO.	TERMINAL SYMBOL	DESTINATION
A17-1	SFD+	Front seat side airbag LH (Side squib LH)
A17-2	SFD-	Front seat side airbag LH (Side squib LH)
A17-3	ICD-	Curtain shield airbag LH (Driver side curtain shield squib)
A17-4	ICD+	Curtain shield airbag LH (Driver side curtain shield squib)
A17-5	PD+	Front seat outer belt LH (Driver side pretensioner squib)
A17-6	PD-	Front seat outer belt LH (Driver side pretensioner squib)
A17-9	DSP+	Seat position sensor
A17-10	DBE+	Front seat inner belt LH
A17-17	DSP-	Seat position sensor
A17-18	DBE-	Front seat inner belt LH
A17-19	VUPD	Side airbag sensor LH
A17-20	VUCD	Rear airbag sensor LH
A17-21	ESD	Side airbag sensor LH
A17-22	ESCD	Rear airbag sensor LH
A18-1	P2+	Front passenger airbag (Front passenger side squib 2nd step)
A18-2	P2-	Front passenger airbag (Front passenger side squib 2nd step)
A18-3	P-	Front passenger airbag (Front passenger side squib)
A18-4	P+	Front passenger airbag (Front passenger side squib)
A18-5	D+	Steering pad (Driver side squib)
A18-6	D-	Steering pad (Driver side squib)
A18-7	D2-	Steering pad (Driver side squib 2nd step)
A18-8	D2+	Steering pad (Driver side squib 2nd step)

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: TERMINALS OF ECU (2009 Prius)

A18-13	PBEW	Combination meter
A18-14	LA	Combination meter
A18-15	TC	DLC3
A18-16	SIL	DLC3
A18-17	P-AB	Front passenger seat belt warning light (Passenger airbag ON/OFF indicator)
A18-21	IG2	IGN fuse
A18-22	GSW2	HV ECU
A18-23	PAON	Front passenger seat belt warning light (Passenger airbag ON/OFF indicator)
A18-25	E1	Ground
A18-26	E2	Ground
A18-27	-SR	Front airbag sensor RH
A18-28	-SL	Front airbag sensor LH
A18-29	+SR	Front airbag sensor RH
A18-30	+SL	Front airbag sensor LH
A19-3	PP-	Front seat outer belt RH (Front passenger side pretensioner squib RH)
A19-4	PP+	Front seat outer belt RH (Front passenger side pretensioner squib RH)
A19-5	ICP+	Curtain shield airbag RH (Curtain shield squib RH)
A19-6	ICP-	Curtain shield airbag RH (Curtain shield squib RH)
A19-7	SFP-	Front seat side airbag RH (Side squib RH)
A19-8	SFP+	Front seat side airbag RH (Side squib RH)
A19-16	FSP+	Occupant classification ECU
A19-19	ESCP	Side airbag sensor RH
A19-20	ESP	Rear airbag sensor RH
A19-21	VUCP	Side airbag sensor RH
A19-22	VUPP	Rear airbag sensor RH
A19-24	FSP-	Occupant classification ECU

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: DIAGNOSIS SYSTEM (2009 Prius)

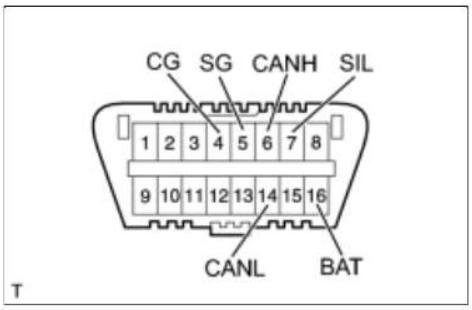
DIAGNOSIS SYSTEM

1. DESCRIPTION

The center airbag sensor controls the functions of the Supplemental Restraint System (SRS) on the vehicle. Data of the SRS can be read in the Data Link Connector 3 (DLC3) of the vehicle. When the system seems to be malfunctioning, use the Techstream to check for a malfunction and perform repairs.

2. CHECK DLC3

(a) The ECU uses ISO 15765-4 for communication. The terminal arrangement of the DLC3 complies with SAE J1962 and matches the ISO 15765-4 format.



SYMBOLS (TERMINAL NO.)	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
SIL (7) - SG (5)	Bus "+" line	During transmission	Pulse generation
CG (4) - Body ground	Chassis ground	Always	Below 1 Ω
SG (5) - Body ground	Signal ground	Always	Below 1 Ω
BAT (16) - Body ground	Battery positive	Always	11 to 14 V
CANH (6) - CANL (14)	CAN bus line	Power switch is OFF*	54 to 69 Ω
CANH (6) - Battery positive	HIGH-level CAN bus line	Power switch is OFF*	1 kΩ or more
CANH (6) - CG (4)	HIGH-level CAN bus line	Power switch is OFF*	1 kΩ or more
CANL (14) - Battery positive	LOW-level CAN bus line	Power switch is OFF*	1 MΩ or more
CANL (14) - CG (4)	LOW-level CAN bus line	Power switch is OFF*	1 MΩ or more

NOTICE:

***: Before measuring the resistance, leave the vehicle as is for at least 1 minute and do not operate the power switch, any other switches or the doors.**

If the result is not as specified, the DLC3 may have a malfunction. Repair or replace the harness and connector.

HINT:

Connect the cable of the Techstream to the DLC3, turn the power switch ON (IG) and attempt to use the tester. If the display indicates that a communication error has occurred, there is a problem either with the vehicle or with the Techstream.

- If communication is normal when the tester is connected to another vehicle, inspect the DLC3 on the original vehicle.
- If communication is still not possible when the tool is connected to

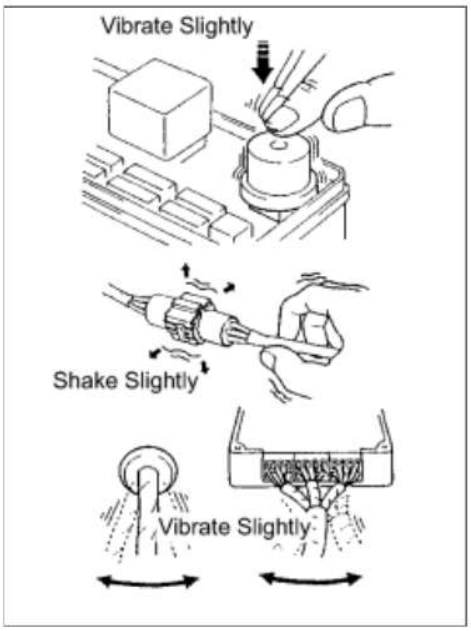
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another vehicle, the problem is probably in the tester itself. Consult the Service Department listed in the tester's instruction manual.

3. SYMPTOM SIMULATION

HINT:

The most difficult case in troubleshooting is when no problem symptoms occur. In such a case, a thorough problem analysis must be carried out. A simulation of the same or similar conditions and environment in which the problem occurred in the customer's vehicle should be carried out. No matter how much skill or experience a technician has, troubleshooting without confirming the problem symptoms will lead to important repairs being overlooked and mistakes or delays.



(a) Vibration method: When vibration seems to be the major cause.

HINT:

Perform the simulation method only during the primary check period (for approximately 6 seconds after the power switch ON (IG)).

(1) Slightly vibrate the part of the sensor considered to be the problem cause with your fingers and check whether the malfunction occurs.

HINT:

Shaking the relays too strongly may result in open relays.

(2) Slightly shake the connector vertically and horizontally.

(3) Slightly shake the wire harness vertically and horizontally.

The connector joint and fulcrum of the vibration are the major areas to be checked thoroughly.

4. FUNCTION OF SRS WARNING LIGHT

(a) Primary check.

(1) Turn the power switch OFF. Wait for at least 2 seconds, then turn the power switch ON (IG). The SRS warning light comes on for approximately 6 seconds and the diagnosis of the airbag system (including the seat belt pretensioners) is performed.

HINT:

If trouble is detected during the primary check, the SRS warning light remains on even after the primary check period (for approximately 6 seconds) has elapsed.

(b) Constant check.

(1) After the primary check, the center airbag sensor constantly monitors the airbag system for trouble.

HINT:

If trouble is detected during the constant check, the center airbag sensor functions as follows:

- The SRS warning light comes on.
- The SRS warning light goes off, and then comes on. This blinking pattern indicates a source voltage drop. The SRS warning light goes off 10 seconds after the source voltage returns to normal.

(c) Review.

(1) When the airbag system is normal:

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(1) When the airbag system is normal:

The SRS warning light comes on only during the primary check period (for approximately 6 seconds after the power switch is turned ON (IG)).

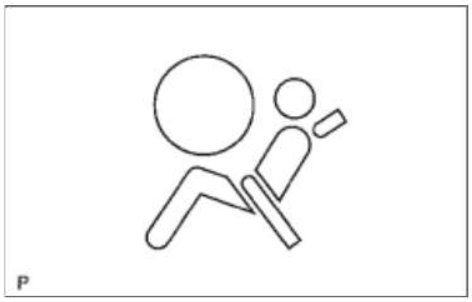
(2) When the airbag system has trouble:

- The SRS warning light remains on even after the primary check period has elapsed.
- The SRS warning light goes off after the primary check, but comes on again during the constant check.
- The SRS warning light does not come on when turning the power switch from OFF to ON (IG).

HINT:

The center airbag sensor keeps the SRS warning light on if the airbag has been deployed.

5. SRS WARNING LIGHT CHECK



(a) Turn the power switch ON (IG), and check that the SRS warning light comes on for approximately 6 seconds (primary check).

(b) Check that the SRS warning light goes off approximately 6 seconds after the power switch is turned ON (IG) (constant check).

HINT:

When any of the following symptoms occur, refer to the "Problem Symptoms Table" INFO .

- The SRS warning light comes on occasionally after the primary check period has elapsed.
- The SRS warning light comes on, but a DTC is not output.
- The power switch is turned from OFF to ON (IG), but the SRS warning light does not come on.

6. ACTIVATION PREVENTION MECHANISM

(a) FUNCTION OF ACTIVATION PREVENTION MECHANISM

(1) An activation prevention mechanism is built into the connector on the center airbag sensor side of the airbag system squib circuit to prevent accidental airbag activation.

(2) This mechanism closes the circuit when the connector is disconnected by bringing the short spring into contact with the terminals and shutting off external electricity to prevent accidental airbag activation.

(b) RELEASE METHOD OF ACTIVATION PREVENTION MECHANISM

(1) To release the activation prevention mechanism, insert a piece of paper with the same thickness as the male terminal (approximately 0.5 mm (0.020 in.)) between the terminals and the short spring to break the connection.

(2) Refer to the illustrations below concerning connectors utilizing the activation prevention mechanism and its release method.

CAUTION:

Never release the activation prevention mechanism on the squib connector even when inspecting with the squib disconnected.

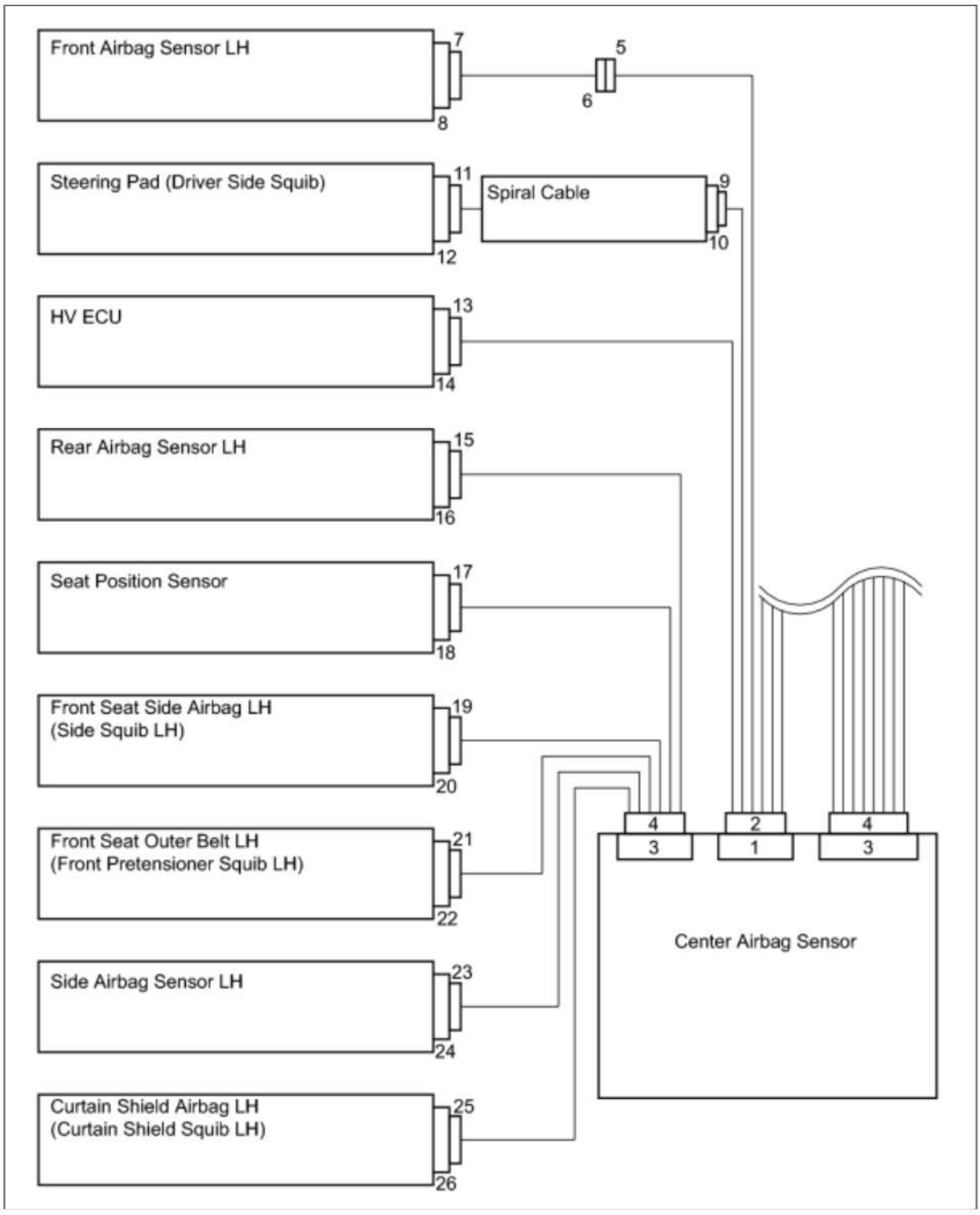
NOTICE:

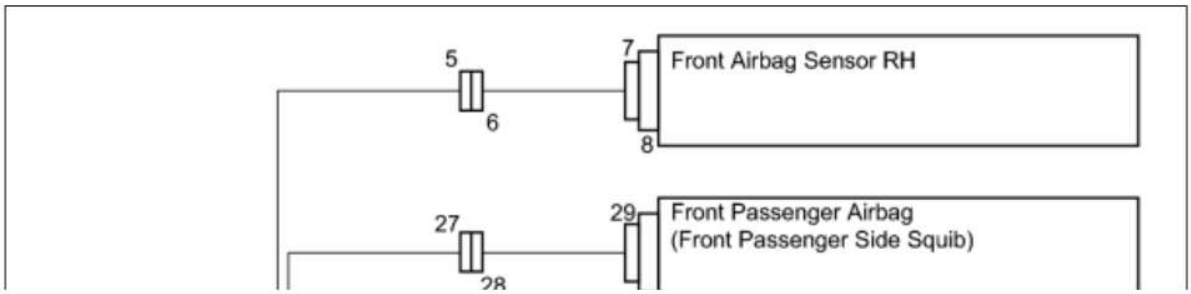
- Do not release the activation prevention mechanism unless specially directed by the troubleshooting procedure.

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: DIAGNOSIS SYSTEM (2009 Prius)

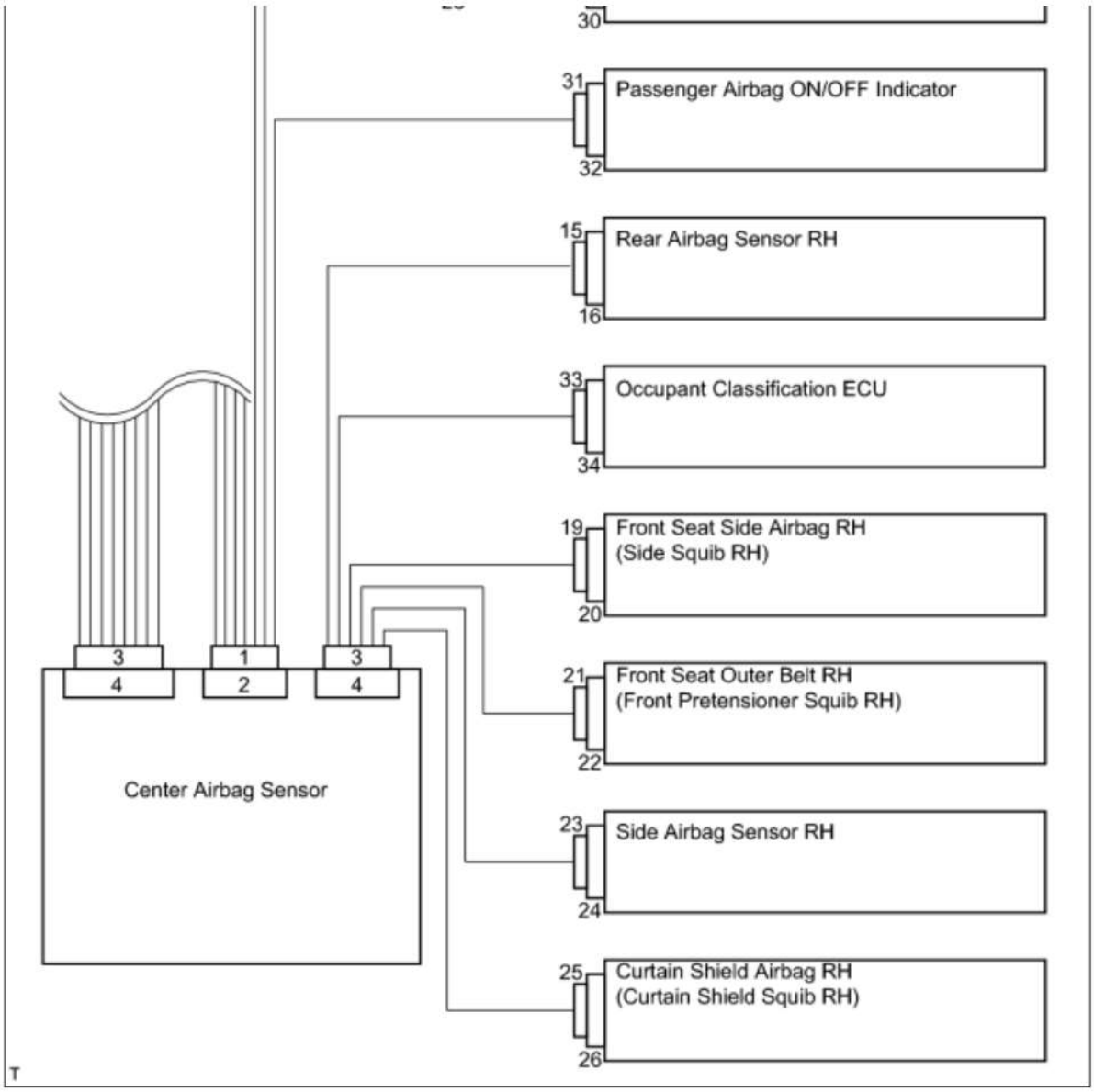
- To prevent the terminal and the short spring from being damaged, always use a piece of paper of the same thickness as the male terminal.

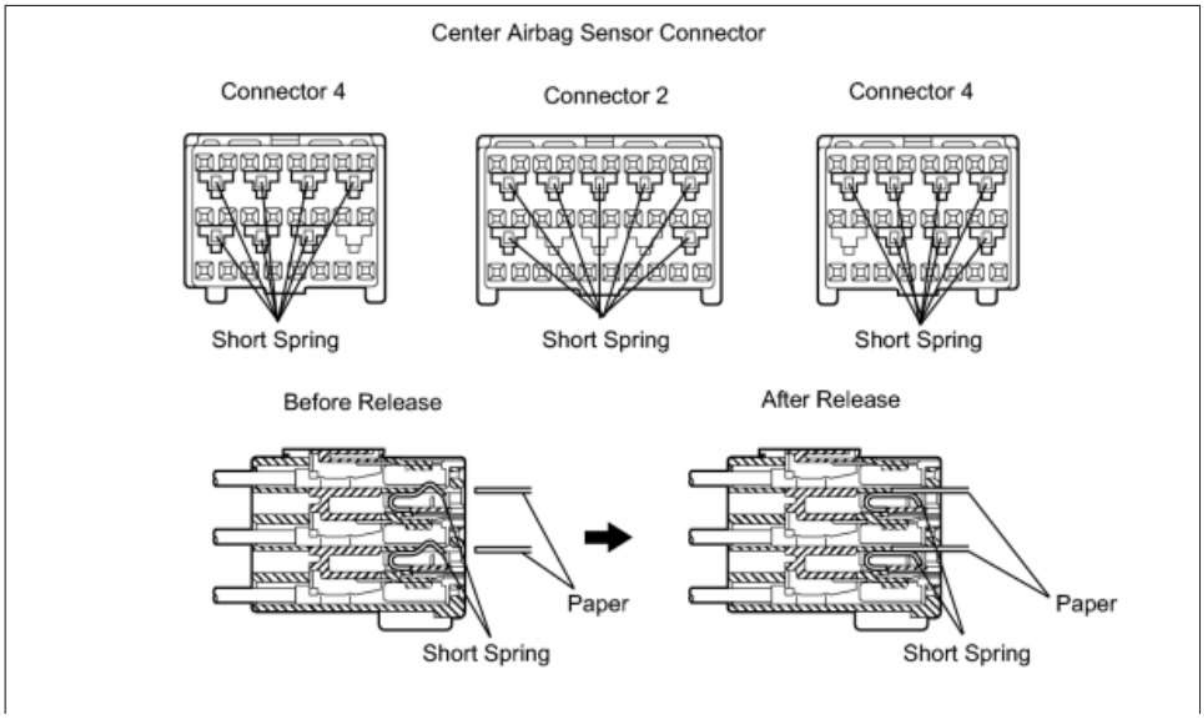




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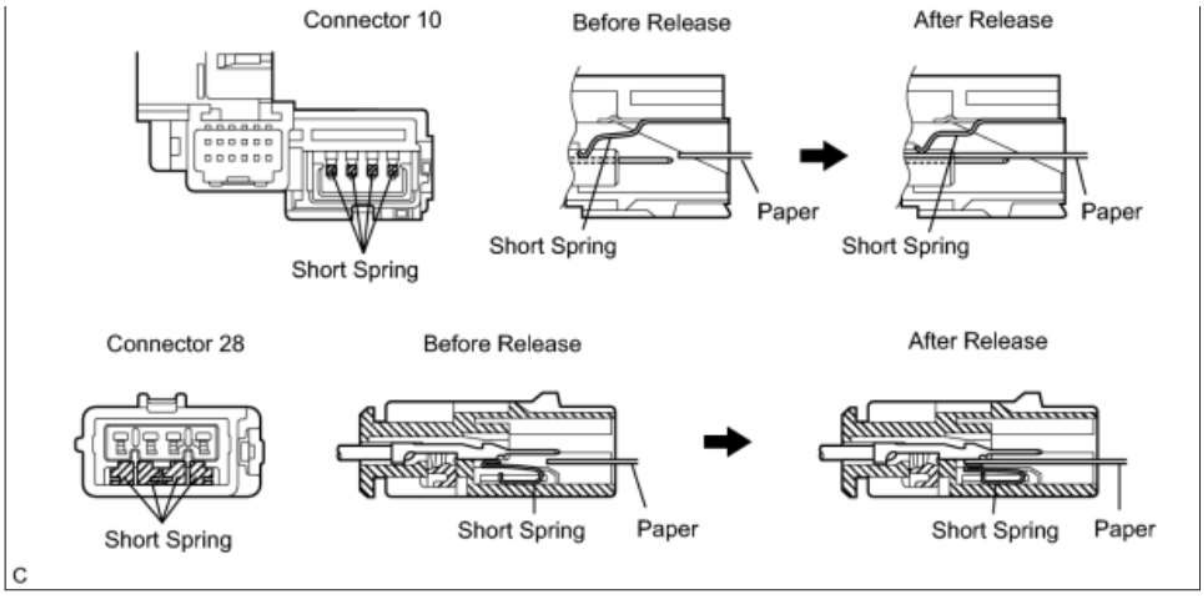
SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: DIAGNOSIS SYSTEM (2009 Prius)





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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: DIAGNOSIS SYSTEM (2009 Prius)

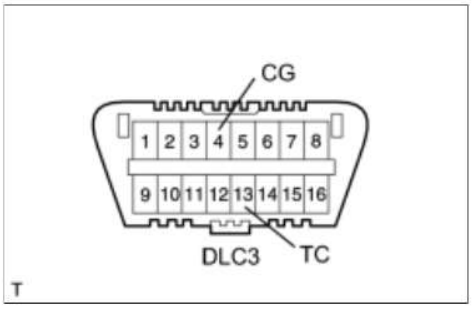


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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: DTC CHECK / CLEAR (2009 Prius)

DTC CHECK / CLEAR

1. CHECK DTC (USING SST CHECK WIRE)



(a) Check for DTCs (Present DTC).

(1) Turn the power switch ON (IG), and wait for approximately 60 seconds.

(2) Using SST, connect terminals 13 (TC) and 4 (CG) of the DLC3.

SST: 09843-18040

NOTICE:

Connect the terminals to the correct positions to avoid a malfunction.

(b) Check for DTCs (Past DTC).

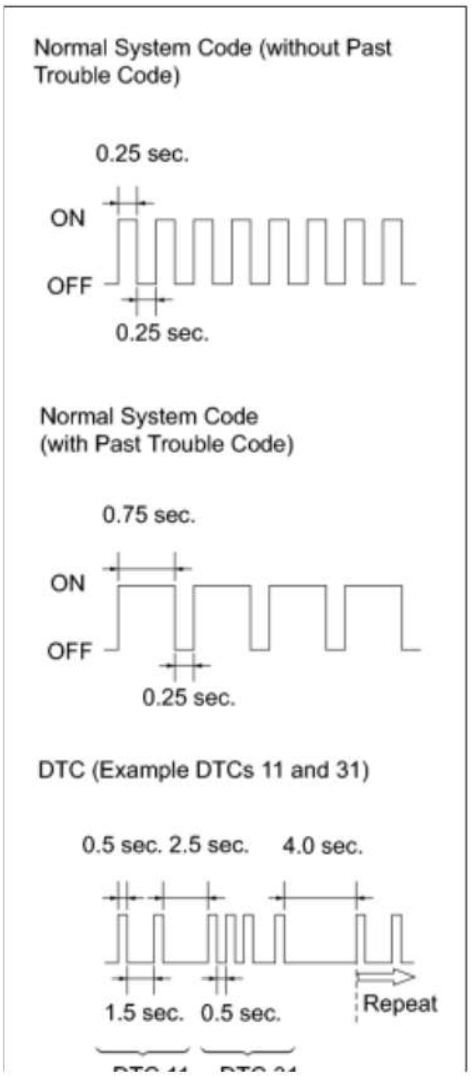
(1) Using SST, connect terminals 13 (TC) and 4 (CG) of the DLC3.

SST: 09843-18040

NOTICE:

Connect the terminals to the correct positions to avoid a malfunction.

(2) Turn the power switch ON (IG), and wait for approximately 60 seconds.



(c) Read the DTCs.

(1) Read the blinking patterns of the DTCs. As examples, the blinking patterns for the normal system code and DTCs 11 and 31 are shown in the illustration.

- Normal system code indication (without past DTC)

  The light blinks twice per second.
- Normal system code indication (with past DTC)

  When the past DTC is stored in the center airbag sensor, the light blinks once per second.
- DTC indication

  The first blinking pattern indicates the first digit DTC. The second blinking pattern occurs after a 1.5-second pause.

If there are 2 or more DTCs, there is a 2.5-second pause between each DTC. After all DTCs are shown, there is a 4.0-second pause, and they are all repeated.

- If 2 or more malfunctions are found, the indication begins with the lowest numbered DTC.
- If DTCs are indicated without connecting the terminals, proceed to the "TC and CG Terminal Circuit" INFO .

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DTC 11 DTC 31

T

2. CLEAR DTC (USING SST CHECK WIRE)

(a) Clear the DTCs.

(1) When the power switch is turned OFF, the DTCs are cleared.

HINT:

Depending on the DTCs, the DTCs may not all be cleared by turning off the power switch. In this case, proceed to the next step.

(2) Using SST, connect terminals 13 (TC) and 4 (CG) of the DLC3, and then turn the power switch on.

SST: 09843-18040

(3) Disconnect terminal 13 (TC) of the DLC3 within 3 to 10 seconds after the DTCs are output, and check that the SRS warning light comes on after 3 seconds.

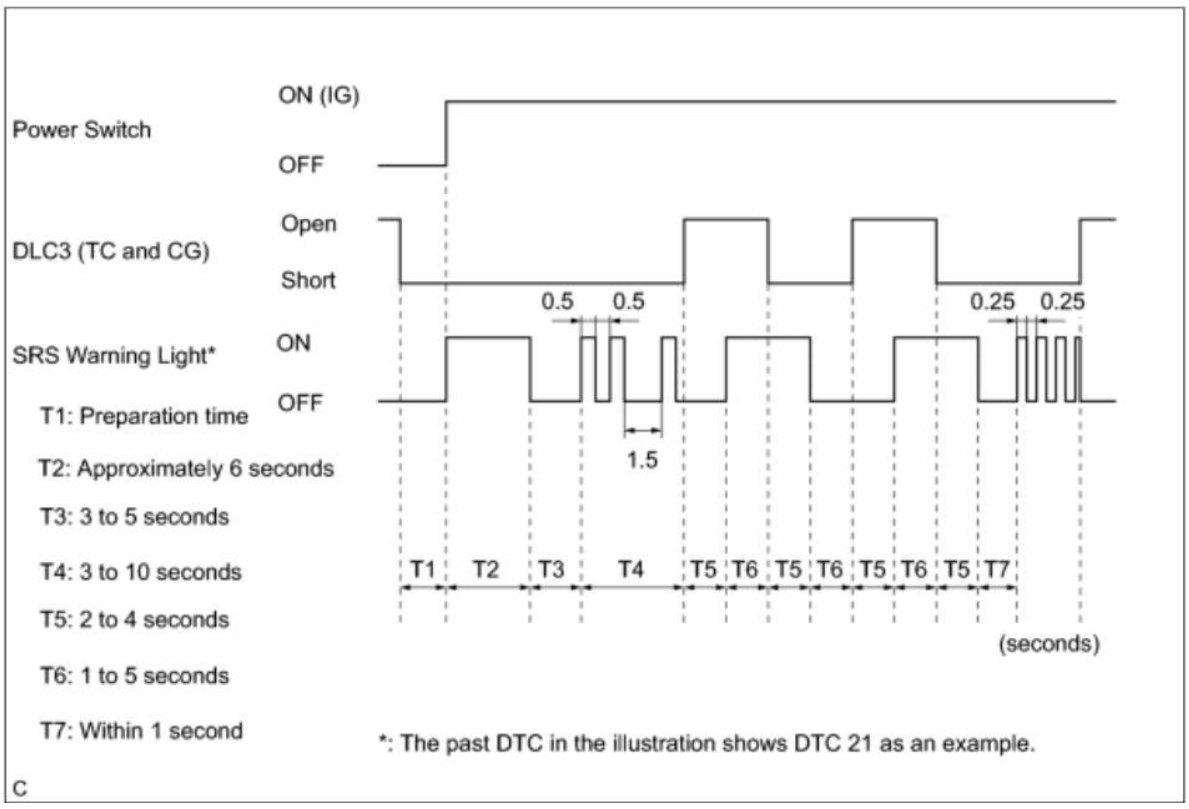
(4) Within 2 to 4 seconds of the SRS warning light coming on, connect terminals 13 (TC) and 4 (CG) of the DLC3.

(5) The SRS warning light goes off within 2 to 4 seconds of connecting terminals 13 (TC) and 4 (CG) of the DLC3. Then, disconnect terminal 13 (TC) within 2 to 4 seconds of the SRS warning light going off.

(6) The SRS warning light comes on again within 2 to 4 seconds of disconnecting terminal 13 (TC). Then, reconnect terminals 13 (TC) and 4 (CG) within 2 to 4 seconds of the SRS warning light coming on.

(7) Check that the SRS warning light goes off within 2 to 4 seconds of connecting terminals 13 (TC) and 4 (CG) of the DLC3. Also check that the normal system code is output within 1 second of the SRS warning light going off.

If DTCs are not cleared, repeat these procedure until the DTCs are cleared.



C

3. CHECK DTC (USING TECHSTREAM)

(a) Connect the Techstream to the DLC3.

(b) Turn the power switch ON (IG).

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: DTC CHECK / CLEAR (2009 Prius)

(c) Check the DTCs by following the prompts on the Techstream screen.

HINT:

Refer to the Techstream operator's manual for further details.

4. CLEAR DTC (USING TECHSTREAM)

(a) Connect the Techstream to the DLC3.

(b) Turn the power switch ON (IG).

(c) Clear the DTCs by following the prompts on the Techstream screen.

HINT:

Refer to the Techstream operator's manual for further details.

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: CHECK MODE PROCEDURE (2009 Prius)

CHECK MODE PROCEDURE

1. CHECK MODE (SIGNAL CHECK): DTC CHECK

(a) Connect the Techstream to the DLC3.

(b) Turn the power switch ON (IG).

(c) Select the SIGNAL CHECK, and proceed to check with the Techstream.

NOTICE:

Select the SIGNAL CHECK from the DTC CHECK screen displayed on the Techstream to clear the output DTCs (both present and past).

HINT:

- DTCs can be detected more sensitively in check mode than in normal diagnosis mode.
- Perform the check mode inspection when a malfunction in each squib circuit is suspected even after the normal system code is output through the normal diagnosis mode inspection.

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DATA LIST / ACTIVE TEST

1. READ DATA LIST

HINT:

Using the Techstream's DATA LIST allows switch, sensor, actuator and other item values to be read without removing any parts. Reading the DATA LIST early in troubleshooting is one way to save time.

(a) Connect the Techstream to the DLC3.

(b) Turn the power switch ON (IG).

(c) Read the DATA LIST according to the display on the Techstream.

Center airbag sensor:

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Driver Seat Position	Seat position (Driver side)/ Forward: Seat position forward Bkward: Seat position backward FAIL: Failure detected	Forward/Bkward	-
Passenger Classification	Front passenger classification/ NG: Data is not determined OFF: Vacant CHILD: Child (Less than 36 kg [79.37 lb]) seated AF05: Adult (36 to 54 kg [79.37 to 119.05 lb]) seated AM50: Adult (More than 54 kg [119.05 lb]) seated FAIL: Failure detected	NG/OFF/CHILD /AF05/AM50/FAIL	-
Driver Buckle SW	Buckle switch (Driver side)/ Unset: Seat belt not fastened Set: Seat belt fastened NG: Data not determined	Unset/Set	-
Passenger Buckle SW	Buckle switch (Front passenger side)/ Unset: Seat belt not fastened Set: Seat belt fastened NG: Data not determined	Unset/Set	-
Display Type Information	Display type identification information/ LR: Display indicated by LH/RH DP: Display indicated by Driver/Passenger	DP	-
Number of Past DTC	Number of past DTCs/ Min.: 0, Max.: 255	0	-

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: DIAGNOSTIC TROUBLE CODE CHART (2009 Prius)

DIAGNOSTIC TROUBLE CODE CHART

If a DTC is displayed during the DTC check, check the circuit listed for the DTC in the table below.

HINT:

- When the SRS warning light remains on and the normal system code is output, a decrease in the source voltage is likely to occur. This malfunction is not stored in the memory of the center airbag sensor. If the power source voltage returns to normal, the SRS warning light will automatically go off.
- When 2 or more DTCs are indicated, the DTC with the lowest number appears first.
- If a DTC is not listed on the DTC chart, the center airbag sensor may have malfunction.
- In the case of any malfunctions concerning open circuits, shorts to ground, or shorts to B+ due to squibs, other DTCs may not be set. In this case, repair the malfunction currently indicated and then perform malfunction diagnosis again.
- Mark in the check mode column:

  -: DTC does not correspond to check mode.

  ○: DTC corresponds to check mode.

- When DTC B1650/32 is set as a result of troubleshooting the Supplemental Restraint System (SRS), perform troubleshooting for the occupant classification system.

AIRBAG SYSTEM:

DTC CODE	DETECTION ITEM	CHECK MODE	SRS WARNING LIGHT	SEE PAGE
B1000/31	Center Airbag Sensor Assembly Malfunction	-	ON	INFO
B1610/13	Front Airbag Sensor RH Circuit Malfunction	-	ON	INFO
B1615/14	Front Airbag Sensor LH Circuit Malfunction	-	ON	INFO
B1620/21	Driver Side - Side Airbag Sensor Circuit Malfunction	-	ON	INFO
B1625/22	Front Passenger Side - Side Airbag Sensor Circuit Malfunction	-	ON	INFO
B1630/23	Driver Side Rear Airbag Sensor Circuit Malfunction	-	ON	INFO
B1635/24	Front Passenger Side Rear Airbag Sensor Circuit Malfunction	-	ON	INFO
B1650/32	Occupant Classification System Malfunction	-	ON	INFO
B1655/37	Driver Side Seat Belt Buckle Switch Circuit Malfunction	-	ON	INFO
B1660/43	Passenger Airbag ON / OFF Indicator Circuit Malfunction	-	ON	INFO
B1800/51	Short in Driver Side Squib Circuit	○	ON	INFO
B1801/51	Open in Driver Side Squib Circuit	○	ON	INFO
B1802/51	Short to GND in Driver Side Squib Circuit	○	ON	INFO
B1803/51	Short to B+ in Driver Side Squib Circuit	○	ON	INFO
B1805/52	Short in Front Passenger Side Squib Circuit	○	ON	INFO
B1806/52	Open in Front Passenger Side Squib Circuit	○	ON	INFO
B1807/52	Short to GND in Front Passenger Side Squib Circuit	○	ON	INFO

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: DIAGNOSTIC TROUBLE CODE CHART (2009 Prius)

B1808/52	Short to B+ in Front Passenger Side Squib Circuit	○	ON	INFO
B1810/53	Short in Driver Side Squib 2nd Step Circuit	○	ON	INFO
B1811/53	Open in Driver Side Squib 2nd Step Circuit	○	ON	INFO
B1812/53	Short to GND in Driver Side Squib 2nd Step Circuit	○	ON	INFO
B1813/53	Short to B+ in Driver Side Squib 2nd Step Circuit	○	ON	INFO
B1815/54	Short in Front Passenger Side Squib 2nd Step Circuit	○	ON	INFO
B1816/54	Open in Front Passenger Side Squib 2nd Step Circuit	○	ON	INFO
B1817/54	Short to GND in Front Passenger Side Squib 2nd Step Circuit	○	ON	INFO
B1818/54	Short to B+ in Front Passenger Side Squib 2nd Step Circuit	○	ON	INFO
B1830/57	Short in Driver Side Curtain Shield Squib Circuit	○	ON	INFO
B1831/57	Open in Driver Side Curtain Shield Squib Circuit	○	ON	INFO
B1832/57	Short to GND in Driver Side Curtain Shield Squib Circuit	○	ON	INFO
B1833/57	Short to B+ in Driver Side Curtain Shield Squib Circuit	○	ON	INFO
B1835/58	Short in Front Passenger Side Curtain Shield Squib Circuit	○	ON	INFO
B1836/58	Open in Front Passenger Side Curtain Shield Squib Circuit	○	ON	INFO
B1837/58	Short to GND in Front Passenger Side Curtain Shield Squib Circuit	○	ON	INFO
B1838/58	Short to B+ in Front Passenger Side Curtain Shield Squib Circuit	○	ON	INFO
B1908/74	Short to B+ in Front Passenger Side Front Pretensioner Squib Circuit	○	ON	INFO
B1653/35	Seat Position Airbag Sensor Circuit Malfunction	○	ON	INFO
B1820/55	Short in Front Driver Side - Side Squib Circuit	○	ON	INFO
B1821/55	Open in Front Driver Side - Side Squib Circuit	○	ON	INFO
B1822/55	Short to GND in Front Driver Side - Side Squib Circuit	○	ON	INFO
B1823/55	Short to B+ in Front Driver Side - Side Squib Circuit	○	ON	INFO
B1825/56	Short in Front Passenger Side - Side Squib Circuit	○	ON	INFO
B1826/56	Open in Front Passenger Side - Side Squib Circuit	○	ON	INFO
B1827/56	Short to GND in Front Passenger Side - Side Squib Circuit	○	ON	INFO
B1828/56	Short to B+ in Front Passenger Side - Side Squib Circuit	○	ON	INFO
B1900/73	Short in Front Driver Side Pretensioner Squib Circuit	○	ON	INFO

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: DIAGNOSTIC TROUBLE CODE CHART (2009 Prius)

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1000/31: Center Airbag Sensor Assembly Malfunction (2009 Prius)

DTC	B1000/31	Center Airbag Sensor Assembly Malfunction

DESCRIPTION

The center airbag sensor consists of the airbag sensor, the safing sensor, the drive circuit, the diagnosis circuit and the power control.

When the center airbag sensor receives signals from the airbag sensor, it determines whether or not the SRS should be activated.

DTC B1000/31 is set when a malfunction is detected in the center airbag sensor.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1000/31	Center airbag sensor malfunction	Center airbag sensor

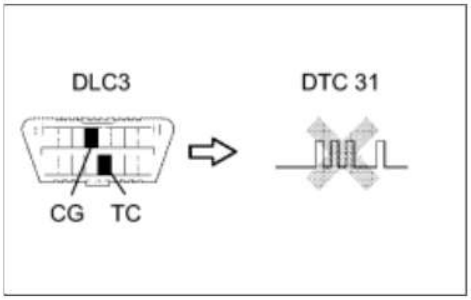
HINT:

When any other DTCs are set simultaneously with B1000/31, repair the malfunctions indicated by those DTCs first.

INSPECTION PROCEDURE

PROCEDURE

1.	CHECK CENTER AIRBAG SENSOR ASSEMBLY



(a) Turn the power switch OFF.

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

(c) Connect the cable to the negative (-) battery terminal, 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 INFO .

(f) Turn the power switch OFF.

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

(h) Check for DTCs INFO .

OK:

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1000/31: Center Airbag Sensor Assembly Malfunction (2009 Prius)

DTC B1000/31 is not output.

NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **USE SIMULATION METHOD TO CHECK**

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1610/13: Front Airbag Sensor RH Circuit Malfunction (2009 Prius)

DTC	B1610/13	Front Airbag Sensor RH Circuit Malfunction

DESCRIPTION

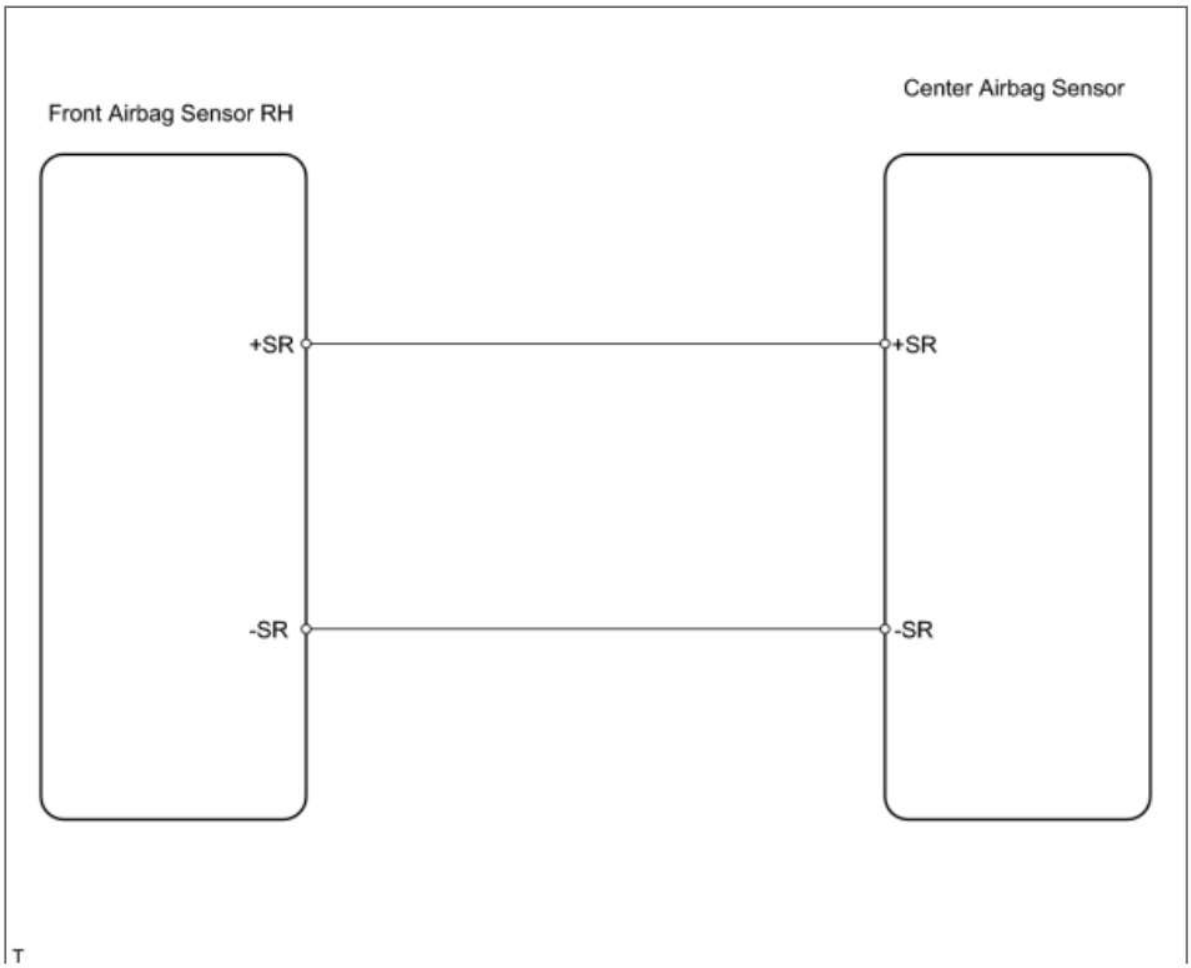
The front airbag sensor RH consists of the diagnostic circuit and the front deceleration sensor.

If the center airbag sensor receives signals from the frontal deceleration sensor, it determines whether or not the SRS should be activated.

DTC B1610/13 is recorded when a malfunction is detected in the front airbag sensor RH circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1610/13	When one of following conditions is met: • Center airbag sensor receives a line short signal, an open signal, a short to ground signal or a short to B+ signal from the front airbag sensor RH for 2 seconds. • Front airbag sensor RH malfunction • Center airbag sensor malfunction	• Instrument panel wire • Engine room main wire • Front airbag sensor RH • Center airbag sensor

WIRING DIAGRAM



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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1610/13: Front Airbag Sensor RH Circuit Malfunction (2009 Prius)

INSPECTION PROCEDURE

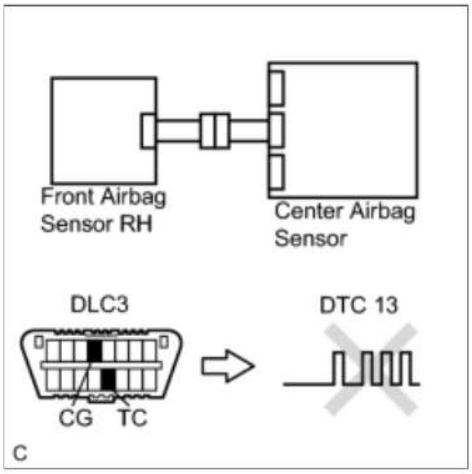
PROCEDURE

1.	CHECK FOR DTC

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

(b) Clear the DTCs INFO .

(c) Turn the power switch OFF.



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

(e) Check the DTCs INFO .

OK:

DTC B1610/13 is not output.

HINT:

DTCs other than DTC B1610/13 may be output at this time, but they are not related to this check.

OK ▶ **USE SIMULATION METHOD TO CHECK**

NG ▼

2.	CHECK CONNECTION OF CONNECTOR

(a) Turn the power switch OFF.

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

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

OK:

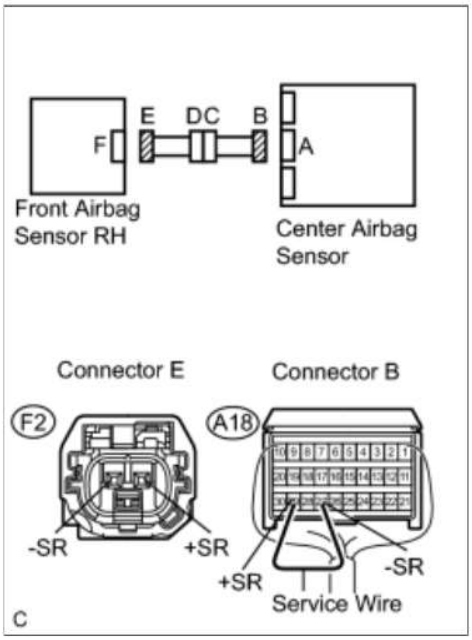
The connectors are properly connected.

NG ▶ **CONNECT CONNECTOR**

OK ▼

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3.	CHECK FRONT AIRBAG SENSOR RH CIRCUIT (OPEN)



(a) Disconnect the connectors from the center airbag sensor and the front airbag sensor RH.

(b) Using a service wire, connect terminals A18-29 (+SR) and A18-27 (-SR) of connector B.

NOTICE:

Do not forcibly insert a service wire into the terminals of the connector.

(c) Measure the resistance of the wire harness side connector.

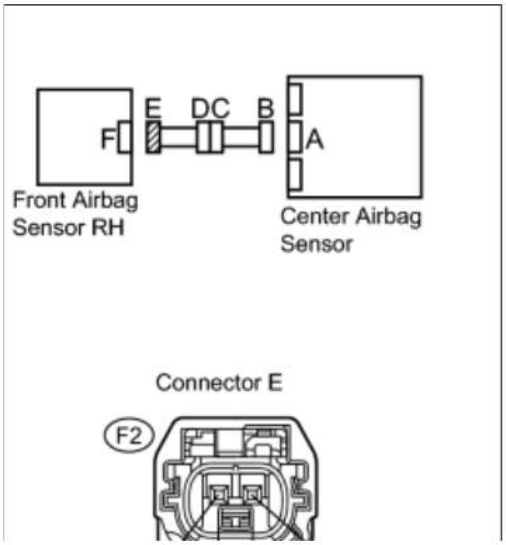
Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
F2-2 (+SR) - F2-1 (-SR)	Below 1 Ω

NG ▶ **CHECK ENGINE ROOM MAIN WIRE (OPEN)**

OK ▼

4.	CHECK FRONT AIRBAG SENSOR RH CIRCUIT (SHORT)



(a) Disconnect the service wire from connector B.

(b) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
F2-2 (+SR) - F2-1 (-SR)	1 MΩ or higher

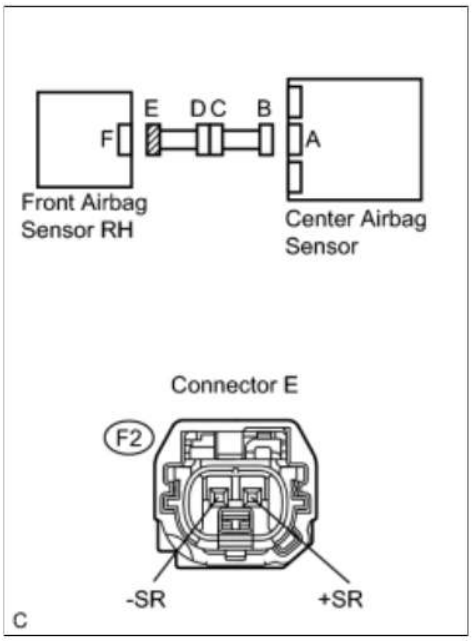
NG ▶ **CHECK ENGINE ROOM MAIN WIRE (SHORT)**

OK

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5.	CHECK FRONT AIRBAG SENSOR RH CIRCUIT (TO B+)



(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(b) Turn the power switch ON (IG).

(c) Measure the voltage of the wire harness side connector.

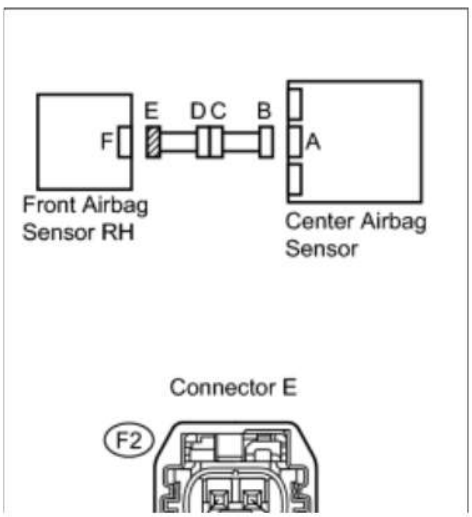
Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
F2-2 (+SR) - Body ground	Below 1 V
F2-1 (-SR) - Body ground	Below 1 V

NG ▶ **CHECK ENGINE ROOM MAIN WIRE (TO B+)**

OK ▼

6.	CHECK FRONT AIRBAG SENSOR RH CIRCUIT (TO GROUND)



(a) Turn the power switch OFF.

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

(c) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
F2-2 (+SR) - Body ground	1 MΩ or higher
F2-1 (-SR) - Body ground	1 MΩ or higher

NG ▶ **CHECK ENGINE ROOM MAIN WIRE (TO GROUND)**

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OK

7.	CHECK FRONT AIRBAG SENSOR RH

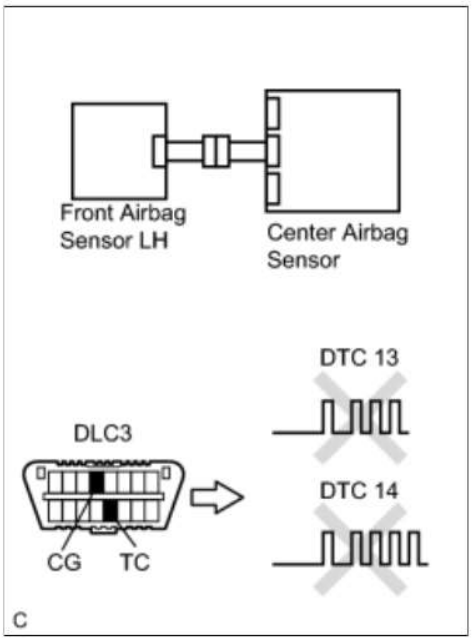
(a) Connect the connectors to the center airbag sensor.

(b) Interchange the front airbag sensor RH with the front airbag sensor LH and connect the connectors to them.

(c) Connect the cable to the negative (-) battery terminal, 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 INFO .



(f) Turn the power switch OFF.

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

(h) Check the DTCs INFO .

Result

RESULT	PROCEED TO
DTC B1610/13 and B1615/14 are not output.	A
DTC B1610/13 is output.	B
DTC B1615/14 is output.	C

HINT:

DTCs other than DTC B1610/13 and B1615/14 may be output at this time, but they are not related to this check.

C ▶ REPLACE FRONT AIRBAG SENSOR RH

B ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

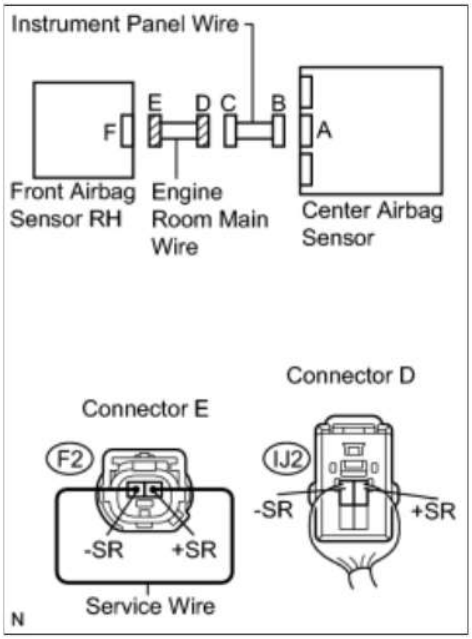
A ▶ USE SIMULATION METHOD TO CHECK

8.	CHECK ENGINE ROOM MAIN WIRE (OPEN)

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(a) Disconnect the service wire from connector B.

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



NOTICE:

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

(c) Using a service wire, connect terminals F2-2 (+SR) and F2-1 (-SR) of connector E.

(d) Measure the resistance of the wire harness side connector.

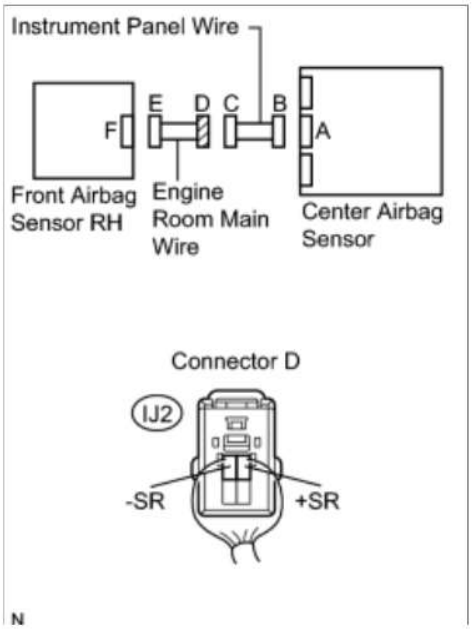
Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
IJ2-1 (+SR) - IJ2-2 (-SR)	Below 1 Ω

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

OK ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

9.	CHECK ENGINE ROOM MAIN WIRE (SHORT)



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

(b) Measure the resistance of the wire harness side connector.

Standard resistance:

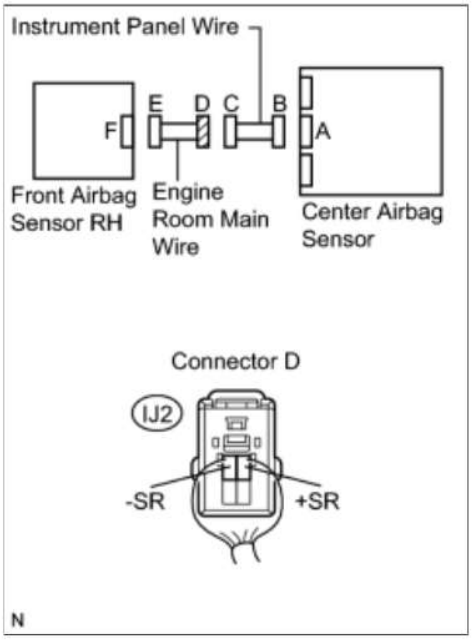
TESTER CONNECTION	SPECIFIED CONDITION
IJ2-1 (+SR) - IJ2-2 (-SR)	1 MΩ or higher

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

OK ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

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10.	CHECK ENGINE ROOM MAIN WIRE (TO B+)



(a) Turn the power switch OFF.

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

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

(d) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(e) Turn the power switch ON (IG).

(f) Measure the voltage of the wire harness side connector.

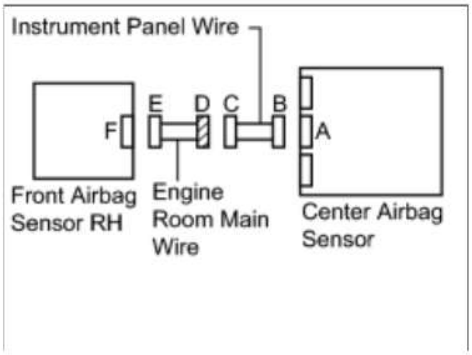
Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
IJ2-1 (+SR) - Body ground	Below 1 V
IJ2-2 (-SR) - Body ground	Below 1 V

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

OK ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

11.	CHECK ENGINE ROOM MAIN WIRE (TO GROUND)



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

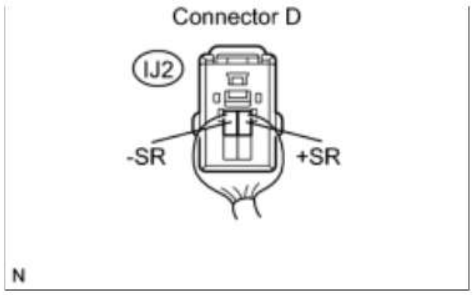
(b) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
IJ2-1 (+SR) - Body ground	1 MΩ or higher
IJ2-2 (-SR) - Body ground	1 MΩ or higher

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1610/13: Front Airbag Sensor RH Circuit Malfunction (2009 Prius)



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

OK ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1615/14: Front Airbag Sensor LH Circuit Malfunction (2009 Prius)

DTC	B1615/14	Front Airbag Sensor LH Circuit Malfunction

DESCRIPTION

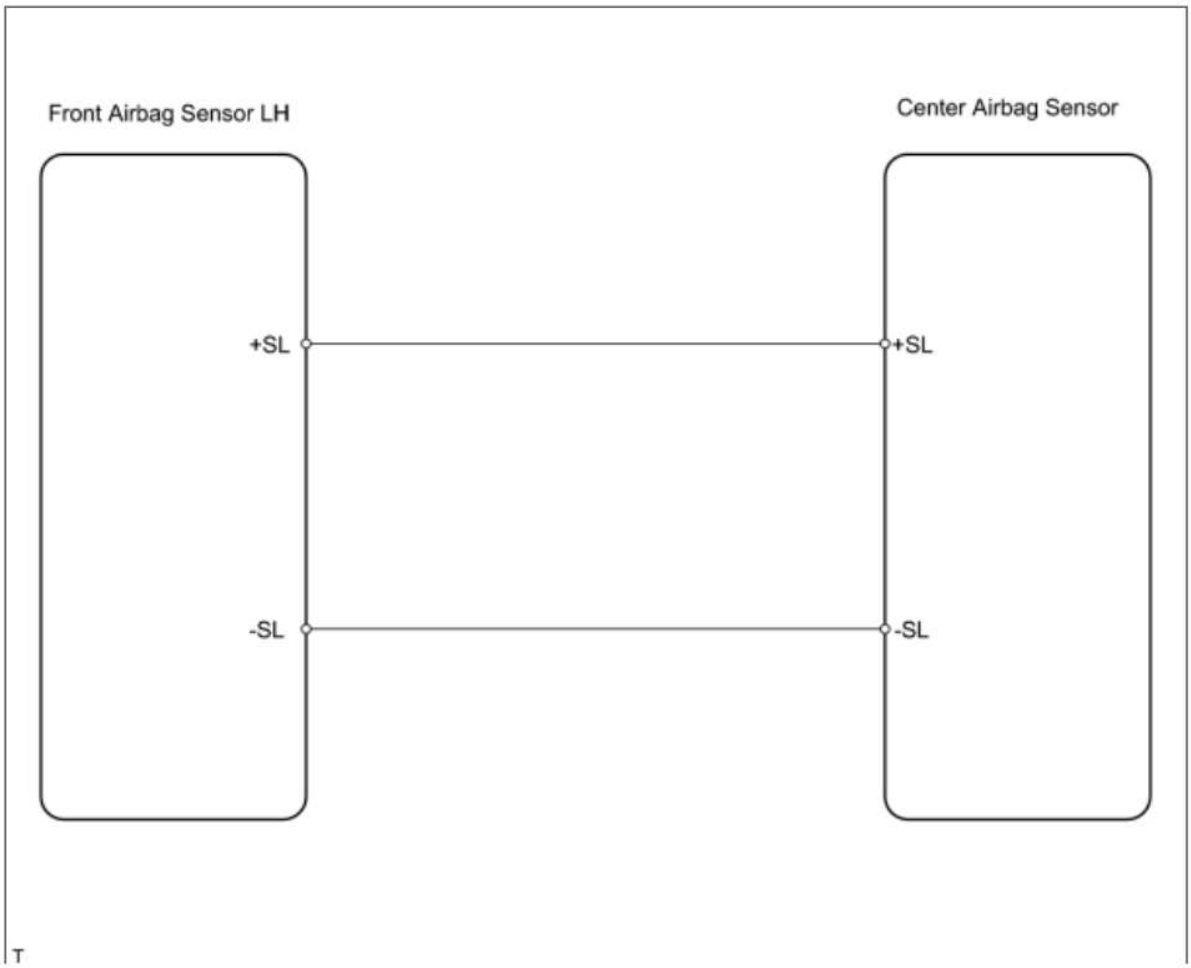
The front airbag sensor LH consists of the diagnostic circuit and the front deceleration sensor.

If the center airbag sensor receives signals from the frontal deceleration sensor, it determines whether or not the SRS should be activated.

DTC B1615/14 is recorded when a malfunction is detected in the front airbag sensor LH circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1615/14	When one of following conditions is met: • The center airbag sensor receives a line short signal, an open signal, a short to ground signal or a short to B+ signal from the front airbag sensor LH sensor for 2 seconds. • Front airbag sensor LH malfunction • Center airbag sensor malfunction	• Instrument panel wire • Engine room main wire • Front airbag sensor LH • Center airbag sensor

WIRING DIAGRAM



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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1615/14: Front Airbag Sensor LH Circuit Malfunction (2009 Prius)

INSPECTION PROCEDURE

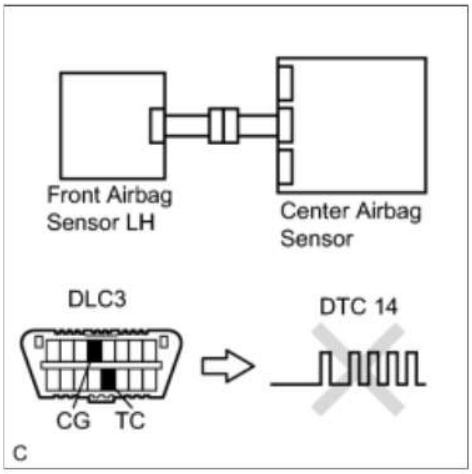
PROCEDURE

1.	CHECK FOR DTC

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

(b) Clear the DTCs INFO .

(c) Turn the power switch OFF.



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

(e) Check for DTCs INFO .

OK:

DTC B1615/14 is not output.

HINT:

DTCs other than DTC B1615/14 may be output at this time, but they are not related to this check.

OK ▶ **USE SIMULATION METHOD TO CHECK**

NG ▼

2.	CHECK CONNECTION OF CONNECTOR

(a) Turn the power switch OFF.

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

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

OK:

The connectors are properly connected.

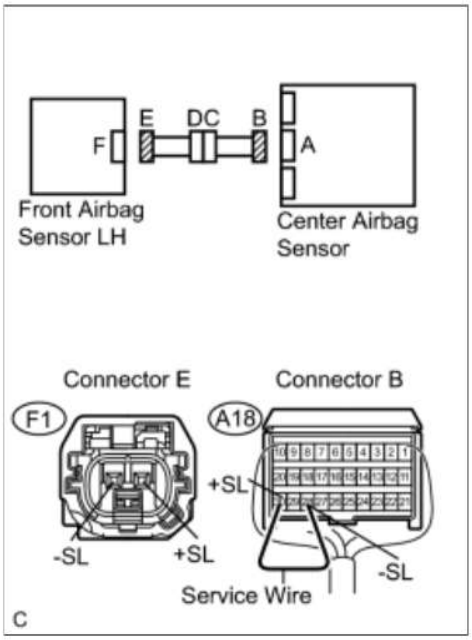
NG ▶ **CONNECT CONNECTOR**

OK ▼

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1615/14: Front Airbag Sensor LH Circuit Malfunction (2009 Prius)

3.	CHECK FRONT AIRBAG SENSOR LH CIRCUIT (OPEN)



(a) Disconnect the connectors from the center airbag sensor and the front airbag sensor LH.

(b) Using a service wire, connect A18-30 (+SL) and A18-28 (-SL) of connector B.

NOTICE:

Do not forcibly insert a service wire into the terminals of the connector.

(c) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
F1-2 (+SL) - F1-1 (-SL)	Below 1 Ω

NG ▶ **CHECK ENGINE ROOM MAIN WIRE (OPEN)**

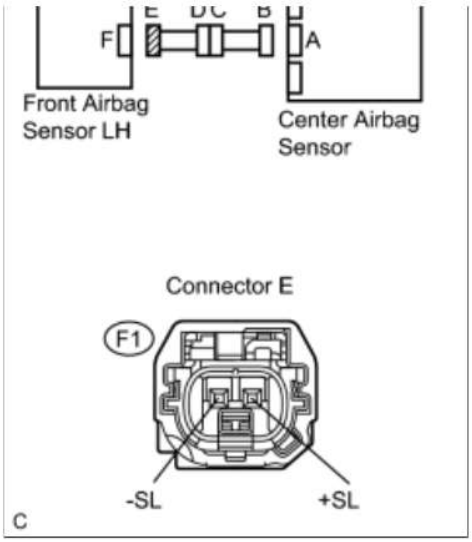
OK ▼

4.	CHECK FRONT AIRBAG SENSOR LH CIRCUIT (SHORT)



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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1615/14: Front Airbag Sensor LH Circuit Malfunction (2009 Prius)



(a) Disconnect the service wire from connector B.

(b) Measure the resistance of the wire harness side connector.

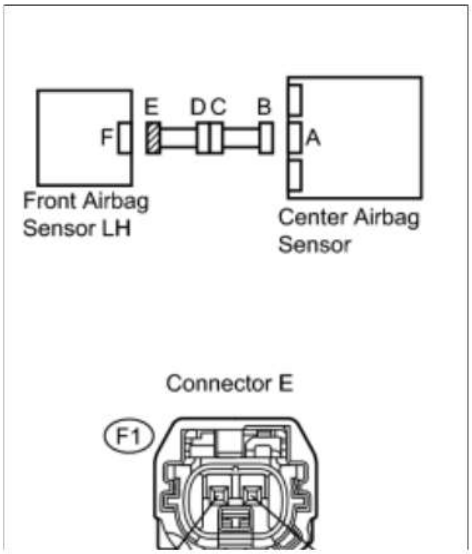
Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
F1-2 (+SL) - F1-1 (-SL)	1 MΩ or higher

NG ▶ **CHECK ENGINE ROOM MAIN WIRE (SHORT)**

OK ▼

5.	CHECK FRONT AIRBAG SENSOR LH CIRCUIT (TO B+)



(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(b) Turn the power switch ON (IG).

(c) Measure the voltage of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
F1-2 (+SL) - Body ground	Below 1 V
F1-1 (-SL) - Body ground	Below 1 V

NG ▶ **CHECK ENGINE ROOM MAIN WIRE (TO B+)**

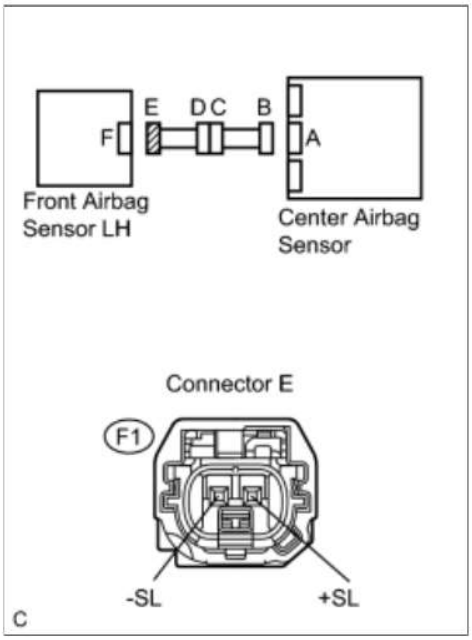
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OK

6.	CHECK FRONT AIRBAG SENSOR LH CIRCUIT (TO GROUND)

(a) Turn the power switch OFF.



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

(c) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
F1-2 (+SL) - Body ground	1 MΩ or higher
F1-1 (-SL) - Body ground	1 MΩ or higher

NG ▶ **CHECK ENGINE ROOM MAIN WIRE (TO GROUND)**

OK

7.	CHECK FRONT AIRBAG SENSOR LH

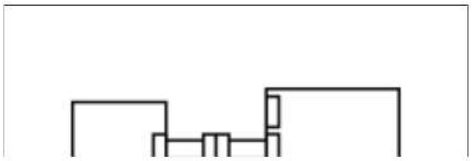
(a) Connect the connectors to the center airbag sensor.

(b) Interchange the front airbag sensor LH with the front airbag sensor RH and connect the connectors to them.

(c) Connect the cable to the negative (-) battery terminal, 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 INFO .

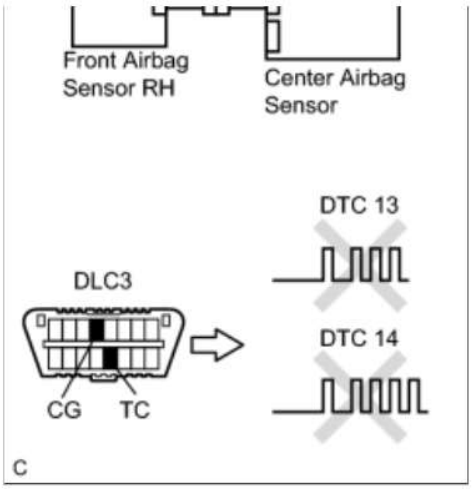


(f) Turn the power switch OFF.

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

(h) Check for DTCs INFO

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(f) Check for DTCs [redacted].

Result

RESULT	PROCEED TO
DTC B1610/13 and B1615/14 are not output.	A
DTC B1615/14 is output.	B
DTC B1610/13 is output.	C

HINT:

DTCs other than DTC B1610/13 and B1615/14 may be output at this time, but they are not related to this check.

C ▶ REPLACE FRONT AIRBAG SENSOR LH

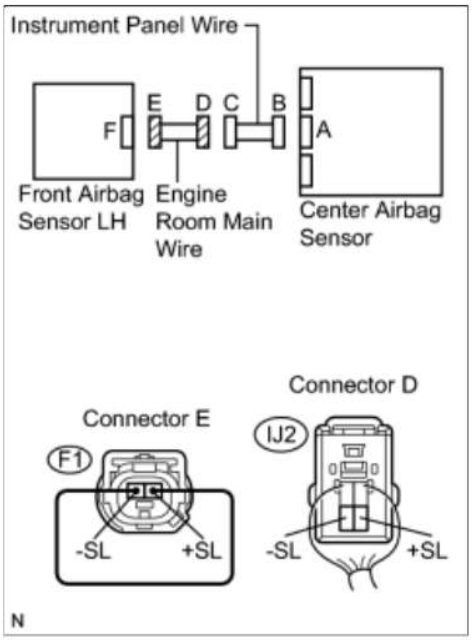
B ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

A ▶ USE SIMULATION METHOD TO CHECK

8.	CHECK ENGINE ROOM MAIN WIRE (OPEN)

(a) Disconnect the service wire from connector B.

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



(c) Using a service wire, connect terminals F1-2 (+SL) and F1-1 (-SL) of connector E.

NOTICE:

Do not forcibly insert a service wire into the terminals of the connector.

(d) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
IJ2-3 (+SL) - IJ2-4(-SL)	Below 1 Ω

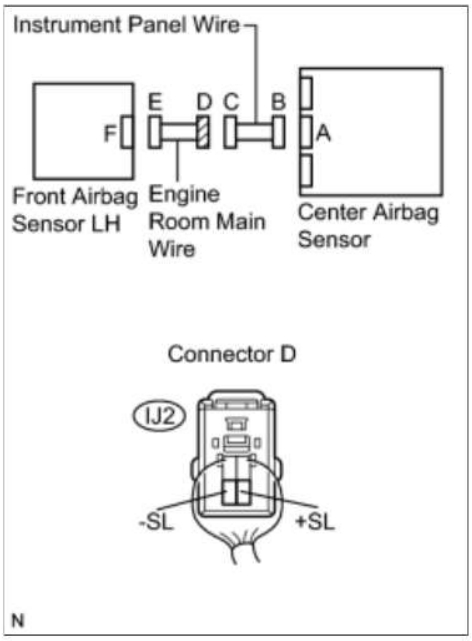
NG ▶ REPAIR OR REPLACE ENGINE ROOM MAIN WIRE

OK ▶ REPAIR OR REPLACE

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OK ▶ INSTRUMENT PANEL WIRE

9.	CHECK ENGINE ROOM MAIN WIRE (SHORT)



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

(b) Measure the resistance of the wire harness side connector.

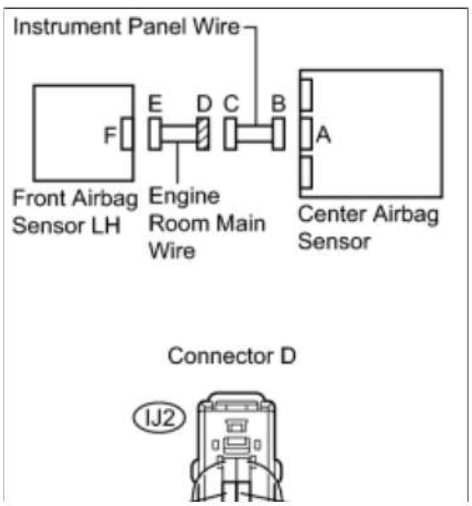
Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
IJ2-3 (+SL) - IJ2-4 (-SL)	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 (TO B+)



(a) Turn the power switch OFF.

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

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

(d) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

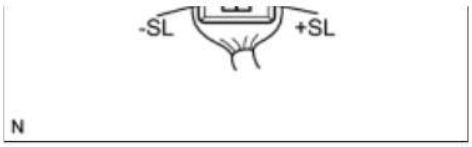
(e) Turn the power switch ON (IG).

(f) Measure the voltage of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
IJ2-3 (+SL) - Body ground	Below 1 V
IJ2-4 (-SL) - Body ground	Below 1 V

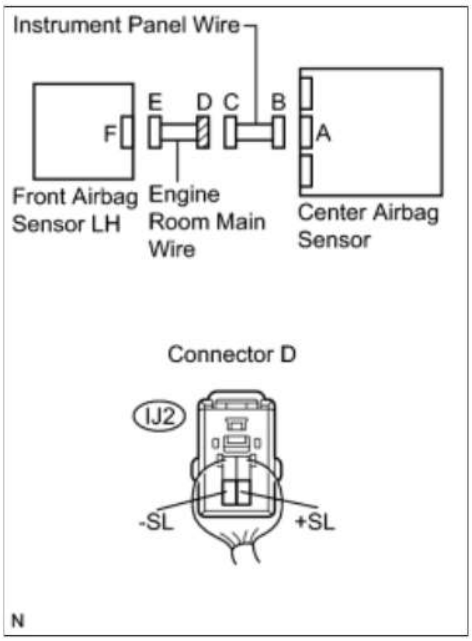
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NG ▶ **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

11.	CHECK ENGINE ROOM MAIN WIRE (TO GROUND)



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

(b) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
IJ2-3 (+SL) - Body ground	1 MΩ or higher
IJ2-4 (-SL) - Body ground	1 MΩ or higher

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

OK ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1620/21: Driver Side - Side Airbag Sensor Circuit Malfunction (2009 Prius)

DTC	B1620/21	Driver Side - Side Airbag Sensor Circuit Malfunction

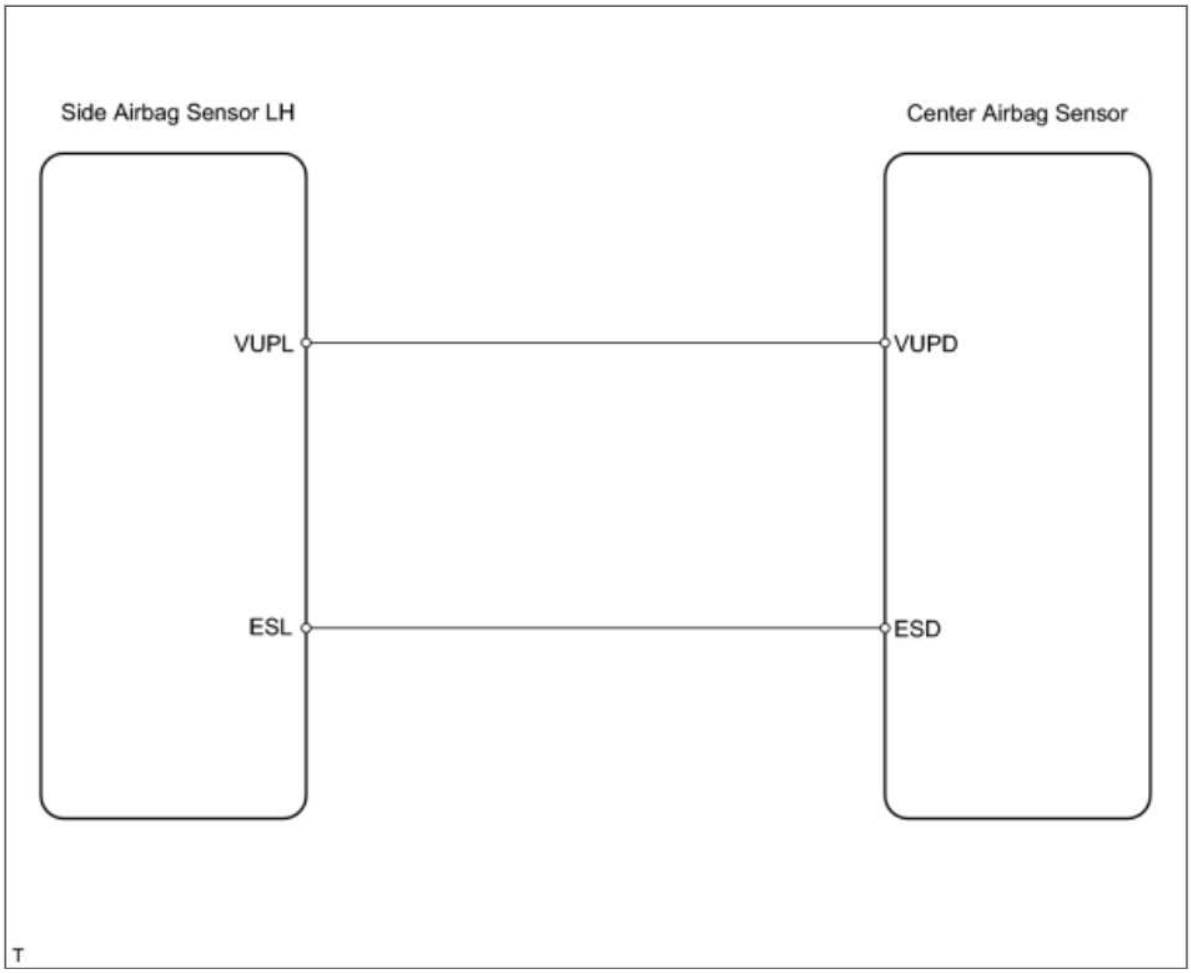
DESCRIPTION

The side airbag sensor LH consists of the safing sensor, the diagnostic circuit and the lateral deceleration sensor. The center airbag sensor receives signals from the lateral deceleration sensor and determines whether or not the SRS should be activated.

DTC B1620/21 is recorded when a malfunction is detected in the side airbag sensor LH circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1620/21	When one of following conditions is met: • Center airbag sensor receives line short signal, open signal, short to ground or B+ short signal from side airbag sensor LH sensor for 2 seconds • Side airbag sensor LH malfunction • Center airbag sensor malfunction	• Floor wire • Center airbag sensor • Side airbag sensor LH

WIRING DIAGRAM



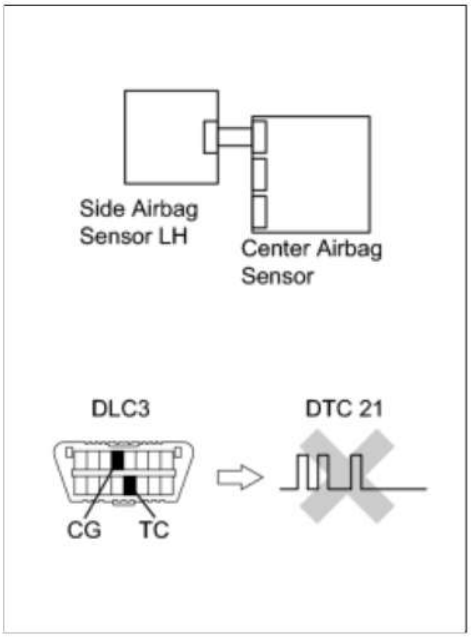
INSPECTION PROCEDURE

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1620/21: Driver Side - Side Airbag Sensor Circuit Malfunction (2009 Prius)

PROCEDURE

1.	CHECK FOR DTC



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

(b) Clear the DTCs INFO .

(c) Turn the power switch OFF.

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

(e) Check for DTCs INFO .

OK:

DTC B1620/21 is not output.

HINT:

DTCs other than DTC B1620/21 may be output at this time, but they are not related to this check.

OK ▶ **USE SIMULATION METHOD TO CHECK**

NG ▼

2.	CHECK CONNECTION OF CONNECTOR

(a) Turn the power switch OFF.

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

(c) Check that the connectors are properly connected to the center airbag sensor and side airbag sensor LH.

OK:

Connectors are connected.

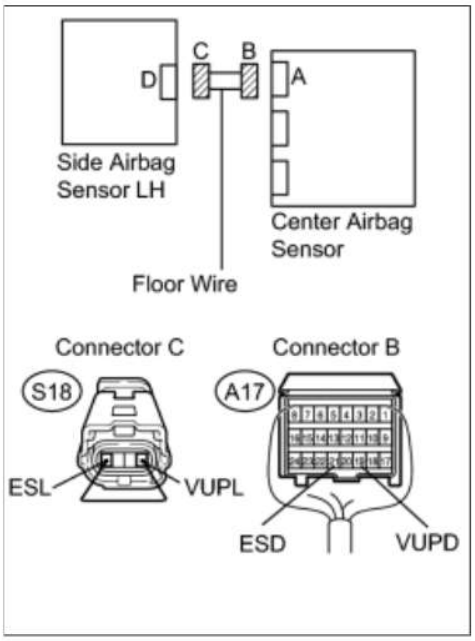
NG ▶ **CONNECT CONNECTOR**

OK ▼

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3.	CHECK FLOOR WIRE (OPEN)

(a) Disconnect the connectors from the center airbag sensor and side airbag sensor LH.



(b) Using a service wire, connect terminals S18-2 (VUPL) and S18-1 (ESL) of connector C.

NOTICE:

Do not forcibly insert a service wire into the terminals of the connector.

(c) Measure the resistance of the wire harness side connector.

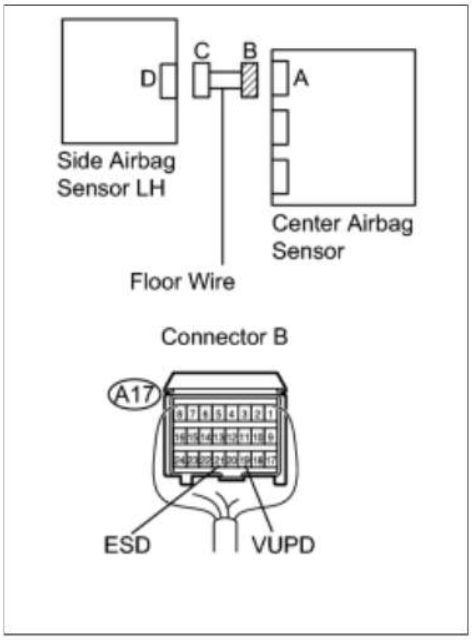
Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A17-19 (VUPD) - A17-21 (ESD)	Below 1 Ω

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK ▼

4.	CHECK FLOOR WIRE (SHORT)



(a) Disconnect the service wire from connector C.

(b) Measure the resistance of the wire harness side connector.

Standard resistance:

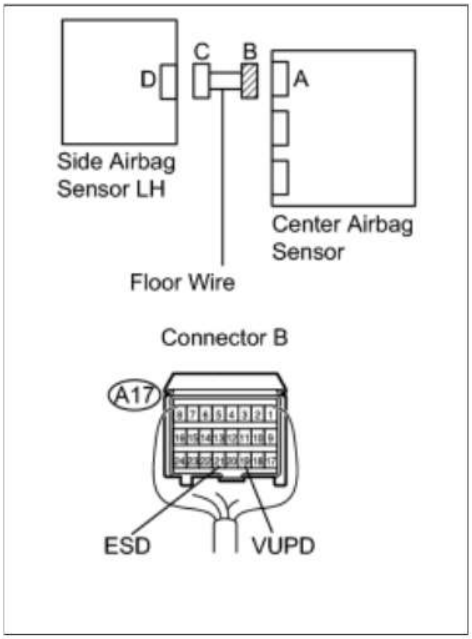
TESTER CONNECTION	SPECIFIED CONDITION
A17-19 (VUPD) - A17-21 (ESD)	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK ▼

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5.	CHECK FLOOR WIRE (TO B+)



(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(b) Turn the power switch ON (IG).

(c) Measure the voltage of the wire harness side connector.

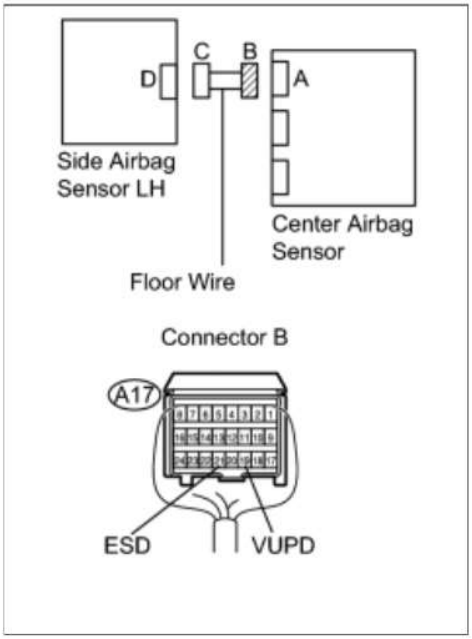
Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
A17-19 (VUPD) - Body ground	Below 1 V
A17-21 (ESD) - Body ground	Below 1 V

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK ▼

6.	CHECK FLOOR WIRE (TO GROUND)



(a) Turn the power switch OFF.

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

(c) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A17-19 (VUPD) - Body ground	1 MΩ or higher
A17-21 (ESD) - Body ground	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK ▼

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7.	CHECK SIDE AIRBAG SENSOR LH

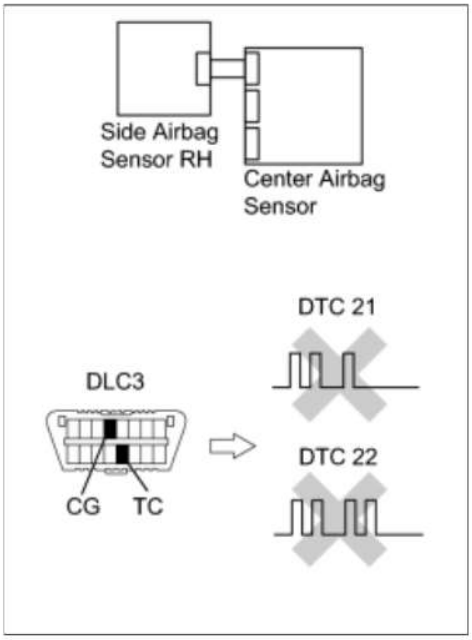
(a) Connect the connector to the center airbag sensor.

(b) Interchange the side airbag sensor LH with the side airbag sensor RH and connect the connectors to them.

(c) Connect the cable to the negative (-) battery terminal, 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 INFO .



(f) Turn the power switch OFF.

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

(h) Check for DTCs INFO .

Result

RESULT	PROCEED TO
DTC B1620/21 and B1625/22 are not output	A
DTC B1620/21 is output	B
DTC B1625/22 is output	C

HINT:

DTCs other than DTC B1620/21 and B1625/22 may be output at this time, but they are not related to this check.

C ▶ REPLACE SIDE AIRBAG SENSOR LH

B ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

A ▶ USE SIMULATION METHOD TO CHECK

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1625/22: Front Passenger Side - Side Airbag Sensor Circuit Malfunction (2009 Prius)

DTC	B1625/22	Front Passenger Side - Side Airbag Sensor Circuit Malfunction

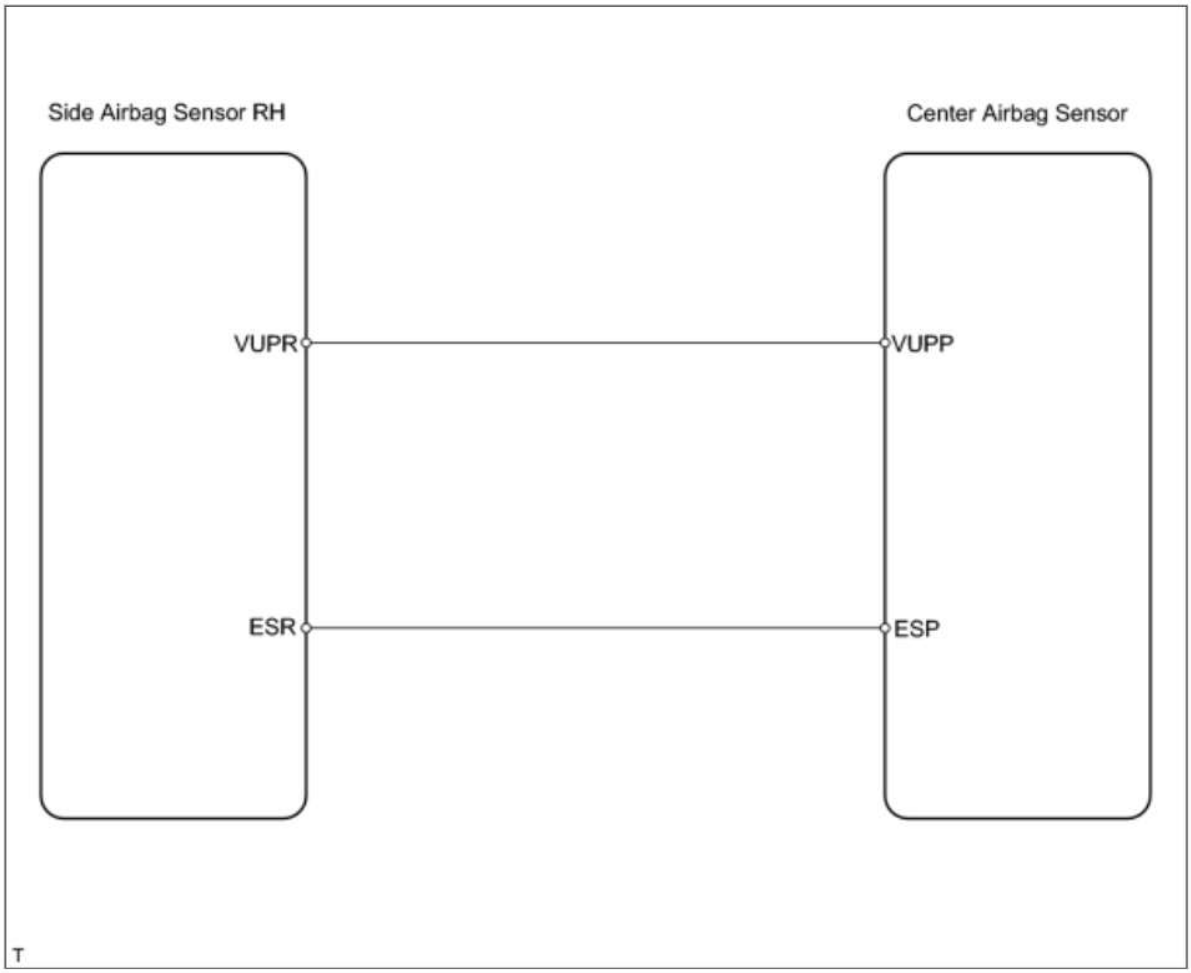
DESCRIPTION

The side airbag sensor RH consists of the safing sensor, the diagnostic circuit and the lateral deceleration sensor. The center airbag sensor receives signals from the lateral deceleration sensor and determines whether or not the SRS should be activated.

DTC B1625/22 is recorded when a malfunction is detected in the side airbag sensor RH circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1625/22	When one of following conditions is met: • Center airbag sensor receives line short signal, open signal, short to ground or B+ short signal from side airbag sensor RH sensor for 2 seconds • Side airbag sensor RH malfunction • Center airbag sensor malfunction	• Floor wire No. 2 • Center airbag sensor • Side airbag sensor RH

WIRING DIAGRAM



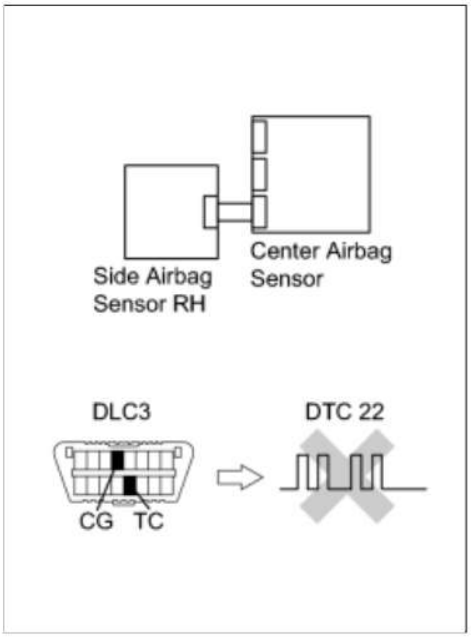
INSPECTION PROCEDURE

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1625/22: Front Passenger Side - Side Airbag Sensor Circuit Malfunction (2009 Prius)

PROCEDURE

1.	CHECK FOR DTC



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

(b) Clear the DTCs INFO .

(c) Turn the power switch OFF.

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

(e) Check for DTCs INFO .

OK:

DTC B1622/25 is not output.

HINT:

DTCs other than DTC B1622/25 may be output at this time, but they are not related to this check.

OK ▶ **USE SIMULATION METHOD TO CHECK**

NG ▼

2.	CHECK CONNECTION OF CONNECTOR

(a) Turn the power switch OFF.

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

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

OK:

Connectors are connected.

NG ▶ **CONNECT CONNECTOR**

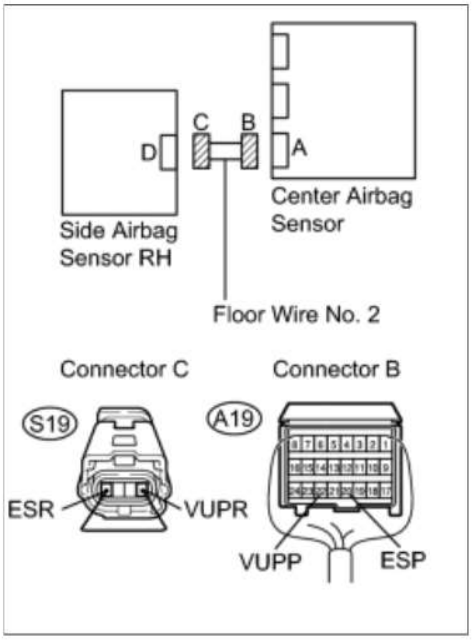
OK ▼

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1625/22: Front Passenger Side - Side Airbag Sensor Circuit Malfunction (2009 Prius)

3.	CHECK FLOOR WIRE NO. 2 (OPEN)

(a) Disconnect the connectors from the center airbag sensor and side airbag sensor RH.



(b) Using a service wire, connect terminals S19-2 (VUPR) and S19-1 (ESR) of connector C.

NOTICE:

Do not forcibly insert a service wire into the terminals of the connector.

(c) Measure the resistance of the wire harness side connector.

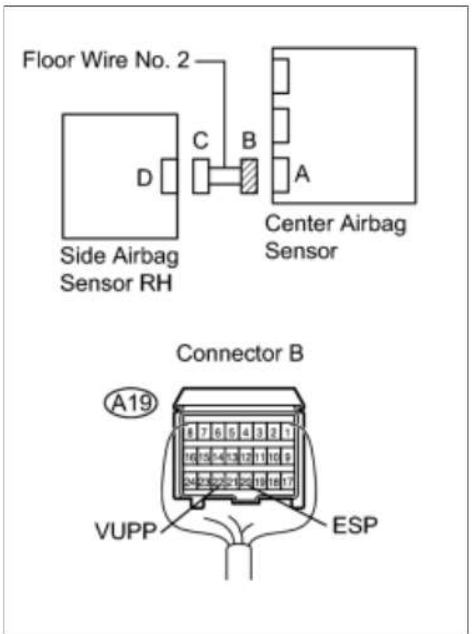
Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A19-22 (VUPP) - A19-20 (ESP)	Below 1 Ω

NG ▶ **REPAIR OR REPLACE FLOOR WIRE NO. 2**

OK ▼

4.	CHECK FLOOR WIRE NO. 2 (SHORT)



(a) Disconnect the service wire from connector C.

(b) Measure the resistance of the wire harness side connector.

Standard resistance:

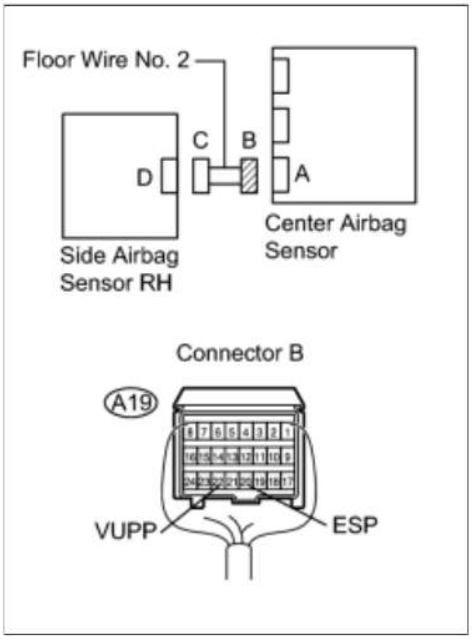
TESTER CONNECTION	SPECIFIED CONDITION
A19-22 (VUPP) - A19-20 (ESP)	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE NO. 2**

OK ▼

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5.	CHECK FLOOR WIRE NO. 2 (TO B+)



(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(b) Turn the power switch ON (IG).

(c) Measure the voltage of the wire harness side connector.

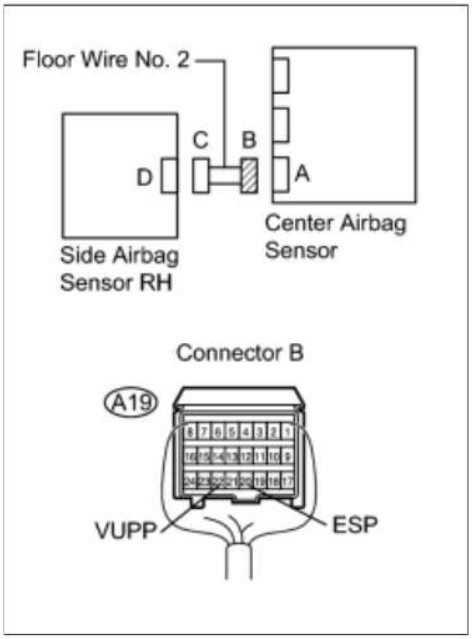
Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
A19-22 (VUPP) - Body ground	Below 1 V
A19-20 (ESP) - Body ground	Below 1 V

NG ▶ **REPAIR OR REPLACE FLOOR WIRE NO. 2**

OK ▼

6.	CHECK FLOOR WIRE NO. 2 (TO GROUND)



(a) Turn the power switch OFF.

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

(c) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A19-22 (VUPP) - Body ground	1 MΩ or higher
A19-20 (ESP) - Body ground	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE NO. 2**

OK ▼

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1625/22: Front Passenger Side - Side Airbag Sensor Circuit Malfunction (2009 Prius)

7.	CHECK SIDE AIRBAG SENSOR RH

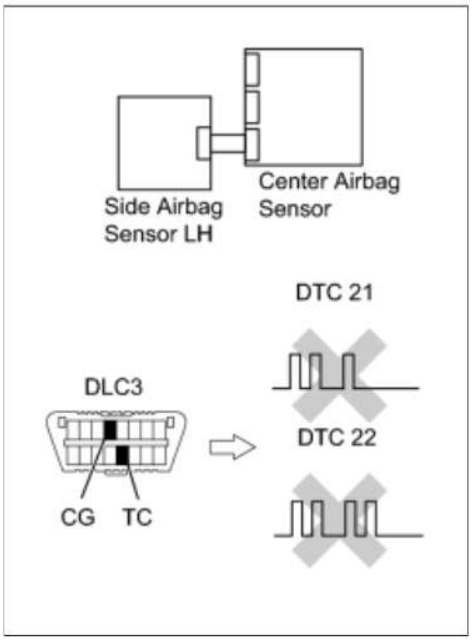
(a) Connect the connector to the center airbag sensor.

(b) Interchange the side airbag sensor RH with the side airbag sensor LH and connect the connectors to them.

(c) Connect the cable to the negative (-) battery terminal, 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 INFO .



(f) Turn the power switch OFF.

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

(h) Check for DTCs INFO .

Result

RESULT	PROCEED TO
DTC B1620/21 and B1625/22 are not output	A
DTC B1625/22 is output	B
DTC B1620/21 is output	C

HINT:

DTCs other than DTC B1620/21 and B1625/22 may be output at this time, but they are not related to this check.

C ▶ REPLACE SIDE AIRBAG SENSOR RH

B ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

A ▶ USE SIMULATION METHOD TO CHECK

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1630/23: Driver Side Rear Airbag Sensor Circuit Malfunction (2009 Prius)

DTC	B1630/23	Driver Side Rear Airbag Sensor Circuit Malfunction

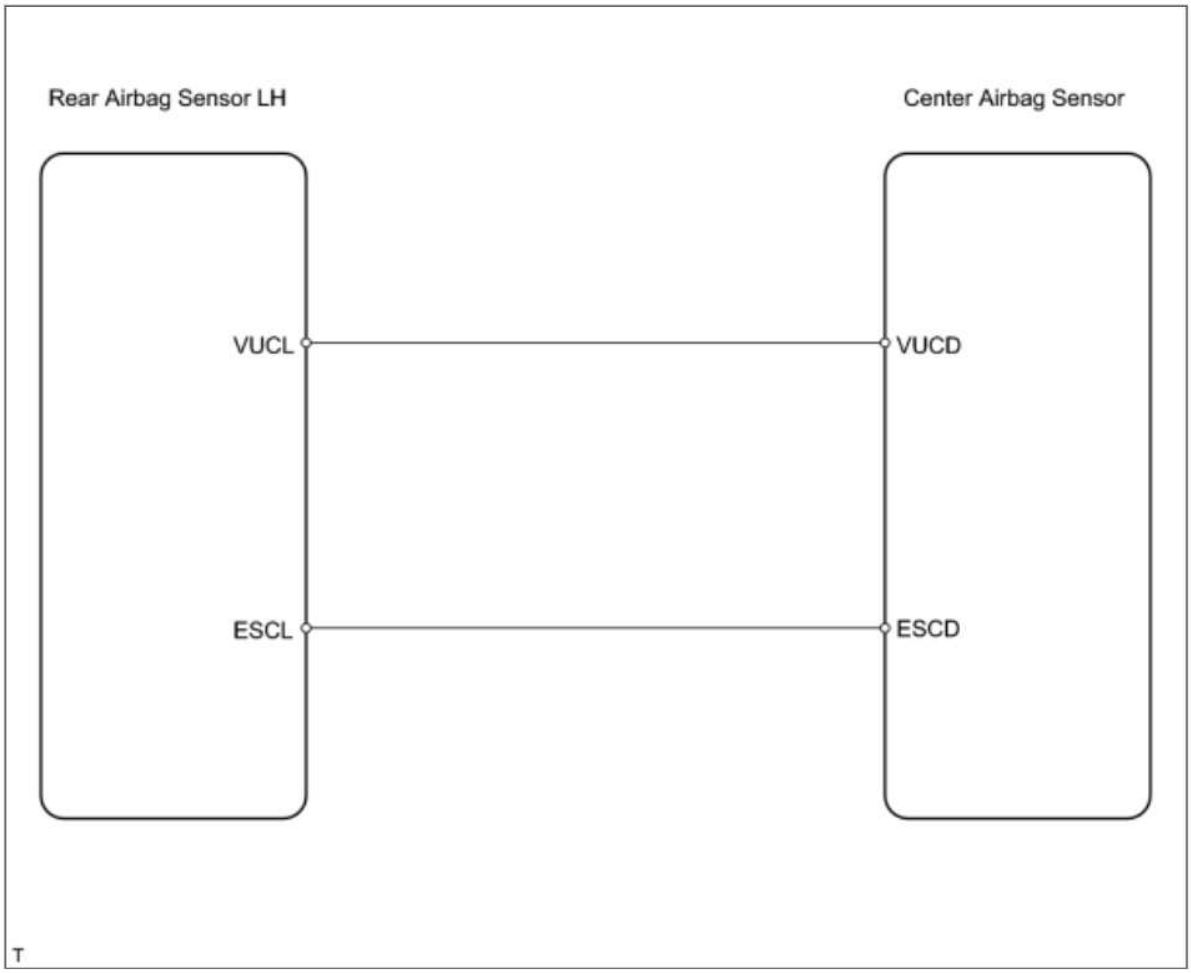
DESCRIPTION

The rear airbag sensor LH consists of the safing sensor, the diagnostic circuit and the lateral deceleration sensor. The center airbag sensor receives signals from the lateral deceleration sensor and determines whether or not the SRS should be activated.

DTC B1630/23 is recorded when a malfunction is detected in the rear airbag sensor LH circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1630/23	When one of following conditions is met: • Center airbag sensor receives line short signal, open signal, short to ground or B+ short signal from rear airbag sensor LH sensor for 2 seconds • Rear airbag sensor LH malfunction • Center airbag sensor malfunction	• Floor wire • Center airbag sensor • Rear airbag sensor LH

WIRING DIAGRAM



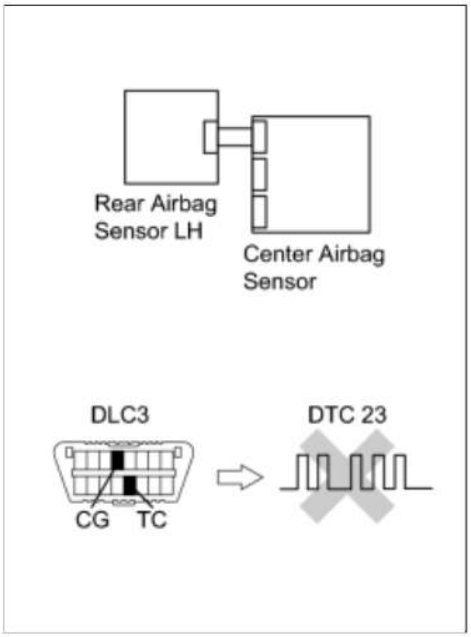
INSPECTION PROCEDURE

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1630/23: Driver Side Rear Airbag Sensor Circuit Malfunction (2009 Prius)

PROCEDURE

1.	CHECK FOR DTC



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

(b) Clear the DTCs INFO .

(c) Turn the power switch OFF.

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

(e) Check for DTCs INFO .

OK:

DTC B1630/23 is not output.

HINT:

DTCs other than DTC B1630/23 may be output at this time, but they are not related to this check.

OK ▶ **USE SIMULATION METHOD TO CHECK**

NG ▼

2.	CHECK CONNECTION OF CONNECTOR

(a) Turn the power switch OFF.

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

(c) Check that the connectors are properly connected to the center airbag sensor and rear airbag sensor LH.

OK:

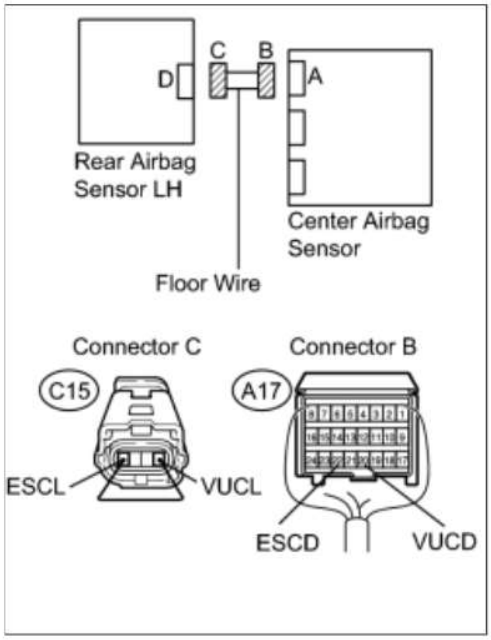
Connectors are connected.

NG ▶ **CONNECT CONNECTOR**

OK ▼

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3.	CHECK FLOOR WIRE (OPEN)



(a) Disconnect the connectors from the center airbag sensor and rear airbag sensor LH.

(b) Using a service wire, connect terminals C15-2 (VUCL) and C15-1 (ESCL) of connector C.

NOTICE:

Do not forcibly insert a service wire into the terminals of the connector.

(c) Measure the resistance of the wire harness side connector.

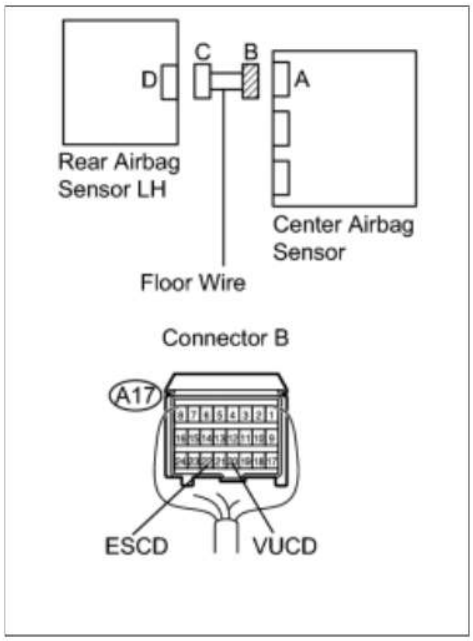
Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A17-20 (VUCD) - A17-22 (ESCD)	Below 1 Ω

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK ▼

4.	CHECK FLOOR WIRE (SHORT)



(a) Disconnect the service wire from connector C.

(b) Measure the resistance of the wire harness side connector.

Standard resistance:

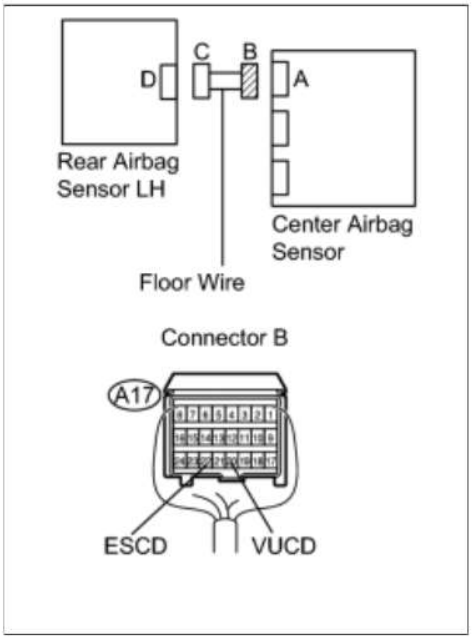
TESTER CONNECTION	SPECIFIED CONDITION
A17-20 (VUCD) - A17-22 (ESCD)	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK ▼

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5.	CHECK FLOOR WIRE (TO B+)



(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(b) Turn the power switch ON (IG).

(c) Measure the voltage of the wire harness side connector.

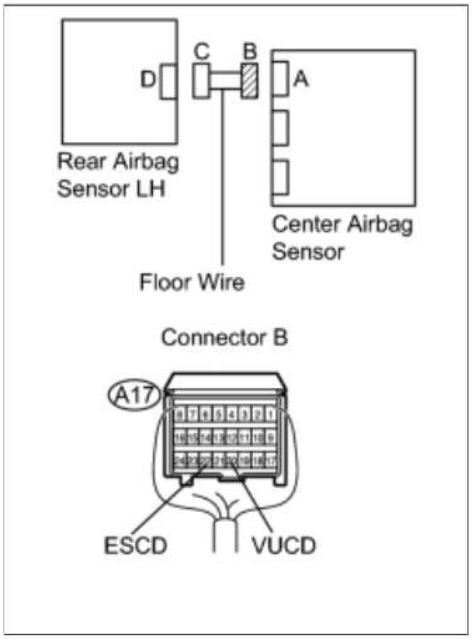
Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
A17-20 (VUCD) - Body ground	Below 1 V
A17-22 (ESCD) - Body ground	Below 1 V

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK ▼

6.	CHECK FLOOR WIRE (TO GROUND)



(a) Turn the power switch OFF.

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

(c) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A17-20 (VUCD) - Body ground	1 MΩ or higher
A17-22 (ESCD) - Body ground	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK ▼

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7.	CHECK REAR AIRBAG SENSOR LH

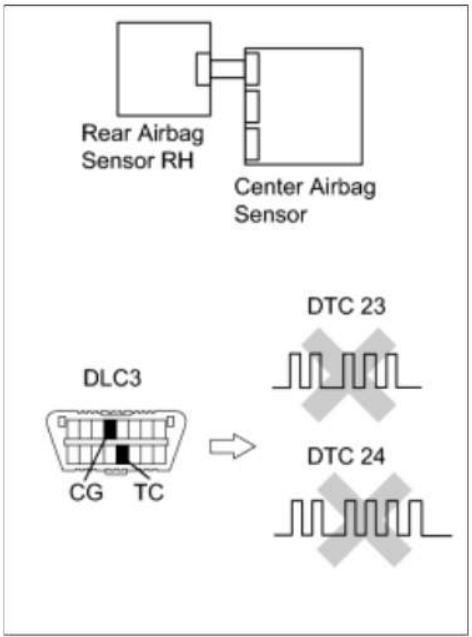
(a) Connect the connector to the center airbag sensor.

(b) Interchange the side airbag sensor LH with the side airbag sensor RH and connect the connectors to them.

(c) Connect the cable to the negative (-) battery terminal, 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 INFO .



(f) Turn the power switch OFF.

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

(h) Check for DTCs INFO .

Result

RESULT	PROCEED TO
DTC B1630/23 and B1635/24 are not output	A
DTC B1630/23 is output	B
DTC B1635/24 is output	C

HINT:

DTCs other than DTC B1630/23 and B1635/24 may be output at this time, but they are not related to this check.

C ▶ REPLACE REAR AIRBAG SENSOR LH

B ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

A ▶ USE SIMULATION METHOD TO CHECK

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1635/24: Front Passenger Side Rear Airbag Sensor Circuit Malfunction (2009 Prius)

DTC	B1635/24	Front Passenger Side Rear Airbag Sensor Circuit Malfunction

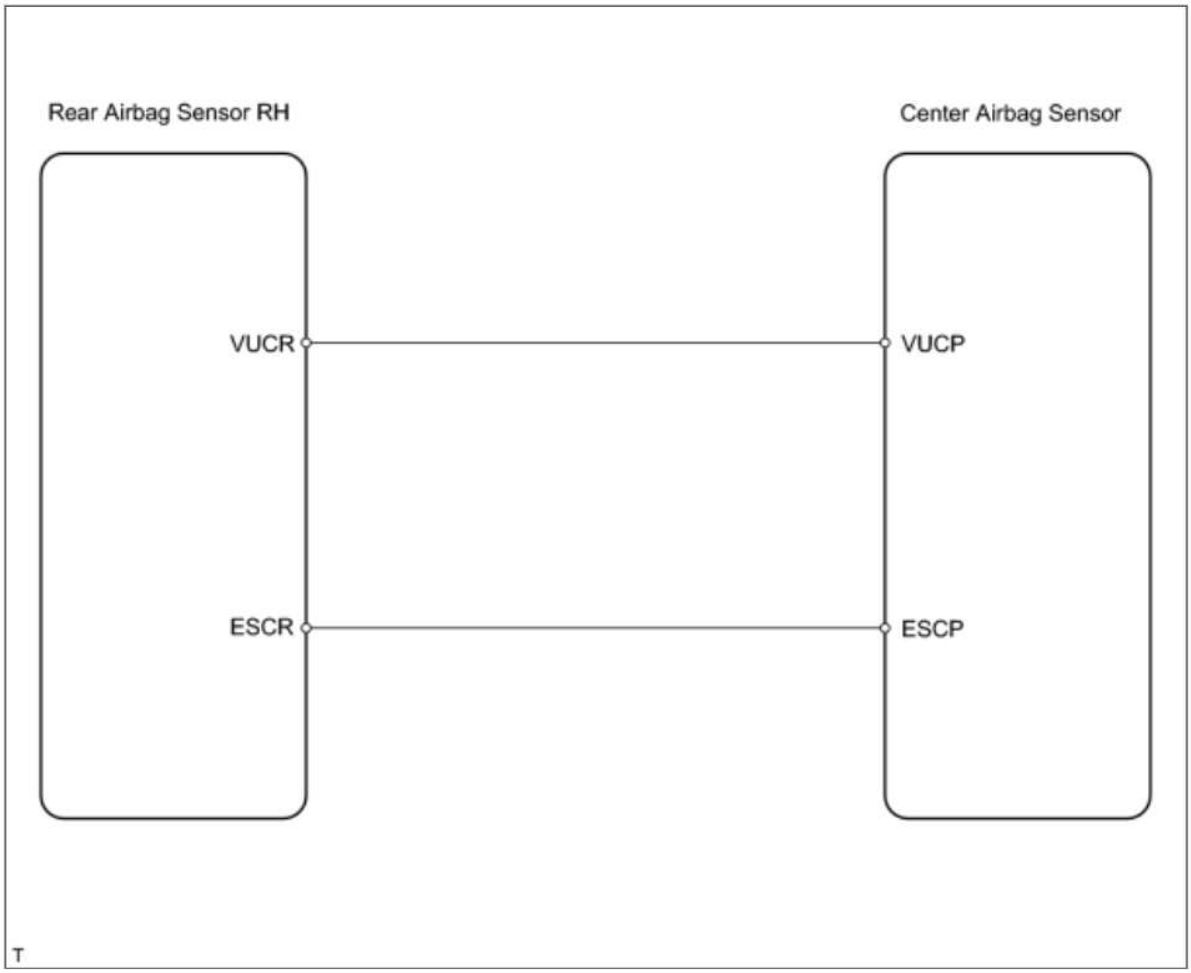
DESCRIPTION

The rear airbag sensor RH consists of the safing sensor, the diagnostic circuit and the lateral deceleration sensor. The center airbag sensor receives signals from the lateral deceleration sensor and determines whether or not the SRS should be activated.

DTC B1635/24 is recorded when a malfunction is detected in the rear airbag sensor RH circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1635/24	When one of following conditions is met: • Center airbag sensor receives line short signal, open signal, short to ground or B+ short signal from rear airbag sensor RH sensor for 2 seconds • Rear airbag sensor RH malfunction • Center airbag sensor malfunction	• Floor wire No. 2 • Center airbag sensor sensor • Rear airbag sensor RH

WIRING DIAGRAM



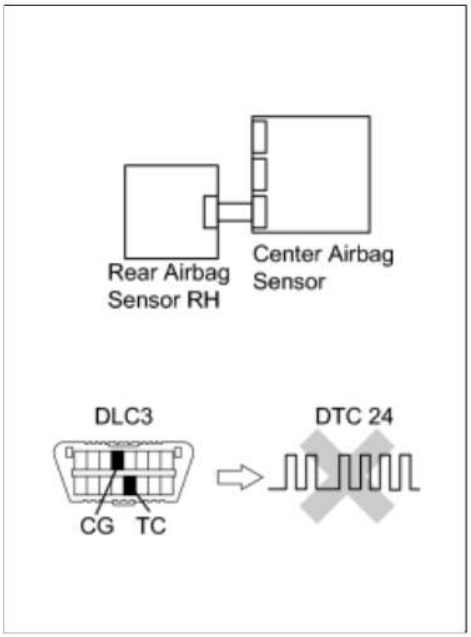
INSPECTION PROCEDURE

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1635/24: Front Passenger Side Rear Airbag Sensor Circuit Malfunction (2009 Prius)

PROCEDURE

1.	CHECK FOR DTC



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

(b) Clear the DTCs INFO .

(c) Turn the power switch OFF.

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

(e) Check for DTCs INFO .

OK:

DTC B1635/24 is not output.

HINT:

DTCs other than DTC B1635/24 may be output at this time, but they are not related to this check.

OK ▶ **USE SIMULATION METHOD TO CHECK**

NG ▼

2.	CHECK CONNECTION OF CONNECTOR

(a) Turn the power switch OFF.

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

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

OK:

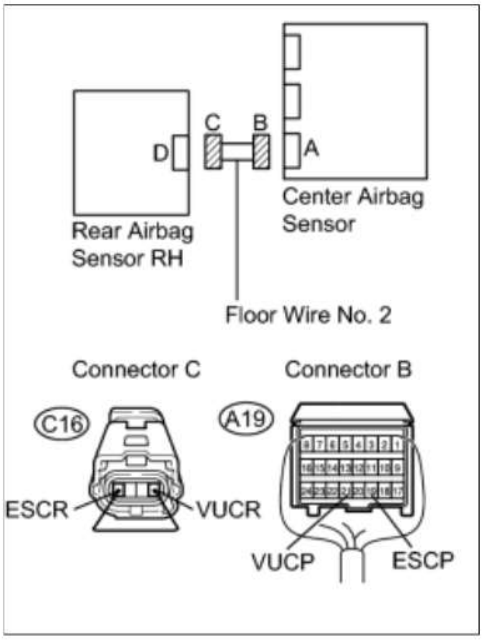
Connectors are connected.

NG ▶ **CONNECT CONNECTOR**

OK ▼

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3.	CHECK FLOOR WIRE NO. 2 (OPEN)



(a) Disconnect the connectors from the center airbag sensor and rear airbag sensor RH.

(b) Using a service wire, connect terminals C16-2 (VUCR) and C16-1 (ESCR) of connector C.

NOTICE:

Do not forcibly insert a service wire into the terminals of the connector.

(c) Measure the resistance of the wire harness side connector.

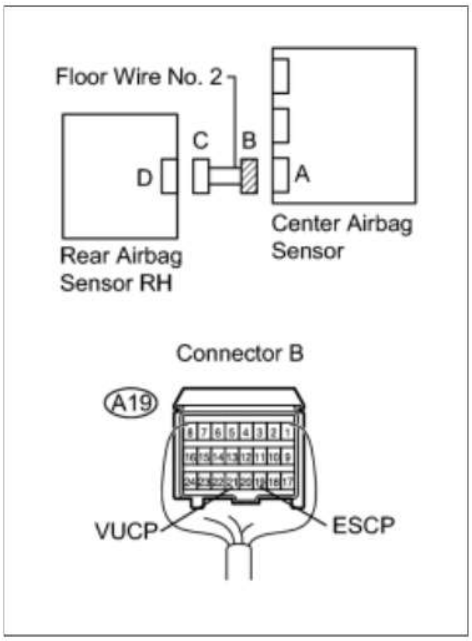
Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A19-21 (VUCP) - A19-19 (ESCP)	Below 1 Ω

NG ▶ **REPAIR OR REPLACE FLOOR WIRE NO. 2**

OK ▼

4.	CHECK FLOOR WIRE NO. 2 (SHORT)



(a) Disconnect the service wire from connector C.

(b) Measure the resistance of the wire harness side connector.

Standard resistance:

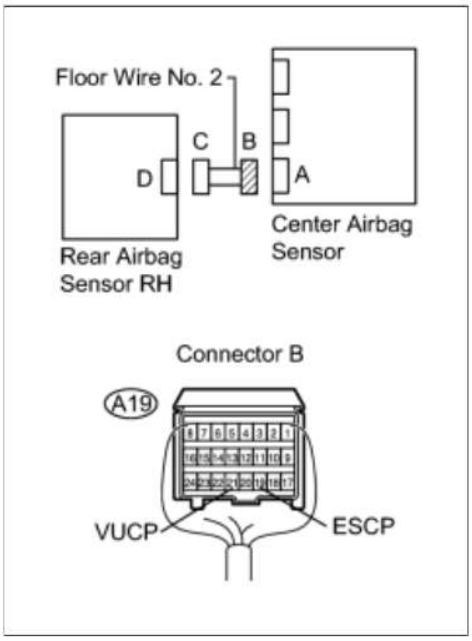
TESTER CONNECTION	SPECIFIED CONDITION
A19-21 (VUCP) - A19-19 (ESCP)	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE NO. 2**

OK ▼

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5.	CHECK FLOOR WIRE NO. 2 (TO B+)



(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(b) Turn the power switch ON (IG).

(c) Measure the voltage of the wire harness side connector.

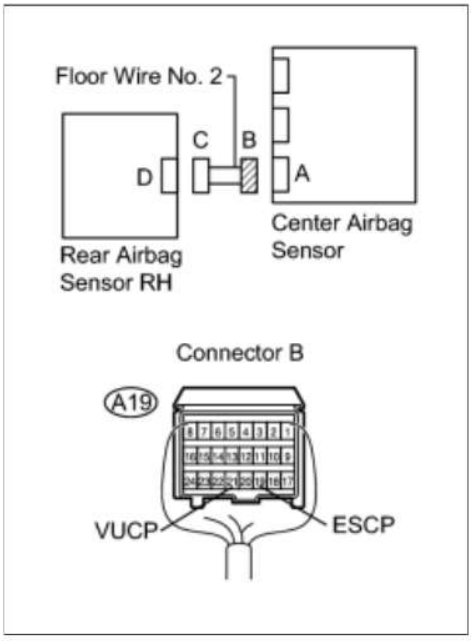
Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
A19-21 (VUCP) - Body ground	Below 1 V
A19-19 (ESCP) - Body ground	Below 1 V

NG ▶ **REPAIR OR REPLACE FLOOR WIRE NO. 2**

OK ▼

6.	CHECK FLOOR WIRE NO. 2 (TO GROUND)



(a) Turn the power switch OFF.

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

(c) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A19-21 (VUCP) - Body ground	1 MΩ or higher
A19-19 (ESCP) - Body ground	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE NO. 2**

OK ▼

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1635/24: Front Passenger Side Rear Airbag Sensor Circuit Malfunction (2009 Prius)

7.	CHECK REAR AIRBAG SENSOR RH

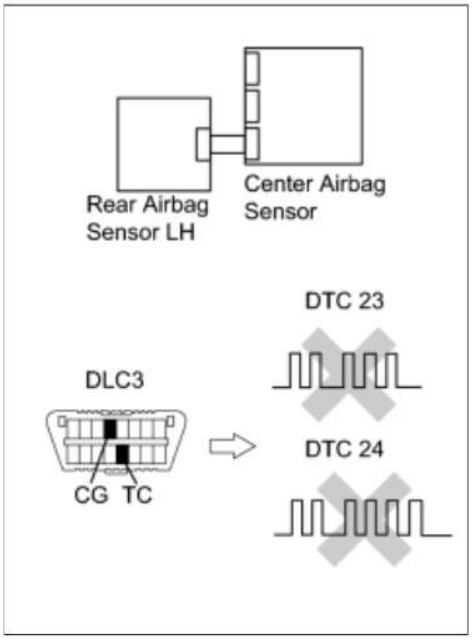
(a) Connect the connector to the center airbag sensor.

(b) Interchange the rear airbag sensor RH with the rear airbag sensor LH and connect the connectors to them.

(c) Connect the cable to the negative (-) battery terminal, 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 INFO .



(f) Turn the power switch OFF.

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

(h) Check for DTCs INFO .

Result

RESULT	PROCEED TO
DTC B1630/23 and B1635/24 are not output	A
DTC B1635/24 is output	B
DTC B1630/23 is output	C

HINT:

DTCs other than DTC B1630/23 and B1635/24 may be output at this time, but they are not related to this check.

C ▶ REPLACE REAR AIRBAG SENSOR RH

B ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

A ▶ USE SIMULATION METHOD TO CHECK

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1650/32: Occupant Classification System Malfunction (2009 Prius)

DTC	B1650/32	Occupant Classification System Malfunction

DESCRIPTION

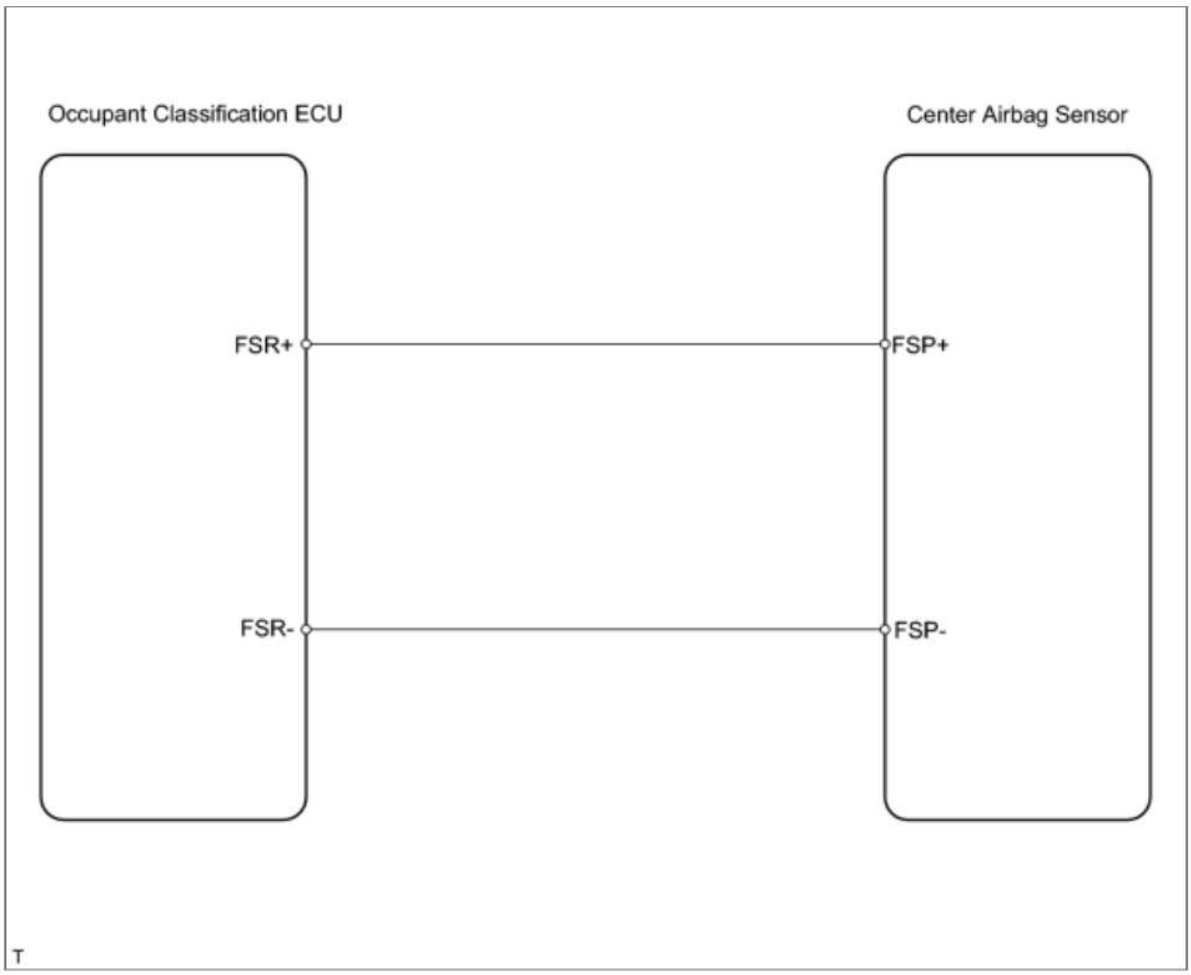
The occupant classification system circuit consists of the center airbag sensor and the occupant classification system.

When the center airbag sensor receives signals from the occupant classification ECU, it determines whether or not the front passenger airbag, front seat side airbag RH and seat belt pretensioner RH should be operated.

DTC B1650/32 is set when a malfunction is detected in the occupant classification system circuit.

DTC NO.	DTC DETECTION CONDITIONS	TROUBLE AREAS
B1650/32	When one of following conditions is met: • Occupant classification system malfunction • Center airbag sensor detects line short signal, open signal, short to ground signal or short to B+ signal from occupant classification system circuit for 2 seconds • Center airbag sensor malfunction	• Floor wire No. 2 • Occupant classification system • Center airbag sensor

WIRING DIAGRAM



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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1650/32: Occupant Classification System Malfunction (2009 Prius)

INSPECTION PROCEDURE

PROCEDURE

1.	CHECK DTC (OCCUPANT CLASSIFICATION ECU)

(a) Turn the power switch ON (IG), and wait for at least 10 seconds.

(b) Using the Techstream, check for DTCs of the occupant classification ECU INFO .

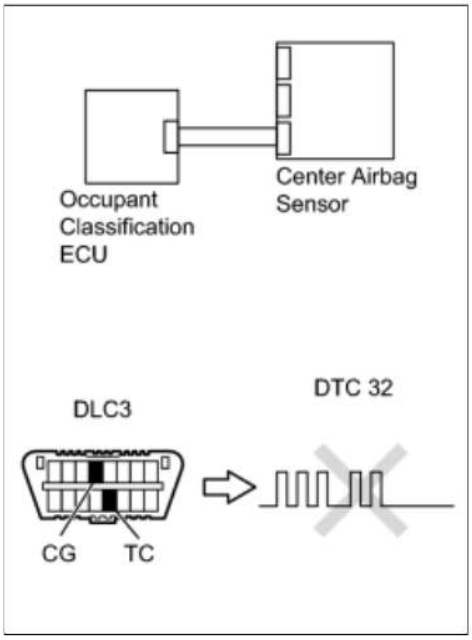
OK:

DTC is not output.

OK ▶ **GO TO DTC CHART**

NG ▼

2.	CHECK DTC (CENTER AIRBAG SENSOR ASSEMBLY)



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

(b) Clear the DTCs INFO .

(c) Turn the power switch OFF.

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

(e) Check for DTCs INFO .

OK:

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1650/32: Occupant Classification System Malfunction (2009 Prius)

DTC B1650/32 is not output.

HINT:

DTCs other than DTC B1650/32 may be output at this time, but they are not related to this check.

NG ▶ **USE SIMULATION METHOD TO CHECK**

OK ▼

3.	CHECK CONNECTION OF CONNECTOR

(a) Turn the power switch OFF.

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

(c) Check that the connectors are properly connected to the center airbag sensor and the occupant classification ECU.

OK:

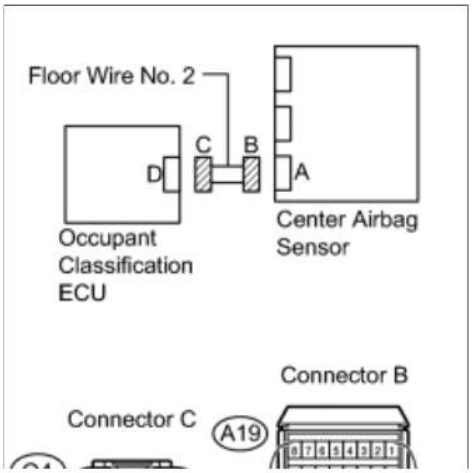
Connectors are connected.

NG ▶ **CONNECT CONNECTOR**

OK ▼

4.	CHECK FLOOR WIRE NO. 2 (OPEN)

(a) Disconnect the connectors from the center airbag sensor and the occupant classification ECU.



(b) Using a service wire, connect terminals O4-8 (FSR+) and O4-4 (FSR-) of connector C.

NOTICE:

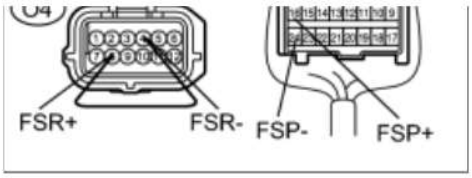
Do not forcibly insert a service wire into the terminals of the connector.

(c) Measure the resistance of the wire harness side connector.

Standard resistance:

TERMINAL CONNECTION	SPECIFIED CONDITION
A19-16 (FSP+) - A19-24 (FSP-)	Below 1 Ω

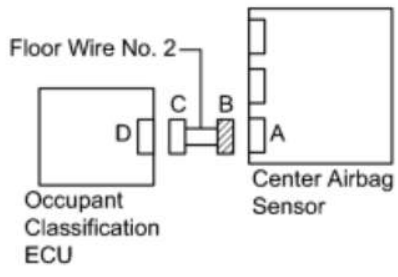
cardiagn.com

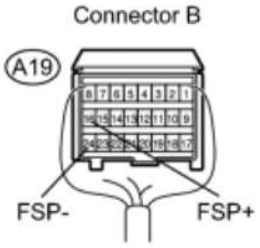


NG ▶ **REPAIR OR REPLACE FLOOR WIRE NO. 2**

OK ▼

5.	**CHECK FLOOR WIRE NO. 2 (SHORT)**





(a) Disconnect the service wire from connector C.

(b) Measure the resistance of the wire harness side connector.

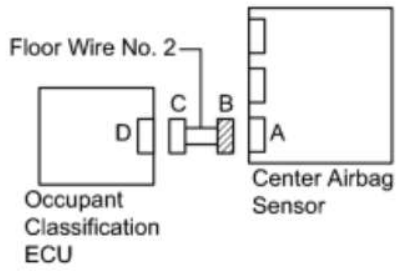
Standard resistance:

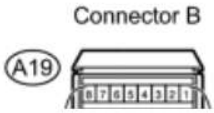
TERMINAL CONNECTION	SPECIFIED CONDITION
A19-16 (FSP+) - A19-24 (FSP-)	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE NO. 2**

OK ▼

6.	**CHECK FLOOR WIRE NO. 2 (TO B+)**





(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(b) Turn the power switch ON (IG).

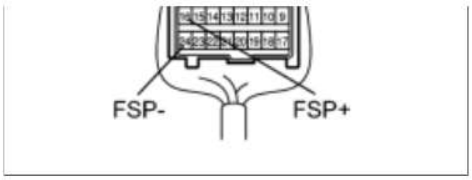
(c) Measure the voltage of the wire harness side connector.

Standard voltage:

TERMINAL CONNECTION	SPECIFIED CONDITION
A19-16 (FSP+) - Body ground	Below 1 V
A19-24 (FSP-) - Body ground	Below 1 V

NG ▶ **REPAIR OR**

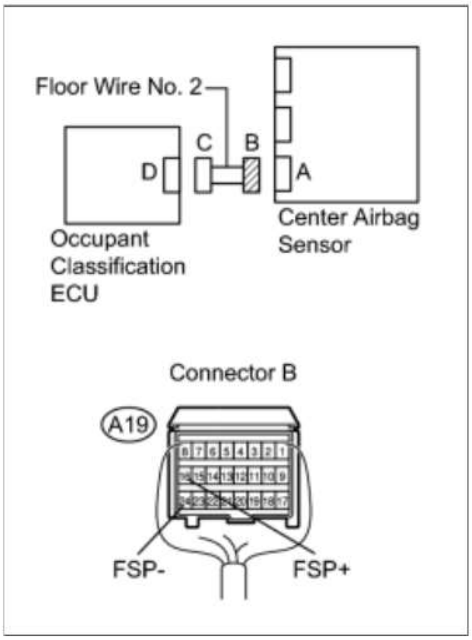
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NG → **REPLACE FLOOR WIRE NO. 2**

OK ▼

7.	CHECK FLOOR WIRE NO. 2 (TO GROUND)



(a) Turn the power switch OFF.

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

(c) Measure the resistance of the wire harness side connector.

Standard resistance:

TERMINAL CONNECTION	SPECIFIED CONDITION
A19-16 (FSP+) - Body ground	1 MΩ or higher
A19-24 (FSP-) - Body ground	1 MΩ or higher

NG → **REPAIR OR REPLACE FLOOR WIRE NO. 2**

OK ▼

8.	CHECK CENTER AIRBAG SENSOR ASSEMBLY

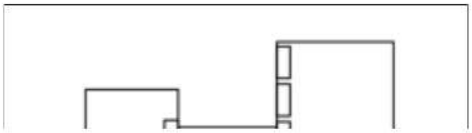
(a) Turn the power switch OFF.

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

(c) Replace the center airbag sensor INFO .

HINT:

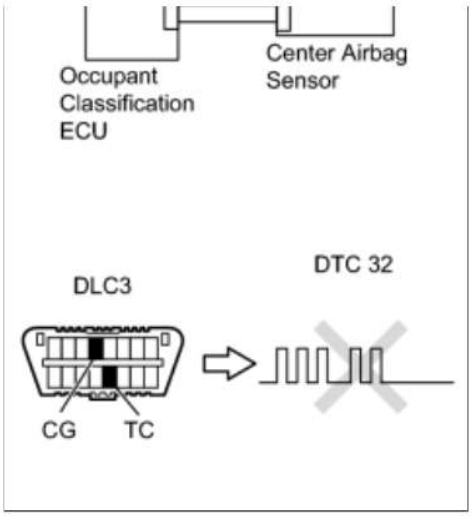
Perform the inspection using parts from a normal vehicle when possible.



(d) Connect the connectors to the center airbag sensor.

(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

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

(g) Clear the DTCs INFO .

(h) Turn the power switch OFF.

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

(j) Check for DTCs INFO .

OK:

DTC B1650/32 is not output.

HINT:

DTCs other than DTC B1650/32 may be output at this time, but they are not related to this check.

OK ▶ **USE SIMULATION METHOD TO CHECK**

NG ▼

9.	REPLACE OCCUPANT CLASSIFICATION ECU

(a) Turn the power switch OFF.

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

(c) Replace the occupant classification ECU INFO .

NEXT ▼

10.	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch ON (IG).

(d) Using the Techstream, perform the zero point calibration INFO .

OK:

"Zero Point Calibration is complete." is displayed on the tester.

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1650/32: Occupant Classification System Malfunction (2009 Prius)

NEXT

11.	**PERFORM SENSITIVITY CHECK**

(a) Using the Techstream, perform the sensitivity check INFO .

Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NEXT END

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1653/35: Seat Position Airbag Sensor Circuit Malfunction (2009 Prius)

DTC	B1653/35	Seat Position Airbag Sensor Circuit Malfunction

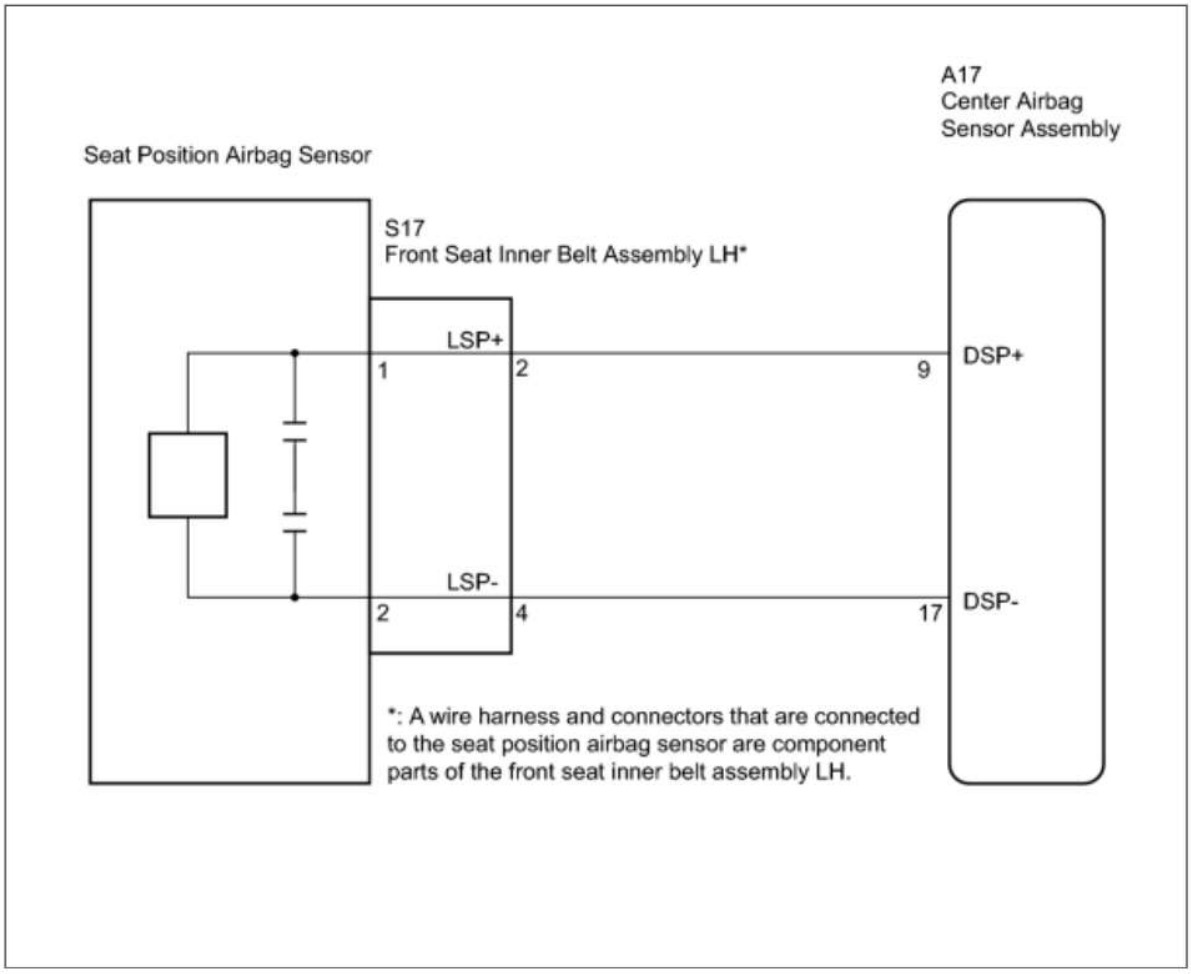
DESCRIPTION

The seat position airbag sensor circuit consists of the center airbag sensor assembly and the seat position airbag sensor.

DTC B1653/35 is recorded when a malfunction is detected in the seat position airbag sensor circuit.

DTC NO.	DTC DETECTING CONDITION	TROUBLE AREA
B1653/35	• The center airbag sensor assembly 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 seat position airbag sensor circuit for 2 seconds. • Seat position airbag sensor malfunction • Center airbag sensor assembly malfunction	• Floor wire • Front seat inner belt assembly LH • Seat position airbag sensor • Center airbag sensor assembly

WIRING DIAGRAM



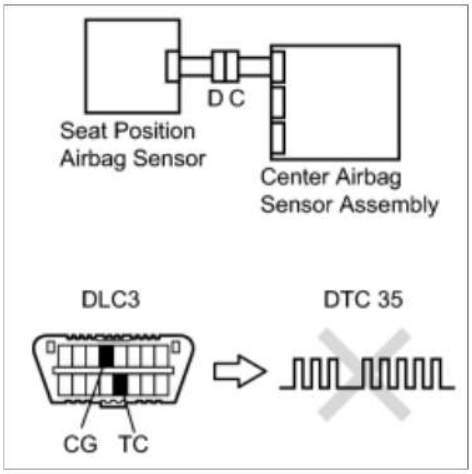
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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1653/35: Seat Position Airbag Sensor Circuit Malfunction (2009 Prius)

INSPECTION PROCEDURE

PROCEDURE

1.	CHECK DTC



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

(b) Clear the DTCs stored in the memory INFO .

(c) Turn the power switch OFF.

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

(e) Check for DTCs INFO .

OK:

DTC B1653/35 is not output.

HINT:

Codes other than DTC B1653/35 may be output at this time, but they are not related to this check.

NG ▶ **CHECK CONNECTION OF CONNECTORS**

OK ▶ **USE SIMULATION METHOD TO CHECK**

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 seat position airbag sensor.

OK:

The connectors are properly connected.

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NG ▶ **CONNECT CONNECTORS, THEN GO TO STEP 1**

OK ▼

3.	**CHECK CONNECTORS**

(a) Disconnect the connectors from the center airbag sensor assembly and the seat position airbag sensor.

(b) Check that the connectors are not damaged.

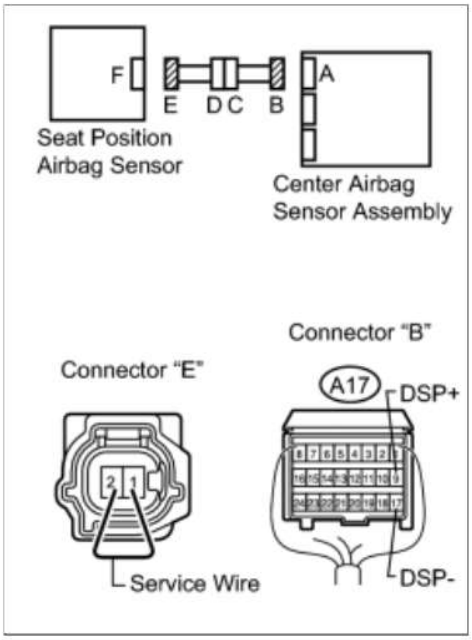
OK:

The connectors are not deformed or damaged.

NG ▶ **REPAIR OR REPLACE WIRE HARNESS**

OK ▼

4.	**CHECK SEAT POSITION AIRBAG SENSOR CIRCUIT (OPEN)**



(a) Using a service wire, connect terminals 1 and 2 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	CONDITION	SPECIFIED CONDITION

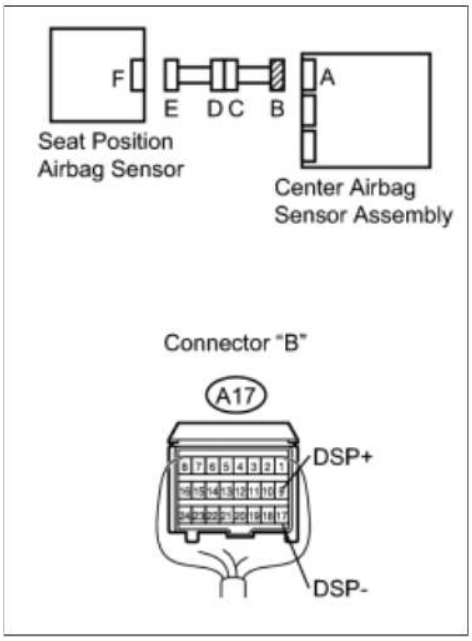
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A17-9 (DSP+) - A17-17 (DSP-)	Always	Below 1 Ω

NG ▶ **CHECK FRONT SEAT INNER BELT ASSEMBLY LH (OPEN)**

OK ▼

5.	**CHECK SEAT POSITION AIRBAG SENSOR CIRCUIT (SHORT)**



(a) Disconnect the service wire from connector E.

(b) Measure the resistance between the terminals of connector E according to the value(s) in the table below.

Standard resistance:

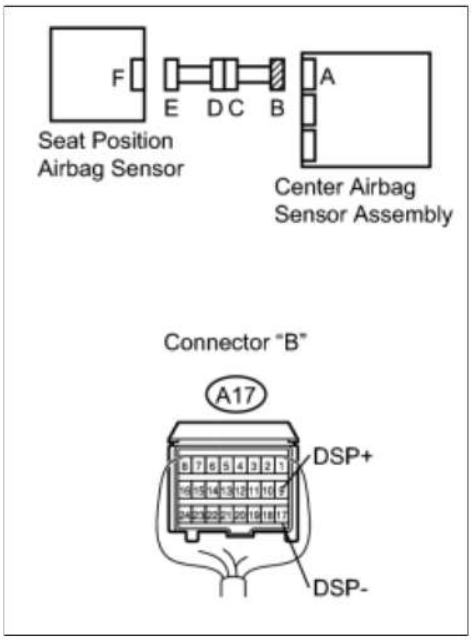
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-9 (DSP+) - A17-17 (DSP-)	Always	1 MΩ or higher

NG ▶ **CHECK FRONT SEAT INNER BELT ASSEMBLY LH (SHORT)**

OK ▼

6.	**CHECK SEAT POSITION AIRBAG SENSOR CIRCUIT (SHORT TO B+)**

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(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.

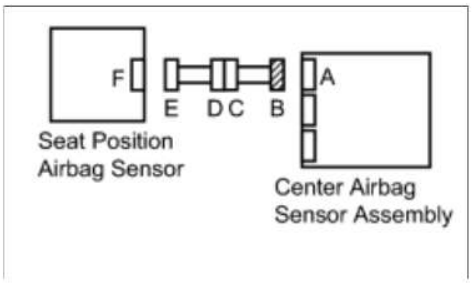
Standard voltage:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-9 (DSP+) - Body ground	Power switch ON (IG)	Below 1 V
A17-17 (DSP-) - Body ground	Power switch ON (IG)	Below 1 V

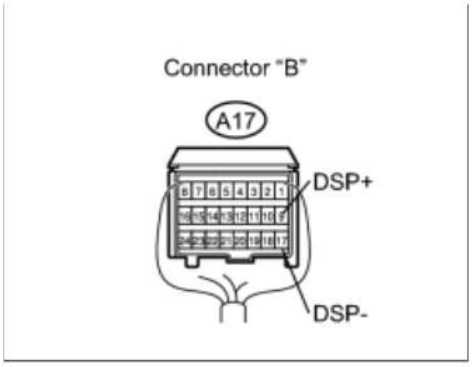
NG ▶ **CHECK FRONT SEAT INNER BELT ASSEMBLY LH (SHORT TO B+)**

OK ▼

7.	**CHECK SEAT POSITION AIRBAG SENSOR CIRCUIT (SHORT TO GROUND)**



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

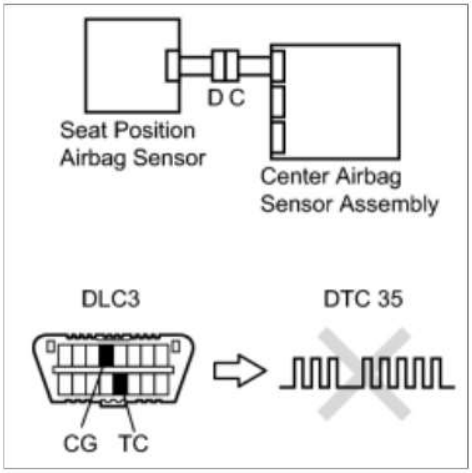
Standard resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A17-9 (DSP+) - Body ground	Always	1 MΩ or higher
A17-17 (DSP-) - Body ground	Always	1 MΩ or higher

NG ▶ **CHECK FRONT SEAT INNER BELT ASSEMBLY LH (SHORT TO GROUND)**

OK ▼

8.	CHECK SEAT POSITION AIRBAG SENSOR



(a) Connect the connectors to the center airbag sensor assembly and the seat position airbag sensor.

(b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

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

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(d) Clear the DTCs stored in the memory INFO .

(e) Turn the power switch OFF.

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

(g) Check for DTCs INFO .

OK:

DTC B1653/35 is not output.

HINT:

Codes other than DTC B1653/35 may be output at this time, but they are not related to this check.

NG ▶ **REPLACE SEAT POSITION AIRBAG SENSOR**

OK ▶ **USE SIMULATION METHOD TO CHECK**

9.	REPLACE SEAT POSITION AIRBAG SENSOR

(a) Turn the power switch OFF.

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

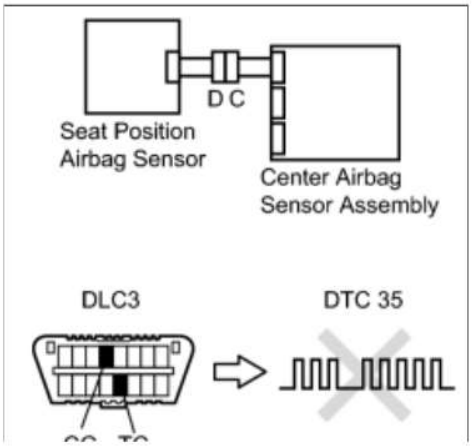
(c) Replace the seat position airbag sensor INFO .

HINT:

Perform inspection using parts from a normal vehicle if possible.

NEXT ▼

10.	CHECK CENTER AIRBAG SENSOR ASSEMBLY



(a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

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

(c) Clear the DTCs stored in the memory INFO .

(d) Turn the power switch OFF.

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

(f) Check for DTCs INFO .

OK:

DTC B1653/35 is not output.

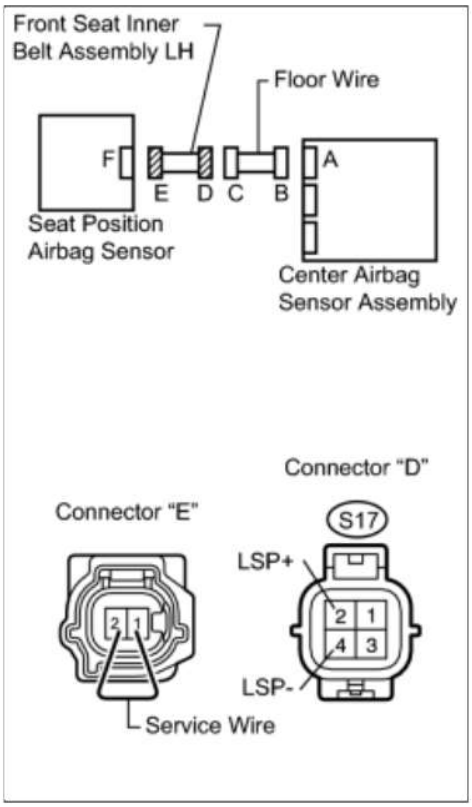
HINT:

Codes other than DTC B1653/35 may be output at this time, but they are not related to this check.

NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **END**

11.	CHECK FRONT SEAT INNER BELT ASSEMBLY LH (OPEN)



(a) Disconnect the floor wire connector from the front seat inner belt assembly LH.

HINT:

The service wire has already been inserted into connector "E".

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

Standard resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION

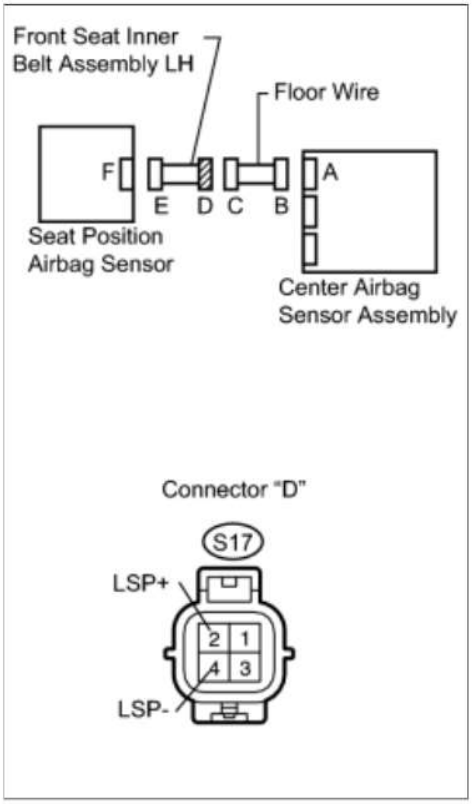
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S17-2 (LSP+) - S17-4 (LSP-)	Always	Below 1 Ω

NG ▶ **REPLACE FRONT SEAT INNER BELT ASSEMBLY LH**

OK ▶ **REPAIR OR REPLACE FLOOR WIRE**

12.	**CHECK FRONT SEAT INNER BELT ASSEMBLY LH (SHORT)**



(a) Disconnect the floor wire connector from the front seat inner belt assembly LH.

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

Standard resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
S17-2 (LSP+) - S17-4 (LSP-)	Always	1 MΩ or higher

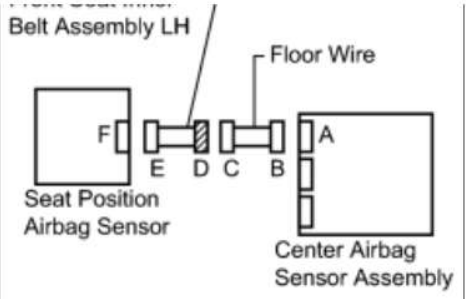
NG ▶ **REPLACE FRONT SEAT INNER BELT ASSEMBLY LH**

OK ▶ **REPAIR OR REPLACE FLOOR WIRE**

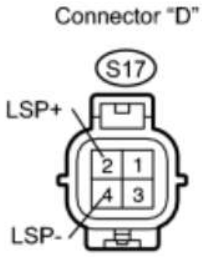
13.	**CHECK FRONT SEAT INNER BELT ASSEMBLY LH (SHORT TO B+)**



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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) Disconnect the floor wire connector from the front seat inner belt assembly LH.

(d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

(e) Turn the power switch ON (IG).

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

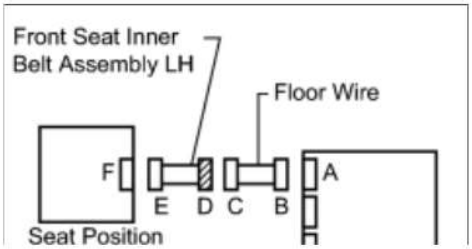
Standard voltage:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
S17-2 (LSP+) - Body ground	Power switch ON (IG)	Below 1 V
S17-4 (LSP-) - Body ground	Power switch ON (IG)	Below 1 V

NG ▶ **REPLACE FRONT SEAT INNER BELT ASSEMBLY LH**

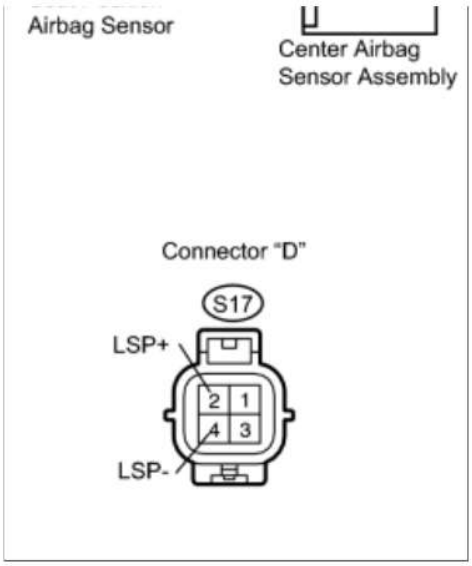
OK ▶ **REPAIR OR REPLACE FLOOR WIRE**

14.	**CHECK FRONT SEAT INNER BELT ASSEMBLY LH (SHORT TO GROUND)**



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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1653/35: Seat Position Airbag Sensor Circuit Malfunction (2009 Prius)



(a) Turn the power switch OFF.

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

(c) Disconnect the floor wire connector from the front seat inner belt assembly LH.

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

Standard resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
S17-2 (LSP+) - Body ground	Always	1 MΩ or higher
S17-4 (LSP-) - Body ground	Always	1 MΩ or higher

NG ▶ **REPLACE FRONT SEAT INNER BELT ASSEMBLY LH**

OK ▶ **REPAIR OR REPLACE FLOOR WIRE**

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1655/37: Driver Side Seat Belt Buckle Switch Circuit Malfunction (2009 Prius)

DTC	B1655/37	Driver Side Seat Belt Buckle Switch Circuit Malfunction

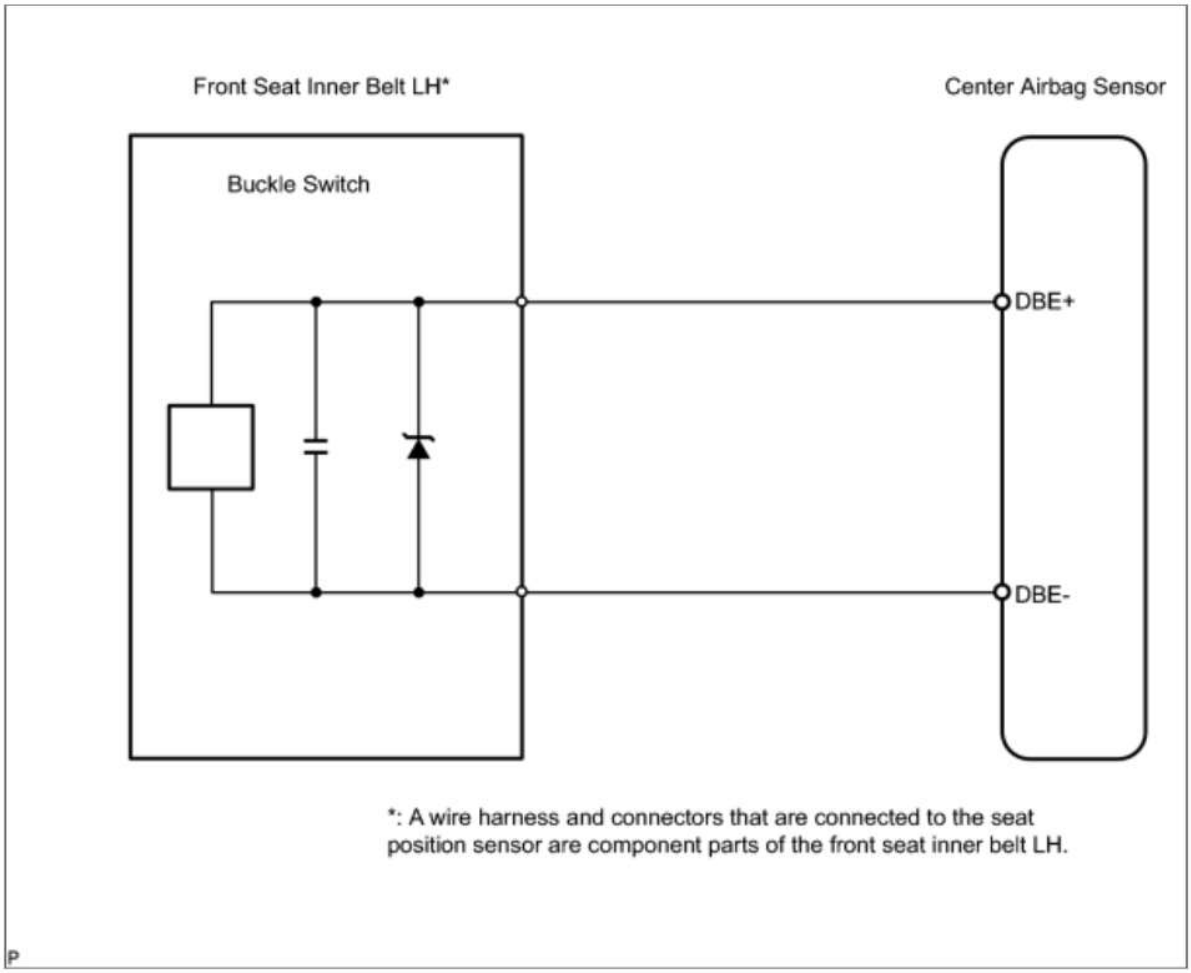
DESCRIPTION

The driver side seat belt buckle switch circuit consists of the center airbag sensor and the front seat inner belt LH.

DTC B1655/37 is recorded when a malfunction is detected in the driver side seat belt buckle switch circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1655/37	When one of following conditions is met: • Center airbag sensor receives a line short signal, an open signal, a short to ground signal or a short to B+ signal from the driver side seat belt buckle switch sensor for 2 seconds. • Front seat inner belt LH malfunction • Center airbag sensor malfunction	• Floor wire • Front seat inner belt LH (Driver side seat belt buckle switch) • Center airbag sensor

WIRING DIAGRAM



INSPECTION PROCEDURE

PROCEDURE

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1655/37: Driver Side Seat Belt Buckle Switch Circuit Malfunction (2009 Prius)

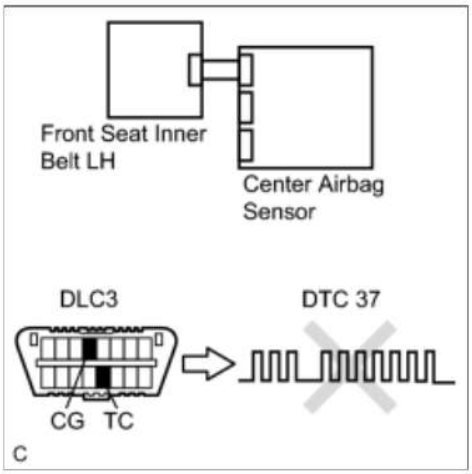
PROCEDURE

1.	CHECK FOR DTC

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

(b) Clear the DTCs INFO .

(c) Turn the power switch OFF.



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

(e) Check the DTCs INFO .

OK:

DTC B1655/37 is not output.

HINT:

DTCs other than DTC B1655/37 may be output at this time, but they are not related to this check.

OK ▶ USE SIMULATION METHOD TO CHECK

NG ▼

2.	CHECK CONNECTION OF CONNECTOR

(a) Turn the power switch OFF.

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

(c) Check that the connectors are properly connected to the center airbag sensor and the front seat inner belt LH.

OK:

Connectors are connected.

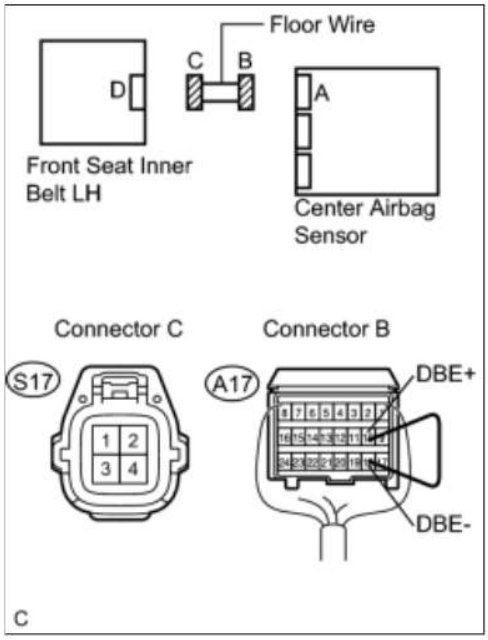
NG ▶ CONNECT CONNECTOR

OK ▼

3.	CHECK FLOOR WIRE (OPEN)

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(a) Disconnect the connectors from the center airbag sensor and the front seat inner belt LH.



(b) Using a service wire, connect terminals A17-10 (DBE+) and A17-18 (DBE-) of connector B.

NOTICE:

Do not forcibly insert a service wire into the terminals of the connector.

(c) Measure the resistance of the wire harness side connector.

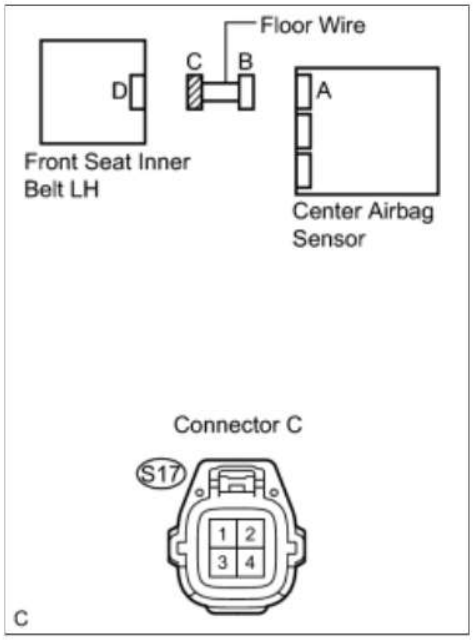
Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
S17-1 - S17-3	Below 1 Ω

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK ▼

4.	CHECK FLOOR WIRE (SHORT)



(a) Disconnect the service wire from connector B.

(b) Measure the resistance of the wire harness side connector.

Standard resistance:

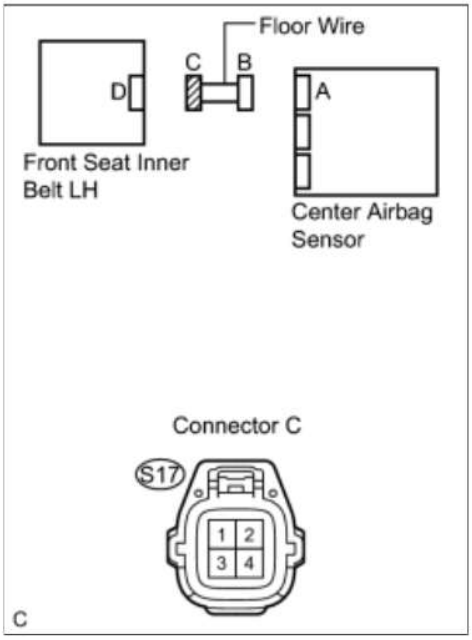
TESTER CONNECTION	SPECIFIED CONDITION
S17-1 - S17-3	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK ▼

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5.	**CHECK FLOOR WIRE (TO B+)**



(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(b) Turn the power switch ON (IG).

(c) Measure the voltage of the wire harness side connector.

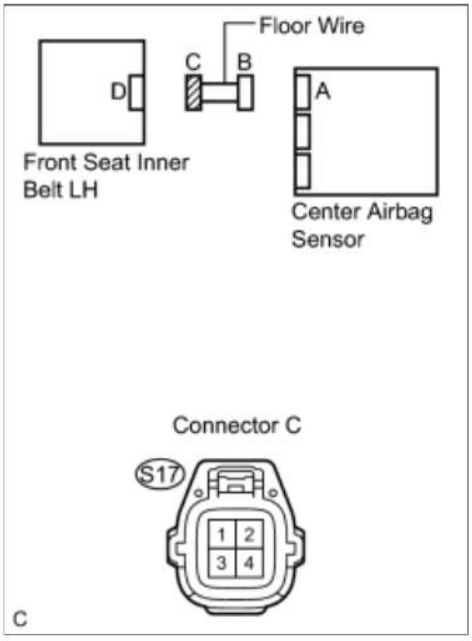
Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
S17-1 - Body ground	Below 1 V
S17-3 - Body ground	Below 1 V

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK ▼

6.	**CHECK FLOOR WIRE (TO GROUND)**



(a) Turn the power switch OFF.

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

(c) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
S17-1 - Body ground	1 MΩ or higher
S17-3 - Body ground	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK ▼

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7.	CHECK FRONT SEAT INNER BELT ASSEMBLY LH

(a) Connect the connectors to the center airbag sensor and the front seat inner belt LH.

(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

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

(d) Clear the DTCs INFO .

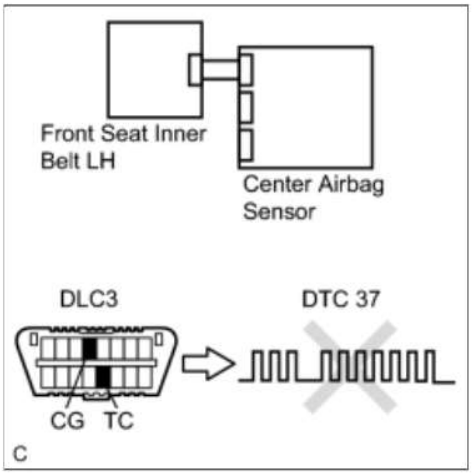
(e) Turn the power switch OFF.

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

(g) Check the DTCs INFO .

OK:

DTC B1655/37 is not output.



HINT:

DTCs other than DTC B1655/37 may be output at this time, but they are not related to this check.

OK ▶ **USE SIMULATION METHOD TO CHECK**

NG ▼

8.	REPLACE FRONT SEAT INNER BELT ASSEMBLY LH

(a) Turn the power switch OFF.

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

(c) Replace the front seat inner belt LH INFO .

HINT:

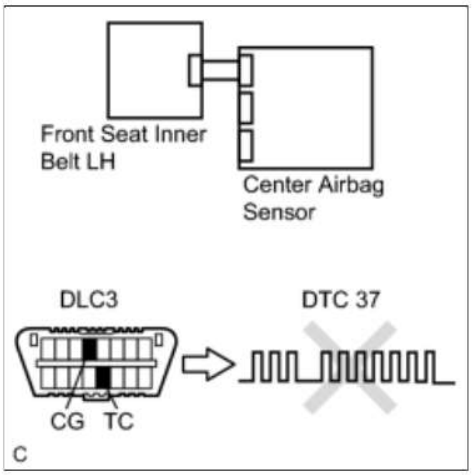
Perform inspection using parts from a normal vehicle if possible.

NEXT ▼

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1655/37: Driver Side Seat Belt Buckle Switch Circuit Malfunction (2009 Prius)

9.	CHECK CENTER AIRBAG SENSOR ASSEMBLY



(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

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

(c) Clear the DTCs INFO .

(d) Turn the power switch OFF.

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

(f) Check the DTCs INFO .

OK:
DTC B1655/37 is not output.

HINT:

DTCs other than DTC B1655/37 may be output at this time, but they are not related to this check.

NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **USE SIMULATION METHOD TO CHECK**

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1660/43: Passenger Airbag ON/OFF Indicator Circuit Malfunction (2009 Prius)

DTC	B1660/43	Passenger Airbag ON/OFF Indicator Circuit Malfunction

DESCRIPTION

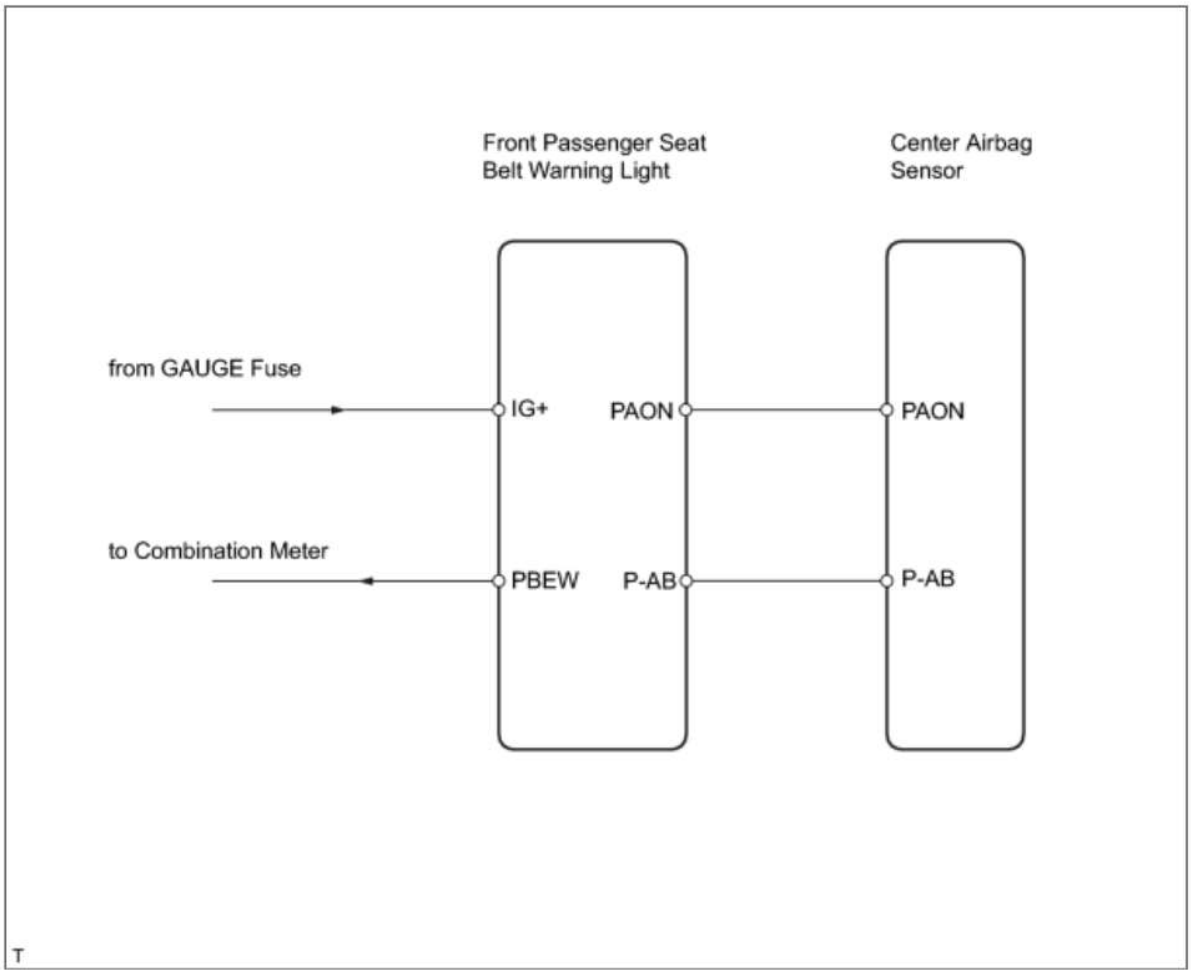
The passenger airbag ON / OFF indicator circuit consists of the center airbag sensor and the front passenger seat belt warning light.

This circuit indicates the operation condition of the front passenger airbag, front passenger side airbag and passenger side seat belt pretensioner.

DTC B1660/43 is set when a malfunction is detected in the passenger airbag ON / OFF indicator circuit.

DTC NO.	DTC DETECTION CONDITIONS	TROUBLE AREAS
B1660/43	When one of following is met: • Center airbag sensor detects line short signal, open signal, short to ground signal or short to B+ signal from passenger airbag ON / OFF indicator circuit for 2 seconds • Front passenger seat belt warning light malfunction • Center airbag sensor malfunction	• Instrument panel wire • Front passenger airbag ON / OFF Indicator light • Center airbag sensor

WIRING DIAGRAM



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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1660/43: Passenger Airbag ON/OFF Indicator Circuit Malfunction (2009 Prius)

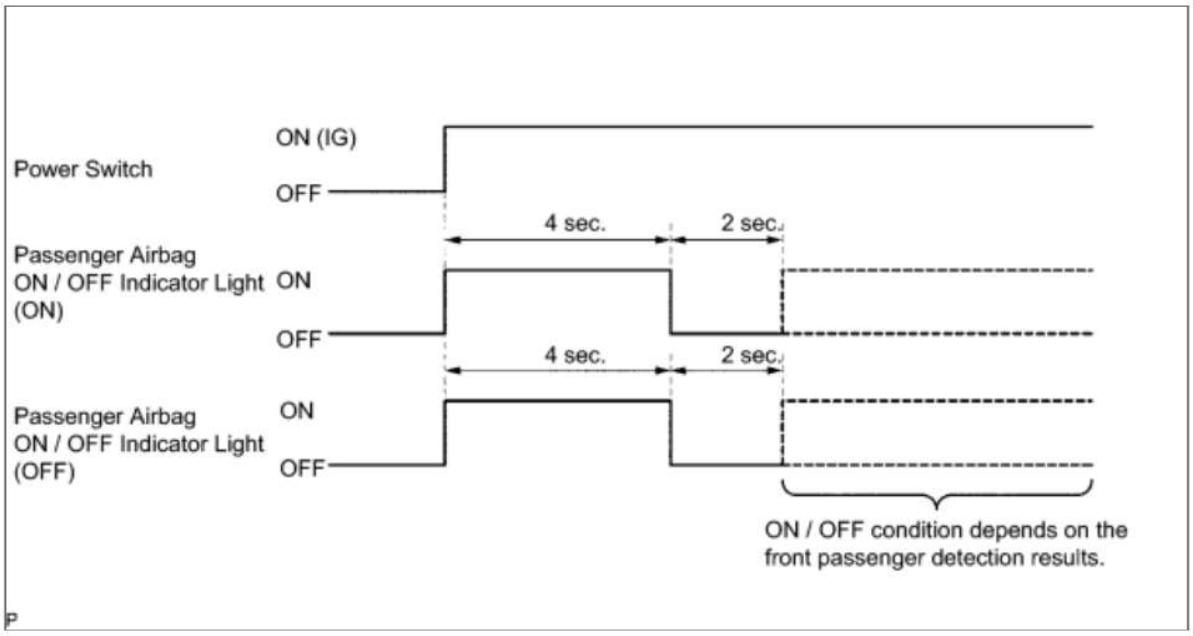
INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK PASSENGER AIRBAG ON/OFF INDICATOR OPERATION**

(a) Turn the power switch ON (IG).

(b) Check the passenger airbag ON / OFF indicator operation.



Result

ON / OFF INDICATOR ILLUMINATION	PROCEED TO
Always ON	A
OFF	B

B ▶ **CHECK CONNECTION OF CONNECTOR**

A

▼

2.	**CHECK CONNECTION OF CONNECTOR**

(a) Turn the power switch OFF.

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

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1660/43: Passenger Airbag ON/OFF Indicator Circuit Malfunction (2009 Prius)

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

(c) Check that the connectors are properly connected to the center airbag sensor and the front passenger seat belt warning light.

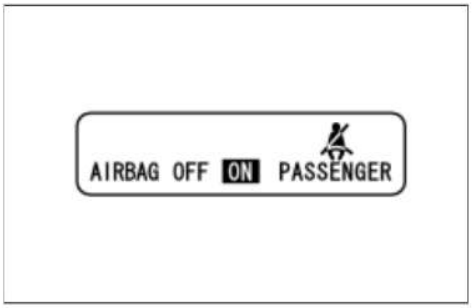
OK:

Connectors are connected.

NG ▶ **CONNECT CONNECTOR**

OK ▼

3.	CHECK FRONT PASSENGER AIRBAG ON/OFF INDICATOR LIGHT



(a) Disconnect the connector from the center airbag sensor.

(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(c) Turn the power switch ON (IG).

(d) Check the passenger airbag ON / OFF indicator operation.

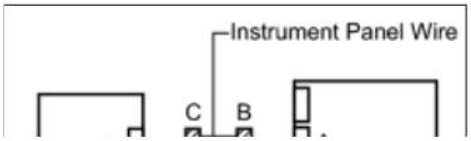
OK:

Neither ON nor OFF passenger airbag ON / OFF indicator comes on.

OK ▶ **CHECK FRONT PASSENGER AIRBAG ON/OFF INDICATOR LIGHT**

NG ▼

4.	CHECK INSTRUMENT PANEL WIRE (OPEN)



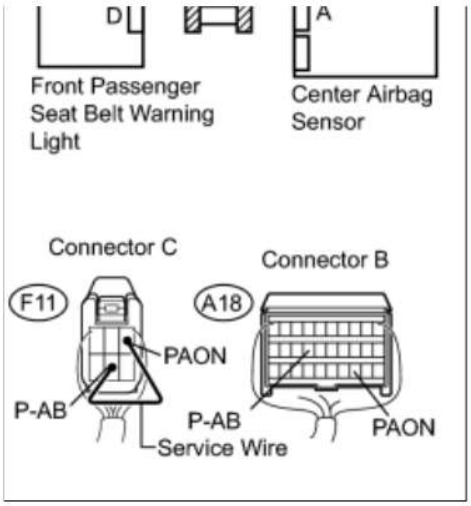
(a) Turn the power switch OFF.

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

(c) Disconnect the connector from the front passenger seat belt warning light.

(d) Using a service wire, connect terminals F11-1 (PAON) and F11-5 (P-AB) of connector C.

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NOTICE:

Do not forcibly insert a service wire into the terminals of the connector.

(e) Measure the resistance of the wire harness side connector.

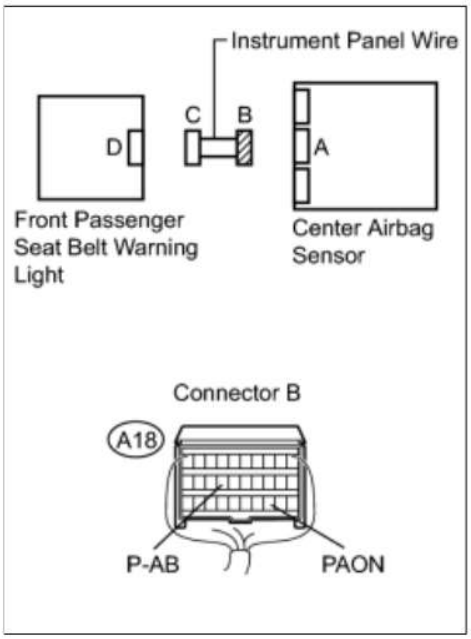
Standard resistance:

TERMINAL CONNECTION	SPECIFIED CONDITION
A18-17 (P-AB) - A18-23 (PAON)	Below 1 Ω

NG ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK ▼

5.	CHECK INSTRUMENT PANEL WIRE (SHORT)



(a) Disconnect the service wire from connector C.

(b) Measure the resistance of the wire harness side connector.

Standard resistance:

TERMINAL CONNECTION	SPECIFIED CONDITION
A18-17 (P-AB) - A18-23 (PAON)	1 MΩ or higher

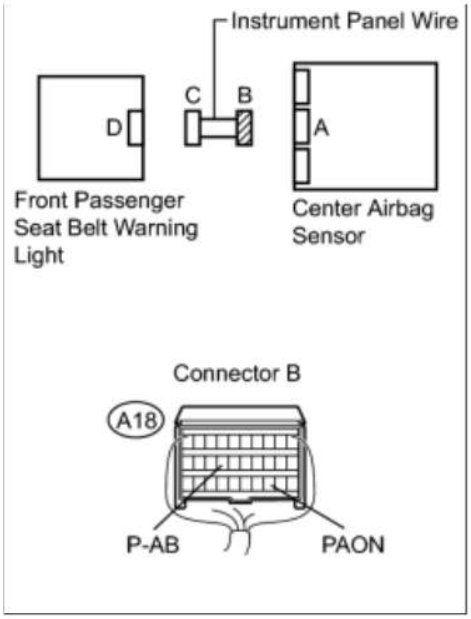
NG ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK ▼

6.	CHECK INSTRUMENT PANEL WIRE (TO B+)

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

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(b) Turn the power switch ON (IG).

(c) Measure the voltage of the wire harness side connector.

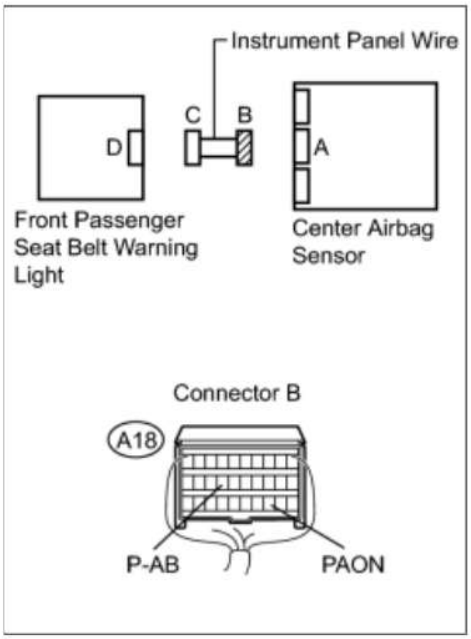
Standard voltage:

TERMINAL CONNECTION	SPECIFIED CONDITION
A18-23 (PAON) - Body ground	Below 1 V
A18-17 (P-AB) - Body ground	Below 1 V

NG ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK ▼

7.	CHECK INSTRUMENT PANEL WIRE (TO GROUND)



(a) Turn the power switch OFF.

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

(c) Measure the resistance of the wire harness side connector.

Standard resistance:

TERMINAL CONNECTION	SPECIFIED CONDITION
A18-17 (P-AB) -Body ground	1 MΩ or higher
A18-23 (PAON) -Body ground	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK ▶ **REPLACE FRONT PASSENGER AIRBAG ON/OFF INDICATOR LIGHT**

8.	CHECK CONNECTION OF CONNECTOR

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(a) Turn the power switch OFF.

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

(c) Check that the connectors are properly connected to the center airbag sensor and the front passenger seat belt warning light.

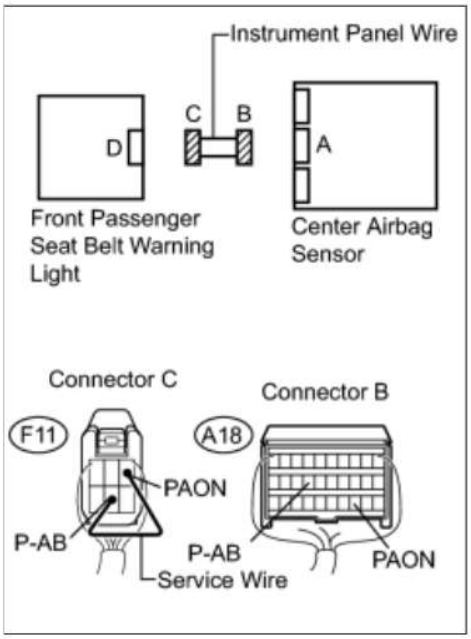
OK:

Connectors are connected.

NG ▶ **CONNECT CONNECTOR**

OK ▼

9.	CHECK INSTRUMENT PANEL WIRE (OPEN)



(a) Disconnect the connector from the center airbag sensor and the front passenger seat belt warning light.

(b) Using a service wire, connect terminals F11-1 (PAON) and F11-5 (P-AB) of connector C.

NOTICE:

Do not forcibly insert a service wire into the terminals of the connector.

(c) Measure the resistance of the wire harness side connector.

Standard resistance:

TERMINAL CONNECTION	SPECIFIED CONDITION
A18-23 (PAON) - A18-17 (P-AB)	Below 1 Ω

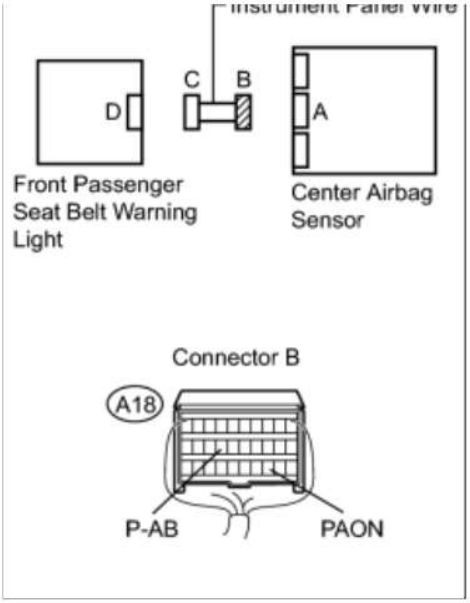
NG ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK ▼

10.	CHECK INSTRUMENT PANEL WIRE (SHORT)

(a) Disconnect the service wire from connector C.

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(b) Measure the resistance of the wire harness side connector.

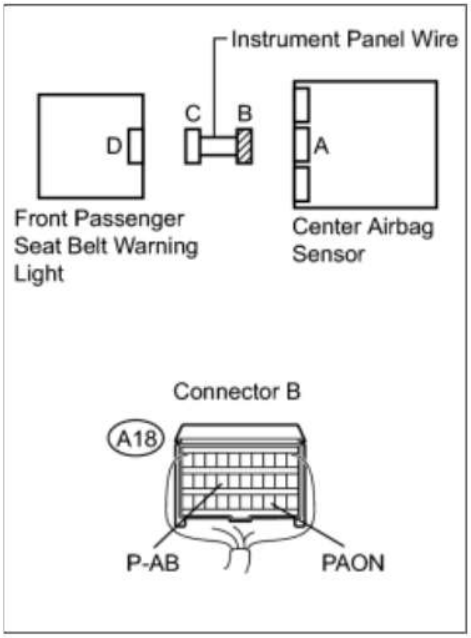
Standard resistance:

TERMINAL CONNECTION	SPECIFIED CONDITION
A18-17 (P-AB) - A18-23 (PAON)	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK ▼

11.	CHECK INSTRUMENT PANEL WIRE (TO B+)



(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(b) Turn the power switch ON (IG).

(c) Measure the voltage of the wire harness side connector.

Standard voltage:

TERMINAL CONNECTION	SPECIFIED CONDITION
A18-23 (PAON) - Body ground	Below 1 V
A18-17 (P-AB) - Body ground	Below 1 V

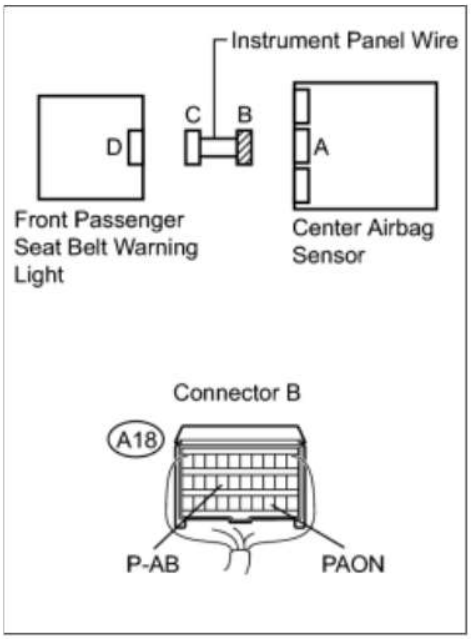
NG ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK ▼

12.	CHECK INSTRUMENT PANEL WIRE (TO GROUND)

(a) Turn the power switch OFF.

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

(c) Measure the resistance of the wire harness side connector.

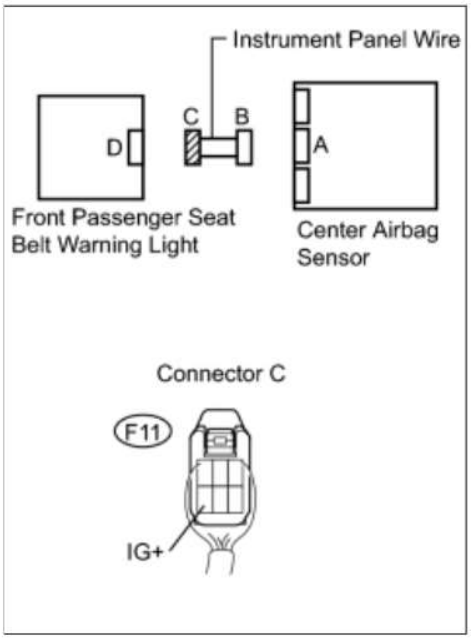
Standard resistance:

TERMINAL CONNECTION	SPECIFIED CONDITION
A18-17 (P-AB) - Body ground	1 MΩ or higher
A18-23 (PAON) - Body ground	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK ▼

13.	CHECK WIRE HARNESS (POWER SOURCE)



(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(b) Turn the power switch ON (IG).

(c) Measure the voltage of the wire harness side connector.

Standard voltage:

TERMINAL CONNECTION	SPECIFIED CONDITION
F11-6 (IG+) - Body ground	10 to 14 V

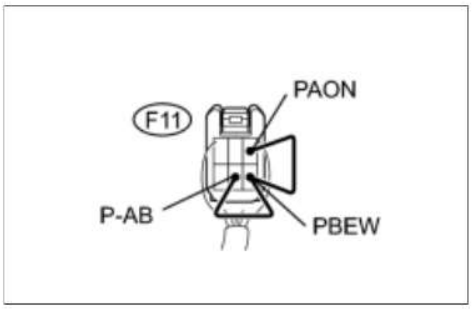
NG ▶ **REPAIR OR REPLACE POWER SOURCE CIRCUIT**

OK ▼

14.	CHECK FRONT PASSENGER AIRBAG ON/OFF INDICATOR LIGHT

(a) Turn the power switch OFF.

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

(c) Using a service wire, connect terminals F11-5 (P-AB) and F11-4 (PBEW) of the front passenger seat belt warning light.

(d) Using a service wire, connect terminals F11-1 (PAON) and F11-4 (PBEW) of the front passenger seat belt warning light.

(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(f) Turn the power switch ON (IG).

(g) Check the front passenger airbag ON / OFF indicator operation.

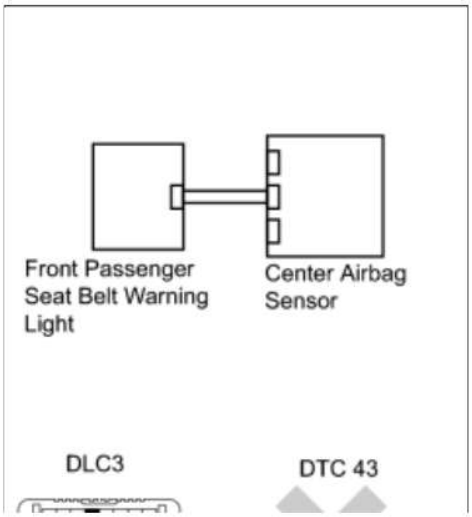
OK:

Front passenger airbag ON / OFF indicator comes on

NG ▶ **REPLACE FRONT PASSENGER AIRBAG ON/OFF INDICATOR LIGHT**

OK ▼

15.	CHECK CENTER AIRBAG SENSOR ASSEMBLY



(a) Turn the power switch OFF.

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

(c) Connect the connectors to the center airbag sensor and the front passenger seat belt warning light.

(d) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

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

(f) Clear the DTCs INFO .

(g) Turn the power switch OFF.

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

(i) Check for DTCs INFO .

OK:

DTC B1660/43 is not output.

HINT:

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1660/43: Passenger Airbag ON/OFF Indicator Circuit Malfunction (2009 Prius)



DTCs other than DTC B1660/43 may be output at this time, but they are not related to this check.

NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **USE SIMULATION METHOD TO CHECK**

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1800/51-B1803/51: Short in Driver Side Squib Circuit (2009 Prius)

DTC	**B1800/51**	**Short in Driver Side Squib Circuit**

DTC	**B1801/51**	**Open in Driver Side Squib Circuit**

DTC	**B1802/51**	**Short to GND in Driver Side Squib Circuit**

DTC	**B1803/51**	**Short to B+ in Driver Side Squib Circuit**

DESCRIPTION

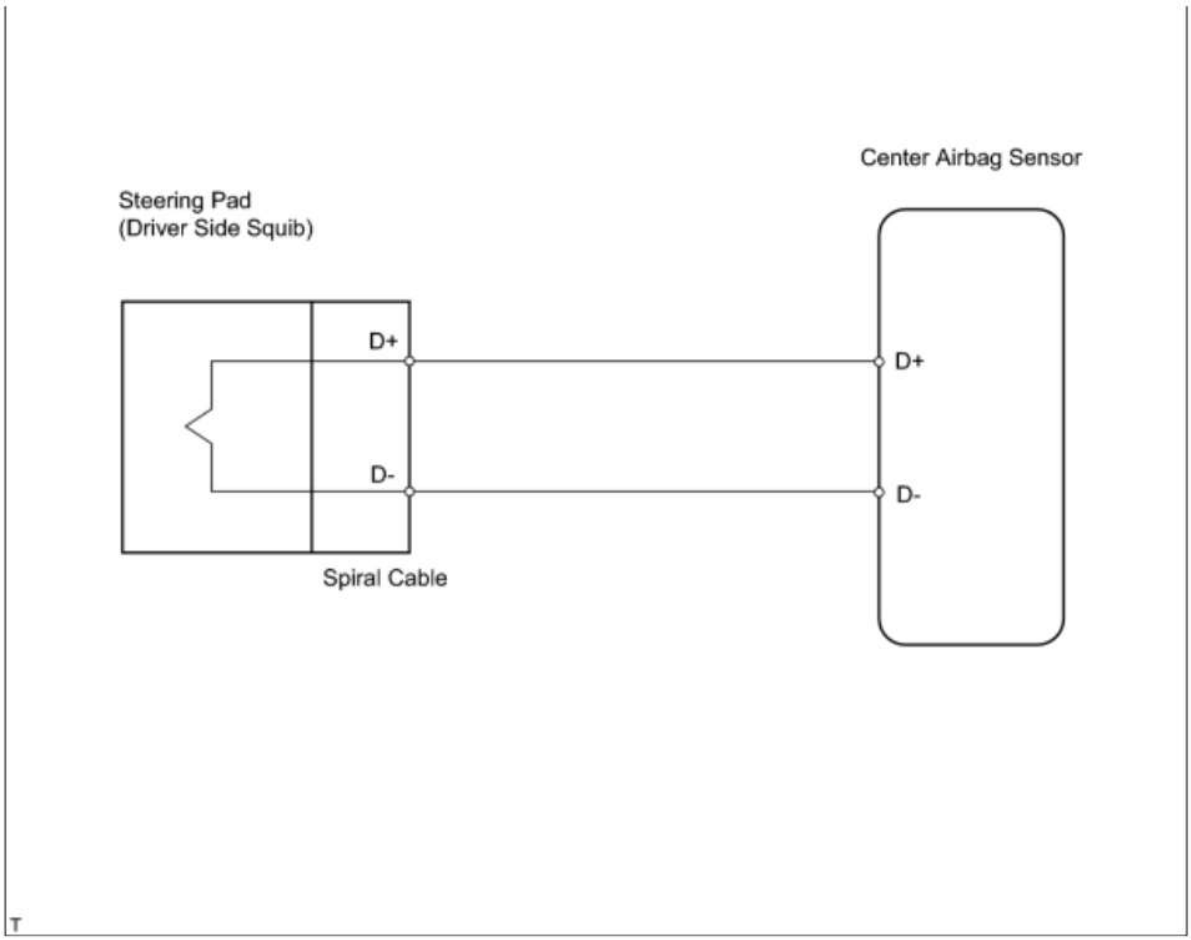
The driver side squib circuit consists of the center airbag sensor, the spiral cable and the steering pad.
The circuit instructs the SRS to deploy when deployment conditions are met.
These DTCs are recorded when a malfunction is detected in the driver side squib circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1800/51	Center airbag sensor receives a line short signal 5 times from the driver side squib circuit during primary check.	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib) • Center airbag sensor
B1801/51	Center airbag sensor receives an open signal from the driver side squib circuit for 2 seconds.	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib) • Center airbag sensor
B1802/51	Center airbag sensor receives a short to ground signal from the driver side squib circuit for 0.5 seconds.	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib) • Center airbag sensor
B1803/51	Center airbag sensor receives a short to B+ signal from the driver side squib circuit for 0.5 seconds.	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib) • Center airbag sensor

WIRING DIAGRAM

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1800/51-B1803/51: Short in Driver Side Squib Circuit (2009 Prius)



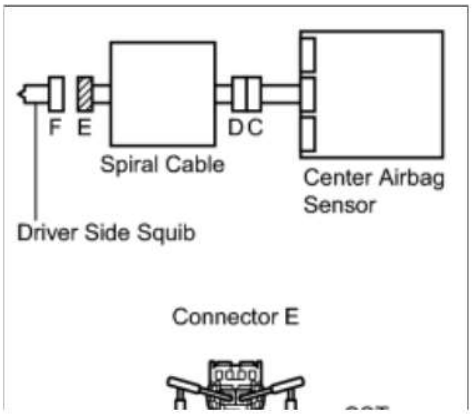
INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the Techstream INFO .
- After selecting the "CHECK MODE" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on various types of roads INFO .

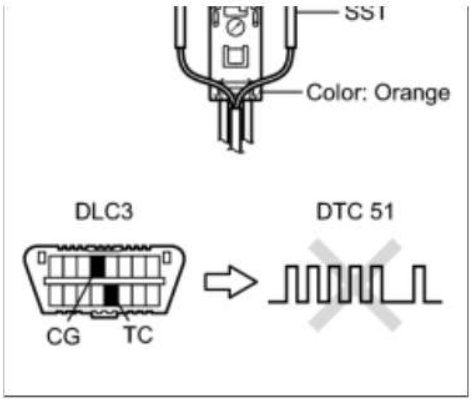
PROCEDURE

1.	**CHECK STEERING PAD (DRIVER SIDE SQUIB)**



(a) Turn the power switch OFF.

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

(c) Disconnect the connectors from the steering pad.

(d) Connect SST (resistance 2.1 Ω) to connector E (orange connector).

CAUTION:

Never connect SST to the steering pad (driver side squib) for measurement, as this may lead to a serious injury due to airbag deployment.

NOTICE:

- Do not forcibly insert SST into the terminals of the connector when connecting.
- Insert SST straight into the terminals of the connector.

SST: 09843-18061

(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

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

(g) Clear the DTCs INFO .

(h) Turn the power switch OFF.

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

(j) Check the DTCs INFO .

OK:

DTC B1800, B1801, B1802, B1803 or 51 is not output.

HINT:

DTCs other than DTC B1800, B1801, B1802, B1803 or 51 may be output at this time, but they are not related to this check.

OK ▶ REPLACE STEERING PAD

NG ▼

2.	**CHECK CONNECTOR**

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1800/51-B1803/51: Short in Driver Side Squib Circuit (2009 Prius)

(a) Turn the power switch OFF.

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

(c) Disconnect SST from the spiral cable.

(d) Check that the spiral cable connectors (on the steering pad side) are not damaged.

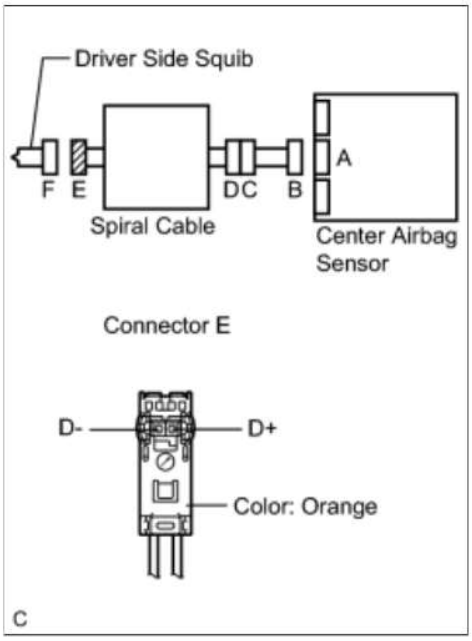
OK:

Lock button is not disengaged, and claw of lock is not deformed or damaged.

NG ▶ **REPLACE SPIRAL CABLE**

OK ▼

3.	**CHECK DRIVER SIDE SQUIB CIRCUIT**



(a) Disconnect the connectors from the center airbag sensor.

(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(c) Turn the power switch ON (IG).

(d) Measure the voltage of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
D+ - Body ground	Below 1 V
D- - Body ground	Below 1 V

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(e) Turn the power switch OFF.

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

(g) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
D+ - D-	Below 1 Ω
D+ - Body ground	1 MΩ or higher
D- - Body ground	1 MΩ or higher

(h) Release the activation prevention mechanism built into connector B INFO .

(i) Measure the resistance of the wire harness side connector.

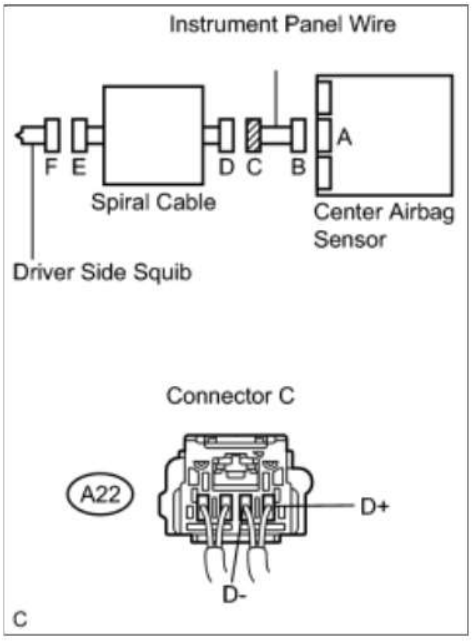
Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
D+ - D-	1 MΩ or higher

OK ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

NG ▼

4.	**CHECK INSTRUMENT PANEL WIRE**



(a) Restore the released activation prevention mechanism of connector B to its original position.

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1800/51-B1803/51: Short in Driver Side Squib Circuit (2009 Prius)

(b) Disconnect the instrument panel wire connector from the spiral cable.

(c) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(d) Turn the power switch ON (IG).

(e) Measure the voltage of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
A22-1 (D+) - Body ground	Below 1 V
A22-2 (D-) - Body ground	Below 1 V

(f) Turn the power switch OFF.

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

(h) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A22-1 (D+) - A22-2 (D-)	Below 1 Ω
A22-1 (D+) - Body ground	1 MΩ or higher
A22-2 (D-) - Body ground	1 MΩ or higher

(i) Release the activation prevention mechanism built into connector B INFO .

(j) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A22-1 (D+) - A22-2 (D-)	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK ▶ **REPLACE SPIRAL CABLE**

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DTC	**B1805/52**	**Short in Front Passenger Side Squib Circuit**

DTC	**B1806/52**	**Open in Front Passenger Side Squib Circuit**

DTC	**B1807/52**	**Short to GND in Front Passenger Side Squib Circuit**

DTC	**B1808/52**	**Short to B+ in Front Passenger Side Squib Circuit**

DESCRIPTION

The front passenger side squib circuit consists of the center airbag sensor and the front passenger airbag.

The circuit instructs the SRS to deploy when deployment conditions are met.

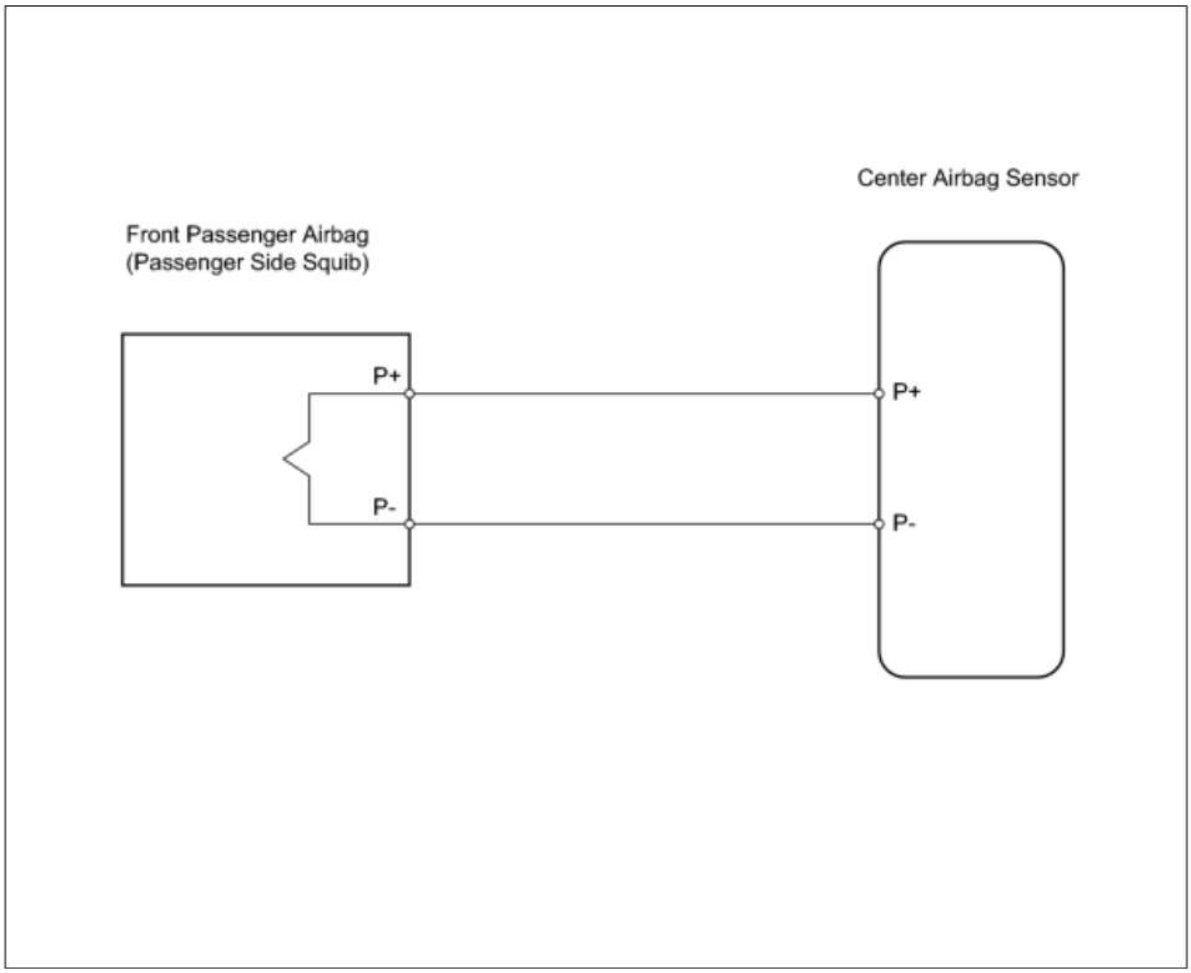
These DTCs are recorded when a malfunction is detected in the front passenger side squib circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1805/52	Center airbag sensor receives a line short signal 5 times from the front passenger side squib circuit during primary check.	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag (Front passenger side squib) • Center airbag sensor
B1806/52	Center airbag sensor receives an open circuit signal from the front passenger side squib circuit for 2 seconds.	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag (Front passenger side squib) • Center airbag sensor
B1807/52	Center airbag sensor receives a short to ground signal from the front passenger side squib circuit for 0.5 seconds.	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag (Front passenger side squib) • Center airbag sensor
B1808/52	Center airbag sensor receives a short to B+ signal from the front passenger side squib circuit for 0.5 seconds.	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag (Front passenger side squib) • Center airbag sensor

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1805/52-B1808/52: Short in Front Passenger Side Squib Circuit (2009 Prius)

WIRING DIAGRAM



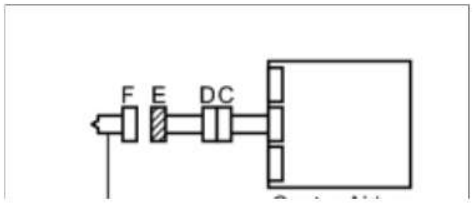
INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the Techstream INFO .
- After selecting the "CHECK MODE" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on various types of roads INFO .

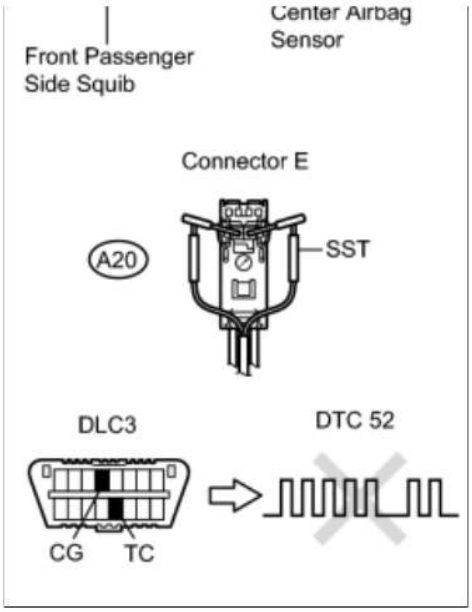
PROCEDURE

1.	CHECK FRONT PASSENGER AIRBAG ASSEMBLY (FRONT PASSENGER SIDE SQUIB)



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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1805/52-B1808/52: Short in Front Passenger Side Squib Circuit (2009 Prius)



(a) Turn the power switch OFF.

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

(c) Disconnect the connectors from the front passenger airbag.

(d) Connect SST (resistance 2.1 Ω) to connector E (orange connector).

CAUTION:

Never connect SST to the front passenger airbag (front passenger side squib) for measurement, as this may lead to a serious injury due to airbag deployment.

NOTICE:

- Do not forcibly insert SST into the terminals of the connector when connecting.
- Insert SST straight into the terminals of the connector.

SST: 09843-18061

(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

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

(g) Clear the DTCs INFO .

(h) Turn the power switch OFF.

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

(j) Check the DTCs INFO .

OK:

DTC B1805, B1806, B1807, B1808 or 52 is not output.

HINT:

DTCs other than DTC B1805, B1806, B1807, B1808 or 52 may be output at this time, but they are not related to this check.

OK ▶ **REPLACE FRONT PASSENGER AIRBAG ASSEMBLY**

NG ▼

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1805/52-B1808/52: Short in Front Passenger Side Squib Circuit (2009 Prius)

2.	CHECK CONNECTOR

(a) Turn the power switch OFF.

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

(c) Disconnect SST from connector E.

(d) Check that the instrument panel wire connectors (on the front passenger side airbag) are not damaged.

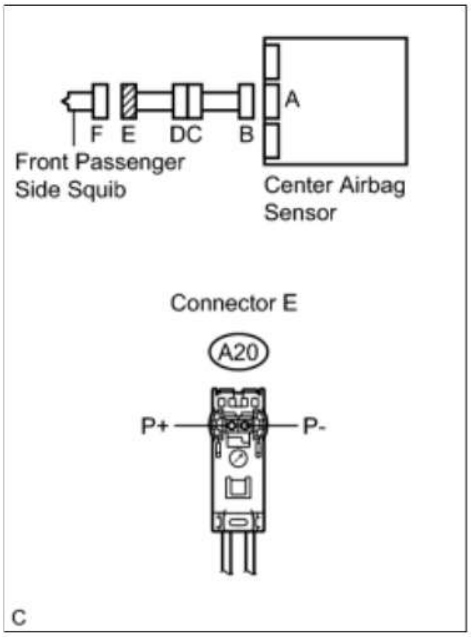
OK:

Lock button is not disengaged, and claw of lock is not deformed or damaged.

NG ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE ASSEMBLY**

OK ▼

3.	CHECK FRONT PASSENGER SIDE SQUIB CIRCUIT



(a) Disconnect the connector from the center airbag sensor.

(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(c) Turn the power switch ON (IG).

(d) Measure the voltage of the wire harness side connector.

Standard voltage:

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TESTER CONNECTION	SPECIFIED CONDITION
A20-1 (P+) - Body ground	Below 1 V
A20-2 (P-) - Body ground	Below 1 V

(e) Turn the power switch OFF.

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

(g) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A20-1 (P+) - A20-2 (P-)	Below 1 Ω
A20-1 (P+) - Body ground	1 MΩ or higher
A20-2 (P-) - Body ground	1 MΩ or higher

(h) Release the activation prevention mechanism built into connector B INFO .

(i) Measure the resistance of the wire harness side connector.

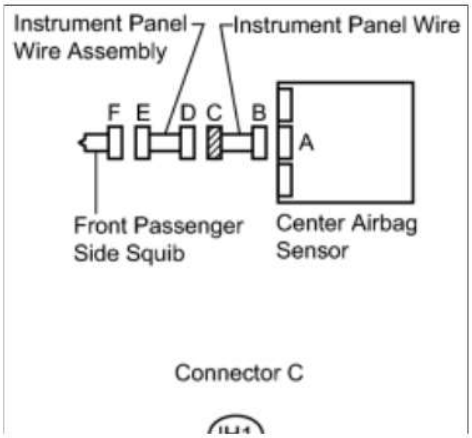
Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A20-1 (P+) - A20-2 (P-)	1 MΩ or higher

OK ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

NG ▼

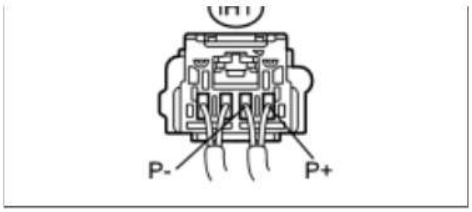
4.	**CHECK INSTRUMENT PANEL WIRE ASSEMBLY**



(a) Restore the released activation prevention mechanism of connector B to its original position.

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1805/52-B1808/52: Short in Front Passenger Side Squib Circuit (2009 Prius)



(b) Disconnect the instrument panel wire connector from the instrument panel wire assembly.

(c) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(d) Turn the power switch ON (IG).

(e) Measure the voltage of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
IH1-1 (P+) - Body ground	Below 1 V
IH1-2 (P-) - Body ground	Below 1 V

(f) Turn the power switch OFF.

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

(h) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
IH1-1 (P+) - IH1-2 (P-)	Below 1 Ω
IH1-1 (P+) - Body ground	1 MΩ or higher
IH1-2 (P-) - Body ground	1 MΩ or higher

(i) Release the activation prevention mechanism built into connector B INFO .

(j) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
IH1-1 (P+) - IH1-2 (P-)	1 MΩ or higher

NG ▶ REPAIR OR REPLACE INSTRUMENT PANEL WIRE ASSEMBLY

OK ▶ REPAIR OR REPLACE INSTRUMENT PANEL WIRE

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DTC	**B1810/53**	**Short in Driver Side Squib 2nd Step Circuit**

DTC	**B1811/53**	**Open in Driver Side Squib 2nd Step Circuit**

DTC	**B1812/53**	**Short to GND in Driver Side Squib 2nd Step Circuit**

DTC	**B1813/53**	**Short to B+ in Driver Side Squib 2nd Step Circuit**

DESCRIPTION

The driver side squib 2nd step circuit consists of the center airbag sensor, the spiral cable and the steering pad.

The circuit instructs the SRS to deploy when deployment conditions are met.

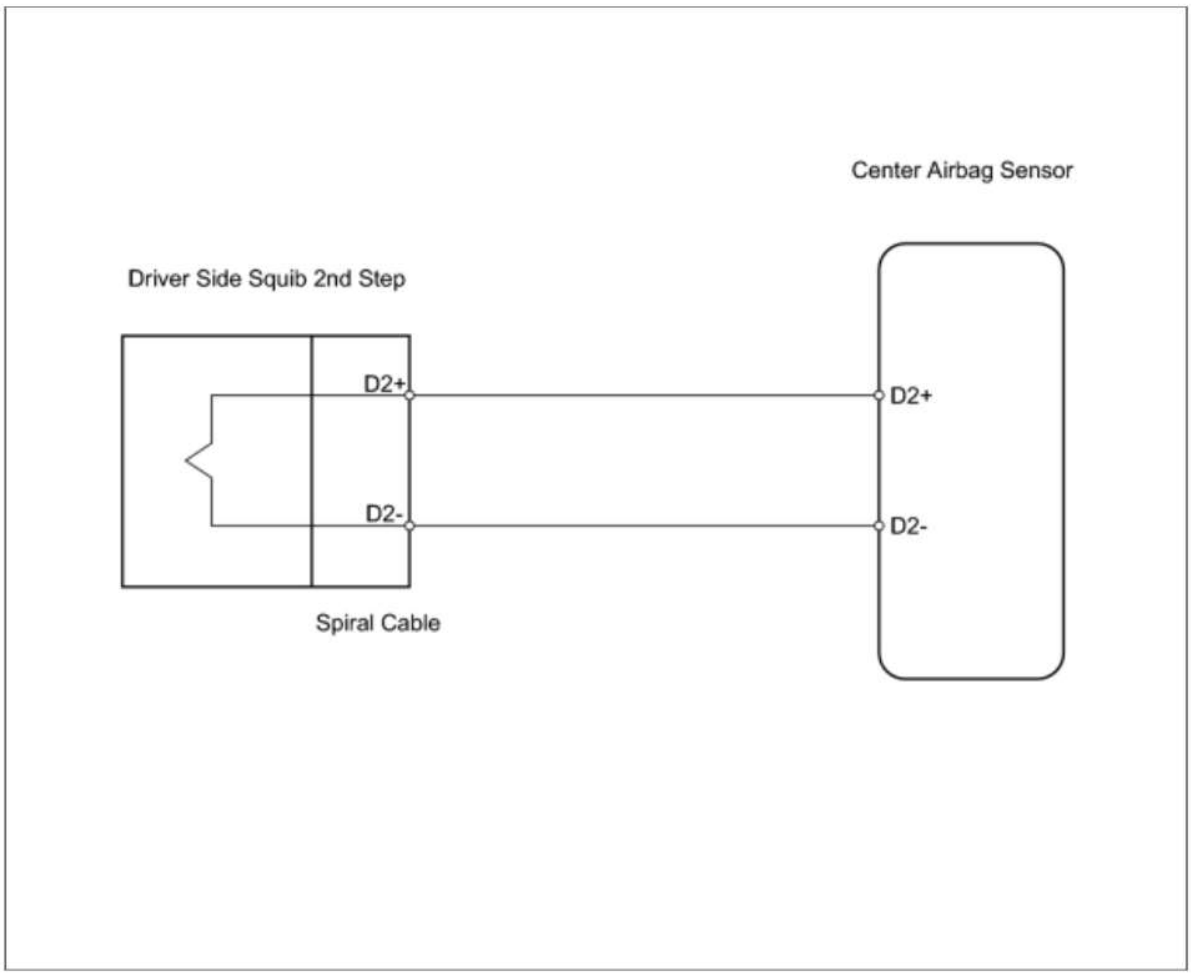
These DTCs are recorded when a malfunction is detected in the driver side squib 2nd step circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1810/53	Center airbag sensor receives a line short signal 5 times from the driver side squib 2nd step circuit during primary check.	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib 2nd step) • Center airbag sensor
B1811/53	Center airbag sensor receives an open signal from the driver side squib 2nd step circuit for 2 seconds.	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib 2nd step) • Center airbag sensor
B1812/53	Center airbag sensor receives a short circuit to ground signal from the driver side 2nd step circuit for 0.5 seconds.	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib 2nd step) • Center airbag sensor
B1813/53	Center airbag sensor receives a short circuit to B+ signal from the driver side squib 2nd step circuit for 0.5 seconds.	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib 2nd step) • Center airbag sensor

WIRING DIAGRAM

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1810/53-B1813/53: Short in Driver Side Squib 2nd Step Circuit (2009 Prius)



INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the Techstream INFO .
- After selecting the "CHECK MODE" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on various types of roads INFO .

PROCEDURE

1.	**CHECK STEERING PAD (DRIVER SIDE SQUIB 2ND STEP)**

(a) Turn the power switch OFF.

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

(c) Disconnect the connectors from the steering pad.

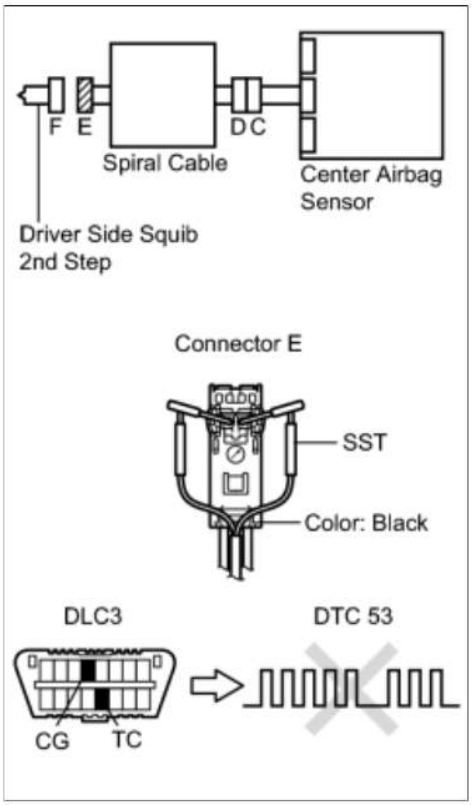
(d) Connect SST to the spiral cable connector E (black connector).

CAUTION:

Never connect SST to the steering pad (driver side squib 2nd step)

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1810/53-B1813/53: Short in Driver Side Squib 2nd Step Circuit (2009 Prius)



Never connect SST to the steering pad (driver side squib 2nd step) for measurement, as this may lead to a serious injury due to airbag deployment.

NOTICE:

- Do not forcibly insert SST into the terminals of the connector when connecting.
- Insert SST straight into the terminals of the connector.

SST: 09843-18061

(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

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

(g) Clear the DTCs INFO .

(h) Turn the power switch OFF.

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

(j) Check the DTCs INFO .

OK:

DTC B1810, B1811, B1812, B1813 or 53 is not output.

HINT:

DTCs other than DTC B1810, B1811, B1812, B1813 or 53 may be output at this time, but they are not related to this check.

OK ▶ REPLACE STEERING PAD

NG ▼

2.	CHECK CONNECTOR

(a) Turn the power switch OFF.

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

(c) Disconnect SST from the spiral cable.

(d) Check that the spiral cable connector (on the steering pad side) is not damaged.

OK:

Lock button is not disengaged, and claw of lock is not deformed or damaged.

NG ▶ REPLACE SPIRAL CABLE

OK ▼

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3.	CHECK DRIVER SIDE SQUIB 2ND STEP CIRCUIT

(a) Disconnect the connector from the center airbag sensor.

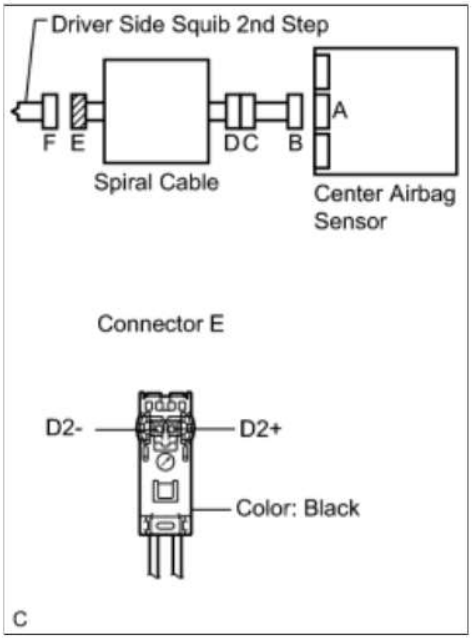
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(c) Turn the power switch ON (IG).

(d) Measure the voltage of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
D2+ - Body ground	Below 1 V
D2- - Body ground	Below 1 V



(e) Turn the power switch OFF.

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

(g) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
D2+ - D2-	Below 1 Ω
D2+ - Body ground	1 MΩ or higher
D2- - Body ground	1 MΩ or higher

(h) Release the activation prevention mechanism built into connector B INFO .

(i) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
D2+ - D2-	1 MΩ or higher

OK ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▼

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4.	CHECK INSTRUMENT PANEL WIRE

(a) Restore the released activation prevention mechanism of connector B to its original position.

(b) Disconnect the instrument panel wire connector from the spiral cable.

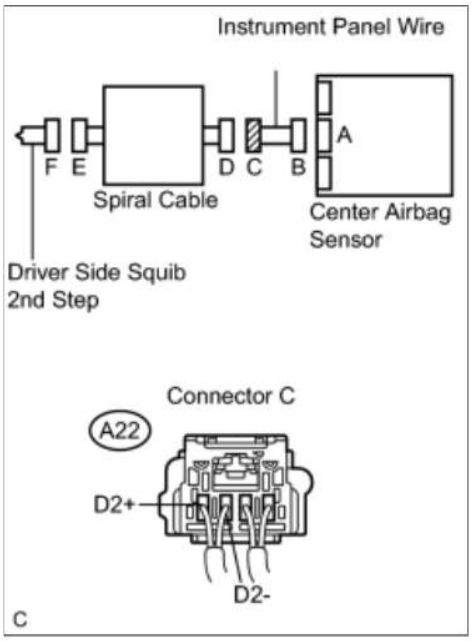
(c) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(d) Turn the power switch ON (IG).

(e) Measure the voltage of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
A22-4 (D2+) - Body ground	Below 1 V
A22-3 (D2-) - Body ground	Below 1 V



(f) Turn the power switch OFF.

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

(h) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A22-4 (D2+) - A22-3 (D2-)	Below 1 Ω
A22-4 (D2+) - Body ground	1 MΩ or higher
A22-3 (D2-) - Body ground	1 MΩ or higher

(i) Release the activation prevention mechanism built into connector B INFO .

(j) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A22-4 (D2+) - A22-3 (D2-)	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE INSTRUMENT**

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1810/53-B1813/53: Short in Driver Side Squib 2nd Step Circuit (2009 Prius)

PANEL WIRE ASSEMBLY

OK ▶ **REPLACE SPIRAL CABLE**

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DTC	**B1815/54**	**Short in Front Passenger Side Squib 2nd Step Circuit**

DTC	**B1816/54**	**Open in Front Passenger Side Squib 2nd Step Circuit**

DTC	**B1817/54**	**Short to GND in Front Passenger Side Squib 2nd Step Circuit**

DTC	**B1818/54**	**Short to B+ in Front Passenger Side Squib 2nd Step Circuit**

DESCRIPTION

The front passenger side squib 2nd step circuit consists of the center airbag sensor and the front passenger airbag.

The circuit instructs the SRS to deploy when deployment conditions are met.

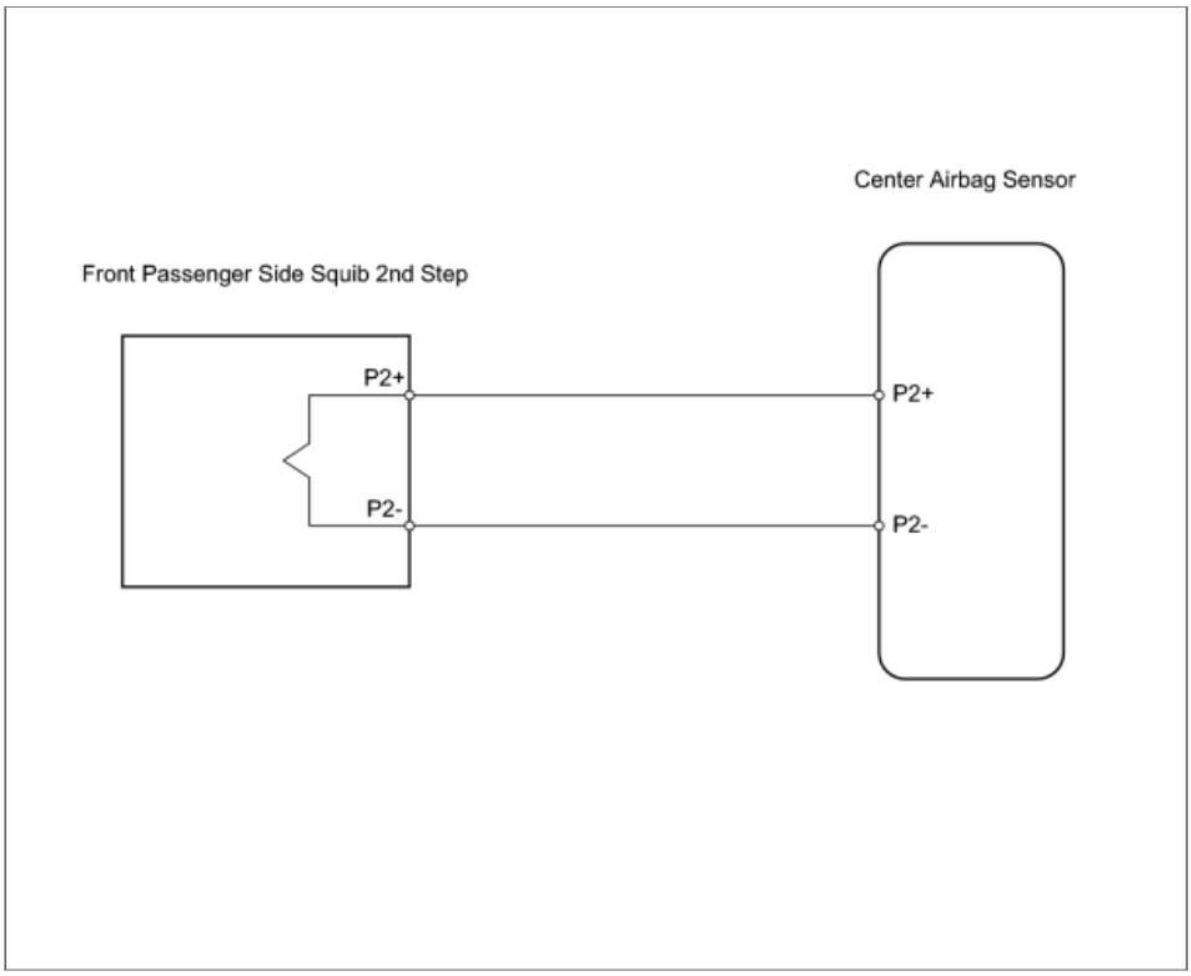
These DTCs are recorded when a malfunction is detected in the front passenger side squib 2nd step circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1815/54	Center airbag sensor receives a line short signal 5 times from the front passenger side squib 2nd step circuit during primary check.	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag (Front passenger side squib 2nd step) • Center airbag sensor
B1816/54	Center airbag sensor receives an open signal from the front passenger side squib 2nd step circuit for 2 seconds.	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag (Front passenger side squib 2nd step) • Center airbag sensor
B1817/54	Center airbag sensor receives a short to ground signal from the front passenger side squib 2nd step circuit for 0.5 seconds.	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag (Front passenger side squib 2nd step) • Center airbag sensor
B1818/54	Center airbag sensor receives a short to B+ signal from the front passenger side squib 2nd step circuit for 0.5 seconds.	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag (Front passenger side squib 2nd step) • Center airbag sensor

WIRING DIAGRAM

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1815/54-B1818/54: Short in Front Passenger Side Squib 2nd Step Circuit (2009 Prius)



INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the Techstream INFO .
- After selecting the "CHECK MODE" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on various types of roads INFO .

PROCEDURE

1.	**CHECK FRONT PASSENGER AIRBAG ASSEMBLY (FRONT PASSENGER SIDE SQUIB 2ND STEP)**

(a) Turn the power switch OFF.

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

(c) Disconnect the connector to the front passenger airbag.

(d) Connect SST (resistance 2.1 Ω) to connector E (black connector).

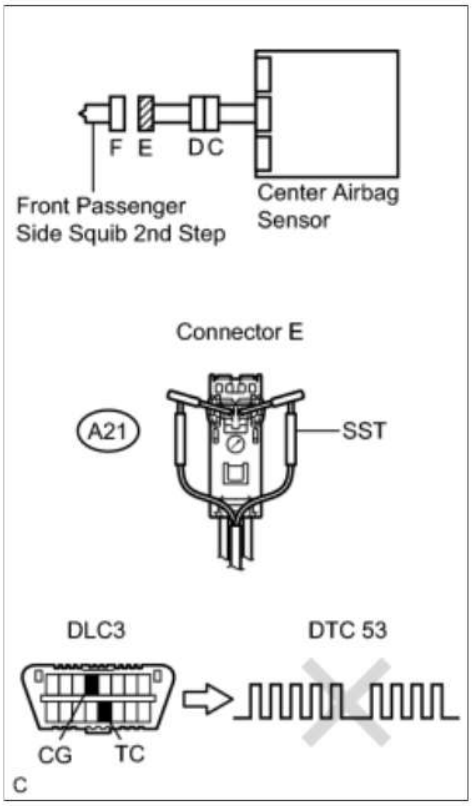
CAUTION:

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1815/54-B1818/54: Short in Front Passenger Side Squib 2nd Step Circuit (2009 Prius)

CAUTION:

Never connect SST to the front passenger airbag (front passenger side squib 2nd step) for measurement, as this may lead to a serious injury due to airbag deployment.



NOTICE:

- Do not forcibly insert SST into the terminals of the connector when connecting.
- Insert SST straight into the terminals of the connector.

SST: 09843-18061

(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

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

(g) Clear the DTCs INFO .

(h) Turn the power switch OFF.

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

(j) Check the DTCs INFO .

OK:

DTC B1815, B1816, B1817, B1818 or 54 is not output.

HINT:

Codes other than DTC B1815, B1816, B1817, B1818 and 54 may be output at this time, but they are not related to this check.

OK ▶ **REPLACE FRONT PASSENGER AIRBAG ASSEMBLY**

NG ▼

2.	**CHECK CONNECTOR**

(a) Turn the power switch OFF.

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

(c) Disconnect SST from connector E.

(d) Check that the instrument panel wire assembly connector (on the front passenger airbag side) are not damaged.

OK:

Lock button is not disengaged, and claw of lock is not deformed or damaged.

NG ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE ASSEMBLY**

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1815/54-B1818/54: Short in Front Passenger Side Squib 2nd Step Circuit (2009 Prius)

OK

3.	CHECK FRONT PASSENGER SIDE SQUIB 2ND STEP CIRCUIT

(a) Disconnect the connector from the center airbag sensor.

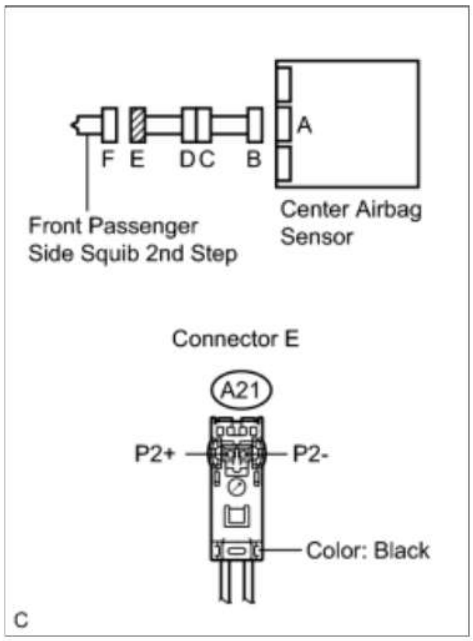
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(c) Turn the power switch ON (IG).

(d) Measure the voltage of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
A21-1 (P2+) - Body ground	Below 1 V
A21-2 (P2-) - Body ground	Below 1 V



(e) Turn the power switch OFF.

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

(g) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A21-1 (P2+) - A21-2 (P2-)	Below 1 Ω
A21-1 (P2+) - Body ground	1 MΩ or higher
A21-2 (P2-) - Body ground	1 MΩ or higher

(h) Release the activation prevention mechanism built into connector B INFO .

(i) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A21-1 (P2+) - A21-2 (P2-)	1 MΩ or higher

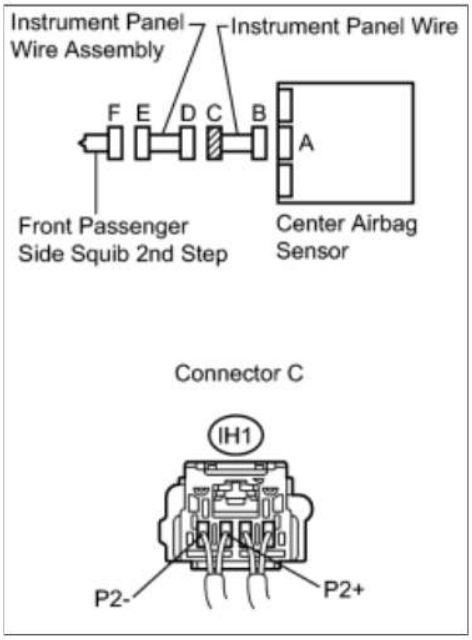
OK ▶ **REPLACE CENTER AIRBAG SENSOR**

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ASSEMBLY

NG

4.	**CHECK INSTRUMENT PANEL WIRE ASSEMBLY**



(a) Restore the released activation prevention mechanism of connector B to its original position.

(b) Disconnect the instrument panel wire connector from the instrument panel wire assembly.

(c) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(d) Turn the power switch ON (IG).

(e) Measure the voltage of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
IH1-4 (P2-) - Body ground	Below 1 V
IH1-3 (P2+) - Body ground	Below 1 V

(f) Turn the power switch OFF.

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

(h) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
IH1-4 (P2-) - IH1-3 (P2+)	Below 1 Ω

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IH1-4 (P2-) - Body ground	1 MΩ or higher
IH1-3 (P2+) - Body ground	1 MΩ or higher

(i) Release the activation prevention mechanism built into connector B INFO .

(j) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
IH1-4 (P2-) - IH1-3 (P2+)	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE ASSEMBLY**

OK ▶ **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

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DTC	**B1820/55**	**Short in Front Driver Side - Side Squib Circuit**

DTC	**B1821/55**	**Open in Front Driver Side - Side Squib Circuit**

DTC	**B1822/55**	**Short to GND in Front Driver Side - Side Squib Circuit**

DTC	**B1823/55**	**Short to B+ in Front Driver Side - Side Squib Circuit**

DESCRIPTION

The front driver side - side squib circuit consists of the center airbag sensor assembly and the front seat side airbag assembly LH.

This circuit instructs the SRS to deploy when deployment conditions are met.

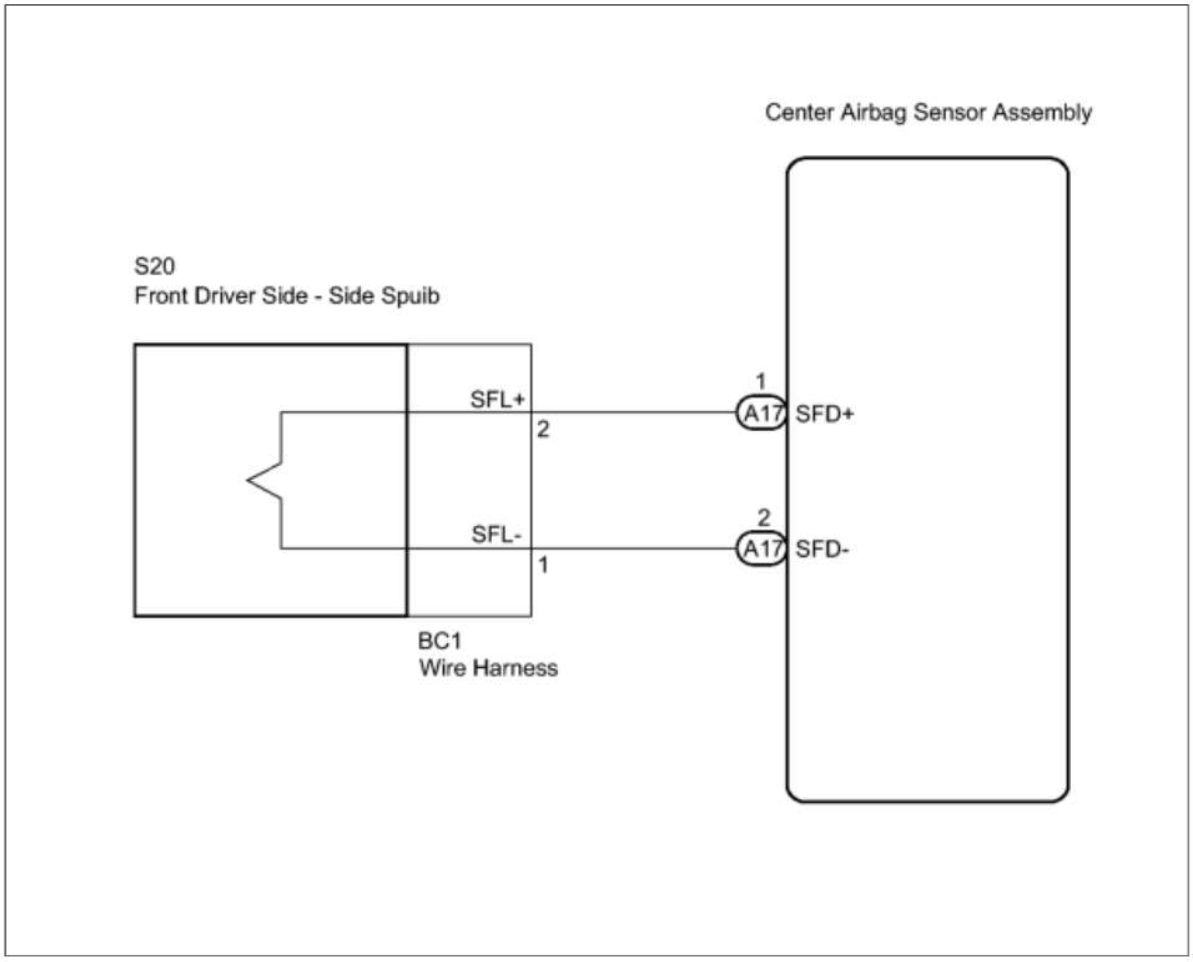
These DTCs are recorded when a malfunction is detected in the front driver side - side squib circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1820/55	• The center airbag sensor assembly receives a line short circuit signal 5 times in the front driver side - side squib circuit during primary check. • Front driver side - side squib malfunction • Center airbag sensor assembly malfunction	• Floor wire • Front seat side airbag assembly LH (Front driver side - side squib) • Center airbag sensor assembly
B1821/55	• The center airbag sensor assembly receives an open circuit signal in the front driver side - side squib circuit for 2 seconds. • Front driver side - side squib malfunction • Center airbag sensor assembly malfunction	• Floor wire • Front seat side airbag assembly LH (Front driver side - side squib) • Center airbag sensor assembly
B1822/55	• The center airbag sensor assembly receives a short circuit to ground signal in the front driver side - side squib circuit for 0.5 seconds. • Front driver side - side squib malfunction • Center airbag sensor assembly malfunction	• Floor wire • Front seat side airbag assembly LH (Front driver side - side squib) • Center airbag sensor assembly
B1823/55	• The center airbag sensor assembly receives a short circuit to B+ signal in the front driver side - side squib circuit for 0.5 seconds. • Front driver side - side squib malfunction • Center airbag sensor assembly malfunction	• Floor wire • Front seat side airbag assembly LH (Front driver side - side squib) • Center airbag sensor assembly

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1820/55-B1823/55: Short in Front Driver Side - Side Squib Circuit (2009 Prius)

WIRING DIAGRAM



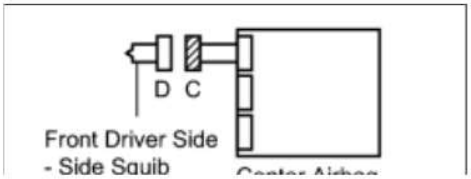
INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting "check mode" (signal check) with the Techstream INFO .
- After selecting "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road INFO .

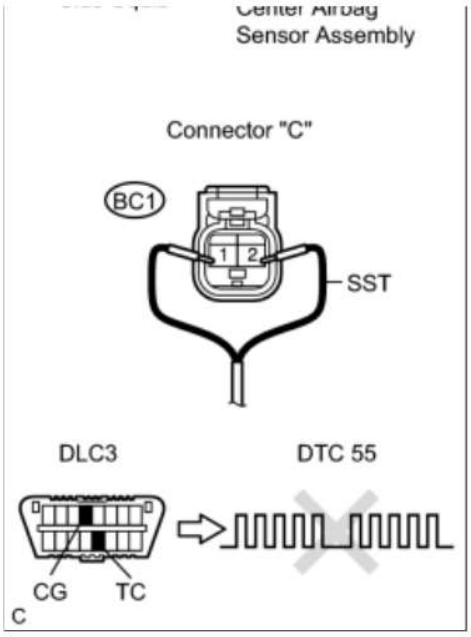
PROCEDURE

1.	CHECK FRONT SEAT SIDE AIRBAG ASSEMBLY LH (FRONT DRIVER SIDE - SIDE SQUIB)



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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1820/55-B1823/55: Short in Front Driver Side - Side Squib Circuit (2009 Prius)



(a) Turn the power switch OFF.

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

(c) Disconnect the connector from the front seat side airbag assembly LH.

(d) Connect SST (resistance 2.1 Ω) to connector C.

CAUTION:

Never connect the tester to the front seat side airbag assembly LH (front driver side - side squib) for measurement, as this may lead to a serious injury due to airbag deployment.

NOTICE:

- Do not forcibly insert the SST into the terminals of the connector when connecting.
- Insert straight the SST into the terminals of the connector.

SST: 09843-18061

(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

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

(g) Clear the DTCs stored in the memory INFO .

(h) Turn the power switch OFF.

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

(j) Check the DTCs INFO .

OK:

DTC B1820, B1821, B1822, B1823, or 55 is not output.

HINT:

Codes other than DTC B1820, B1821, B1822, B1823, and 55 may be output at this time, but they are not related to this check.

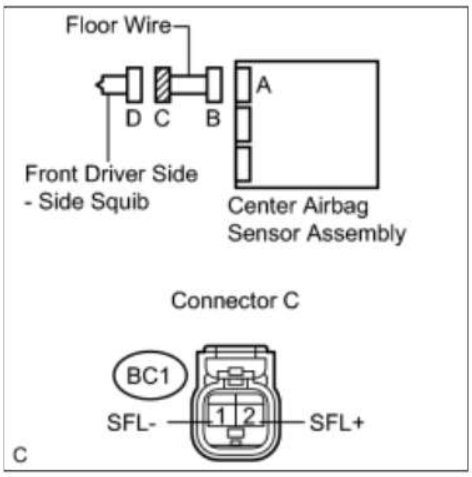
OK ▶ **REPLACE FRONT SEAT ASSEMBLY LH**

NG ▼

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1820/55-B1823/55: Short in Front Driver Side - Side Squib Circuit (2009 Prius)

2.	**CHECK FLOOR WIRE (FRONT DRIVER SIDE - SIDE SQUIB CIRCUIT)**



(a) Turn the power switch OFF.

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

(c) Disconnect the SST from connector C.

(d) Disconnect the connectors from the center airbag sensor assembly.

(e) Check for a short to B+ in the circuit.

(1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

(2) Turn the power switch ON (IG).

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

Standard voltage:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
BC1-1 (SFL-) - Body ground	Power switch ON (IG)	Below 1 V
BC1-2 (SFL+) - Body ground	Power switch ON (IG)	Below 1 V

(f) Check for an open in the circuit.

(1) Turn the power switch OFF.

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

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

Standard resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
BC1-1 (SFL-) - BC1-2 (SFL+)	Always	Below 1 Ω

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(g) Check for a short to ground in the circuit.

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

Standard resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
BC1-1 (SFL-) - Body ground	Always	1 MΩ or higher
BC1-2 (SFL+) - Body ground	Always	1 MΩ or higher

(h) Check for a short in the circuit.

(1) Release the activation prevention mechanism built into connector B INFO .

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

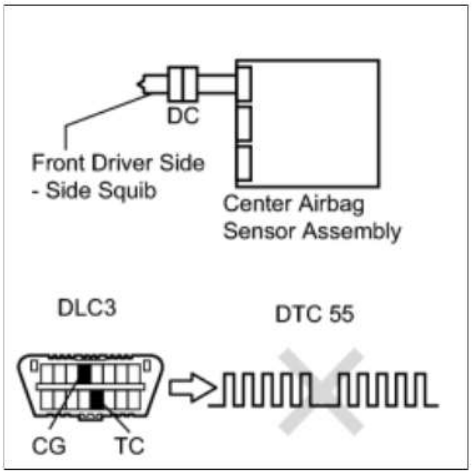
Standard resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
BC1-1 (SFL-) - BC1-2 (SFL+)	Always	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK ▼

3.	**CHECK CENTER AIRBAG SENSOR ASSEMBLY**



(a) Connect the connectors to the front seat side airbag assembly LH 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 power switch ON (IG), and wait for at least 60 seconds.

(d) Clear the DTCs stored in the memory INFO .

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1820/55-B1823/55: Short in Front Driver Side - Side Squib Circuit (2009 Prius)

(e) Turn the power switch OFF.

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

(g) Check the DTCs INFO .

OK:

DTC B1820, B1821, B1822, B1823, or 55 is not output.

HINT:

Codes other than DTC B1820, B1821, B1822, B1823, and 55 may be output at this time, but they are not related to this check.

NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **USE SIMULATION METHOD TO CHECK**

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DTC	**B1825/56**	**Short in Front Passenger Side - Side Squib Circuit**

DTC	**B1826/56**	**Open in Front Passenger Side - Side Squib Circuit**

DTC	**B1827/56**	**Short to GND in Front Passenger Side - Side Squib Circuit**

DTC	**B1828/56**	**Short to B+ in Front Passenger Side - Side Squib Circuit**

DESCRIPTION

The front passenger side - side squib circuit consists of the center airbag sensor assembly and the front seat side airbag assembly RH.

The circuit instructs the SRS to deploy when deployment conditions are met.

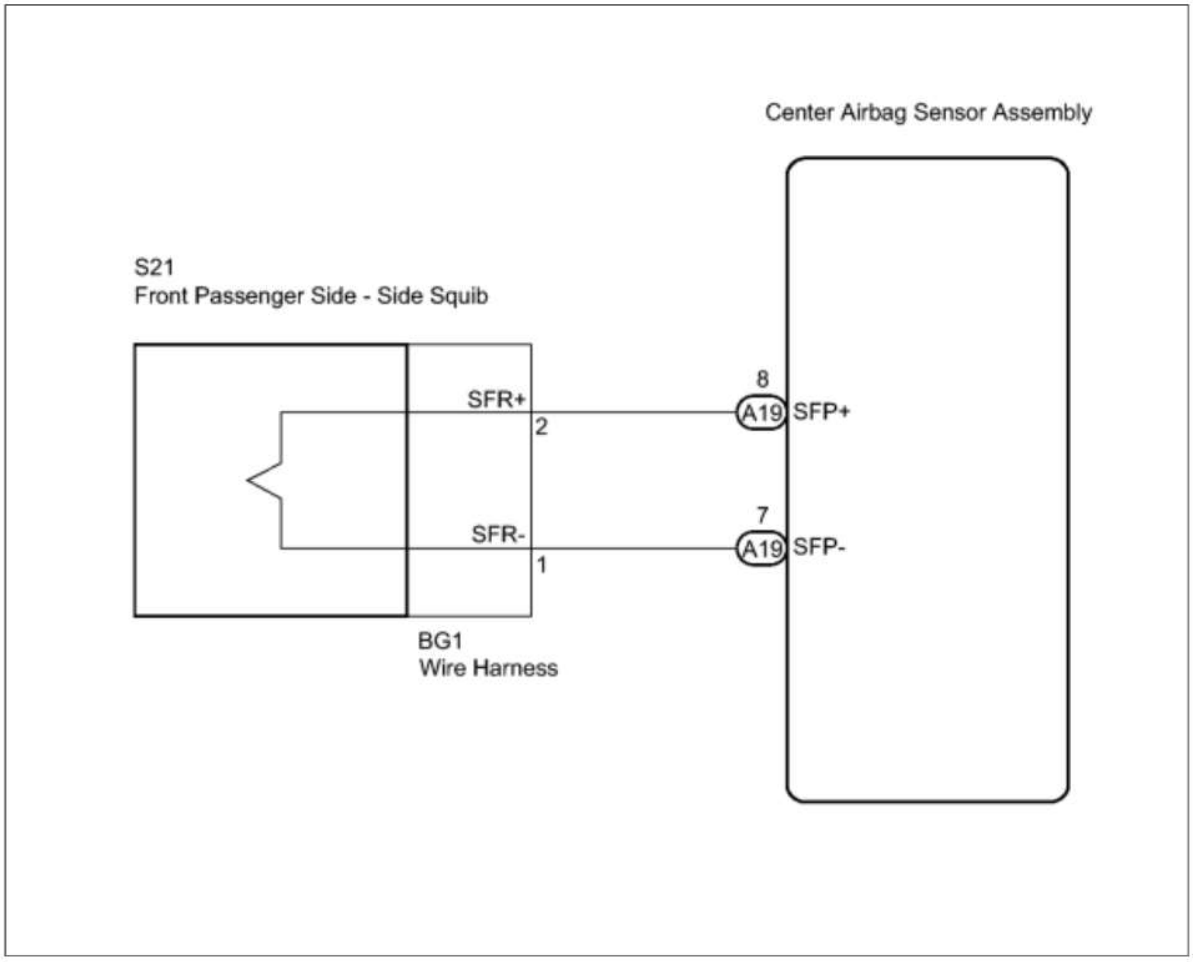
These DTCs are recorded when a malfunction is detected in the front passenger side - side squib circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1825/56	• The center airbag sensor assembly receives a line short circuit signal 5 times in the front passenger side - side squib circuit during primary check. • Front passenger side - side squib malfunction • Center airbag sensor assembly malfunction	• Floor wire No. 2 • Front seat side airbag assembly RH (Front passenger side - side squib) • Center airbag sensor assembly
B1826/56	• The center airbag sensor assembly receives an open circuit signal in the front passenger side - side squib circuit for 2 seconds. • Front passenger side - side squib malfunction • Center airbag sensor assembly malfunction	• Floor wire No. 2 • Front seat side airbag assembly RH (Front passenger side - side squib) • Center airbag sensor assembly
B1827/56	• The center airbag sensor assembly receives a short circuit to ground signal in the front passenger side - side squib circuit for 0.5 seconds. • Front passenger side - side squib malfunction • Center airbag sensor assembly malfunction	• Floor wire No. 2 • Front seat side airbag assembly RH (Front passenger side - side squib) • Center airbag sensor assembly
B1828/56	• The center airbag sensor assembly receives a short circuit to B+ signal in the front passenger side - side squib circuit for 0.5 seconds. • Front passenger side - side squib malfunction • Center airbag sensor assembly malfunction	• Floor wire No. 2 • Front seat side airbag assembly RH (Front passenger side - side squib) • Center airbag sensor assembly

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1825/56-B1828/56: Short in Front Passenger Side - Side Squib Circuit (2009 Prius)

WIRING DIAGRAM



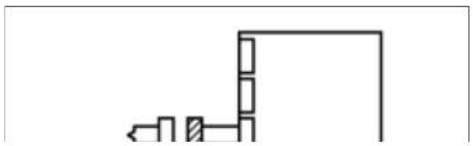
INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting "check mode" (signal check) with the Techstream INFO .
- After selecting "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road INFO .

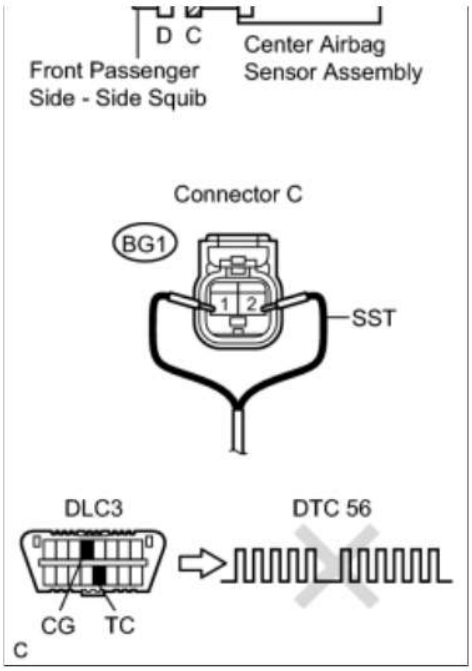
PROCEDURE

1.	**CHECK FRONT SEAT SIDE AIRBAG ASSEMBLY RH (FRONT PASSENGER SIDE - SIDE SQUIB)**



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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1825/56-B1828/56: Short in Front Passenger Side - Side Squib Circuit (2009 Prius)



(a) Turn the power switch OFF.

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

(c) Disconnect the connector from the front seat side airbag assembly RH.

(d) Connect SST (resistance 2.1 Ω) to connector C.

CAUTION:

Never connect the tester to the front seat side airbag assembly RH (front passenger side - side squib) for measurement, as this may lead to a serious injury due to airbag deployment.

NOTICE:

- Do not forcibly insert the SST into the terminals of the connector when connecting.
- Insert straight the SST into the terminals of the connector.

SST: 09843-18061

(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

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

(g) Clear the DTCs stored in the memory INFO .

(h) Turn the power switch OFF.

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

(j) Check the DTCs INFO .

OK:

DTC B1825, B1826, B1827, B1828, or 56 is not output.

HINT:

Codes other than DTC B1825, B1826, B1827, B1828, and 56 may be output at this time, but they are not related to this check.

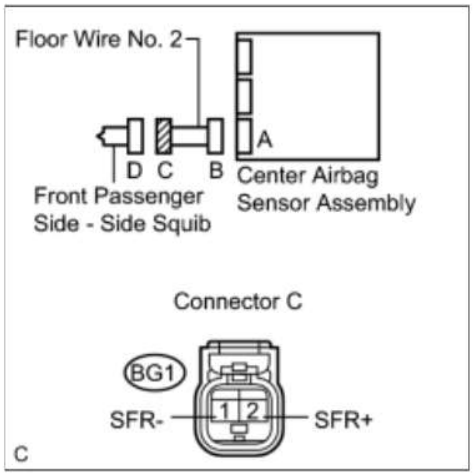
OK ▶ **REPLACE FRONT SEAT ASSEMBLY RH**

NG

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1825/56-B1828/56: Short in Front Passenger Side - Side Squib Circuit (2009 Prius)

2.	**CHECK FLOOR WIRE NO. 2 (FRONT PASSENGER SIDE - SIDE SQUIB CIRCUIT)**



(a) Turn the power switch OFF.

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

(c) Disconnect the SST from connector C.

(d) Disconnect the connectors from the center airbag sensor assembly.

(e) Check for a short to B+ in the circuit.

(1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

(2) Turn the power switch ON (IG).

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

Standard voltage:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
BG1-1 (SFR-) - Body ground	Power switch ON (IG)	Below 1 V
BG1-2 (SFR+) - Body ground	Power switch ON (IG)	Below 1 V

(f) Check for an open in the circuit.

(1) Turn the power switch OFF.

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

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

Standard resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
BG1-1 (SFR-) - BG1-2 (SFR+)	Always	Below 1 Ω

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(g) Check for a short to ground in the circuit.

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

Standard resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
BG1-1 (SFR-) - Body ground	Always	1 MΩ or higher
BG1-2 (SFR+) - Body ground	Always	1 MΩ or higher

(h) Check for a short in the circuit.

(1) Release the activation prevention mechanism built into connector B INFO .

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

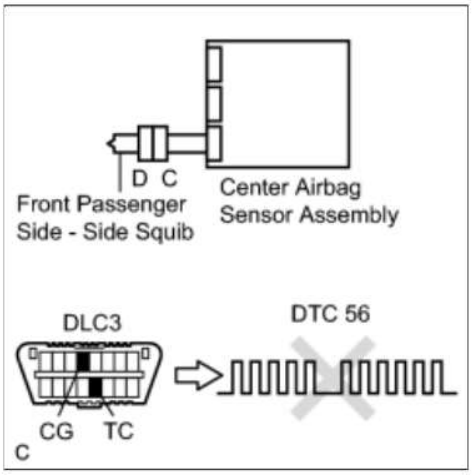
Standard resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
BG1-1 (SFR-) - BG1-2 (SFR+)	Always	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE NO. 2**

OK ▼

3.	**CHECK CENTER AIRBAG SENSOR ASSEMBLY**



(a) Connect the connectors to the front seat side airbag assembly 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 power switch ON (IG), and wait for at least 60 seconds.

(d) Clear the DTCs stored in the memory INFO .

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(e) Turn the power switch OFF.

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

(g) Check the DTCs INFO .

OK:

DTC B1825, B1826, B1827, B1828, or 56 is not output.

HINT:

Codes other than DTC B1825, B1826, B1827, B1828, and 56 may be output at this time, but they are not related to this check.

NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **USE SIMULATION METHOD TO CHECK**

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DTC	**B1830/57**	**Short in Driver Side Curtain Shield Squib Circuit**

DTC	**B1831/57**	**Open in Driver Side Curtain Shield Squib Circuit**

DTC	**B1832/57**	**Short to GND in Driver Side Curtain Shield Squib Circuit**

DTC	**B1833/57**	**Short to B+ in Driver Side Curtain Shield Squib Circuit**

DESCRIPTION

The driver side curtain shield squib circuit consists of the center airbag sensor and the curtain shield airbag LH.

The circuit instructs the SRS to deploy when deployment conditions are met.

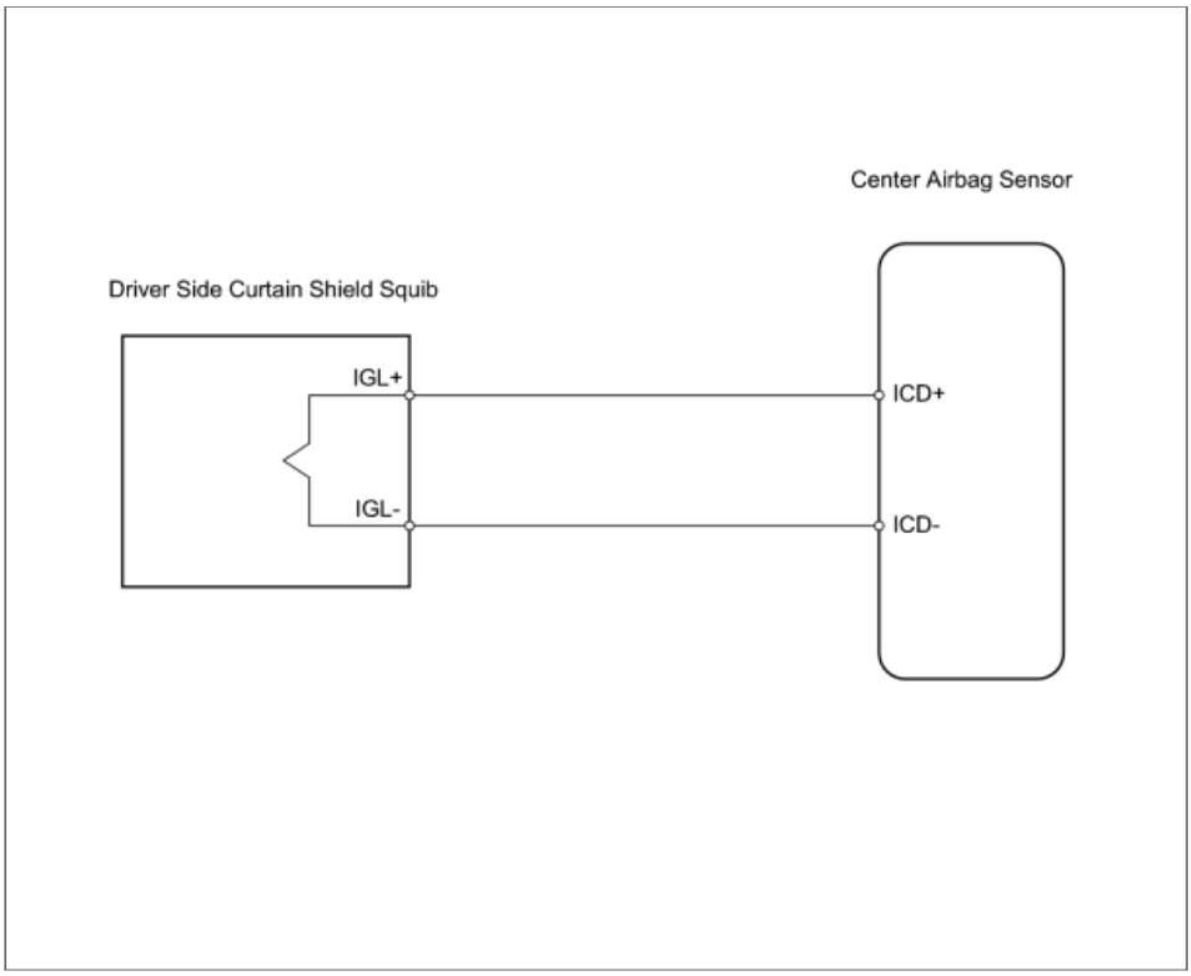
These DTCs are recorded when a malfunction is detected in the driver side curtain shield squib circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1830/57	Center airbag sensor receives a line short signal 5 times from the driver side curtain shield squib circuit during primary check.	• Floor wire • Curtain shield airbag LH (Driver side curtain shield squib) • Center airbag sensor
B1831/57	Center airbag sensor receives an open signal from the driver side curtain shield squib circuit for 2 seconds.	• Floor wire • Curtain shield airbag LH (Driver side curtain shield squib) • Center airbag sensor
B1832/57	Center airbag sensor receives a short to ground signal from the driver side curtain shield squib circuit for 0.5 seconds.	• Floor wire • Curtain shield airbag LH (Driver side curtain shield squib) • Center airbag sensor
B1833/57	Center airbag sensor receives a short to B+ signal from the driver side curtain shield squib circuit for 0.5 seconds.	• Floor wire • Curtain shield airbag LH (Driver side curtain shield squib) • Center airbag sensor

WIRING DIAGRAM

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1830/57-B1833/57: Short in Driver Side Curtain Shield Squib Circuit (2009 Prius)



INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the Techstream INFO .
- After selecting the "CHECK MODE" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on various types of roads INFO .

PROCEDURE

1.	**CHECK CURTAIN SHIELD AIRBAG ASSEMBLY LH (DRIVER SIDE CURTAIN SHIELD SQUIB)**

(a) Turn the power switch OFF.

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

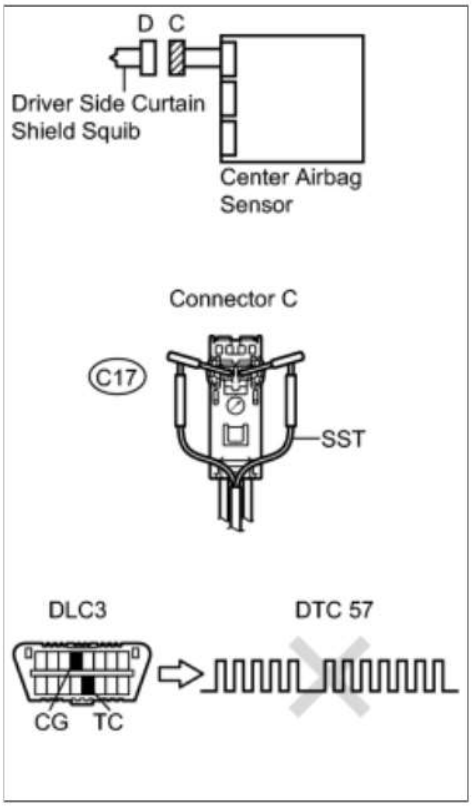
(c) Disconnect the connector from the curtain shield airbag LH.

(d) Connect SST (resistance 2.1 Ω) to connector C.

CAUTION:

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1830/57-B1833/57: Short in Driver Side Curtain Shield Squib Circuit (2009 Prius)



CAUTION:

Never connect SST to the curtain shield airbag LH (driver side curtain shield squib) for measurement, as this may lead to a serious injury due to airbag deployment.

NOTICE:

- Do not forcibly insert SST into the terminals of the connector when connecting.
- Insert SST straight into the terminals of the connector.

SST: 09843-18061

(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

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

(g) Clear the DTCs INFO .

(h) Turn the power switch OFF.

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

(j) Check the DTCs INFO .

OK:

DTC B1830, B1831, B1832, B1833 or 57 is not output.

HINT:

DTCs other than DTC B1830, B1831, B1832, B1833 or 57 may be output at this time, but they are not related to this check.

OK ▶ **REPLACE CURTAIN SHIELD AIRBAG ASSEMBLY LH**

NG ▼

2.	**CHECK CONNECTOR**

(a) Turn the power switch OFF.

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

(c) Disconnect the SST from connector C.

(d) Check that the floor wire connector (on the curtain shield LH side) is not damaged.

OK:

Lock button is not disengaged, and claw of lock is not deformed or damaged.

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1830/57-B1833/57: Short in Driver Side Curtain Shield Squib Circuit (2009 Prius)

3.	CHECK FLOOR WIRE (DRIVER SIDE CURTAIN SHIELD SQUIB CIRCUIT)

(a) Disconnect the connector from the center airbag sensor.

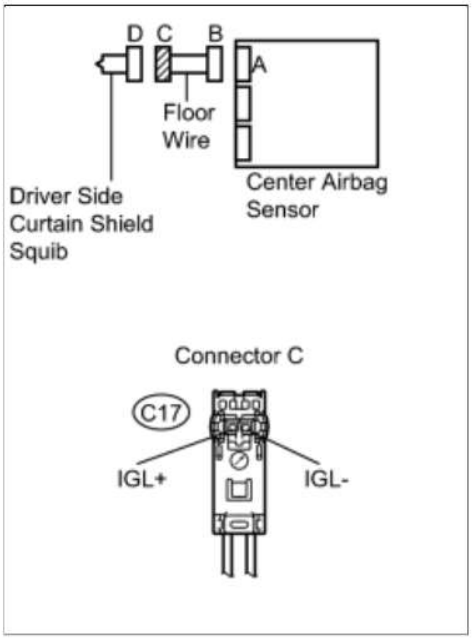
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(c) Turn the power switch ON (IG).

(d) Measure the voltage of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
C17-1 (IGL+) - Body ground	Below 1 V
C17-2 (IGL-) - Body ground	Below 1 V



(e) Turn the power switch OFF.

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

(g) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
C17-1 (IGL+) - C17-2 (IGL-)	Below 1 Ω
C17-1 (IGL+) - Body ground	1 MΩ or higher
C17-2 (IGL-) - Body ground	1 MΩ or higher

(h) Release the activation prevention mechanism built into connector B INFO .

(i) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
C17-1 (IGL+) - C17-2 (IGL-)	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

REPLACE CENTER

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1830/57-B1833/57: Short in Driver Side Curtain Shield Squib Circuit (2009 Prius)

OK ▶ **AIRBAG SENSOR ASSEMBLY**

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DTC	**B1835/58**	**Short in Front Passenger Side Curtain Shield Squib Circuit**

DTC	**B1836/58**	**Open in Front Passenger Side Curtain Shield Squib Circuit**

DTC	**B1837/58**	**Short to GND in Front Passenger Side Curtain Shield Squib Circuit**

DTC	**B1838/58**	**Short to B+ in Front Passenger Side Curtain Shield Squib Circuit**

DESCRIPTION

The front passenger side curtain shield squib circuit consists of the center airbag sensor and the curtain shield airbag RH.

The circuit instructs the SRS to deploy when deployment conditions are met.

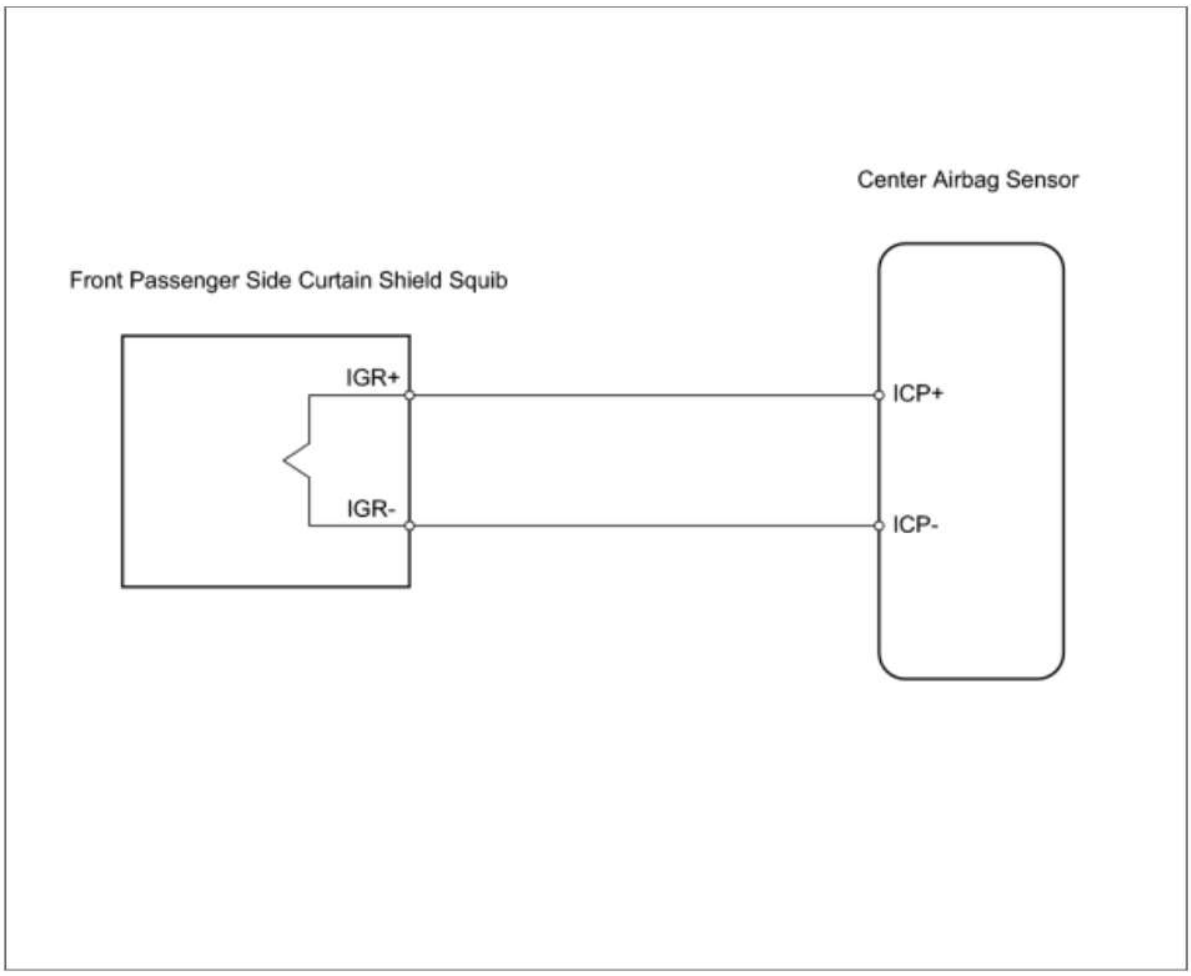
These DTCs are recorded when a malfunction is detected in the front passenger side curtain shield squib circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1835/58	Center airbag sensor receives a line short circuit signal 5 times from the front passenger side curtain shield squib circuit during primary check.	• Floor wire No. 2 • Curtain shield airbag RH (Front passenger side curtain shield squib) • Center airbag sensor
B1836/58	Center airbag sensor receives an open signal from the front passenger side curtain shield squib circuit for 2 seconds.	• Floor wire No. 2 • Curtain shield airbag RH (Front passenger side curtain shield squib) • Center airbag sensor
B1837/58	Center airbag sensor receives a short to ground signal from the front passenger side curtain shield squib circuit for 0.5 seconds.	• Floor wire No. 2 • Curtain shield airbag RH (Front passenger side curtain shield squib) • Center airbag sensor
B1838/58	Center airbag sensor receives a short to B+ signal from the front passenger side curtain shield squib circuit for 0.5 seconds.	• Floor wire No. 2 • Curtain shield airbag RH (Front passenger side curtain shield squib) • Center airbag sensor

WIRING DIAGRAM

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1835/58-B1838/58: Short in Front Passenger Side Curtain Shield Squib Circuit (20...



INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the Techstream INFO .
- After selecting the "CHECK MODE" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on various types of roads INFO .

PROCEDURE

1.	**CHECK CURTAIN SHIELD AIRBAG ASSEMBLY RH (FRONT PASSENGER SIDE CURTAIN SHIELD SQUIB)**

(a) Turn the power switch OFF.

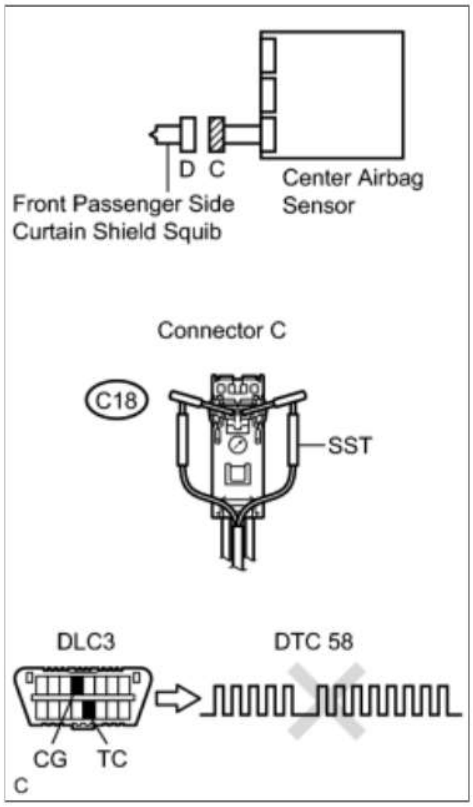
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.

(c) Disconnect the connectors from the curtain shield airbag RH.

(d) Connect SST (resistance 2.1 Ω) to connector C.

CAUTION:

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CAUTION:

Never connect SST to the curtain shield airbag RH (front passenger side curtain shield squib) for measurement, as this may lead to a serious injury due to airbag deployment.

NOTICE:

- Do not forcibly insert SST into the terminals of the connector when connecting.
- Insert SST straight into the terminals of the connector.

SST: 09843-18061

(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

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

(g) Clear the DTCs INFO .

(h) Turn the power switch OFF.

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

(j) Check the DTCs INFO .

OK:

DTC B1835, B1836, B1837, B1838 or 58 is not output.

HINT:

DTCs other than DTC B1835, B1836, B1837, B1838 or 58 may be output at this time, but they are not related to this check.

OK ▶ **REPLACE CURTAIN SHIELD AIRBAG ASSEMBLY RH**

NG ▼

2.	**CHECK CONNECTOR**

(a) Turn the power switch OFF.

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

(c) Disconnect the SST from connector C.

(d) Check that the floor wire No. 2 connector (on the curtain shield airbag RH side) are not damaged.

OK:

Lock button is not disengaged, and claw of lock is not deformed or damaged.

NG ▶ **REPAIR OR REPLACE FLOOR WIRE NO. 2**

OK

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3.	CHECK FLOOR WIRE NO. 2 (FRONT PASSENGER SIDE CURTAIN SHIELD SQUIB CIRCUIT)

(a) Disconnect the connectors from the center airbag sensor.

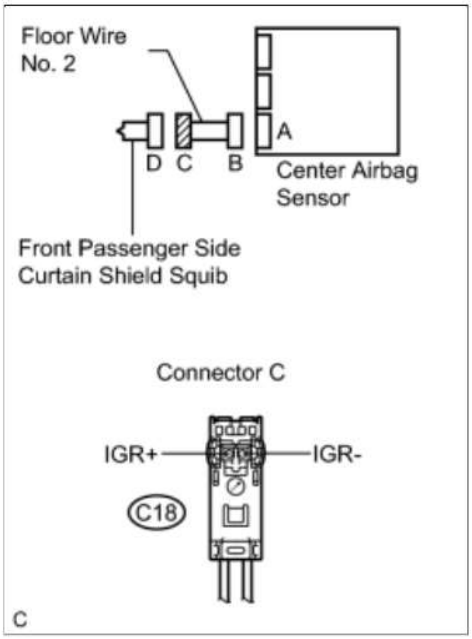
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(c) Turn the power switch ON (IG).

(d) Measure the voltage of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
C18-1 (IGR+) - Body ground	Below 1 V
C18-2 (IGR-) - Body ground	Below 1 V



(e) Turn the power switch OFF.

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

(g) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
C18-1 (IGR+) - C18-2 (IGR-)	Below 1 Ω
C18-1 (IGR+) - Body ground	1 MΩ or higher
C18-2 (IGR-) - Body ground	1 MΩ or higher

(h) Release the activation prevention mechanism built into connector B INFO .

(i) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
C18-1 (IGR+) - C18-2 (IGR-)	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE NO. 2**

REPLACE CENTER

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1835/58-B1838/58: Short in Front Passenger Side Curtain Shield Squib Circuit (20...

OK ▶ AIRBAG SENSOR ASSEMBLY

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DTC	**B1900/73**	**Short in Front Driver Side Pretensioner Squib Circuit**

DTC	**B1901/73**	**Open in Front Driver Side Pretensioner Squib Circuit**

DTC	**B1902/73**	**Short to GND in Front Driver Side Pretensioner Squib Circuit**

DTC	**B1903/73**	**Short to B+ in Front Driver Side Pretensioner Squib Circuit**

DESCRIPTION

The driver side front pretensioner squib circuit consists of the center airbag sensor and the front seat outer belt LH.

This circuit instructs the SRS to deploy when deployment conditions are met.

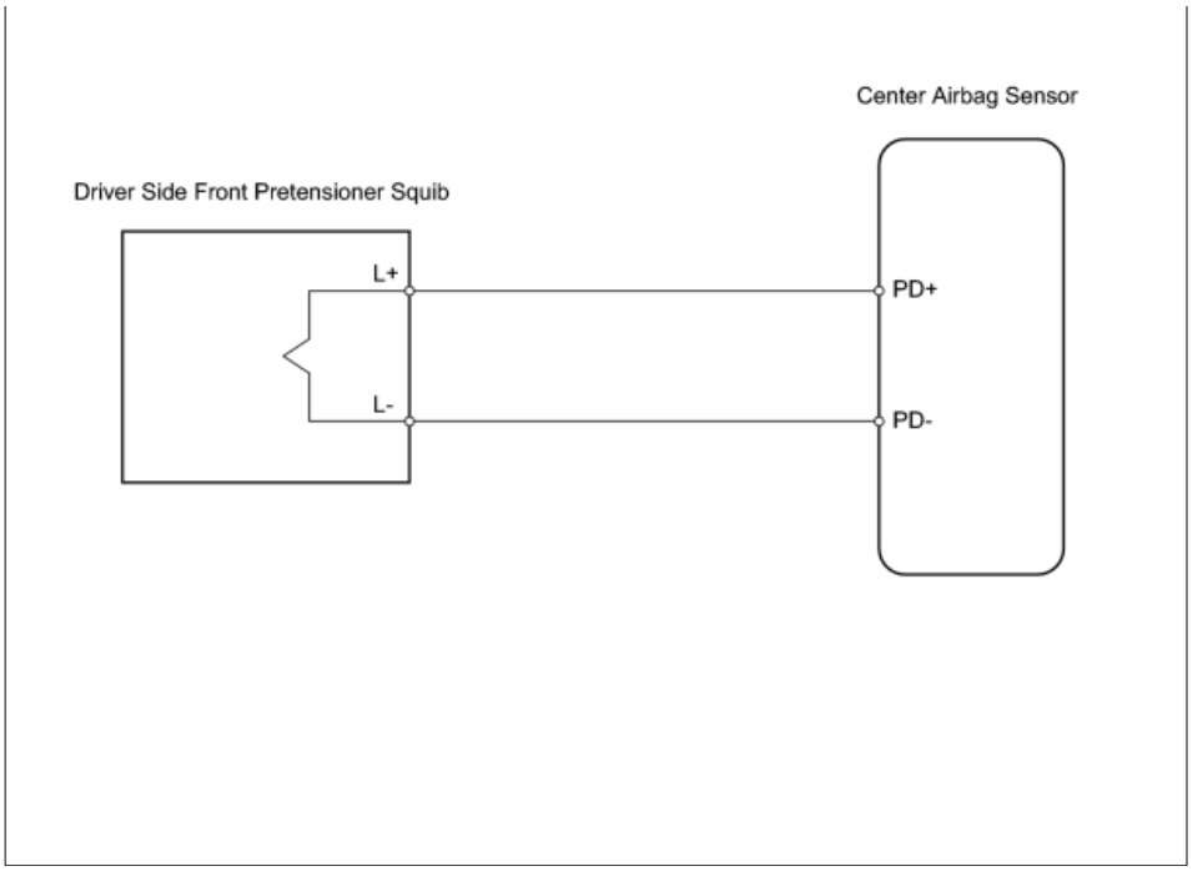
These DTCs are recorded when a malfunction is detected in the front pretensioner squib circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1900/73	Center airbag sensor receives a line short signal 5 times from the driver side front pretensioner squib circuit during primary check.	• Floor wire • Front seat outer belt LH (Driver side front pretensioner squib) • Center airbag sensor
B1901/73	Center airbag sensor receives an open signal from the driver side front pretensioner squib circuit for 2 seconds.	• Floor wire • Front seat outer belt LH (Driver side front pretensioner squib) • Center airbag sensor
B1902/73	Center airbag sensor receives a short to ground signal from the driver side front pretensioner squib circuit for 0.5 seconds.	• Floor wire • Front seat outer belt LH (Driver side front pretensioner squib) • Center airbag sensor
B1903/73	Center airbag sensor receives a short circuit to B+ signal from the driver side front pretensioner squib circuit for 0.5 seconds.	• Floor wire • Front seat outer belt LH (Driver side front pretensioner squib) • Center airbag sensor

WIRING DIAGRAM

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1900/73-B1903/73: Short in Front Driver Side Pretensioner Squib Circuit (2009 Prius)



INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the Techstream INFO .
- After selecting the "CHECK MODE" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on various types of roads INFO .

PROCEDURE

1.	**CHECK FRONT SEAT OUTER BELT ASSEMBLY LH (DRIVER SIDE FRONT PRETENSIONER SQUIB)**

(a) Turn the power switch OFF.

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

(c) Disconnect the connectors from the front seat outer belt LH.

(d) Connect SST (resistance 2.1 Ω) to connector C.

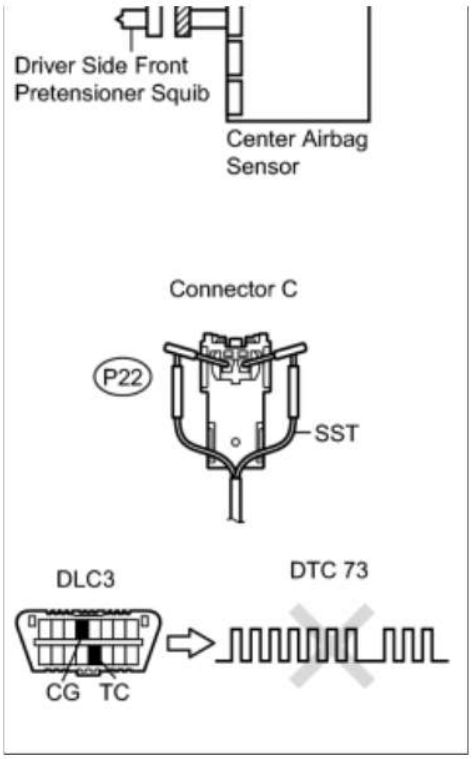
CAUTION:

Never connect SST to the front seat outer belt LH (driver side front pretensioner squib) for measurement, as this may lead to a serious injury due to airbag deployment.



NOTICE:

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- Do not forcibly insert SST into the terminals of the connector when connecting.
- Insert SST straight into the terminals of the connector.

SST: 09843-18061

(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

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

(g) Clear the DTCs INFO .

(h) Turn the power switch OFF.

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

(j) Check the DTCs INFO .

OK:
DTC B1900, B1901, B1902, B1903 or 73 is not output.

HINT:

DTCs other than DTC B1900, B1901, B1902, B1903 or 73 may be output at this time, but they are not related to this check.

OK ▶ **REPLACE FRONT SEAT OUTER BELT ASSEMBLY LH**

NG ▼

2.	**CHECK CONNECTOR**

(a) Turn the power switch OFF.

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

(c) Disconnect the SST from connector C.

(d) Check that the floor wire connector (on the driver side front seat outer belt) is not damaged.

OK:
The lock button is not disengaged, or the claw of the lock is not deformed or damaged.

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK ▼

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1900/73-B1903/73: Short in Front Driver Side Pretensioner Squib Circuit (2009 Prius)

3.	CHECK FLOOR WIRE (DRIVER SIDE FRONT PRETENSIONER SQUIB CIRCUIT)

(a) Disconnect the connector from the center airbag sensor.

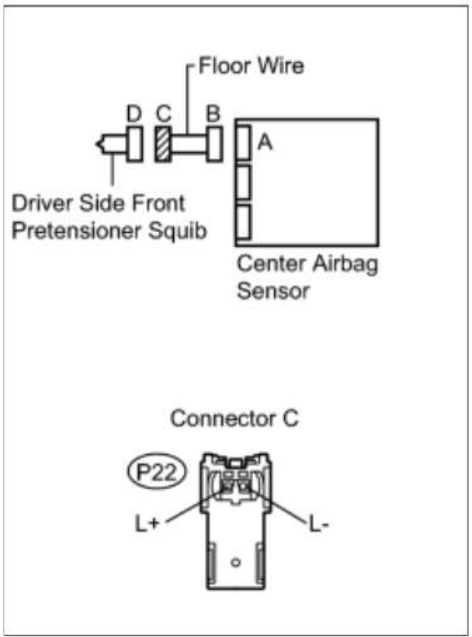
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(c) Turn the power switch ON (IG).

(d) Measure the voltage of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
P22-1 (L+) - Body ground	Below 1 V
P22-2 (L-) - Body ground	Below 1 V



(e) Turn the power switch OFF.

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

(g) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
P22-1 (L+) - P22-2 (L-)	Below 1 Ω
P22-1 (L+) - Body ground	1 MΩ or higher
P22-2 (L-) - Body ground	1 MΩ or higher

(h) Release the activation prevention mechanism built into connector B INFO .

(i) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
P22-1 (L+) - P22-2 (L-)	1 MΩ or higher

NG ▶ **REPAIR OR REPLACE FLOOR WIRE**

OK ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

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DTC	**B1905/74**	**Short in Front Passenger Side Pretensioner Squib Circuit**

DTC	**B1906/74**	**Open in Front Passenger Side Pretensioner Squib Circuit**

DTC	**B1907/74**	**Short to GND in Front Passenger Side Pretensioner Squib Circuit**

DTC	**B1908/74**	**Short to B+ in Front Passenger Side Front Pretensioner Squib Circuit**

DESCRIPTION

The front passenger side front pretensioner squib circuit consists of the center airbag sensor and the front seat outer belt RH.

This circuit instructs the SRS to deploy when deployment conditions are met.

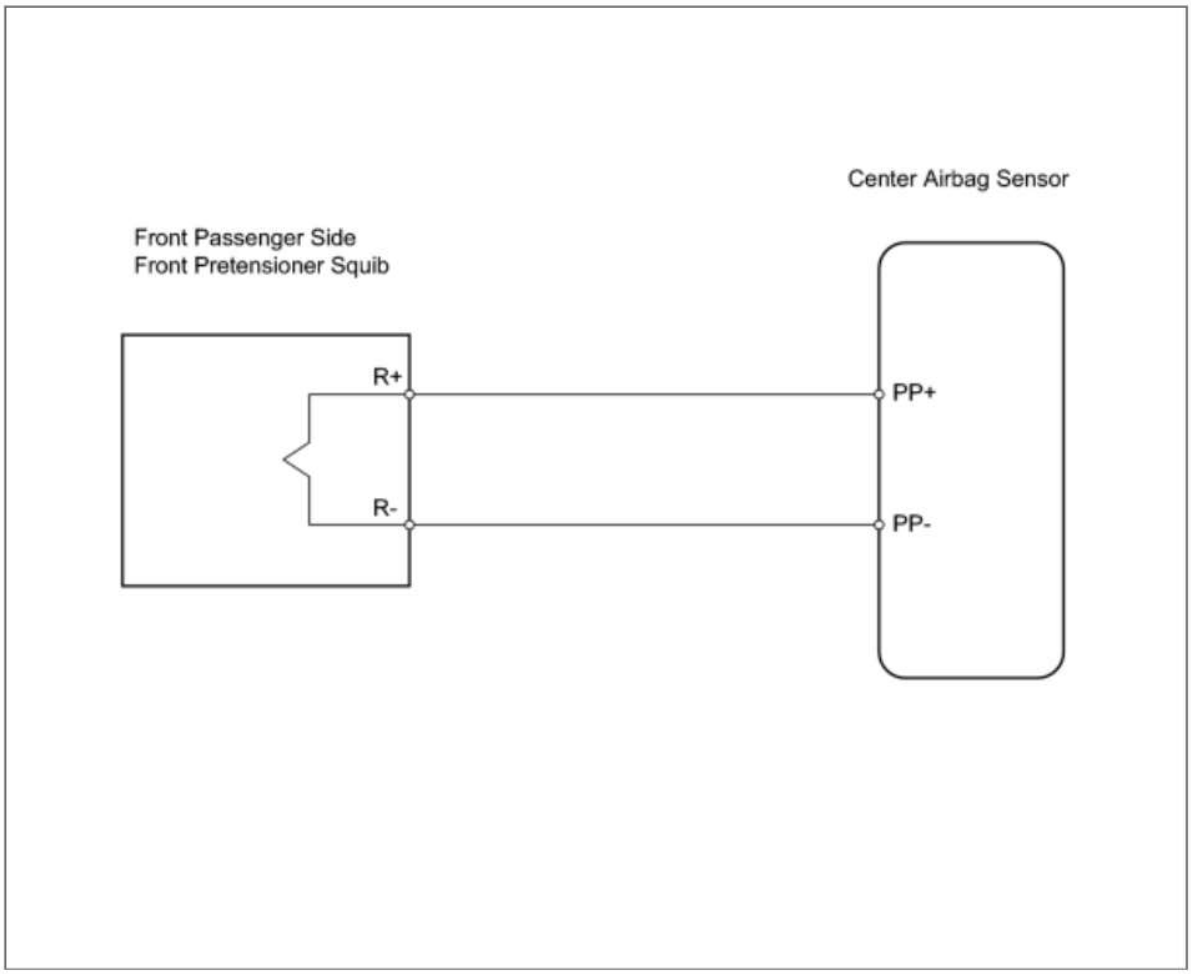
These DTCs are recorded when a malfunction is detected in the front passenger side front pretensioner squib circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1905/74	Center airbag sensor receives a line short signal 5 times from the front passenger side front pretensioner squib circuit during primary check.	• Floor wire No. 2 • Front seat outer belt RH (Front passenger side front pretensioner squib) • Center airbag sensor
B1906/74	Center airbag sensor receives an open signal from the front passenger side front pretensioner squib circuit for 2 seconds.	• Floor wire No. 2 • Front seat outer belt RH (Front passenger side front pretensioner squib) • Center airbag sensor
B1907/74	Center airbag sensor receives a short to ground signal from the front passenger side front pretensioner squib circuit for 0.5 seconds.	• Floor wire No. 2 • Front seat outer belt RH (Front passenger side front pretensioner squib) • Center airbag sensor
B1908/74	Center airbag sensor receives a short to B+ signal from the front passenger side front pretensioner squib circuit for 0.5 seconds.	• Floor wire No. 2 • Front seat outer belt RH (Front passenger side front pretensioner squib) • Center airbag sensor

WIRING DIAGRAM

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1905/74-B1908/74: Short in Front Passenger Side Pretensioner Squib Circuit (2009 ...



INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the Techstream INFO .
- After selecting the "CHECK MODE" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on various types of roads INFO .

PROCEDURE

1.	**CHECK FRONT SEAT OUTER BELT ASSEMBLY RH (FRONT PASSENGER SIDE FRONT PRETENSIONER SQUIB)**

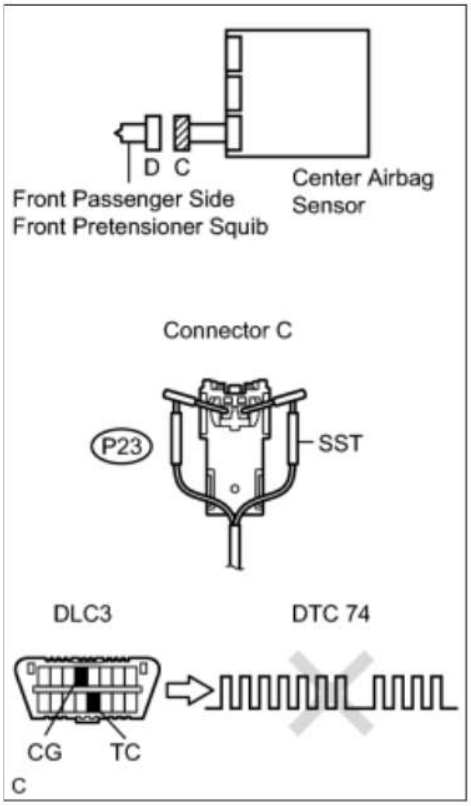
(a) Turn the power switch OFF.

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

(c) Disconnect the connectors from the front seat outer belt RH.

(d) Connect SST (resistance 2.1 Ω) to connector C.

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CAUTION:

Never connect SST to the front seat outer belt RH (front passenger side front pretensioner squib) for measurement, as this may lead to a serious injury due to airbag deployment.

NOTICE:

- Do not forcibly insert SST into the terminals of the connector when connecting.
- Insert SST straight into the terminals of the connector.

SST: 09843-18061

(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

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

(g) Clear the DTCs INFO .

(h) Turn the power switch OFF.

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

(j) Check the DTCs INFO .

OK:

DTC B1905, B1906, B1907, B1908 or 74 is not output.

HINT:

DTCs other than DTC B1905, B1906, B1907, B1908 or 74 may be output at this time, but they are not related to this check.

OK ▶ **REPLACE FRONT SEAT OUTER BELT ASSEMBLY RH**

NG ▼

2.	**CHECK CONNECTOR**

(a) Turn the power switch OFF.

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

(c) Disconnect the SST from connector C.

(d) Check that the floor wire No. 2 connector (on the front seat outer belt RH side) is not damaged.

OK:

Lock button is not disengaged, or the claw of the lock is not deformed or damaged.

NG ▶ **REPAIR OR REPLACE FLOOR WIRE NO. 2**

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OK

3.	**CHECK FLOOR WIRE NO. 2 (FRONT PASSENGER SIDE FRONT PRETENSIONER SQUIB CIRCUIT)**

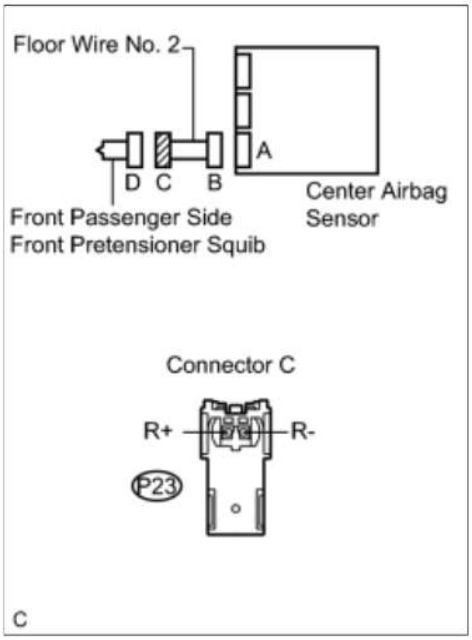
(a) Disconnect the connectors from the center airbag sensor.

(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(c) Measure the voltage of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
P23-1 (R+) - Body ground	Below 1 V
P23-2 (R-) - Body ground	Below 1 V



(d) Turn the power switch OFF.

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

(f) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
P23-1 (R+) - P23-2 (R-)	Below 1 Ω
P23-1 (R+) - Body ground	1 MΩ or higher
P23-2 (R-) - Body ground	1 MΩ or higher

(g) Release the activation prevention mechanism built into connector B INFO .

(h) Measure the resistance of the wire harness side connector.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
P23-1 (R+) - P23-2 (R-)	1 MΩ or higher

NG **REPAIR OR REPLACE FLOOR WIRE NO. 2**

REPLACE CENTER

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: B1905/74-B1908/74: Short in Front Passenger Side Pretensioner Squib Circuit (2009 ...

OK ▶ AIRBAG SENSOR ASSEMBLY

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: Source Voltage Drop (2009 Prius)

Source Voltage Drop

DESCRIPTION

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

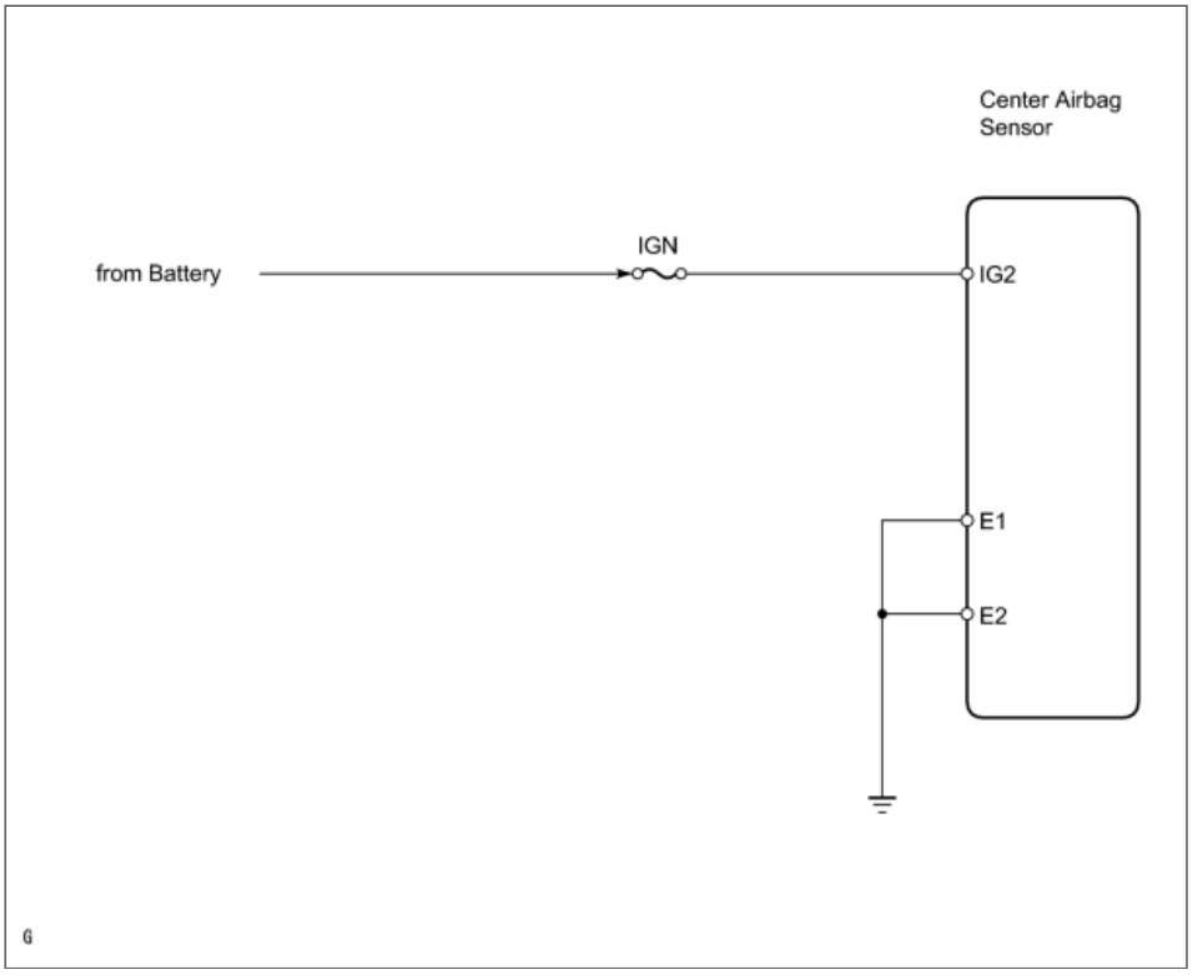
When the source voltage drops, the voltage-increase circuit (DC-DC converter) functions to increase the voltage of the SRS to a normal working level.

When a malfunction occurs in this circuit, no DTCs are output (a normal system code is output). If a source voltage drop occurs, the SRS warning light comes on.

A malfunction in this circuit is not recorded in the center airbag sensor.

The SRS warning light automatically goes off when the source voltage returns to normal.

WIRING DIAGRAM



INSPECTION PROCEDURE

PROCEDURE

1	CHECK WIRE HARNESS (CENTER AIRBAG SENSOR - BATTERY)

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1.	CHECK WIRE HARNESS (CENTER AIRBAG SENSOR - BATTERY)

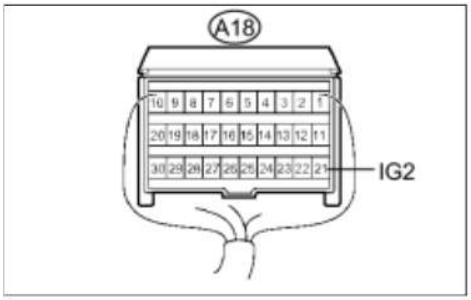
(a) Turn the power switch OFF.

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

(c) Disconnect the connectors from the center airbag sensor.

(d) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(e) Measure the voltage of the wire harness side connector.



Standard voltage:

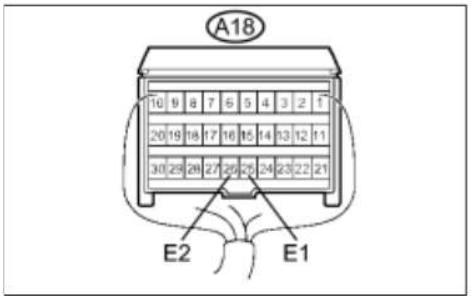
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A18-21 (IG2) - Body ground	Power switch ON (IG)	11 to 14 V

NG ▶ **REPAIR OR REPLACE HARNESS AND CONNECTOR, CHARGING SYSTEM AND BATTERY**

OK ▼

2.	CHECK WIRE HARNESS (CENTER AIRBAG SENSOR - BODY GROUND)

(a) Measure the resistance of the wire harness side connector.



Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A18-25 (E1) - Body ground	Below 1 Ω
A18-26 (E2) - Body ground	Below 1 Ω

NG ▶ **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK ▼

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: Source Voltage Drop (2009 Prius)

3.	**CHECK SRS WARNING LIGHT**

(a) Turn the power switch OFF.

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

(c) Connect the center airbag sensor connector.

(d) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

(e) Turn the power switch ON (IG), and wait for at least 6 seconds.

(f) Operate all components of the electrical system (defogger, wiper, headlight, heater, blower, etc.) and check that the SRS warning light does not come on.

OK:

SRS warning light does not come on.

NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **END**

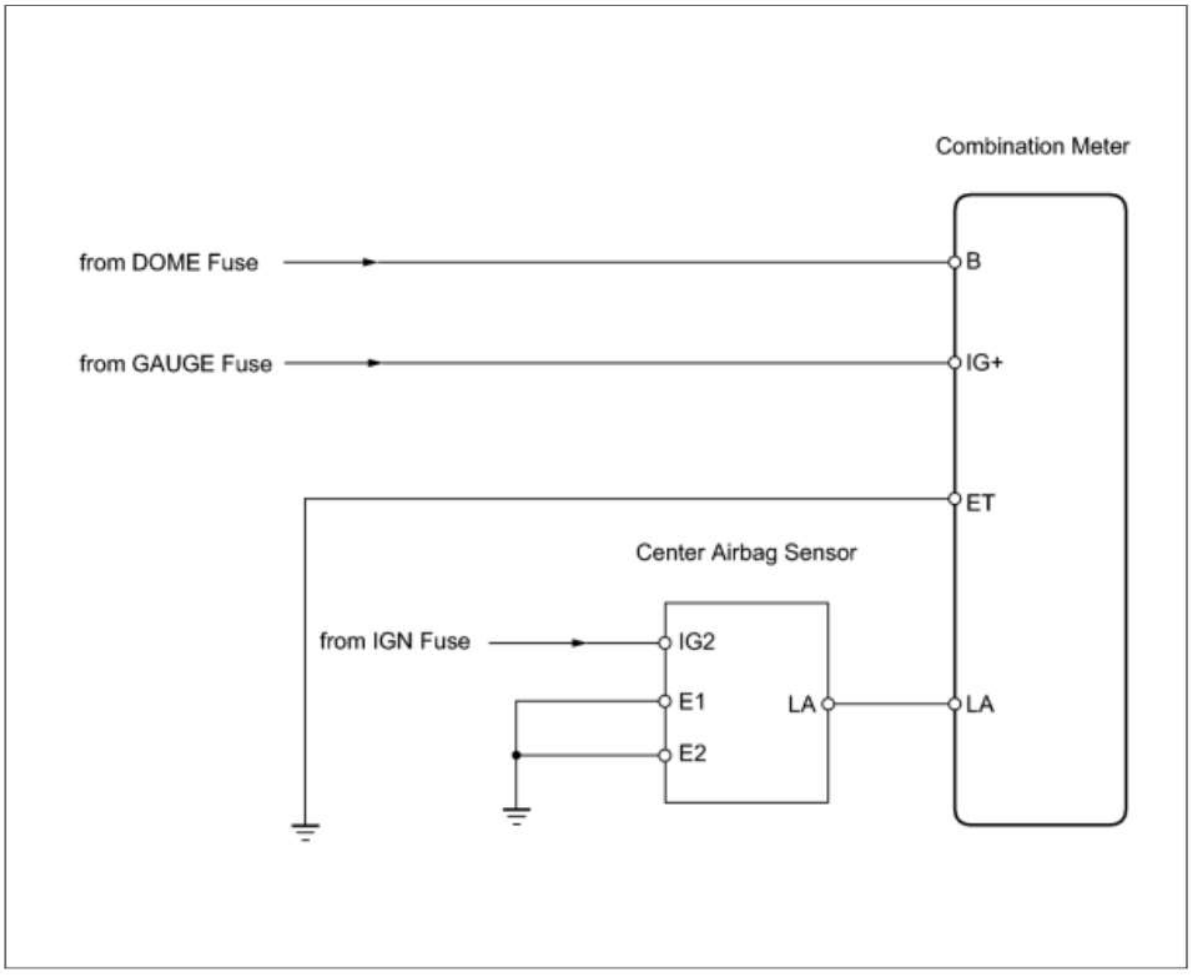
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SRS Warning Light Remains ON

DESCRIPTION

The SRS warning light is located on the combination meter. When the power switch is turned from OFF to ON (IG), the SRS warning light illuminates. If the SRS is normal, the SRS warning light turns off automatically after approximately 6 seconds. If there is a malfunction in the SRS, the SRS warning light remains illuminated even after approximately 6 seconds have passed. When terminals TC and CG of the DLC3 are connected, the DTCs are communicated through SRS warning light blinking patterns.

WIRING DIAGRAM



INSPECTION PROCEDURE

PROCEDURE

1.	**INSPECT BATTERY**

(a) Measure the voltage of the battery.

Standard voltage:

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11 to 14 V

NG ▶ **RECHARGE OR REPLACE BATTERY**

OK ▼

2.	CHECK CONNECTION OF CONNECTOR

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

(b) Check that the connector is properly connected to the center airbag sensor.

OK:
Connector is connected.

NG ▶ **CONNECT CONNECTOR**

OK ▼

3.	PREPARE FOR INSPECTION

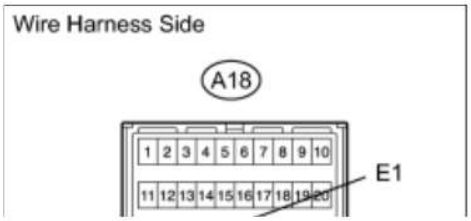
CAUTION:
Be sure to perform the following procedures before troubleshooting to avoid unexpected airbag deployment.

(a) Disconnect the connector from the center airbag sensor.

(b) Disconnect the connector from the steering pad connector.

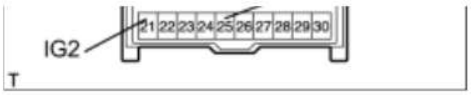
NEXT ▼

4.	CHECK CENTER AIRBAG SENSOR ASSEMBLY



(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.

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(b) Turn the power switch ON (IG).

(c) Measure the voltage and resistance of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
A18-21 (IG2) - Body ground	8 to 14 V

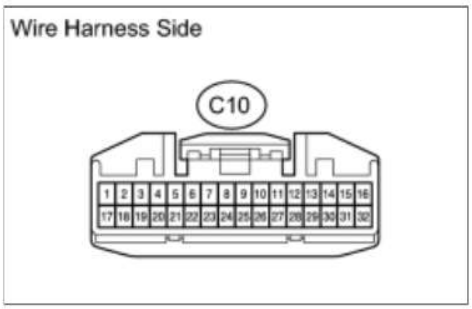
Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A18-25 (E1) - Body ground	Below 1 Ω

NG ▶ **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK ▼

5.	CHECK COMBINATION METER ASSEMBLY (POWER SOURCE)



(a) Disconnect the C10 meter connector.

(b) Turn the power switch ON (IG).

(c) Measure the voltage of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
C10-21 - Body ground	8 to 14 V

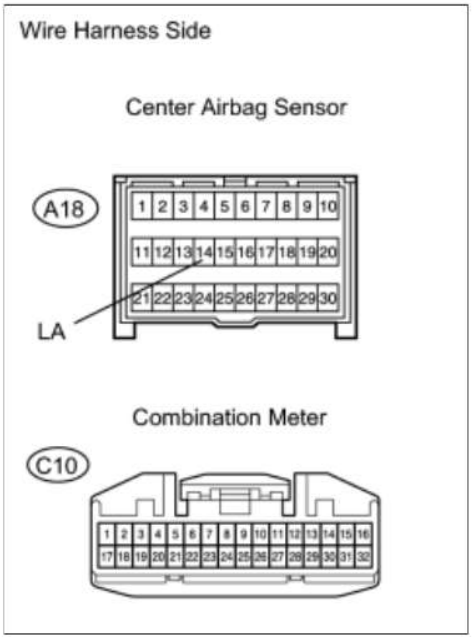
NG ▶ **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: SRS Warning Light Remains ON (2009 Prius)

6.	CHECK WIRE HARNESS (CENTER AIRBAG SENSOR - COMBINATION METER)



(a) Disconnect the A18 sensor connector.

(b) Disconnect the C10 meter connector.

(c) Measure the resistance of the wire harness side connectors.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
A18-14 (LA) - C10-11	Below 1 Ω

NG ▶ **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK

7.	CHECK SRS WARNING LIGHT (OPERATION)

(a) Disconnect the A18 ECU connector with the C10 meter connector connected.

(b) Turn the power switch ON (IG).

(c) Check that the warning light illuminates for 6 seconds after turning the power switch ON (IG).

OK:

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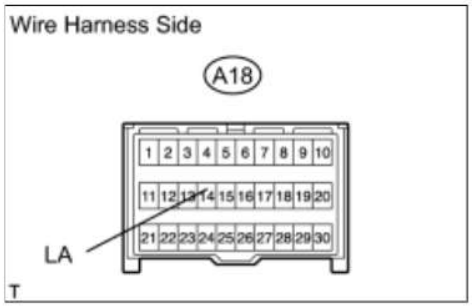
SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: SRS Warning Light Remains ON (2009 Prius)

Warning light illuminates for 6 seconds after turning power switch ON (IG).

NG ▶ **REPLACE COMBINATION METER ASSEMBLY**

OK ▼

8.	**CHECK CENTER AIRBAG SENSOR ASSEMBLY**



(a) Disconnect the A18 sensor connector.

(b) Turn the power switch ON (IG).

(c) Measure the voltage of the wire harness side connector.

Standard voltage:

TESTER CONNECTION	SPECIFIED CONDITION
A18-14 (LA) - Body ground	8 to 14 V

NG ▶ **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK ▼

9.	**REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

(a) Replace the center airbag sensor.

(b) Check that the SRS warning light illuminates normally.

OK:

SRS warning light illuminates normally.

NG ▶ **REPLACE COMBINATION METER ASSEMBLY**

OK ▶ **END**

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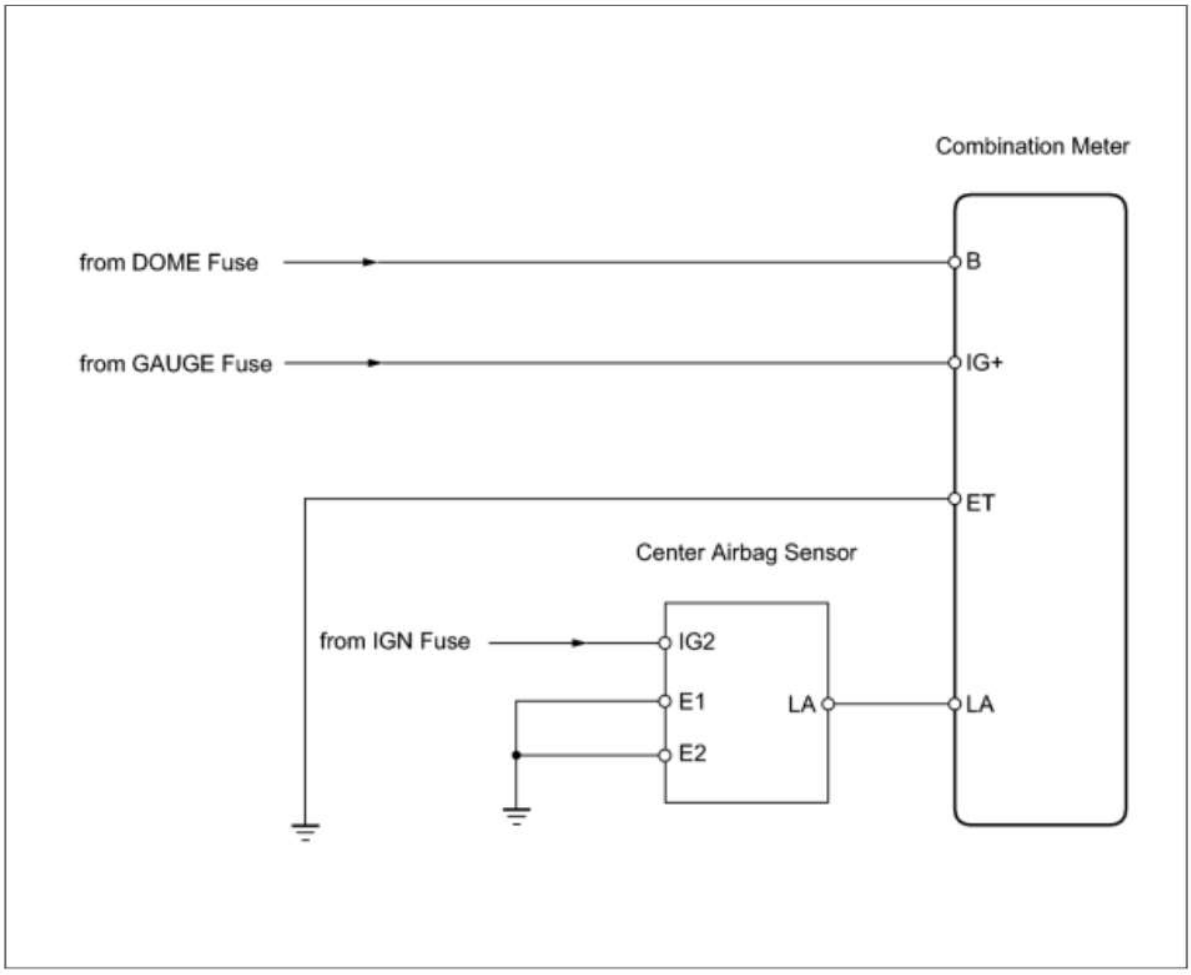
SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: SRS Warning Light does not Come ON (2009 Prius)

SRS Warning Light does not Come ON

DESCRIPTION

The SRS warning light is located on the combination meter. When the power switch is turned from OFF to ON (IG), the SRS warning light illuminates. If the SRS is normal, the SRS warning light turns off automatically after approximately 6 seconds. If there is a malfunction in the SRS, the SRS warning light remains illuminated even after approximately 6 seconds have passed. When terminals TC and CG of the DLC3 are connected, the DTCs are communicated through SRS warning light blinking patterns.

WIRING DIAGRAM



INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK CONNECTION OF CONNECTORS**

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

(b) Check that the connectors are properly connected to the center airbag sensor and combination meter.

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OK:
Connectors are connected.

NG ▶ **CONNECT CONNECTORS**

OK ▼

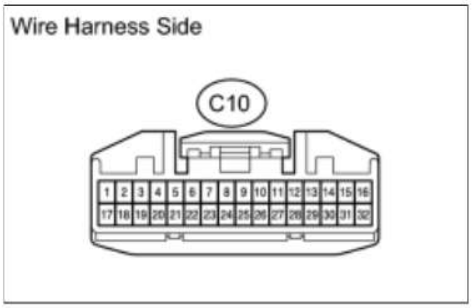
2.	CHECK COMBINATION METER ASSEMBLY

(a) Disconnect the C10 meter connector.

(b) Turn the power switch ON (IG).

(c) Measure the voltage of the wire harness side connector.

Standard voltage:



TESTER CONNECTION	SPECIFIED CONDITION
C10-21 - Body ground	8 to 14 V

NG ▶ **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK ▼

3.	CHECK SRS WARNING LIGHT (OPERATION)

(a) Disconnect the A18 sensor connector with the C10 meter connector connected.

(b) Turn the power switch ON (IG).

(c) Check that the warning light illuminates for 6 seconds after turning the power switch ON (IG).

OK:
Warning light illuminates for 6 seconds after turning power switch ON (IG).

NG ▶ **REPLACE COMBINATION METER ASSEMBLY**

OK ▼

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: SRS Warning Light does not Come ON (2009 Prius)

4.	**REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

(a) Replace the center airbag sensor.

(b) Check that the SRS warning light illuminates normally.

OK:

SRS warning light illuminates normally.

NG ▶ **REPLACE COMBINATION METER ASSEMBLY**

OK ▶ **END**

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SUPPLEMENTAL RESTRAINT SYSTEM: AIRBAG SYSTEM: TC and CG Terminal Circuit (2009 Prius)

TC and CG Terminal Circuit

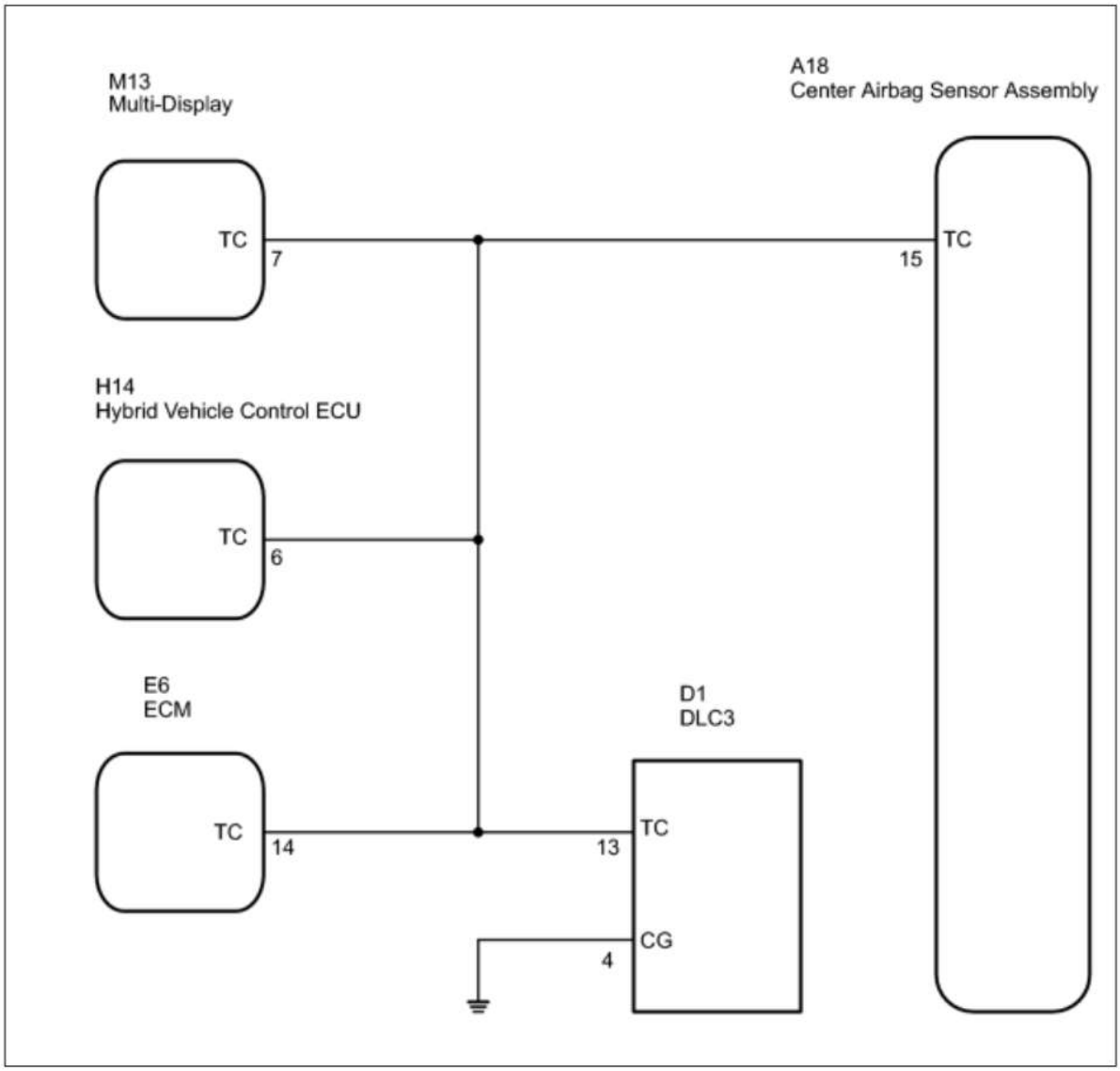
DESCRIPTION

DTC output mode is set by connecting terminals TC and CG of the DLC3. The DTCs are communicated through SRS warning light blinking patterns.

HINT:

When one or more of the warning lights blinks continuously, the cause may be a ground short in the wiring of terminal TC of the DLC3 or an internal ground short in each ECU.

WIRING DIAGRAM



INSPECTION PROCEDURE

CAUTION:

Be sure to perform the following procedures before troubleshooting to avoid unexpected airbag deployment.

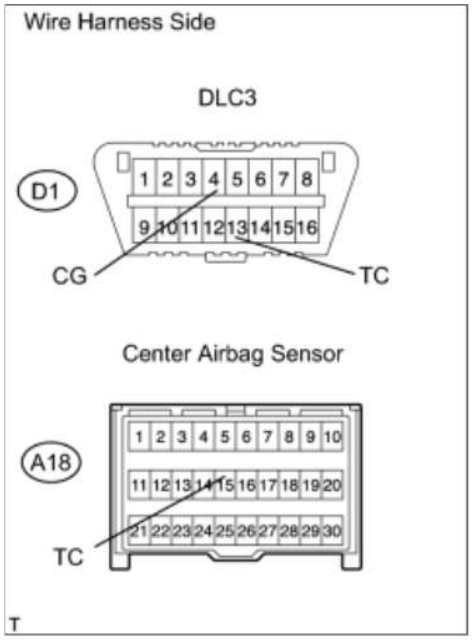
1. Turn the power switch OFF.

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

PROCEDURE

1.	**CHECK WIRE HARNESS (DLC3 - CENTER AIRBAG SENSOR AND BODY GROUND)**



(a) Disconnect the A18 sensor connector.

(b) Measure the resistance of the wire harness side connectors.

Standard resistance:

TESTER CONNECTION	SPECIFIED CONDITION
D1-13 (TC) - A18-15 (TC)	Below 1 Ω
D1-4 (CG) - Body ground	Below 1 Ω
A18-15 (TC) - Body ground	1 MΩ or higher

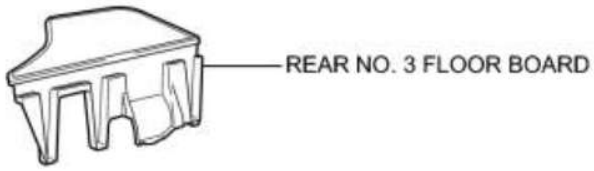
NG ▶ **REPAIR OR REPLACE HARNESS AND CONNECTOR**

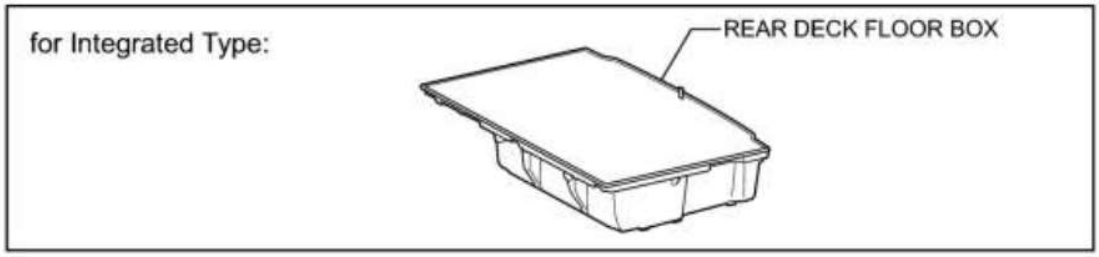
OK ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

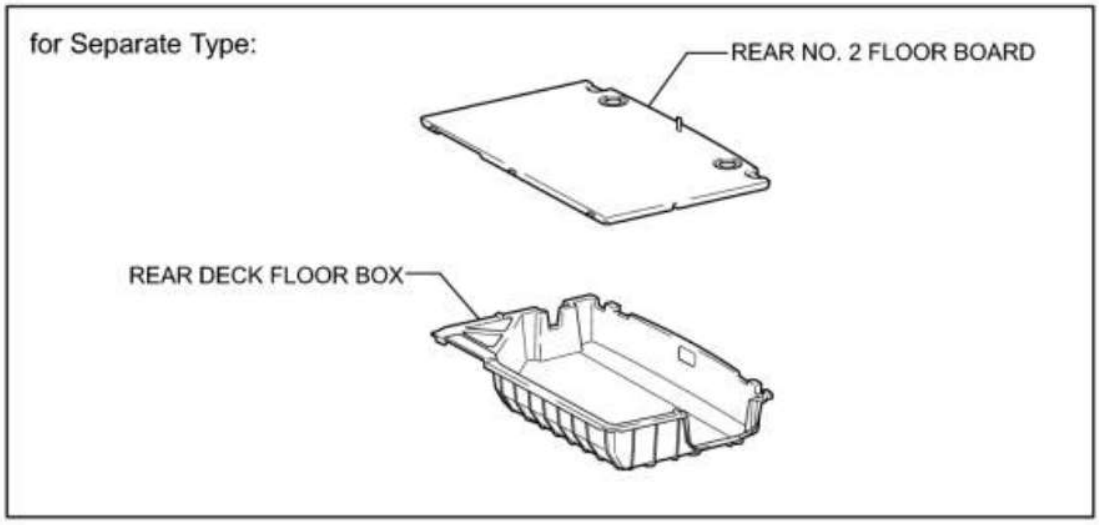
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COMPONENTS

ILLUSTRATION



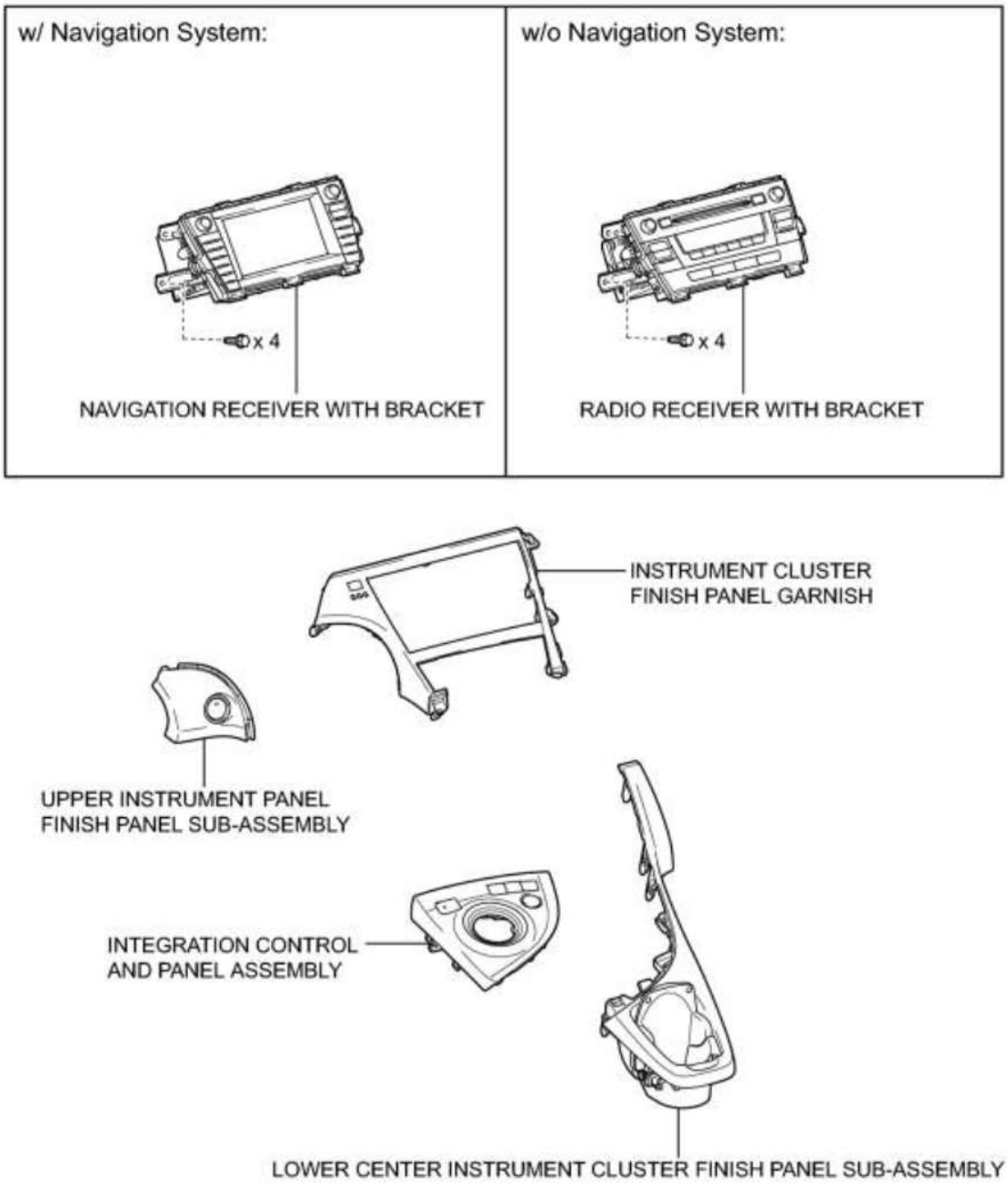




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ILLUSTRATION

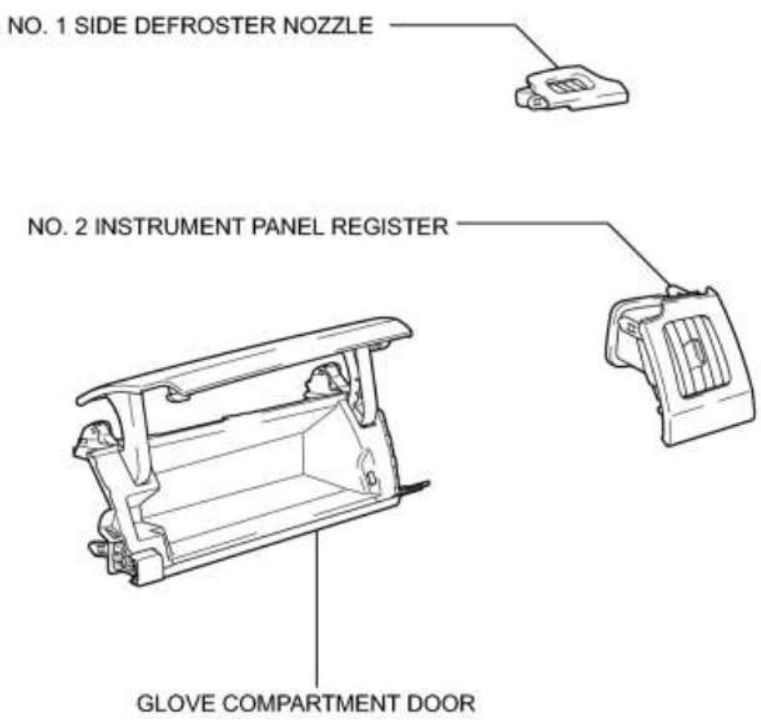
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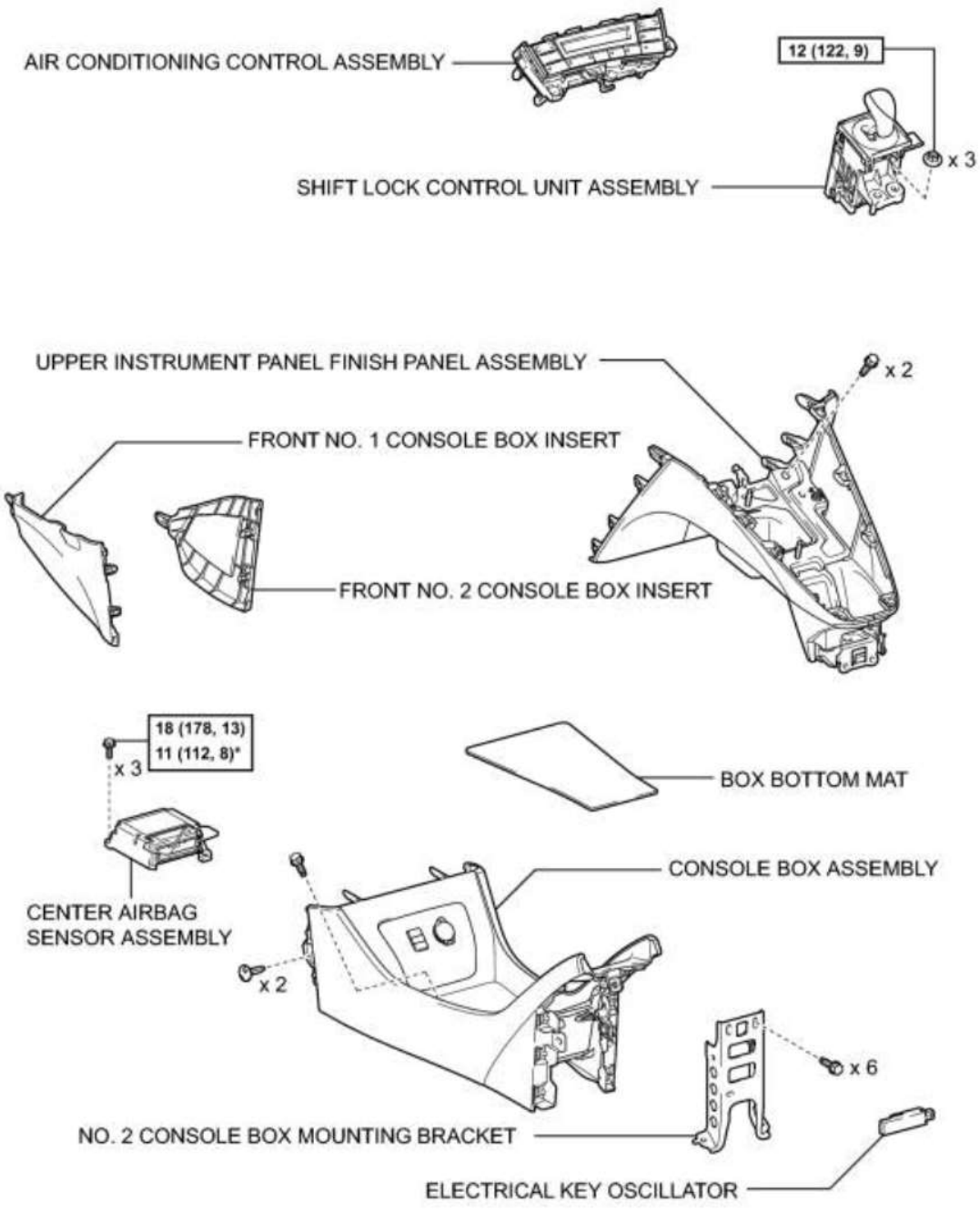
ILLUSTRATION

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ILLUSTRATION

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N*m (kgf*cm, ft.*lbf) : Specified torque

* For use with SST

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ON-VEHICLE INSPECTION

CAUTION:

Be sure to follow the correct removal and installation procedures of the center airbag sensor assembly.

1. INSPECT CENTER AIRBAG SENSOR ASSEMBLY (for Vehicle not Involved in Collision)

(a) Perform a diagnostic system check INFO.

2. INSPECT CENTER AIRBAG SENSOR ASSEMBLY (for Vehicle Involved in Collision and Airbag not Deployed)

(a) Perform a diagnostic system check INFO.

(b) Visually check for defects with the center airbag sensor assembly installed on the vehicle.

(1) The defects are as follows:

- Cracks on the sensor housing
- Dents on the sensor housing
- Chips on the sensor housing
- Cracks or other damage to the connector
- Peeling of the label

OK:

No defects are found.

HINT:

If any of the defects is found, replace the center airbag sensor assembly with a new one.

3. INSPECT CENTER AIRBAG SENSOR ASSEMBLY (for Vehicle Involved in Collision and Airbag is Deployed)

(a) Replace the center airbag sensor assembly.

HINT:

The center airbag sensor assembly should be replaced after any of the airbags has deployed, as it has been subjected to an impact.

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REMOVAL

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO.

2. REMOVE REAR NO. 2 FLOOR BOARD (for Separate Type) INFO

3. REMOVE REAR DECK FLOOR BOX INFO

4. REMOVE REAR NO. 3 FLOOR BOARD INFO

5. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

6. REMOVE REAR CONSOLE BOX ASSEMBLY

HINT:

Refer to the procedure up to Remove Rear Console Box Assembly INFO.

7. REMOVE INTEGRATION CONTROL AND PANEL ASSEMBLY INFO

8. REMOVE LOWER CENTER INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY INFO

9. REMOVE INSTRUMENT CLUSTER FINISH PANEL GARNISH INFO

10. REMOVE UPPER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY INFO

11. REMOVE RADIO RECEIVER WITH BRACKET (w/o Navigation System) INFO

12. REMOVE NAVIGATION RECEIVER WITH BRACKET (w/ Navigation System) INFO

13. REMOVE NO. 1 SIDE DEFROSTER NOZZLE INFO

14. REMOVE NO. 2 INSTRUMENT PANEL REGISTER INFO

15. REMOVE GLOVE COMPARTMENT DOOR INFO

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16. REMOVE AIR CONDITIONING CONTROL ASSEMBLY INFO

17. REMOVE SHIFT LOCK CONTROL UNIT ASSEMBLY INFO

18. REMOVE ELECTRICAL KEY OSCILLATOR INFO

19. REMOVE NO. 2 CONSOLE BOX MOUNTING BRACKET INFO

20. REMOVE FRONT NO. 1 CONSOLE BOX INSERT INFO

21. REMOVE FRONT NO. 2 CONSOLE BOX INSERT INFO

22. REMOVE BOX BOTTOM MAT INFO

23. SEPARATE CONSOLE BOX ASSEMBLY INFO

24. REMOVE UPPER INSTRUMENT PANEL FINISH PANEL ASSEMBLY INFO

25. REMOVE CONSOLE BOX ASSEMBLY INFO

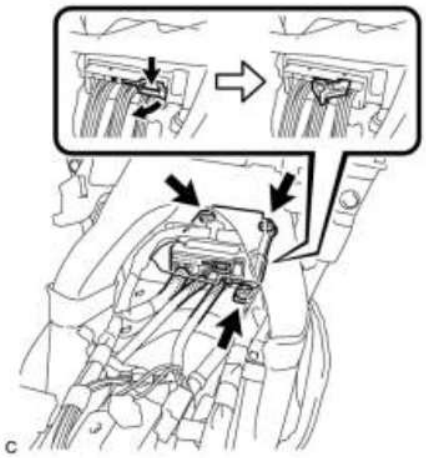
26. REMOVE CENTER AIRBAG SENSOR ASSEMBLY

(a) Check that the power switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.



(c) Disconnect the connectors from the center airbag sensor assembly as shown in the illustration.

NOTICE:

When disconnecting any airbag connector, take care not to damage the airbag wire harness.

(d) Remove the 3 bolts and center airbag sensor assembly.

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INSTALLATION

1. INSTALL CENTER AIRBAG SENSOR ASSEMBLY

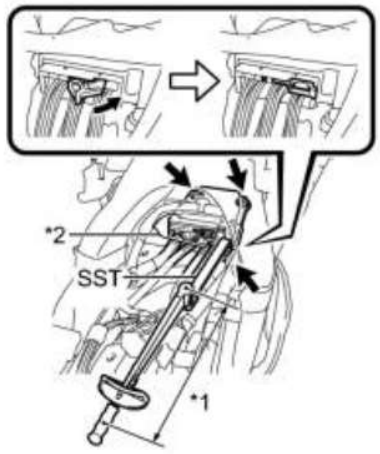
(a) Check that the power switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(c) Using SST and a torque wrench, install the center airbag sensor assembly with the 3 bolts.



c

Text in Illustration

*1	Fulcrum Length
*2	Waterproof Sheet

SST: 09961-00950

without SST - Torque: **18 N·m (178 kgf·cm, 13ft·lbf)**

with SST - Torque: **11 N·m (112 kgf·cm, 8ft·lbf)**

- Use a torque wrench with a fulcrum length of 250 mm (9.84 in.).
- This torque value is effective when SST is parallel to a torque wrench.
- If the center airbag sensor assembly has been dropped, or there are any cracks, dents or other defects in the case or connector, replace it with a new one.
- When installing the center airbag sensor assembly, be careful that the SRS wiring does not interfere with or is not pinched between other parts.
- When the power switch is first turned on (IG) after the center airbag sensor assembly has been replaced, make sure that no one is in the vehicle.

(d) Connect the connectors to the center airbag sensor assembly as shown in the illustration.

NOTICE:

When connecting any airbag connector, take care not to damage the airbag wire harness.

(e) Check that the waterproof sheet is properly set.

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(f) Check that there is no looseness in the installation parts of the center airbag sensor assembly.

2. INSTALL UPPER INSTRUMENT PANEL FINISH PANEL ASSEMBLY INFO

3. INSTALL CONSOLE BOX ASSEMBLY INFO

4. INSTALL BOX BOTTOM MAT INFO

5. INSTALL FRONT NO. 2 CONSOLE BOX INSERT INFO

6. INSTALL FRONT NO. 1 CONSOLE BOX INSERT INFO

7. INSTALL NO. 2 CONSOLE BOX MOUNTING BRACKET INFO

8. INSTALL ELECTRICAL KEY OSCILLATOR INFO

9. INSTALL SHIFT LOCK CONTROL UNIT ASSEMBLY INFO

10. INSTALL AIR CONDITIONING CONTROL ASSEMBLY INFO

11. INSTALL GLOVE COMPARTMENT DOOR INFO

12. INSTALL NO. 2 INSTRUMENT PANEL REGISTER INFO

13. INSTALL NO. 1 SIDE DEFROSTER NOZZLE INFO

14. INSTALL RADIO RECEIVER WITH BRACKET (w/o Navigation System) INFO

15. INSTALL NAVIGATION RECEIVER WITH BRACKET (w/ Navigation System) INFO

16. INSTALL UPPER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY INFO

17. INSTALL INSTRUMENT CLUSTER FINISH PANEL GARNISH INFO

18. INSTALL LOWER CENTER INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY INFO

19. INSTALL INTEGRATION CONTROL AND PANEL ASSEMBLY INFO

20. INSTALL REAR CONSOLE BOX ASSEMBLY

HINT:

Refer to the procedure from Install Rear Console Box Assembly INFO.

21. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

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22. INSTALL REAR NO. 3 FLOOR BOARD INFO

23. INSTALL REAR DECK FLOOR BOX INFO

24. INSTALL REAR NO. 2 FLOOR BOARD (for Separate Type) INFO

25. PERFORM DIAGNOSTIC SYSTEM CHECK

(a) Perform a diagnostic system check INFO.

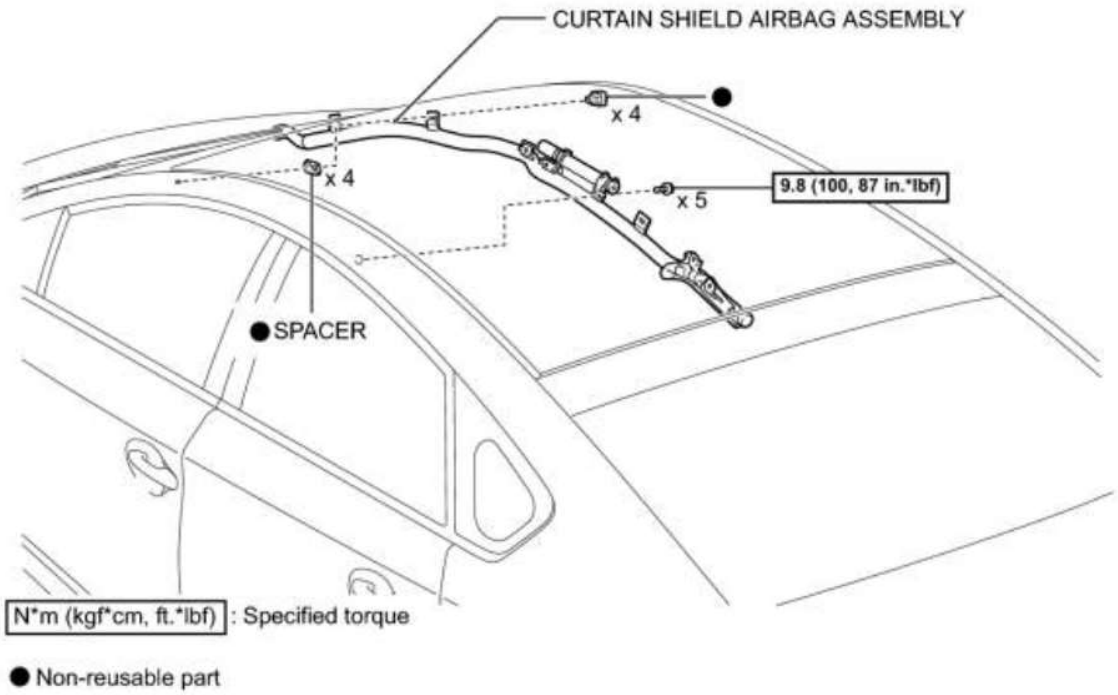
26. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light INFO.

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COMPONENTS

ILLUSTRATION



c

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ON-VEHICLE INSPECTION

CAUTION:

Be sure to follow the correct removal and installation procedures of the curtain shield airbag assemblies.

1. INSPECT CURTAIN SHIELD AIRBAG ASSEMBLY (for Vehicle not Involved in Collision)

(a) Perform a diagnostic system check INFO.

(b) Visually check for defects with the curtain shield airbag assemblies installed on the vehicle.

(1) The defects are as follows:

- Cuts on each pillar garnish or the roof headlining assembly around the curtain shield airbag assemblies
- Small cracks on each pillar garnish or the roof headlining assembly around the curtain shield airbag assemblies
- Significant discoloration on each pillar garnish or the roof headlining assembly around the curtain shield airbag assemblies

OK:

No defects are found.

HINT:

If any of the defects is found, replace each pillar garnish or the roof headlining assembly with a new one.

2. INSPECT CURTAIN SHIELD AIRBAG ASSEMBLY (for Vehicle Involved in Collision and Airbag not Deployed)

(a) Perform a diagnostic system check INFO.

(b) Visually check for defects with the curtain shield airbag assemblies removed from the vehicle.

(1) The defects are as follows:

- Cuts on the curtain shield airbag assemblies
- Small cracks on the curtain shield airbag assemblies
- Significant discoloration on the curtain shield airbag assemblies
- Cracks or other damage to the connector

OK:

No defects are found.

HINT:

If any of the defects is found, replace the curtain shield airbag assembly with a new one.

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REMOVAL

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO.

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

3. REMOVE ROOF HEADLINING ASSEMBLY

HINT:

Refer to the procedure up to Remove Roof Headlining Assembly INFO.

4. REMOVE CURTAIN SHIELD AIRBAG ASSEMBLY

CAUTION:

When storing the curtain shield airbag assembly, keep the airbag deployment side facing upward.

(a) Check that the power switch is off.

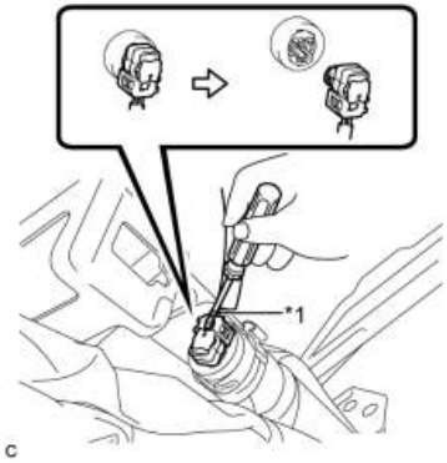
(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(c) Using a screwdriver with the tip wrapped with protective tape, release the airbag connector lock and disconnect the curtain shield airbag connector.

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c

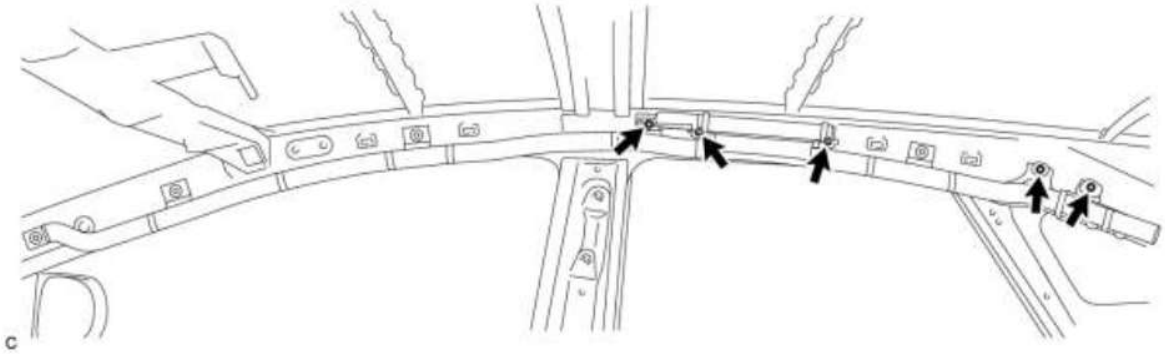
Text in Illustration

*1	Protective Tape

NOTICE:

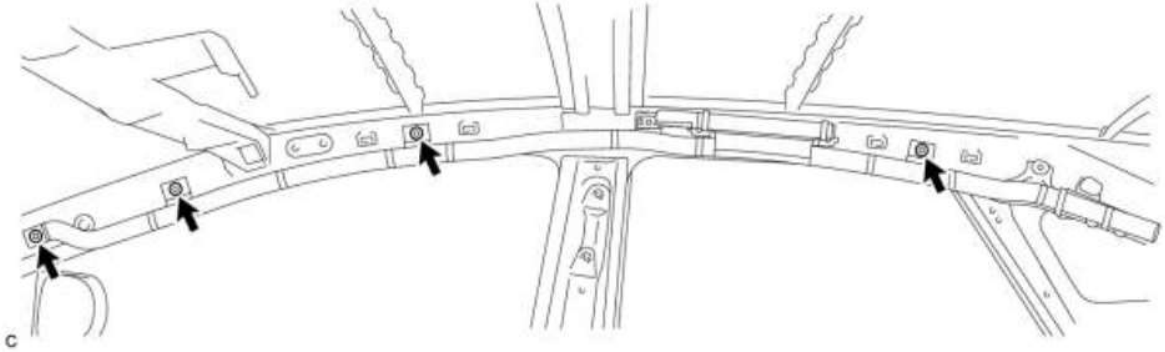
When disconnecting any airbag connector, take care not to damage the airbag wire harness.

(d) Remove the 5 bolts.



c

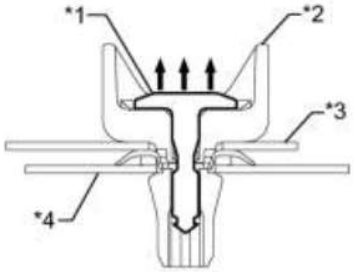
(e) Remove the 4 clips.



c

(1) Using a clip remover, remove the 4 pins.

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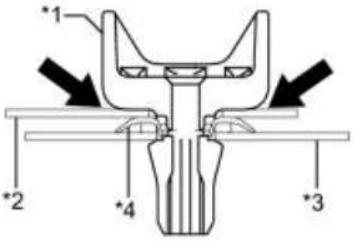


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Text in Illustration

*1	Pin
*2	Clip
*3	Airbag
*4	Body

(2) Using a screwdriver with the tip wrapped with protective tape, separate the 4 clips and curtain shield airbag assembly from the body as shown in the illustration.

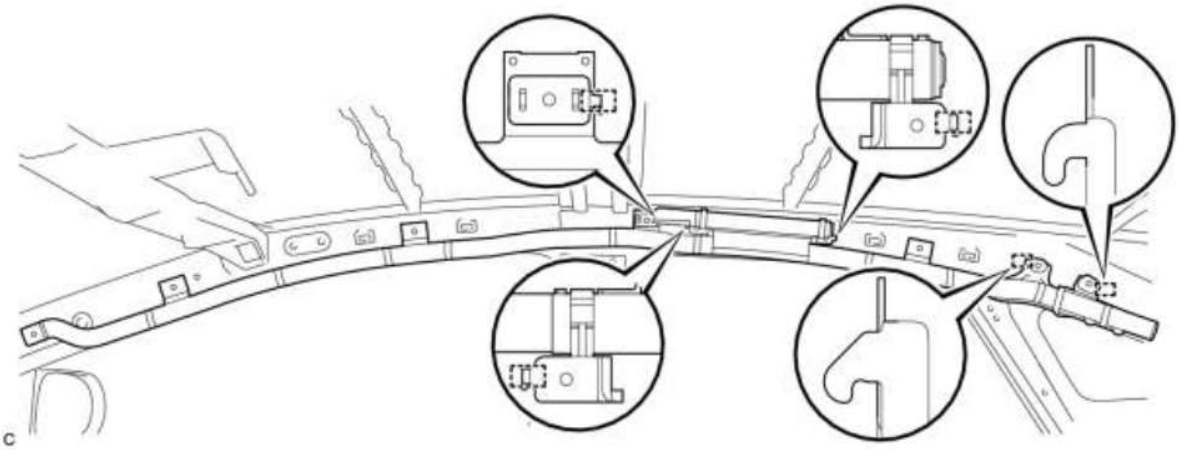


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Text in Illustration

*1	Clip
*2	Airbag
*3	Body
*4	Spacer

(f) Disengage the 5 hooks to remove the curtain shield airbag assembly.



C

(g) Remove the 4 clips and 4 spacers from the curtain shield airbag assembly.

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INSTALLATION

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. INSTALL CURTAIN SHIELD AIRBAG ASSEMBLY

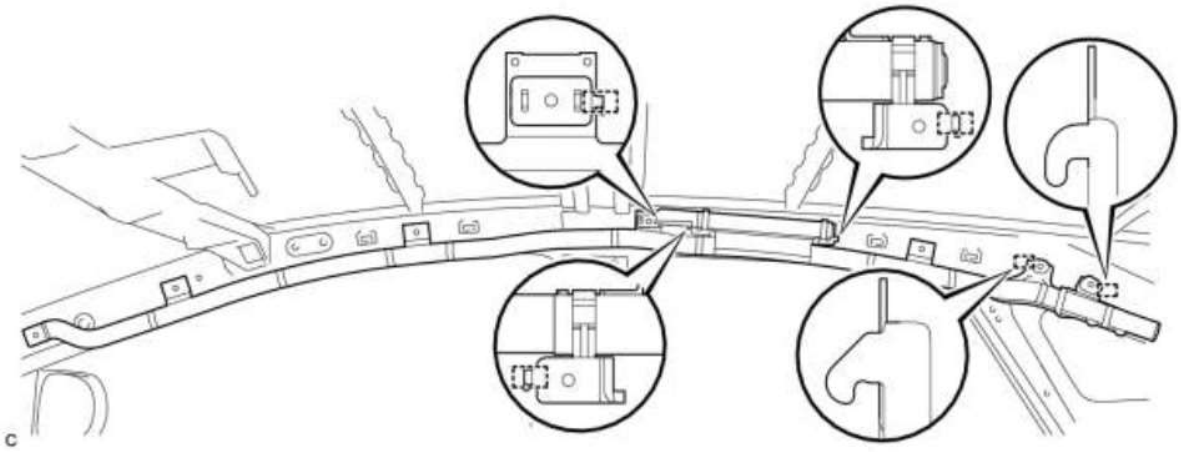
(a) Check that the power switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(c) Temporarily install the curtain shield airbag assembly with the 5 hooks.

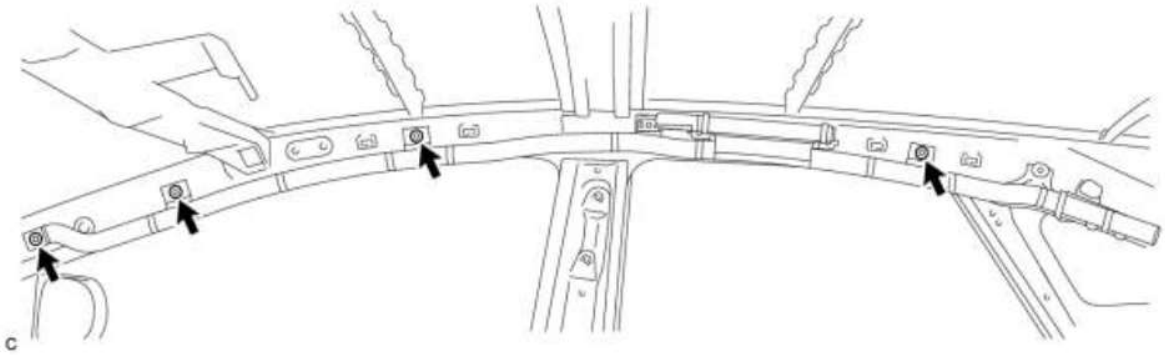


NOTICE:

Do not twist the curtain shield airbag assembly when installing it.

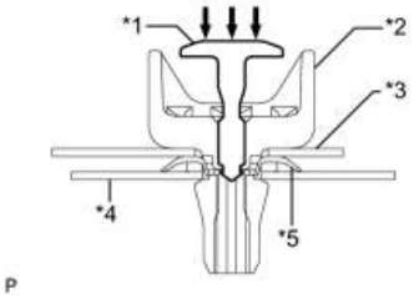
(d) Install the curtain shield airbag assembly to the body panel with 4 new clips and 4 new spacers.

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(1) Install 4 new pins as shown in the illustration.

Text in Illustration

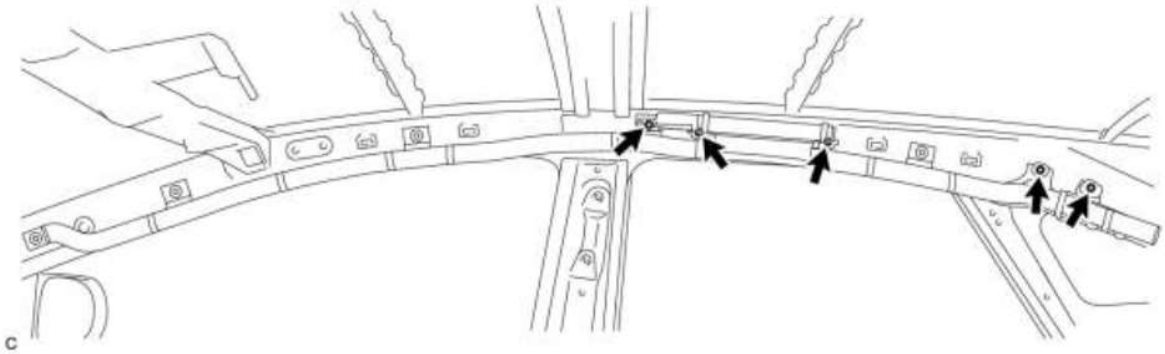


*1	Pin
*2	Clip
*3	Airbag
*4	Body
*5	Spacer

NOTICE:

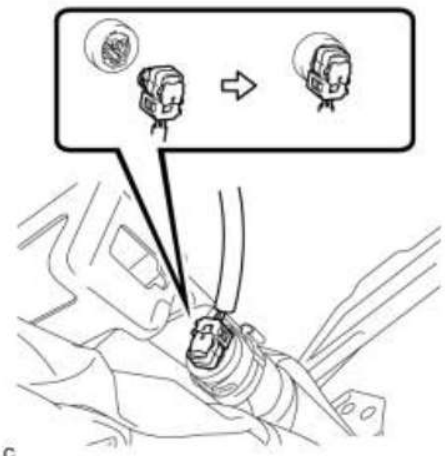
Make sure that the pins of the clips are pushed in firmly.

(e) Install the 5 bolts.



Torque: **9.8 N·m (100 kgf·cm, 87in·lbf)**

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C

(f) Connect the curtain shield airbag connector.

NOTICE:

When connecting any airbag connector, take care not to damage the airbag wire harness.

(g) Push in the lock to install the airbag connector.

2. INSTALL ROOF HEADLINING ASSEMBLY

HINT:

Refer to the procedure from Install Roof Headlining Assembly INFO.

3. PERFORM DIAGNOSTIC SYSTEM CHECK

(a) Perform a diagnostic system check INFO.

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DISPOSAL

CAUTION:

Before performing pre-disposal deployment of any SRS part, review and closely follow all applicable environmental and hazardous material regulations. Pre-disposal deployment may be considered hazardous material treatment.

1. PRECAUTION

CAUTION:

- An airbag or pretensioner may be activated by static electricity. To prevent this, be sure to touch a metal surface with your bare hands to discharge static electricity before performing this procedure.
- Never dispose of a curtain shield airbag assembly with an undeployed airbag.
- The airbag produces an exploding sound when it is deployed, so perform the operation outdoors and where it will not create a nuisance to nearby residents.
- When deploying the airbag, always use the specified SST (SRS Airbag Deployment Tool). Perform the operation in a place away from electrical noise.
- When deploying the airbag, perform the operation at least 10 m (32.8 ft.) away from the curtain shield airbag assembly.
- The curtain shield airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a curtain shield airbag assembly with a deployed airbag.
- Do not apply water etc. to a curtain shield airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

HINT:

When scrapping a vehicle equipped with an SRS or disposing of the curtain shield airbag assembly, be sure to deploy the airbag first in accordance with the procedure described below. If any abnormality occurs with the airbag deployment, contact the Service Dept. of TOYOTA MOTOR SALES, U.S.A., INC.

2. DISPOSE OF CURTAIN SHIELD AIRBAG ASSEMBLY (When Installed in Vehicle)

NOTICE:

- When disposing of the curtain shield airbag assembly, never use the customer's vehicle to deploy the airbag.
- Be sure to observe the following procedure when deploying the airbag.

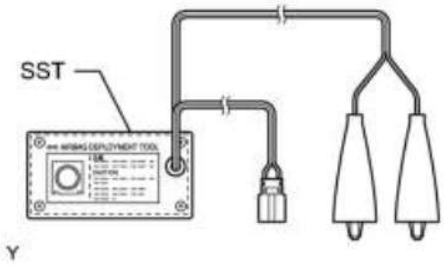
HINT:

Prepare a battery as the power source to deploy the airbag.

(a) Check the function of SST INFO.

SST: 09082-00700

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(b) Refer to Precaution INFO.

(c) Disconnect the cable from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(d) Remove the roof headlining assembly INFO.

(e) Install SST.

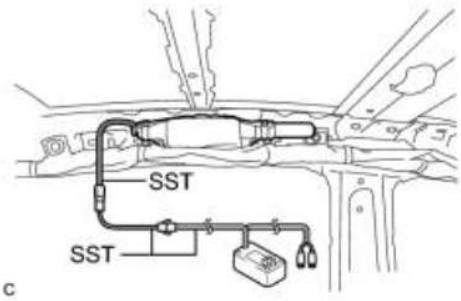
CAUTION:

Check that there is no looseness in the curtain shield airbag assembly.

(1) Disconnect the connector from the curtain shield airbag assembly.

NOTICE:

When disconnecting the airbag connector, take care not to damage the airbag wire harness.



(2) After connecting the following SST to each other, connect them to the curtain shield airbag assembly.

SST: 09082-00700

SST: 09082-00802

09082-10801

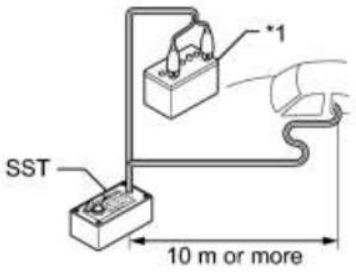
09082-20801

NOTICE:

To avoid damaging the SST connector or wire harness, do not lock the secondary lock of the twin lock.

(3) Move SST at least 10 m (32.8 ft.) away from the rear side window.

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Text in Illustration

*1	Battery

(4) Maintaining sufficient clearance for the SST wire harness in the rear side window, close all doors and windows of the vehicle.

NOTICE:

Take care not to damage the SST wire harness.

(5) Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

(f) Deploy the airbag.

(1) Check that no one is inside the vehicle or within a 10 m (32.8 ft.) radius of the vehicle.

(2) Press the SST activation switch and deploy the airbag.

CAUTION:

- Before deployment, make sure that no one is near the vehicle.
- The curtain shield airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a curtain shield airbag assembly with a deployed airbag.
- Do not apply water etc. to a curtain shield airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.

3. DISPOSE OF CURTAIN SHIELD AIRBAG ASSEMBLY (When Not Installed in Vehicle)

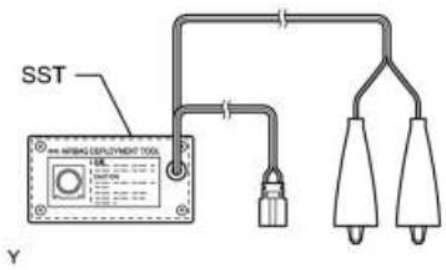
NOTICE:

Be sure to observe the following procedure when deploying the airbag.

HINT:

Prepare a battery as the power source to deploy the airbag.

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Y

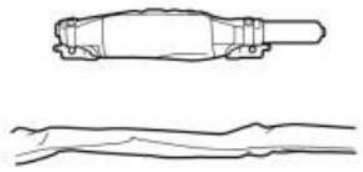
(a) Check the function of SST INFO.

SST: 09082-00700

(b) Remove the curtain shield airbag assembly INFO.

CAUTION:

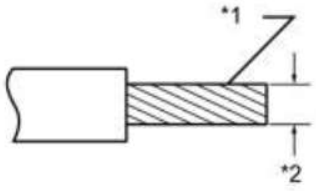
- Before removing the curtain shield airbag assembly, wait at least 90 seconds after turning the power switch off and disconnecting the cable from the negative (-) battery terminal.
- When storing the curtain shield airbag assembly, keep the airbag deployment side facing upward.



C

(c) Cut off the deployment section of the curtain shield airbag assembly.

(d) Using braided wire, tie down the curtain shield airbag assembly to an unneeded tire.



H

Text in Illustration

*1	Stripped Wire Section
*2	Wire Diameter

Wire:

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Stripped wire section

1.25 mm^2 (0.0019 $in.^2$) or more

CAUTION:

If the wire is too thin or an alternative object is used to tie down the curtain shield airbag assembly, it may snap when the airbag is deployed. Always use a wire for vehicle use with an area of at least 1.25 mm^2 (0.0019 $in.^2$).

HINT:

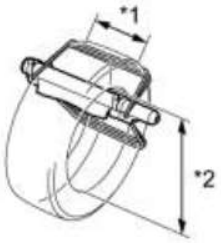
To calculate the area of the stripped wire section:

Area = 3.14 x $(Diameter)^2$ / 4

(1) Position the curtain shield airbag assembly inside the tire as shown in the illustration.

Text in Illustration

*1	Width
*2	Inner Diameter



c

Minimum tire size:

Must exceed the following dimensions

Width:

185 mm (7.28 in.)

Inner diameter:

360 mm (1.18 ft.)

CAUTION:

Make sure that the wires are tight. If there is slack in the wires, the curtain shield airbag assembly may break loose when the airbag is deployed.

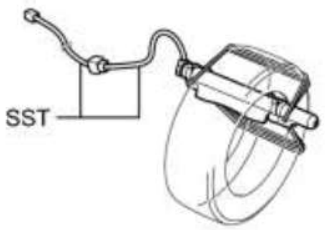
NOTICE:

The tire may be marked by the airbag deployment, so use an unneeded tire.

(e) Install SST.

(1) After connecting the following SST to each other, connect them to the

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c

curtain shield airbag assembly.

SST: 09082-00802

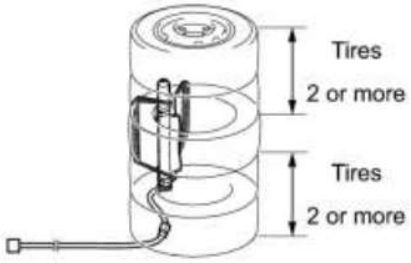
09082-10801

09082-20801

(f) Place the tires.

CAUTION:

Do not face the deployment side of the curtain shield airbag assembly toward the ground.



c

(1) Place at least 2 tires under the tire to which the curtain shield airbag assembly is tied.

(2) Place at least 2 tires onto the tire to which the curtain shield airbag assembly is tied. The top tire should have a wheel installed.

NOTICE:

Do not place the SST connector under the tire because it could be damaged.



H

(3) Tie the tires together with the 2 wires.

CAUTION:

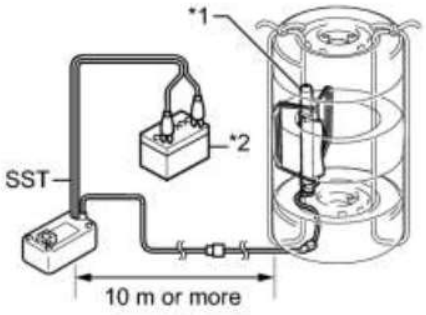
Make sure that the wires are tight. Looseness in the wires results in the tires breaking loose when the airbag is deployed.

(g) Install SST.

(1) Connect the SST connector.

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Text in Illustration



c

*1	Curtain Shield Airbag Assembly
*2	Battery

SST: 09082-00700

NOTICE:

To avoid damaging the SST connector or wire harness, do not lock the secondary lock of the twin lock. Also, secure some slack for the SST wire harness inside the tire.

(2) Move SST at least 10 m (32.8 ft.) away from the airbag tied down to the tire.

(h) Deploy the airbag.

(1) Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

(2) Check that no one is within a 10 m (32.8 ft.) radius of the tire to which the curtain shield airbag assembly is tied.

(3) Press the SST activation switch and deploy the airbag.

CAUTION:

Before deployment, make sure that no one is near the airbag.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.



c

(i) Dispose of the curtain shield airbag assembly.

- The curtain shield airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a curtain shield airbag assembly with a deployed airbag.
- Do not apply water etc. to a curtain shield airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

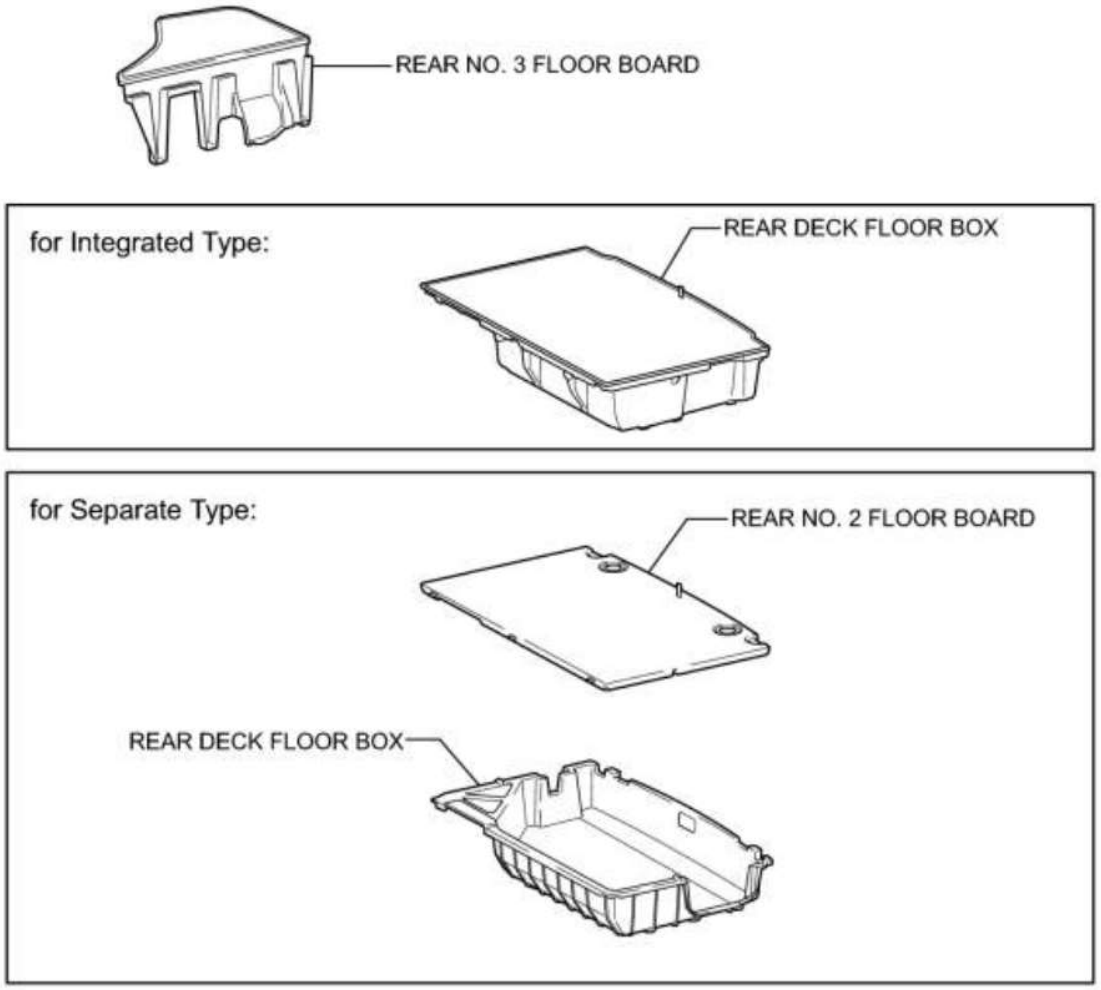
(1) Remove the curtain shield airbag assembly from the tire.

(2) Place the curtain shield airbag assembly in a plastic bag, tie it tightly, and dispose of it according to local regulations.

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COMPONENTS

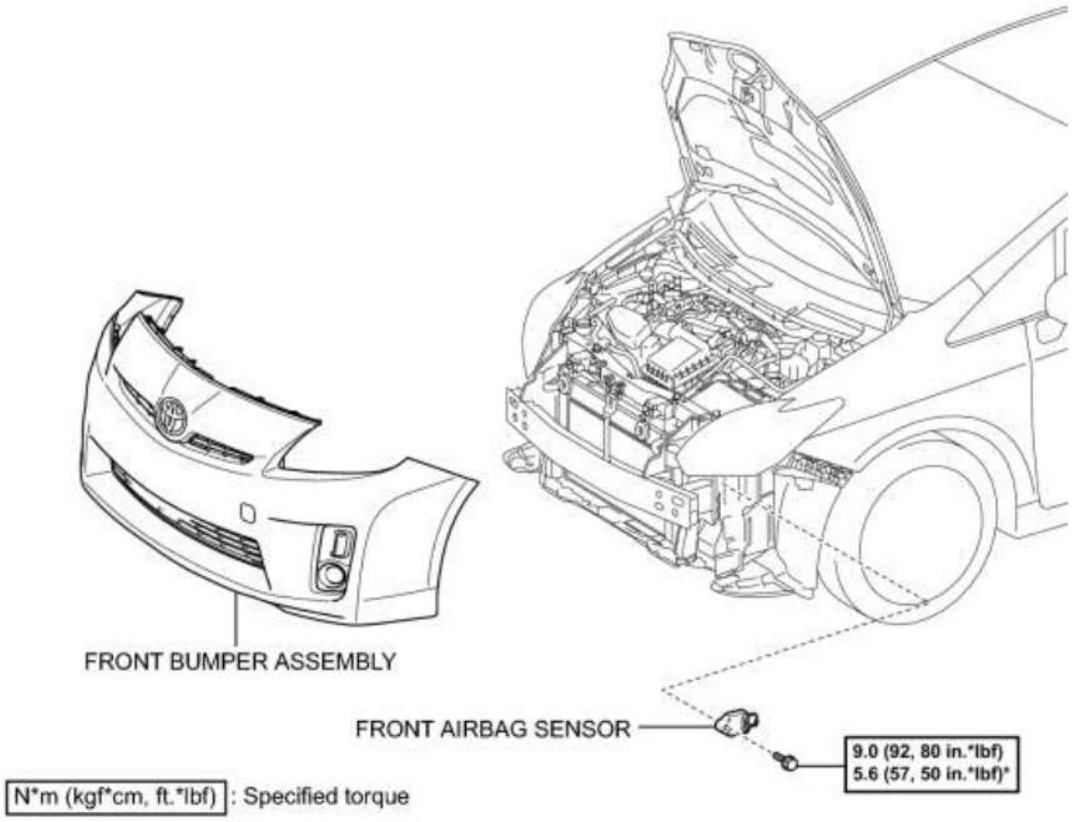
ILLUSTRATION



P

ILLUSTRATION

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ON-VEHICLE INSPECTION

CAUTION:

Be sure to follow the correct removal and installation procedures of the front airbag sensors.

1. INSPECT FRONT AIRBAG SENSOR (for Vehicle not Involved in Collision)

(a) Perform a diagnostic system check INFO.

2. INSPECT FRONT AIRBAG SENSOR (for Vehicle Involved in Collision and Airbag not Deployed)

(a) Perform a diagnostic system check INFO.

(b) Visually check the front airbag sensors for defects if the front bumper of the vehicle or the area around the bumper is damaged.

(1) The defects are as follows:

- Cracks on the sensor housing
- Dents on the sensor housing
- Chips on the sensor housing
- Cracks or other damage to the connector
- Damage to the serial number

OK:

No defects are found.

HINT:

If any of the defects is found, replace the front airbag sensor with a new one.

3. INSPECT FRONT AIRBAG SENSOR (for Vehicle Involved in Collision and Airbag is Deployed)

(a) When airbags have deployed as the result of a collision, be sure to replace all front airbag sensors in the damaged areas (anywhere in need of repair).

(b) Visually check the front airbag sensors in undamaged areas for defects.

(1) The defects are as follows:

- Cracks on the sensor housing
- Dents on the sensor housing
- Chips on the sensor housing
- Cracks or other damage to the connector
- Damage to the serial number

OK:

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No defects are found.

HINT:

If any of the defects is found or a front airbag sensor has detected a major collision, replace the front airbag sensor with a new one.

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REMOVAL

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO.

2. REMOVE REAR NO. 2 FLOOR BOARD (for Separate Type) INFO

3. REMOVE REAR DECK FLOOR BOX INFO

4. REMOVE REAR NO. 3 FLOOR BOARD INFO

5. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

6. REMOVE FRONT BUMPER ASSEMBLY

HINT:

Refer to the procedure up to Remove Front Bumper Assembly INFO.

7. REMOVE FRONT AIRBAG SENSOR

(a) Check that the power switch is off.

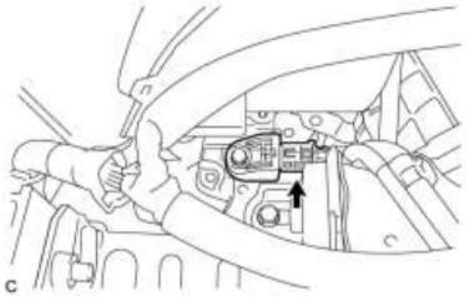
(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(c) Disconnect the connector from the front airbag sensor.

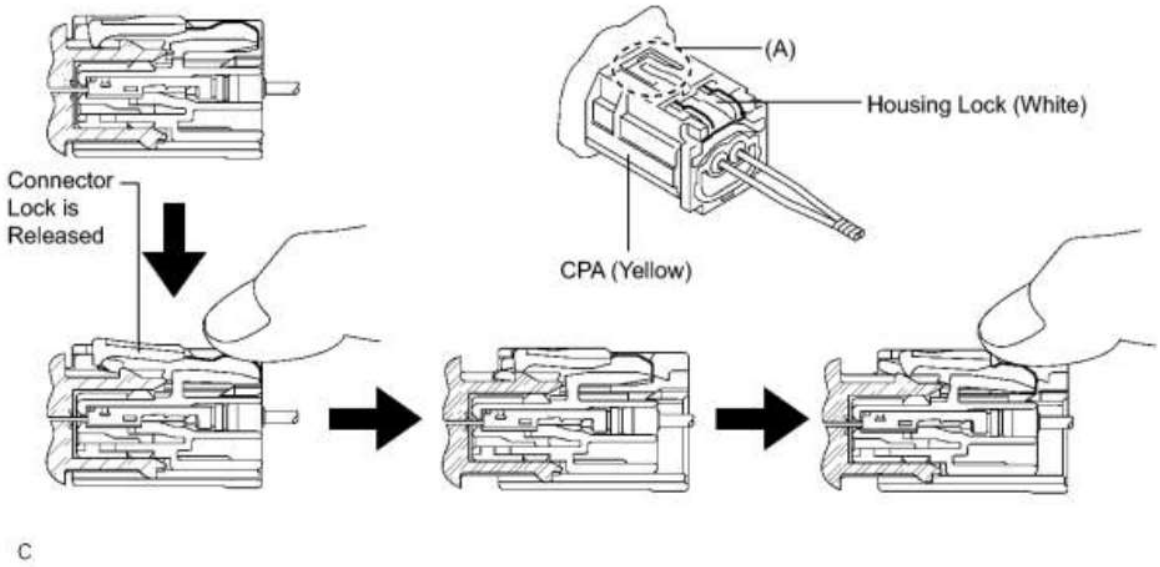
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NOTICE:

When disconnecting any airbag connector, take care not to damage the airbag wire harness.

(1) Push down the white housing lock and slide the yellow CPA. (At this time, the connector cannot be disconnected yet.)



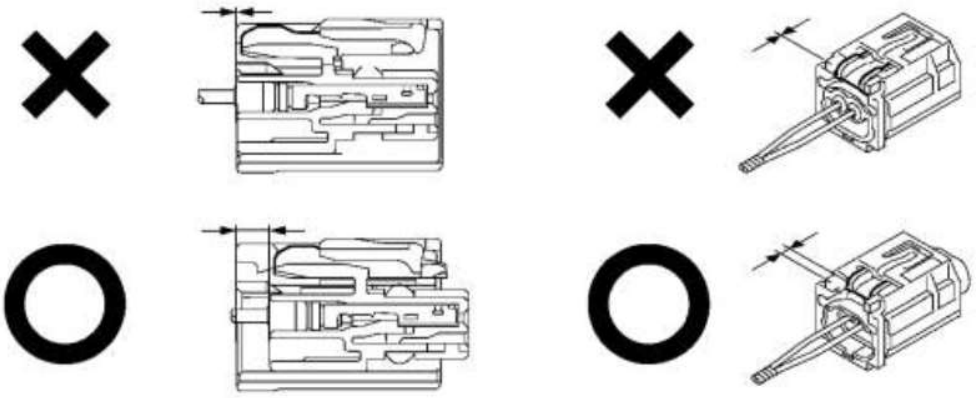
(2) Push down the white housing lock again and disconnect the connector.

NOTICE:

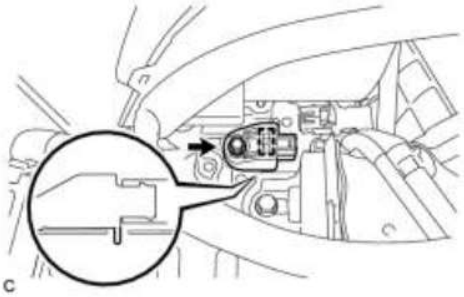
Do not push down the part (A) shown in the illustration when disconnecting.

(3) After disconnecting the connector, check that the position of the white housing lock is correct as shown in the illustration.

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C



C

(d) Remove the bolt and front airbag sensor.

NOTICE:

Loosen the bolt while holding the front airbag sensor because the front airbag sensor pin (stopper) is easily damaged.

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INSTALLATION

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. INSTALL FRONT AIRBAG SENSOR

(a) Check that the power switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(c) Using SST and a torque wrench, install the front airbag sensor with the bolt.

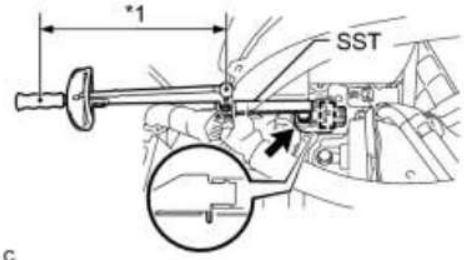
Text in Illustration

*1	Fulcrum Length

SST: 09961-00950

without SST - Torque: **9.0 N·m (92 kgf·cm, 80in·lbf)**

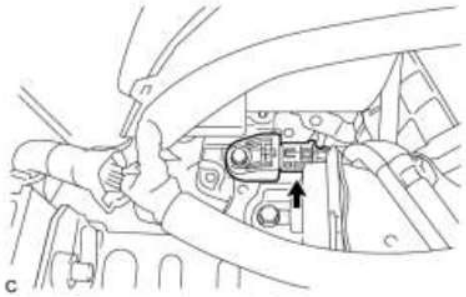
with SST - Torque: **5.6 N·m (57 kgf·cm, 50in·lbf)**



- Use a torque wrench with a fulcrum length of 250 mm (9.84 in.).
- This torque value is effective when SST is parallel to the torque wrench.
- If the front airbag sensor has been dropped, or there are any cracks, dents or other defects in the case or connector, replace it with a new one.
- When installing the front airbag sensor, be careful that the SRS wiring does not interfere with or is not pinched between other parts.
- Make sure that the pin (stopper) is securely inserted into the body hole.
- Tighten the bolt while holding the front airbag sensor because the front airbag sensor pin (stopper) is easily damaged.

(d) Connect the connector to the front airbag sensor.

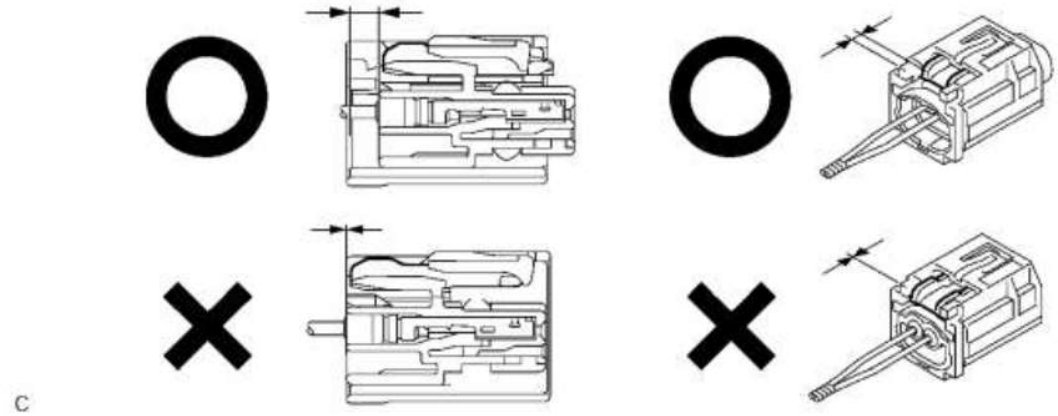
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NOTICE:

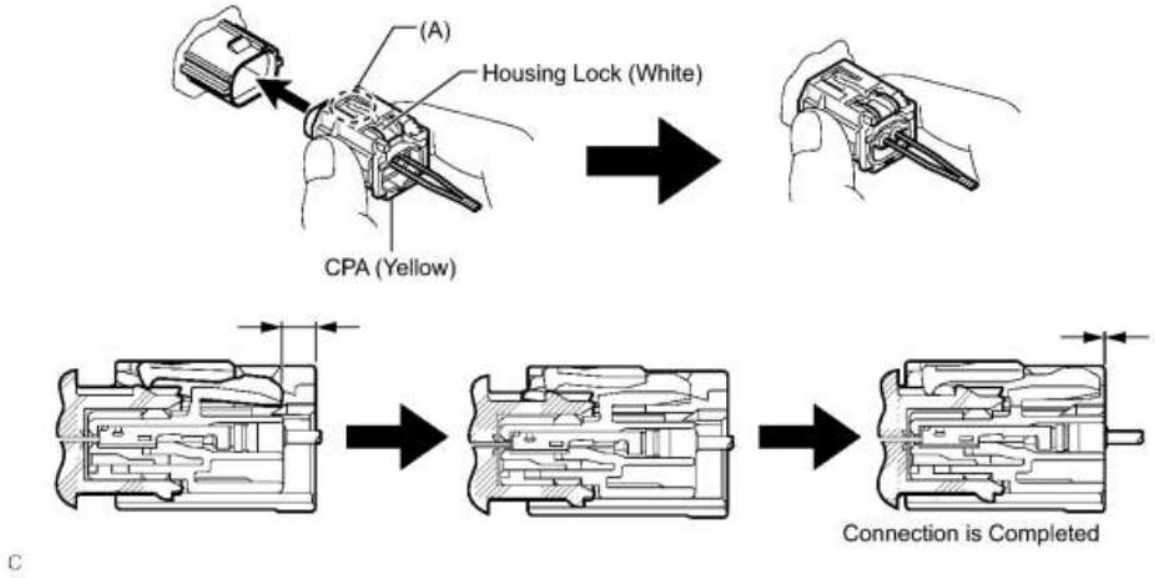
When connecting any airbag connector, take care not to damage the airbag wire harness.

(1) Before connecting the connector, check that the position of the white housing lock is correct as shown in the illustration.



(2) Be sure to engage the connectors until they are locked (when locking, make sure that a click sound can be heard).

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C

HINT:

When engaged, the white housing lock will slide. Be sure not to hold the white housing lock and part (A), as it may result in an insecure fit.

(e) Check that there is no looseness in the installation parts of the front airbag sensor.

2. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

3. INSTALL REAR NO. 3 FLOOR BOARD INFO

4. INSTALL REAR DECK FLOOR BOX INFO

5. INSTALL REAR NO. 2 FLOOR BOARD (for Separate Type) INFO

6. INSTALL FRONT BUMPER ASSEMBLY

HINT:

Refer to the procedure from Install Front Bumper Assembly INFO.

7. PERFORM DIAGNOSTIC SYSTEM CHECK

(a) Perform a diagnostic system check INFO.

8. INSPECT SRS WARNING LIGHT

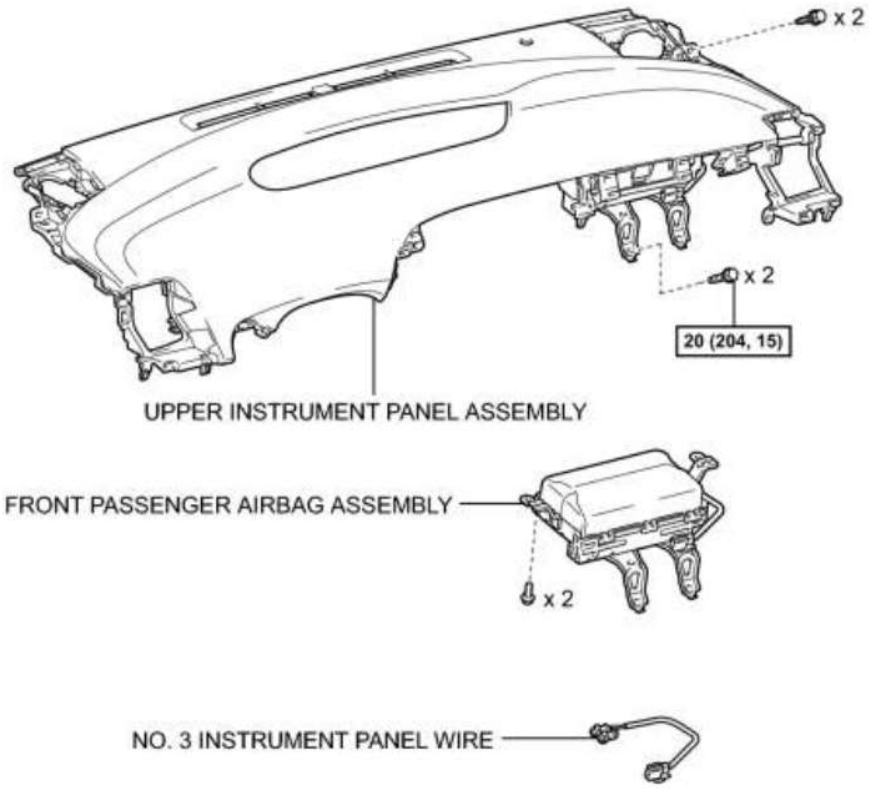
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(a) Inspect the SRS warning light INFO.

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COMPONENTS

ILLUSTRATION



N*m (kgf*cm, ft.*lbf) : Specified torque

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ON-VEHICLE INSPECTION

CAUTION:

Be sure to follow the correct removal and installation procedures of the front passenger airbag assembly.

1. INSPECT FRONT PASSENGER AIRBAG ASSEMBLY (for Vehicle not Involved in Collision)

(a) Perform a diagnostic system check INFO.

(b) Visually check for defects with the front passenger airbag assembly installed on the vehicle.

(1) The defects are as follows:

- Cuts on the instrument panel around the front passenger airbag assembly
- Small cracks on the instrument panel around the front passenger airbag assembly
- Significant discoloration on the instrument panel around the front passenger airbag assembly

OK:

No defects are found.

HINT:

If any of the defects is found, replace the instrument panel with a new one.

2. INSPECT FRONT PASSENGER AIRBAG ASSEMBLY (for Vehicle Involved in Collision and Airbag not Deployed)

(a) Perform a diagnostic system check INFO.

(b) Visually check for defects with the front passenger airbag assembly removed from the vehicle.

(1) The defects are as follows:

- Cuts on the front passenger airbag assembly
- Small cracks on the front passenger airbag assembly
- Significant discoloration on the front passenger airbag assembly
- Cracks or other damage to the connector
- Deformation or cracks on the instrument panel or instrument panel reinforcement

OK:

No defects are found.

HINT:

If any of the defects is found, replace the front passenger airbag assembly, instrument panel or instrument panel reinforcement with a new one.

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REMOVAL

1. REMOVE CENTER INSTRUMENT CLUSTER FINISH PANEL GARNISH

HINT:

Refer to the procedure up to Remove Center Instrument Cluster Finish Panel Garnish INFO.

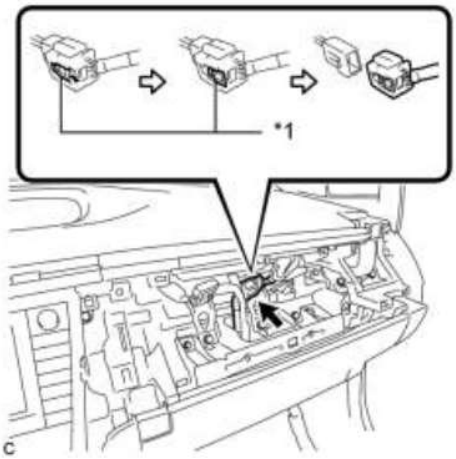
2. DISCONNECT NO. 3 INSTRUMENT PANEL WIRE

(a) Check that the power switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.



(c) Slide the slider to release the lock, and then disconnect the connector.

Text in Illustration

*1	Slider

NOTICE:

When disconnecting any airbag connector, take care not to damage the airbag wire harness.

3. REMOVE UPPER INSTRUMENT PANEL ASSEMBLY INFO

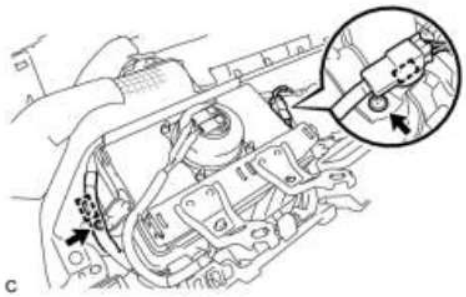
4. REMOVE FRONT PASSENGER AIRBAG ASSEMBLY

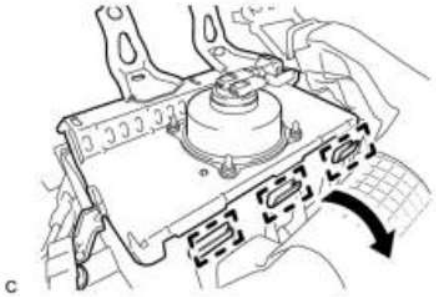
CAUTION:

When storing the front passenger airbag assembly, keep the airbag deployment side facing upward.

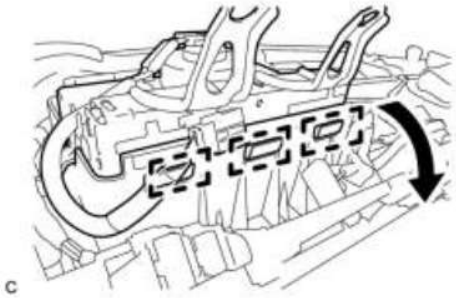
(a) Remove the 2 screws and 2 clamps.

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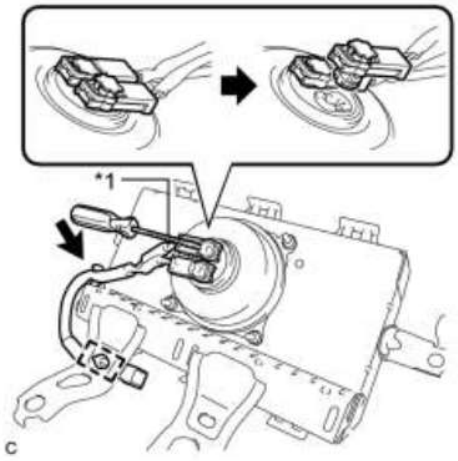


(b) Lean the instrument panel and disengage the 3 hooks as shown in the illustration.



(c) Disengage the 3 hooks to remove the front passenger airbag assembly from the instrument panel safety pad assembly as shown in the illustration.

5. REMOVE NO. 3 INSTRUMENT PANEL WIRE



(a) Disengage the clamp.

(b) Separate the No. 3 instrument panel wire from the front passenger airbag assembly clamp.

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(c) Using a screwdriver with the tip wrapped with protective tape, release the 2 airbag connector locks.

Text in Illustration

*1	Protective Tape

(d) Disconnect the 2 airbag connectors to remove the No. 3 instrument panel wire from the front passenger airbag assembly.

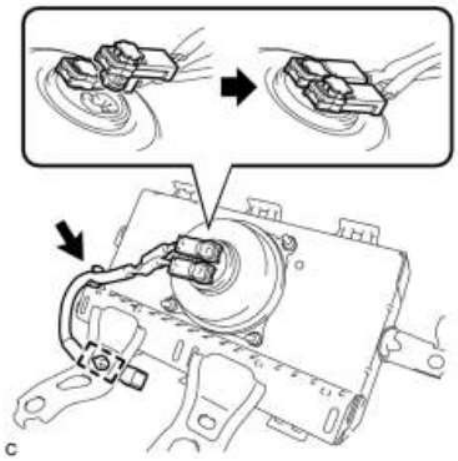
NOTICE:

When disconnecting any airbag connector, take care not to damage the airbag wire harness.

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INSTALLATION

1. INSTALL NO. 3 INSTRUMENT PANEL WIRE



(a) Connect the 2 airbag connectors to the front passenger airbag assembly.

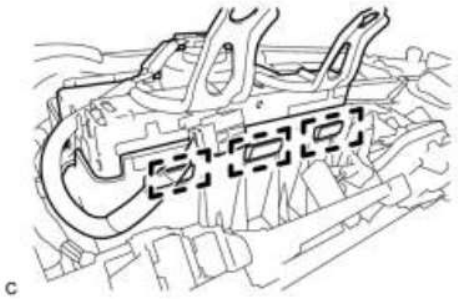
- When connecting any airbag connector, take care not to damage the airbag wire harness.
- Be sure to only connect the connectors to each corresponding color.

(b) Push in the 2 locks to install the 2 airbag connectors.

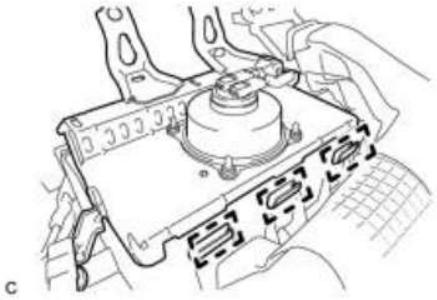
(c) Connect the No. 3 instrument panel wire to the front passenger airbag assembly clamp.

(d) Engage the clamp to install the No. 3 instrument panel wire to the front passenger airbag assembly.

2. INSTALL FRONT PASSENGER AIRBAG ASSEMBLY



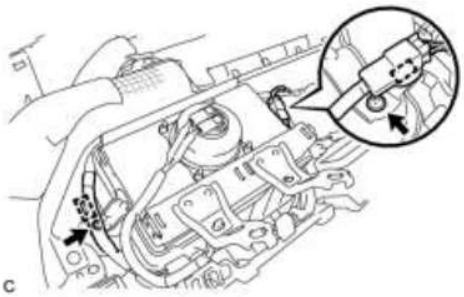
(a) Engage the 3 hooks.



(b) Push the front passenger airbag assembly to engage the 3 hooks.

(c) Install the 2 screws to install the front passenger airbag assembly.

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C

(d) Install the 2 clamps to the front passenger airbag assembly.

3. INSTALL UPPER INSTRUMENT PANEL ASSEMBLY INFO

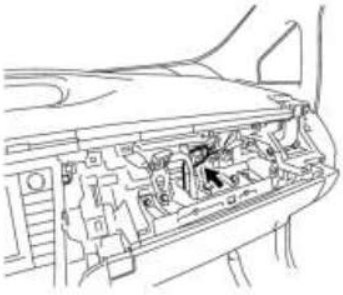
4. CONNECT NO. 3 INSTRUMENT PANEL WIRE

(a) Check that the power switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.



C

(c) Connect the connector.

NOTICE:

When connecting any airbag connector, take care not to damage the airbag wire harness.

5. INSTALL CENTER INSTRUMENT CLUSTER FINISH PANEL GARNISH

HINT:

Refer to the procedure from Install Center Instrument Cluster Finish Panel Garnish INFO.

6. PERFORM DIAGNOSTIC SYSTEM CHECK

(a) Perform a diagnostic system check INFO.

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DISPOSAL

CAUTION:

Before performing pre-disposal deployment of any SRS part, review and closely follow all applicable environmental and hazardous material regulations. Pre-disposal deployment may be considered hazardous material treatment.

1. PRECAUTION

CAUTION:

- An airbag or pretensioner may be activated by static electricity. To prevent this, be sure to touch a metal surface with bare hands to discharge static electricity before performing this procedure.
- Never dispose of a front passenger airbag assembly with an undeployed airbag.
- The airbag produces an exploding sound when it is deployed, so perform the operation outdoors and where it will not create a nuisance to nearby residents.
- When deploying the airbag, always use the specified SST (SRS Airbag Deployment Tool). Perform the operation in a place away from electrical noise.
- When deploying the airbag, perform the operation at least 10 m (32.8 ft.) away from the front passenger airbag assembly.
- The front passenger airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front passenger airbag assembly with a deployed airbag.
- Do not apply water etc. to a front passenger airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

HINT:

When scrapping a vehicle equipped with an SRS or disposing of the front passenger airbag assembly, be sure to deploy the airbag first in accordance with the procedure described below. If any abnormality occurs with the airbag deployment, contact the Service Dept. of TOYOTA MOTOR SALES, U.S.A., INC.

2. DISPOSE OF FRONT PASSENGER AIRBAG ASSEMBLY (When Installed in Vehicle)

NOTICE:

- When disposing of the front passenger airbag assembly, never use the customer's vehicle to deploy the airbag.
- Be sure to observe the following procedure when deploying the airbag.

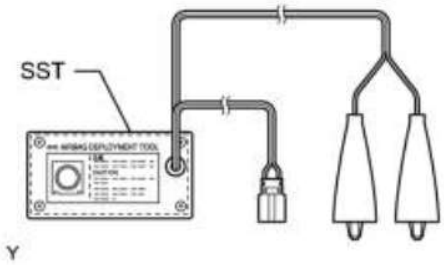
HINT:

Prepare a battery as the power source to deploy the airbag.

(a) Check the function of SST INFO.

SST: 09082-00700

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(b) Refer to Precaution INFO.

(c) Disconnect the cable from the negative (-) battery terminal.

CAUTION:

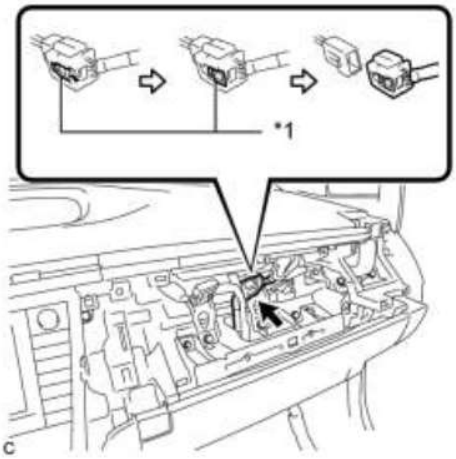
Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(d) Remove the grove compartment door INFO.

(e) Disconnect the instrument panel wire assembly.

NOTICE:

When disconnecting any airbag connector, take care not to damage the airbag wire harness.



(1) Slide the slider to release the lock, and then disconnect the connector.

Text in Illustration

*1	Slider

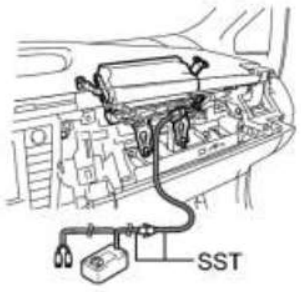
(f) Install SST.

CAUTION:

Check that there is no looseness in the front passenger airbag assembly and upper instrument panel assembly.

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c



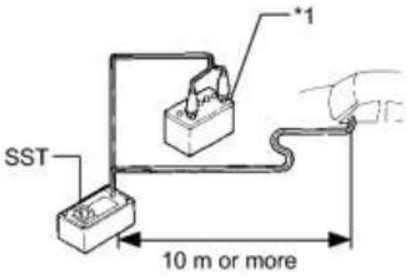
(1) Connect the SST connector to the instrument panel wire assembly.

SST: 09082-00700

SST: 09082-00780

NOTICE:

To avoid damaging the SST connector or wire harness, do not lock the secondary lock of the twin lock.



(2) Move SST at least 10 m (32.8 ft.) away from the front side window of the vehicle.

Text in Illustration

*1	Battery

(3) Maintaining sufficient clearance for the SST wire harness in the front side window, close all doors and windows of the vehicle.

NOTICE:

Take care not to damage the SST wire harness.

(4) Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

(g) Deploy the airbag.

(1) Check that no one is inside the vehicle or within a 10 m (32.8 ft.) radius of the vehicle.

(2) Press the SST activation switch and deploy the airbag.

CAUTION:

- Before deployment, make sure that no one is near the vehicle.
- The front passenger airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front passenger airbag assembly with a deployed airbag.
- Do not apply water etc. to a front passenger airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.

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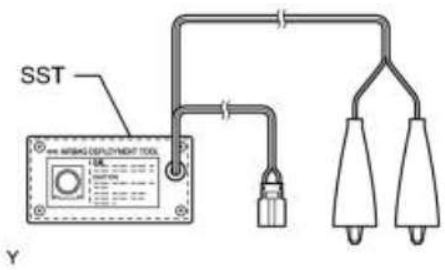
3. DISPOSE OF FRONT PASSENGER AIRBAG ASSEMBLY (When Not Installed in Vehicle)

NOTICE:

Be sure to observe the following procedure when deploying the airbag.

HINT:

Prepare a battery as the power source to deploy the airbag.



(a) Check the function of SST INFO.

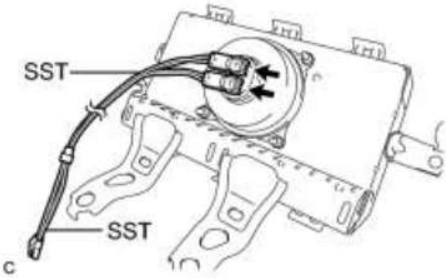
SST: 09082-00700

(b) Remove the front passenger airbag assembly INFO.

CAUTION:

- Before removing the front passenger airbag assembly, wait at least 90 seconds after turning the power switch off and disconnecting the cable from the negative (-) battery terminal.
- When storing the front passenger airbag assembly, keep the airbag deployment side facing upward.

(c) Install SST.



(1) After connecting the following SST to each other, connect them to the front passenger airbag assembly.

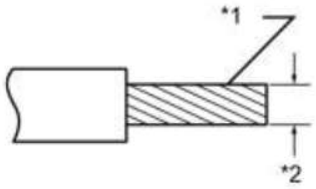
SST: 09082-00802

09082-10801

09082-30801

(d) Using braided wire, tie down the front passenger airbag assembly to an unneeded tire.

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H

Text in Illustration

*1	Stripped Wire Section
*2	Wire Diameter

Wire:

Stripped wire section

1.25 mm^2 (0.0019 $in.^2$) or more

CAUTION:

If the wire is too thin or an alternative object is used to tie down the front passenger airbag assembly, it may snap when the airbag is deployed. Always use a wire for vehicle use with an area of at least 1.25 mm^2 (0.0019 $in.^2$).

HINT:

To calculate the area of the stripped wire section:

Area = 3.14 x $(Diameter)^2$ / 4

(1) Position the front passenger airbag assembly inside the tire with the airbag deployment side facing inside.

Minimum tire size:

Must exceed the following dimensions

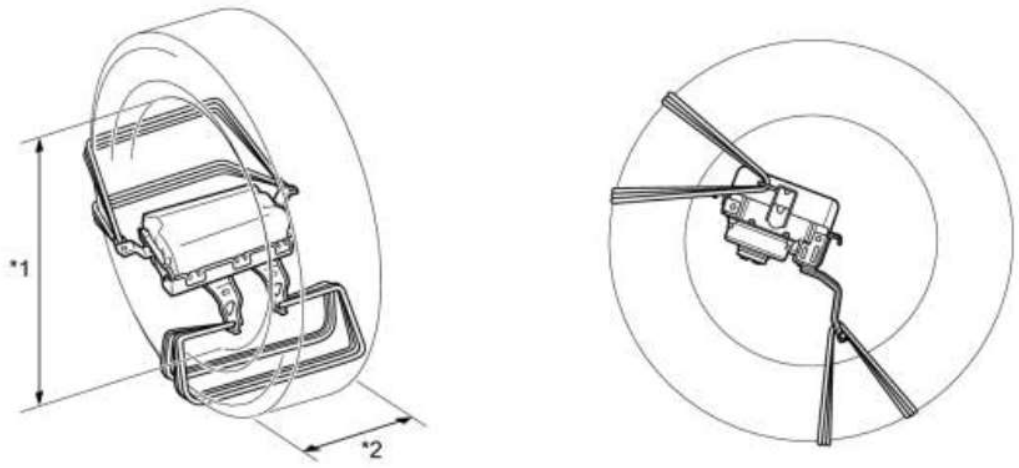
Width:

185 mm (7.28 in.)

Inner diameter:

360 mm (1.18 ft.)

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c

Text in Illustration

*1	Inner Diameter	*2	Width

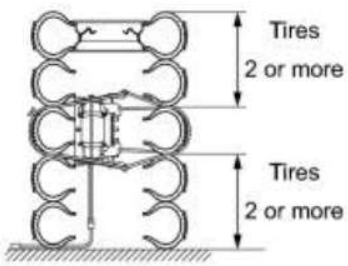
CAUTION:

- Make sure that the wires are tight. If there is slack in the wires, the front passenger airbag assembly may break loose when the airbag is deployed.
- Always tie down the front passenger airbag assembly with the airbag deployment side facing inside the tire as shown in the illustration.

NOTICE:

The tires may be damaged by the airbag deployment, so use an unneeded tire.

(e) Place the tires.



c

(1) Place at least 2 tires under the tire to which the front passenger airbag assembly is tied.

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(2) Place at least 2 tires onto the tire to which the front passenger airbag assembly is tied. The top tire should have a wheel installed.

NOTICE:

Do not place the SST connector under the tire because it could be damaged.



H

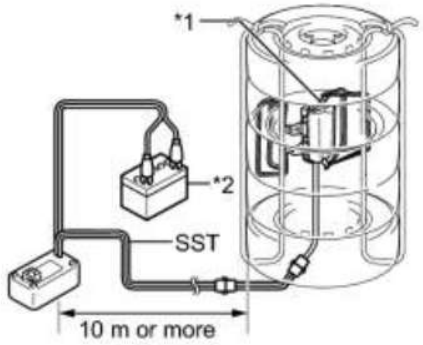
(3) Tie the tires together with the 2 wires.

CAUTION:

Make sure that the wires are tight. Looseness in the wires results in the tires breaking loose when the airbag is deployed.

(f) Install SST.

(1) Connect the SST connector.



c

Text in Illustration

*1	Front Passenger Airbag Assembly
*2	Battery

SST: 09082-00700

NOTICE:

To avoid damaging the SST connector or wire harness, do not lock the secondary lock of the twin lock. Also, secure some slack for the SST wire harness inside the tire.

(2) Move SST at least 10 m (32.8 ft.) away from the airbag tied down to the tire.

(g) Deploy the airbag.

(1) Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

(2) Check that no one is within a 10 m (32.8 ft.) radius of the tire to which the front passenger airbag assembly is tied.

(3) Press the SST activation switch and deploy the airbag.

CAUTION:

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Before deployment, make sure that no one is near the airbag.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.

(h) Dispose of the front passenger airbag assembly.

- The front passenger airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front passenger airbag assembly with a deployed airbag.
- Do not apply water etc. to a front passenger airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.



H41436 (1) Remove the front passenger airbag assembly from the tire.

(2) Place the front passenger airbag assembly in a plastic bag, tie it tightly, and dispose of it according to local regulations.

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ON-VEHICLE INSPECTION

CAUTION:

Be sure to follow the correct removal and installation procedures of the front seat assemblies.

1. INSPECT FRONT SEAT SIDE AIRBAG ASSEMBLY (for Vehicle not Involved in Collision)

(a) Perform a diagnostic system check INFO.

(b) Visually check for defects with the front seat side airbag assemblies installed on the vehicle.

(1) The defects are as follows:

- Cuts on the front seatback assembly around the front seat side airbag assemblies
- Small cracks on the front seatback assembly around the front seat side airbag assemblies
- Significant discoloration on the front seatback assembly around the front seat side airbag assemblies

OK:

No defects are found.

HINT:

If any of the defects is found, replace the front seat assembly with a new one.

2. INSPECT FRONT SEAT SIDE AIRBAG ASSEMBLY (for Vehicle Involved in Collision and Airbag not Deployed)

(a) Perform a diagnostic system check INFO.

(b) Visually check for defects with the front seat side airbag assemblies removed from the vehicle.

(1) The defects are as follows:

- Cuts on the surface of the front seat side airbag assemblies
- Small cracks on the surface of the front seat side airbag assemblies
- Marks from being dropped
- Deformation on the installation part of the front seat side airbag assemblies
- Cracks or other damage to the wire harness or connector

OK:

No defects are found.

HINT:

If any of the defects is found, replace the front seat assembly with a new one.

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DISPOSAL

CAUTION:

Before performing pre-disposal deployment of any SRS part, review and closely follow all applicable environmental and hazardous material regulations. Pre-disposal deployment may be considered hazardous material treatment.

1. PRECAUTION

CAUTION:

- An airbag or pretensioner may be activated by static electricity. To prevent this, be sure to touch a metal surface with your bare hands to discharge static electricity before performing this procedure.
- Never dispose of a front seat side airbag assembly with an undeployed airbag.
- The airbag produces an exploding sound when it is deployed, so perform the operation outdoors and where it will not create a nuisance to nearby residents.
- When deploying the airbag, always use the specified SST (SRS Airbag Deployment Tool). Perform the operation in a place away from electrical noise.
- When deploying the airbag, perform the operation at least 10 m (32.8 ft.) away from the front seat side airbag assembly.
- The front seat side airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front seat side airbag assembly with a deployed airbag.
- Do not apply water etc. to a front seat side airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

HINT:

When scrapping a vehicle equipped with an SRS or disposing of the front seat side airbag assembly, be sure to deploy the airbag first in accordance with the procedure described below. If any abnormality occurs with the airbag deployment, contact the Service Dept. of TOYOTA MOTOR SALES, U.S.A., INC.

2. DISPOSE OF FRONT SEAT SIDE AIRBAG ASSEMBLY (When Installed in Vehicle)

NOTICE:

- When disposing of the front seat side airbag assembly, never use the customer's vehicle to deploy the airbag.
- Be sure to observe the following procedure when deploying the airbag.

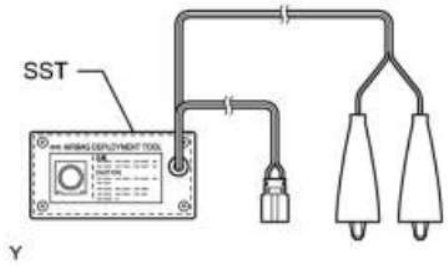
HINT:

Prepare a battery as the power source to deploy the airbag.

(a) Check the function of SST INFO.

SST: 09082-00700

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Y

(b) Refer to Precaution INFO.

(c) Disconnect the cable from the negative (-) battery terminal.

CAUTION:

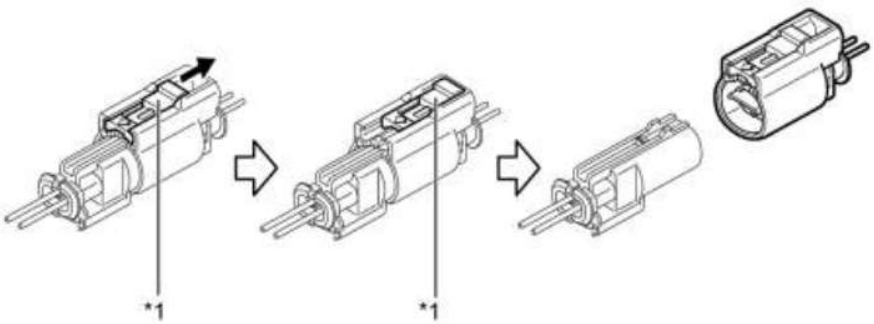
Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(d) Disconnect the connector from the front seat side airbag assembly under the front seat assembly.

NOTICE:

When disconnecting any airbag connector, take care not to damage the airbag wire harness.

(1) Slide the slider to release the lock, and then disconnect the yellow airbag connector under the front seat assembly.



C

Text in Illustration

*1	Slider	-	-

(e) Install SST.

CAUTION:

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Check that there is no looseness in the front seat assembly.



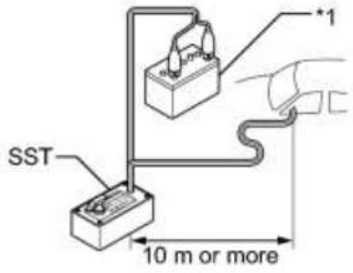
(1) Connect the SST connector to the front seat side airbag assembly connector.

SST: 09082-00700

SST: 09082-00820

NOTICE:

To avoid damaging the SST connector or wire harness, do not lock the secondary lock of the twin lock.



c

(2) Move SST at least 10 m (32.8 ft.) away from the front side window.

Text in Illustration

*1	Battery

(3) Maintaining sufficient clearance for the SST wire harness in the front side window, close all doors and windows of the vehicle.

NOTICE:

Take care not to damage the SST wire harness.

(4) Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

(f) Deploy the airbag.

(1) Check that no one is inside the vehicle or within a 10 m (32.8 ft.) radius of the vehicle.

(2) Press the SST activation switch and deploy the airbag.

CAUTION:

- Before deployment, make sure that no one is near the vehicle.
- The front seat side airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front seat side airbag assembly with a deployed airbag.
- Do not apply water etc. to a front seat side airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

HINT:

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The airbag is deployed as the LED of the SST activation switch comes on.

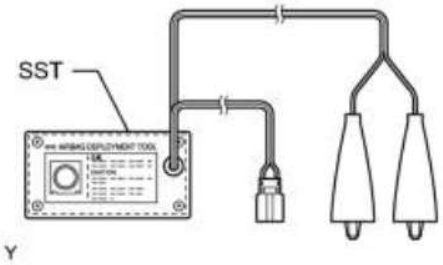
3. DISPOSE OF FRONT SEAT SIDE AIRBAG ASSEMBLY (When Not Installed in Vehicle)

NOTICE:

Be sure to observe the following procedure when deploying the airbag.

HINT:

Prepare a battery as the power source to deploy the airbag.



(a) Check the function of SST INFO.

SST: 09082-00700

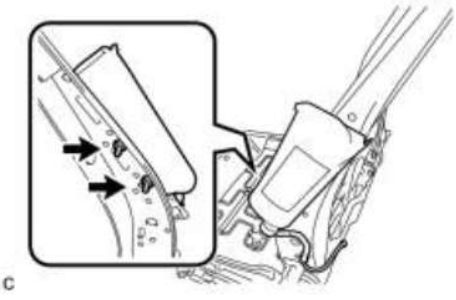
(b) Remove the front seat side airbag assembly.

(1) Remove the front seat assembly INFO.

CAUTION:

Before removing the front seat assembly, wait at least 90 seconds after turning the power switch off and disconnecting the cable from the negative (-) battery terminal.

(2) Disassemble the front seat assembly INFO.



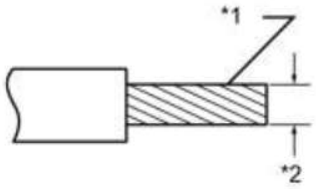
(3) Remove the 2 nuts, clamps and the front seat side airbag assembly from the front seatback assembly.

CAUTION:

When storing the front seat side airbag assembly, keep the airbag deployment side facing upward.

(c) Using braided wire, tie down the front seat side airbag assembly to an unneeded tire.

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H

Text in Illustration

*1	Stripped Wire Section
*2	Wire Diameter

Wire:

Stripped wire section

1.25 mm^2 (0.0019 $in.^2$) or more

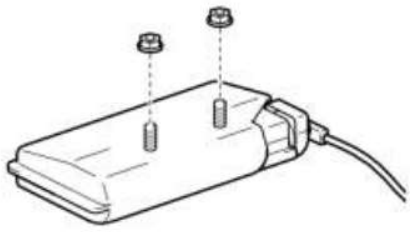
CAUTION:

If the wire is too thin or an alternative object is used to tie down the front seat side airbag assembly, it may snap when the airbag is deployed. Always use a wire for vehicle use with an area of at least 1.25 mm^2 (0.0019 $in.^2$).

HINT:

To calculate the area of the stripped wire section:

Area = 3.14 x $(Diameter)^2$ / 4

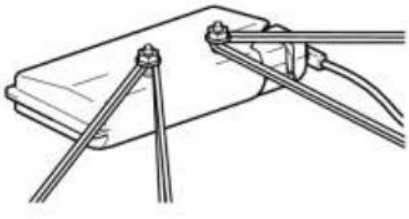


P

(1) Install the 2 nuts to the front seat side airbag assembly.

(2) Wind the wires around the stud bolts of the front seat side airbag assembly as shown in the illustration.

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(3) Position the front seat side airbag assembly inside the tire.

Text in Illustration

*1	Width
*2	Inner Diameter

Minimum tire size:

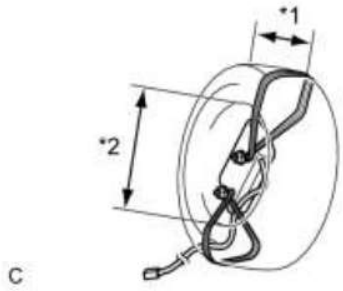
Must exceed the following dimensions

Width:

185 mm (7.28 in.)

Inner diameter:

360 mm (1.18 ft.)



- Make sure that the wires are tight. If there is slack in the wires, the front seat side airbag assembly may break loose when the airbag is deployed.
- Face the front seat side airbag assembly deployment surface toward the inside the tire to evenly distribute the force of deployment.

NOTICE:

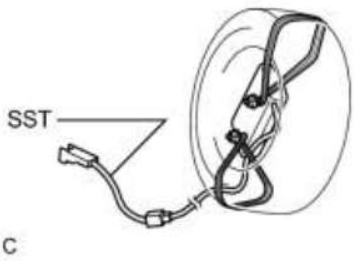
The tire may be marked by the airbag deployment, so use an unneeded tire.

(d) Install SST.

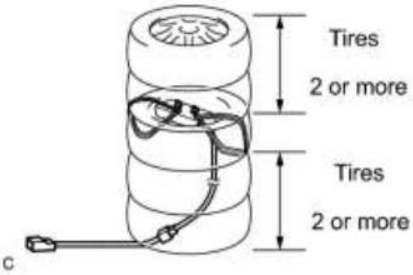
(1) Connect the SST connector to the front seat side airbag assembly connector.

SST: 09082-00820

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(e) Place the tires.



(1) Place at least 2 tires under the tire to which the front seat side airbag assembly is tied.

(2) Place at least 2 tires onto the tire to which the front seat side airbag assembly is tied. The top tire should have a wheel installed.

NOTICE:

Do not place the SST connector under the tire because it could be damaged.



(3) Tie the tires together with the 2 wires.

CAUTION:

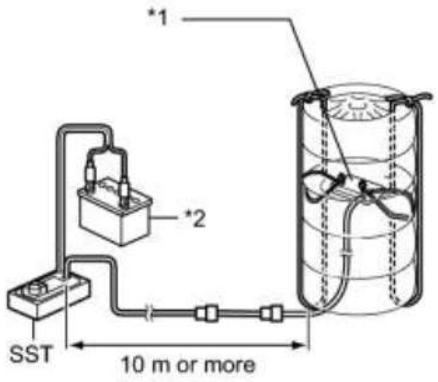
Make sure that the wires are tight. Looseness in the wires results in the tires breaking loose when the airbag is deployed.

(f) Install SST.

(1) Connect the SST connector.

Text in Illustration

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*1	Front Seat Side Airbag Assembly
*2	Battery

SST: 09082-00700

NOTICE:

To avoid damaging the SST connector or wire harness, do not lock the secondary lock of the twin lock. Also, secure some slack for the SST wire harness inside the tire.

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(2) Move SST at least 10 m (32.8 ft.) away from the airbag tied down to the tire.

(g) Deploy the airbag.

(1) Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

(2) Check that no one is within a 10 m (32.8 ft.) radius of the tire to which the front seat side airbag assembly is tied.

(3) Press the SST activation switch and deploy the airbag.

CAUTION:

Before deployment, make sure that no one is near the airbag.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.

(h) Dispose of the front seat side airbag assembly.

- The front seat side airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front seat side airbag assembly with a deployed airbag.
- Do not apply water etc. to a front seat side airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.



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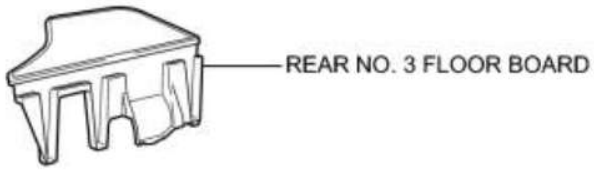
(1) Remove the front seat side airbag assembly from the tire.

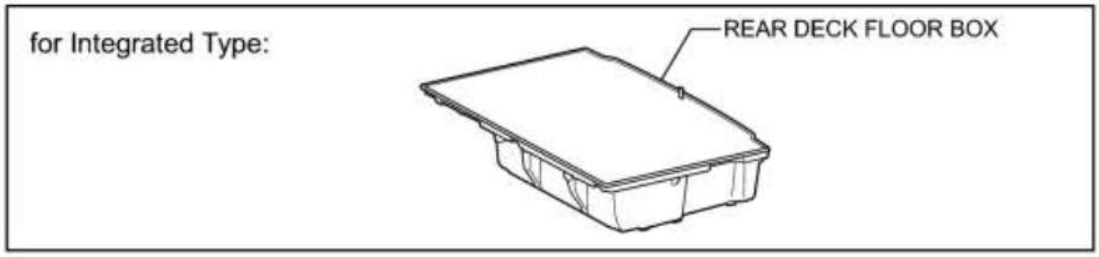
(2) Place the front seat side airbag assembly in a plastic bag, tie it tightly, and dispose of it according to local regulations.

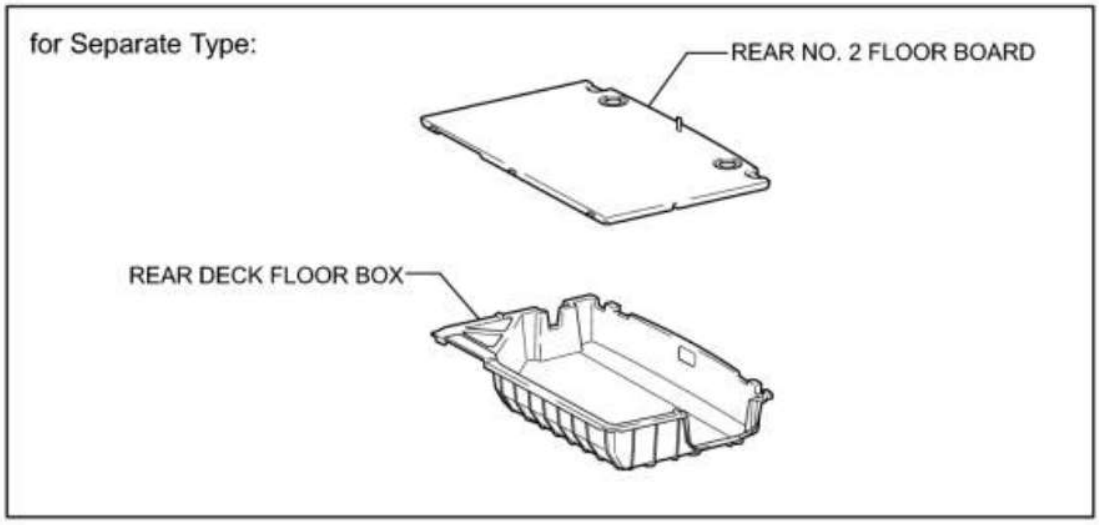
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COMPONENTS

ILLUSTRATION



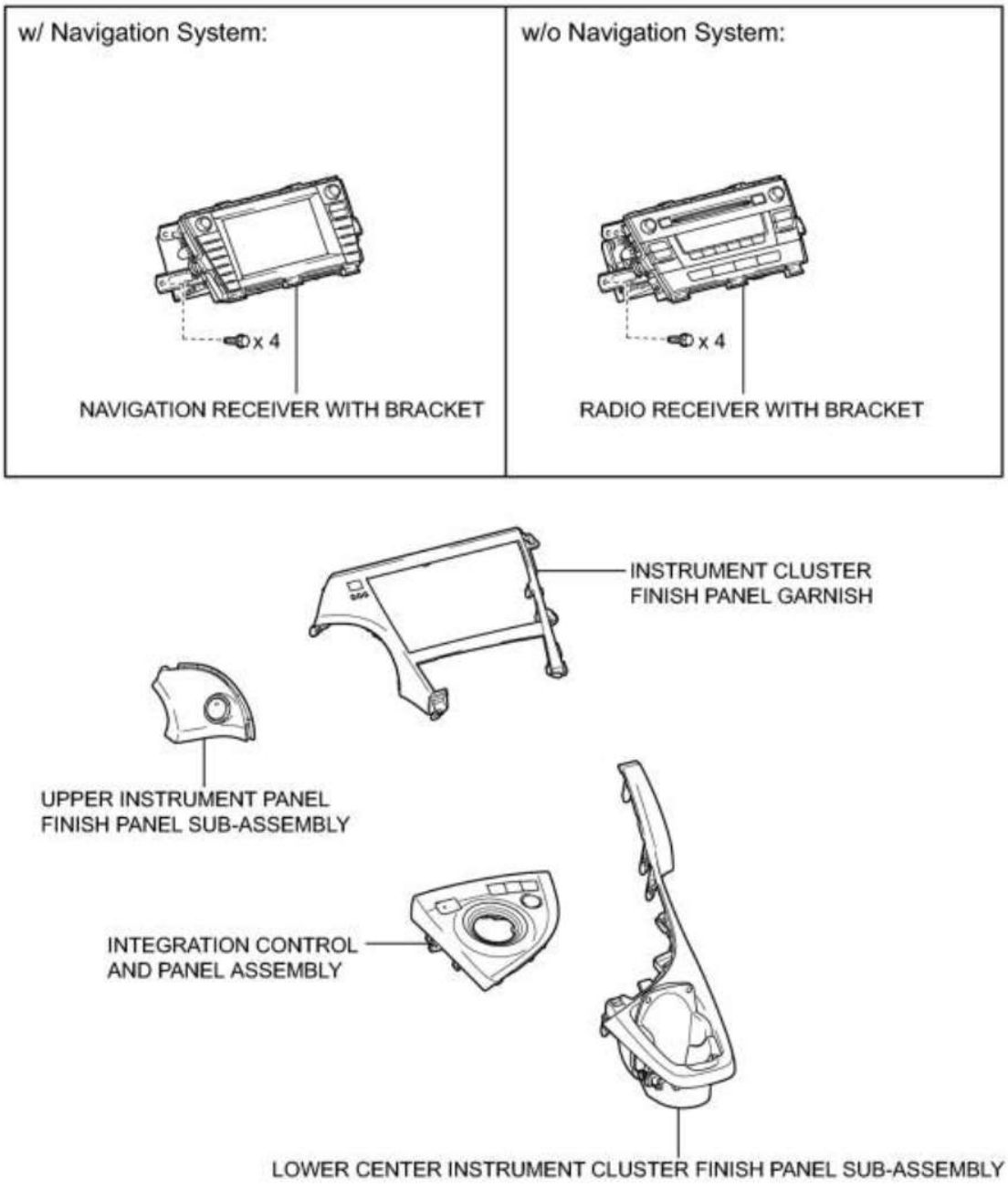




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ILLUSTRATION

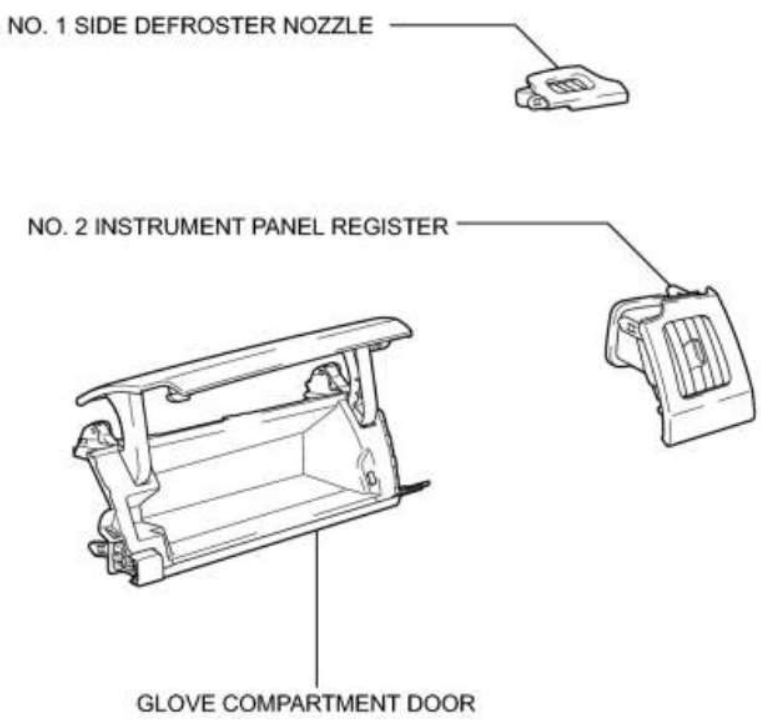
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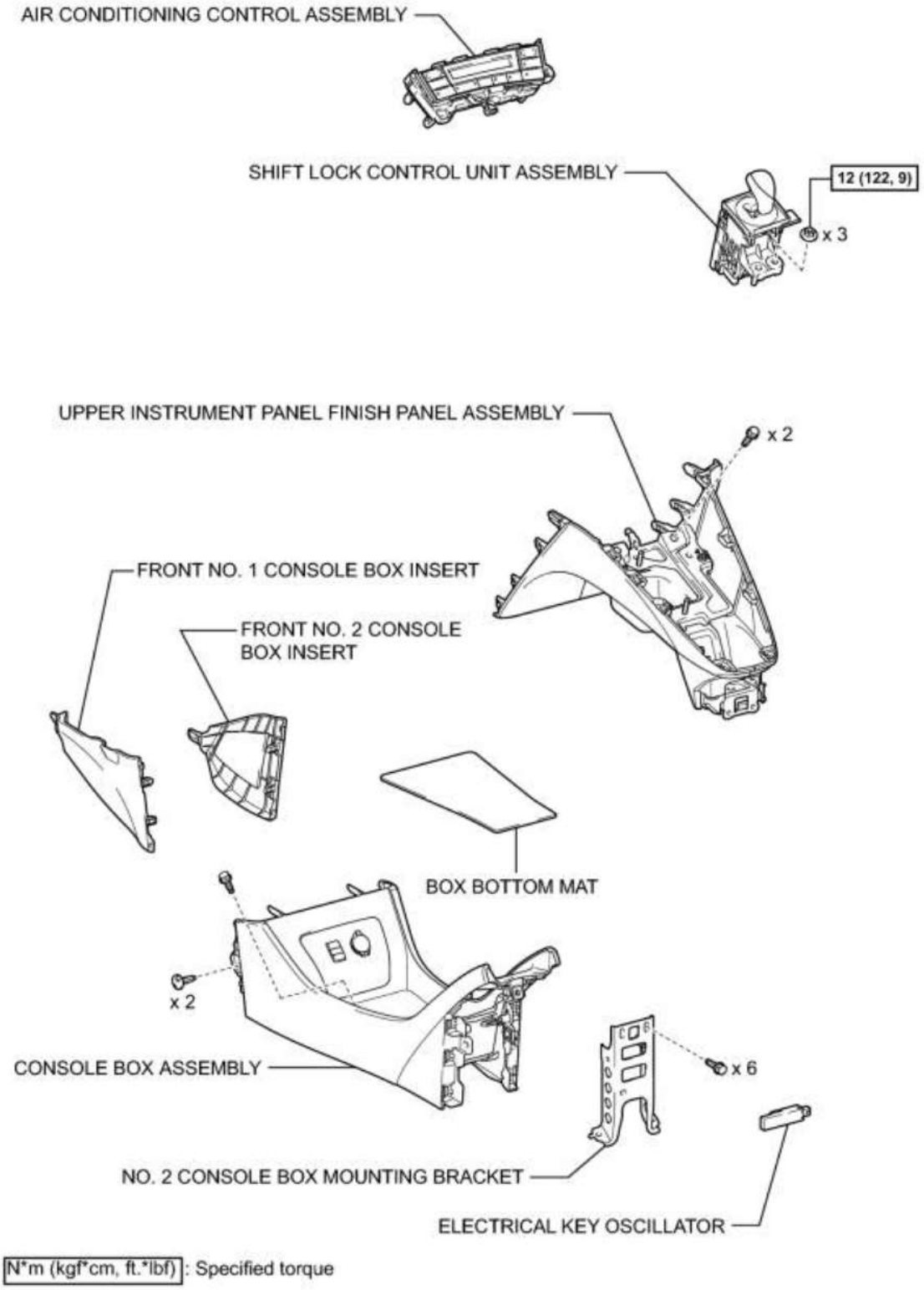
ILLUSTRATION

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ILLUSTRATION

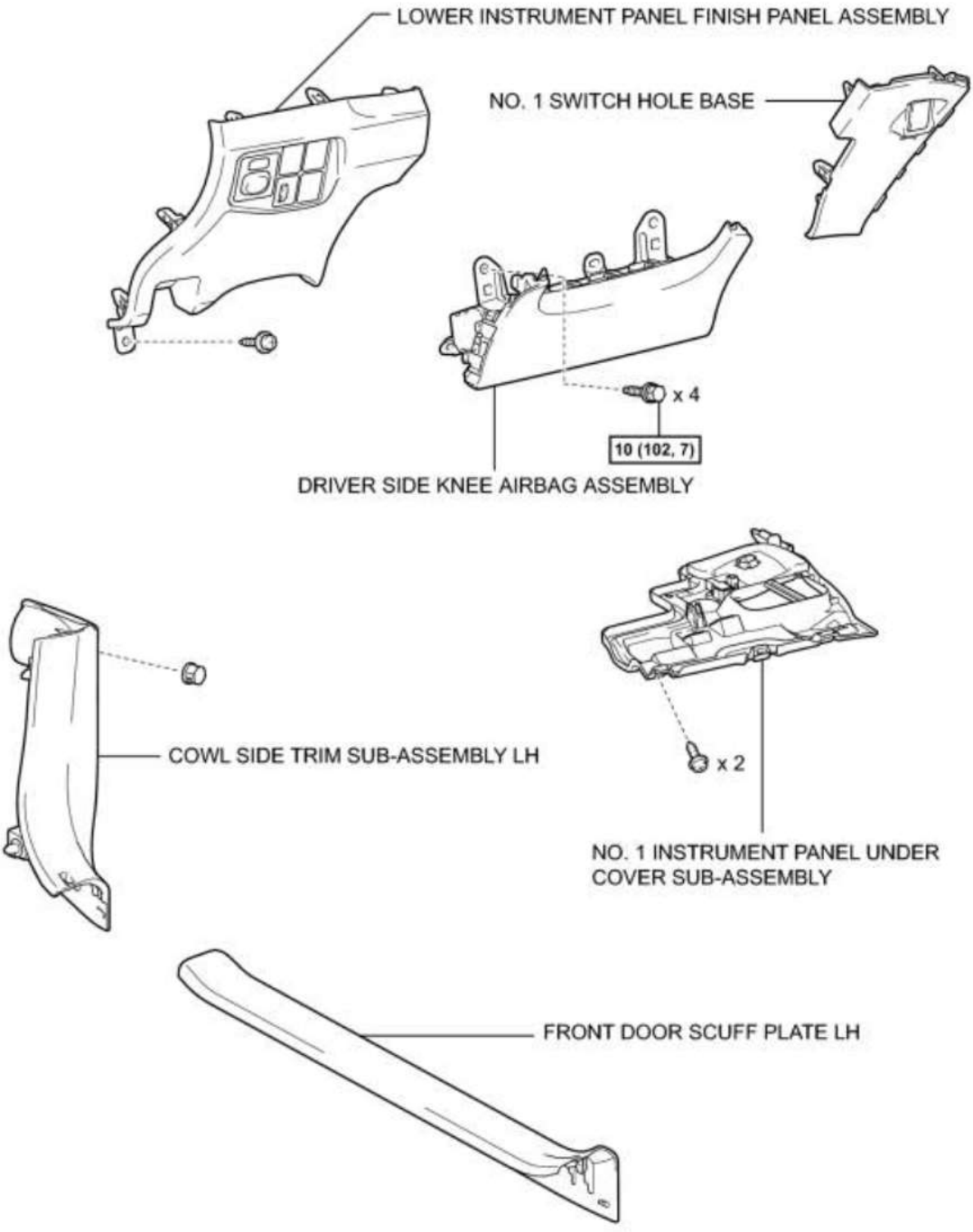


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ILLUSTRATION

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N*m (kgf*cm, ft.*lbf) : Specified torque

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ON-VEHICLE INSPECTION

CAUTION:

Be sure to follow the correct removal and installation procedures of the driver side knee airbag assembly.

1. INSPECT DRIVER SIDE KNEE AIRBAG ASSEMBLY (for Vehicle not Involved in Collision)

(a) Perform a diagnostic system check INFO.

(b) Visually check for defects with the driver side knee airbag assembly installed on the vehicle.

(1) The defects are as follows:

- Cuts on the driver side knee airbag assembly
- Small cracks on the driver side knee airbag assembly
- Significant discoloration on the driver side knee airbag assembly

OK:

No defects are found.

HINT:

If any of the defects is found, replace the driver side knee airbag assembly with a new one.

2. INSPECT DRIVER SIDE KNEE AIRBAG ASSEMBLY (for Vehicle Involved in Collision and Airbag not Deployed)

(a) Perform a diagnostic system check INFO.

(b) Visually check for defects with the driver side knee airbag assembly removed from the vehicle.

(1) The defects are as follows:

- Cuts on the driver side knee airbag assembly
- Small cracks on the driver side knee airbag assembly
- Significant discoloration on the driver side knee airbag assembly
- Cracks or other damage to the connector
- Deformation or cracks on the instrument panel or instrument panel reinforcement

OK:

No defects are found.

HINT:

If any of the defects is found, replace the driver side knee airbag assembly, instrument panel or instrument panel reinforcement with a new one.

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REMOVAL

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO.

2. REMOVE REAR NO. 2 FLOOR BOARD (for Separate Type) INFO

3. REMOVE REAR DECK FLOOR BOX INFO

4. REMOVE REAR NO. 3 FLOOR BOARD INFO

5. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

6. REMOVE REAR CONSOLE BOX ASSEMBLY

HINT:

Refer to the procedure up to Remove Rear Console Box Assembly INFO.

7. REMOVE INTEGRATION CONTROL AND PANEL ASSEMBLY INFO

8. REMOVE LOWER CENTER INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY INFO

9. REMOVE INSTRUMENT CLUSTER FINISH PANEL GARNISH INFO

10. REMOVE UPPER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY INFO

11. REMOVE RADIO RECEIVER WITH BRACKET (w/o Navigation System) INFO

12. REMOVE NAVIGATION RECEIVER WITH BRACKET (w/ Navigation System) INFO

13. REMOVE NO. 1 SIDE DEFROSTER NOZZLE INFO

14. REMOVE NO. 2 INSTRUMENT PANEL REGISTER INFO

15. REMOVE GLOVE COMPARTMENT DOOR INFO

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16. REMOVE AIR CONDITIONING CONTROL ASSEMBLY INFO

17. REMOVE SHIFT LOCK CONTROL UNIT ASSEMBLY INFO

18. REMOVE ELECTRICAL KEY OSCILLATOR INFO

19. REMOVE NO. 2 CONSOLE BOX MOUNTING BRACKET INFO

20. REMOVE FRONT NO. 1 CONSOLE BOX INSERT INFO

21. REMOVE FRONT NO. 2 CONSOLE BOX INSERT INFO

22. REMOVE BOX BOTTOM MAT INFO

23. SEPARATE CONSOLE BOX ASSEMBLY INFO

24. REMOVE UPPER INSTRUMENT PANEL FINISH PANEL ASSEMBLY INFO

25. REMOVE CONSOLE BOX ASSEMBLY INFO

26. REMOVE NO. 1 SWITCH HOLE BASE INFO

27. REMOVE FRONT DOOR SCUFF PLATE LH INFO

28. REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH INFO

29. REMOVE NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY INFO

30. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL ASSEMBLY INFO

31. REMOVE DRIVER SIDE KNEE AIRBAG ASSEMBLY

CAUTION:

When storing the driver side knee airbag assembly, keep the airbag deployment side facing upward.

(a) Check that the power switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

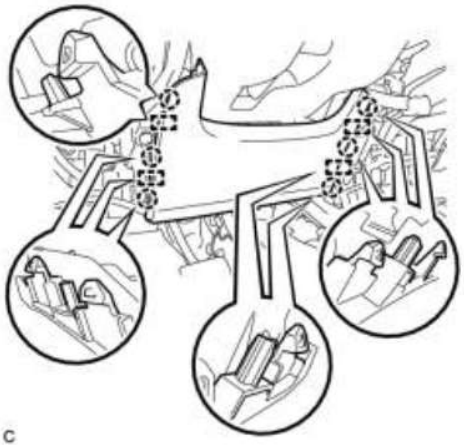
(c) Remove the 4 bolts.

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(d) Disengage the 2 claws to separate the DLC3.

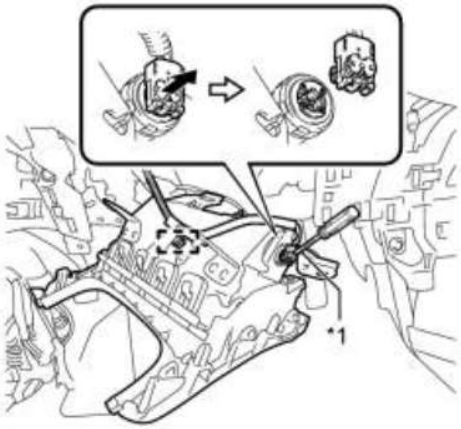


C

(e) Disengage the 6 claws and 4 guides to separate the driver side knee airbag assembly.

(f) Disengage the clamp to separate the wire harness.

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c

(g) Using a screwdriver with the tip wrapped with protective tape, release the airbag connector lock.

Text in Illustration

*1	Protective Tape

(h) Disconnect the airbag connector to remove the driver side knee airbag assembly.

NOTICE:

When disconnecting any airbag connector, take care not to damage the airbag wire harness.

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INSTALLATION

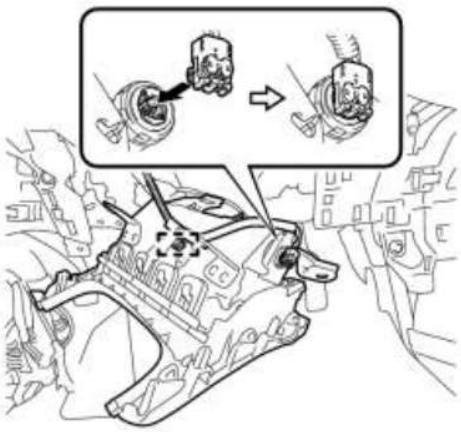
1. INSTALL DRIVER SIDE KNEE AIRBAG ASSEMBLY

(a) Check that the power switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.



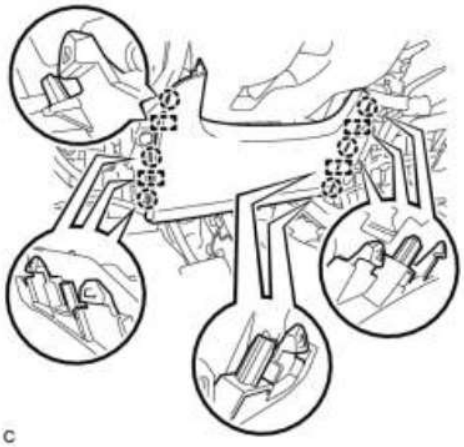
C

(c) Connect the airbag connector and install the clamp to the driver side knee airbag assembly.

NOTICE:

When connecting any airbag connector, take care not to damage the airbag wire harness.

(d) Push in the lock to install the airbag connector.



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(e) Temporarily install the driver side knee airbag assembly with the 6 claws and 4 guides.

(f) Install the driver side knee airbag assembly with the 4 bolts.

Torque: **10 N·m (102 kgf·cm, 7ft·lbf)**

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NOTICE:

Confirm that the driver side knee airbag assembly is installed securely without any excessive gaps and is not protruding outward.

2. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL ASSEMBLY INFO

3. INSTALL NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY INFO

4. INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH INFO

5. INSTALL FRONT DOOR SCUFF PLATE LH INFO

6. INSTALL NO. 1 SWITCH HOLE BASE INFO

7. INSTALL UPPER INSTRUMENT PANEL FINISH PANEL ASSEMBLY INFO

8. INSTALL CONSOLE BOX ASSEMBLY INFO

9. INSTALL BOX BOTTOM MAT INFO

10. INSTALL FRONT NO. 2 CONSOLE BOX INSERT INFO

11. INSTALL FRONT NO. 1 CONSOLE BOX INSERT INFO

12. INSTALL NO. 2 CONSOLE BOX MOUNTING BRACKET INFO

13. INSTALL ELECTRICAL KEY OSCILLATOR INFO

14. INSTALL SHIFT LOCK CONTROL UNIT ASSEMBLY INFO

15. INSTALL AIR CONDITIONING CONTROL ASSEMBLY INFO

16. INSTALL GLOVE COMPARTMENT DOOR INFO

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17. INSTALL NO. 2 INSTRUMENT PANEL REGISTER INFO

18. INSTALL NO. 1 SIDE DEFROSTER NOZZLE INFO

19. INSTALL RADIO RECEIVER WITH BRACKET (w/o Navigation System) INFO

20. INSTALL NAVIGATION RECEIVER WITH BRACKET (w/ Navigation System) INFO

21. INSTALL UPPER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY INFO

22. INSTALL INSTRUMENT CLUSTER FINISH PANEL GARNISH INFO

23. INSTALL LOWER CENTER INSTRUMENT CLUSTER FINISH PANEL SUB-ASSEMBLY INFO

24. INSTALL INTEGRATION CONTROL AND PANEL ASSEMBLY INFO

25. INSTALL REAR CONSOLE BOX ASSEMBLY

HINT:

Refer to the procedure from Install Rear Console Box Assembly INFO.

26. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

27. INSTALL REAR NO. 3 FLOOR BOARD INFO

28. INSTALL REAR DECK FLOOR BOX INFO

29. INSTALL REAR NO. 2 FLOOR BOARD (for Separate Type) INFO

30. PERFORM DIAGNOSTIC SYSTEM CHECK

(a) Perform a diagnostic system check INFO.

31. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light INFO.

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DISPOSAL

CAUTION:

Before performing pre-disposal deployment of any SRS part, review and closely follow all applicable environmental and hazardous material regulations. Pre-disposal deployment may be considered hazardous material treatment.

1. PRECAUTION

CAUTION:

- An airbag or pretensioner may be activated by static electricity. To prevent this, be sure to touch a metal surface with your bare hands to discharge static electricity before performing this procedure.
- Never dispose of a driver side knee airbag assembly with an undeployed airbag.
- The airbag produces an exploding sound when it is deployed, so perform the operation outdoors and where it will not create a nuisance to nearby residents.
- When deploying the airbag, always use the specified SST (SRS Airbag Deployment Tool). Perform the operation in a place away from electrical noise.
- When deploying the airbag, perform the operation at least 10 m (32.8 ft.) away from the driver side knee airbag assembly.
- The driver side knee airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a driver side knee airbag assembly with a deployed airbag.
- Do not apply water etc. to a driver side knee airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

HINT:

When scrapping a vehicle equipped with an SRS or disposing of the driver side knee airbag assembly, be sure to deploy the airbag first in accordance with the procedure described below. If any abnormality occurs with the airbag deployment, contact the Service Dept. of TOYOTA MOTOR SALES, U.S.A., INC.

2. DISPOSE OF DRIVER SIDE KNEE AIRBAG ASSEMBLY (When Installed in Vehicle)

NOTICE:

- When disposing of the driver side knee airbag assembly, never use the customer's vehicle to deploy the airbag.
- Be sure to observe the following procedure when deploying the airbag.

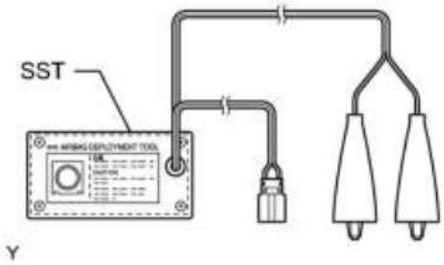
HINT:

Prepare a battery as the power source to deploy the airbag.

(a) Check the function of SST INFO.

SST: 09082-00700

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(b) Refer to Precaution INFO.

(c) Disconnect the cable from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(d) Remove the No. 1 instrument panel under cover sub-assembly INFO.

(e) Disconnect the driver side knee airbag connector.

(1) Using a screwdriver with the tip wrapped with protective tape, disconnect the airbag connector.

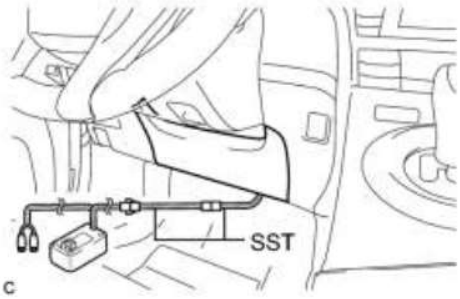
NOTICE:

When disconnecting any airbag connector, take care not to damage the airbag wire harness.

(f) Install SST.

CAUTION:

Check that there is no looseness in the driver side knee airbag assembly.



(1) Connect the SST connector to the driver side knee airbag assembly.

SST: 09082-00700

SST: 09082-00802

09082-10801

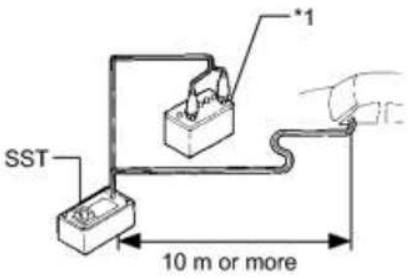
09082-20801

NOTICE:

To avoid damaging the SST connector or wire harness, do not lock the secondary lock of the twin lock.

(2) Move SST at least 10 m (32.8 ft.) away from the side window of the

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vehicle.

Text in Illustration

*1	Battery

(3) Maintaining sufficient clearance for the SST wire harness in the front side window, close all doors and windows of the vehicle.

NOTICE:

Take care not to damage the SST wire harness.

(4) Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

(g) Deploy the airbag.

(1) Check that no one is inside the vehicle or within a 10 m (32.8 ft.) radius of the vehicle.

(2) Press the SST activation switch and deploy the airbag.

CAUTION:

- Before deployment, make sure that no one is near the vehicle.
- The driver side knee airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a driver side knee airbag assembly with a deployed airbag.
- Do not apply water etc. to a driver side knee airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.

3. DISPOSE OF DRIVER SIDE KNEE AIRBAG ASSEMBLY (When Not Installed in Vehicle)

NOTICE:

Be sure to observe the following procedure when deploying the airbag.

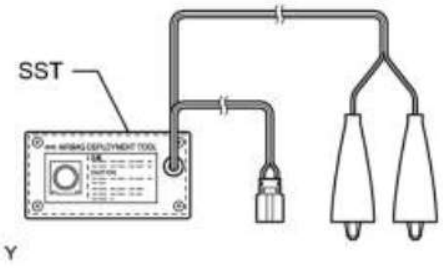
HINT:

Prepare a battery as the power source to deploy the airbag.

(a) Check the function of SST INFO.

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SST: 09082-00700

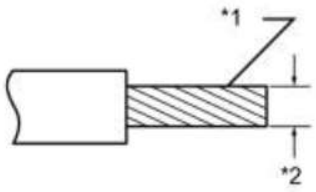


(b) Remove the driver side knee airbag assembly INFO.

CAUTION:

- Before removing the driver side knee airbag assembly, wait at least 90 seconds after turning the power switch off and disconnecting the cable from the negative (-) battery terminal.
- When storing the driver side knee airbag assembly, keep the airbag deployment side facing upward.

(c) Using braided wire, tie down the driver side knee airbag assembly to an unneeded tire.



Text in Illustration

*1	Stripped Wire Section
*2	Wire Diameter

Wire:

Stripped wire section

1.25 mm^2 (0.0019 $in.^2$) or more

CAUTION:

If the wire is too thin or an alternative object is used to tie down the driver side knee airbag assembly, it may snap when the airbag is deployed. Always use a wire for vehicle use with an area of at least 1.25 mm^2 (0.0019 $in.^2$).

HINT:

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To calculate the area of the stripped wire section:

Area = 3.14 x $(Diameter)^2$ / 4

(1) Position the driver side knee airbag assembly inside the tire with the airbag deployment side facing inside.

Minimum tire size:

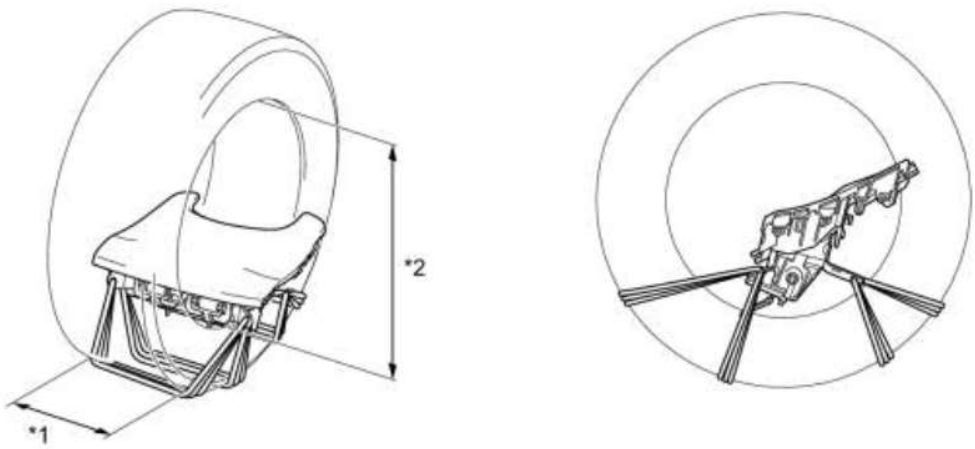
Must exceed the following dimensions

Width:

185 mm (7.28 in.)

Inner diameter:

360 mm (1.18 ft.)



c

Text in Illustration

*1	Width	*2	Inner Diameter

CAUTION:

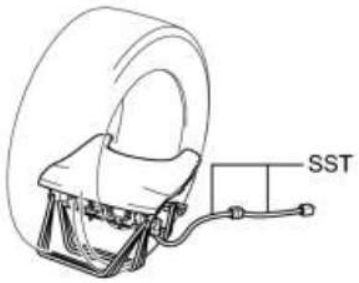
- Make sure that the wires are tight. If there is slack in the wires, the driver side knee airbag assembly may break loose when the airbag is deployed.
- Always tie down the driver side knee airbag assembly with the airbag deployment side facing inside the tire as shown in the illustration.

NOTICE:

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The tires may be marked by the airbag deployment, so use an unneeded tire.

(d) Install SST.

c 

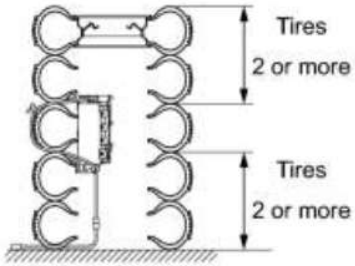
(1) After connecting the following SST to each other, connect them to the driver side knee airbag assembly.

SST: 09082-00802

09082-10801

09082-20801

(e) Place the tires.

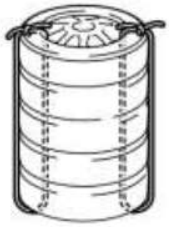
c 

(1) Place at least 2 tires under the tire to which the driver side knee airbag assembly is tied.

(2) Place at least 2 tires onto the tire to which the driver side knee airbag assembly is tied. The top tire should have a wheel installed.

NOTICE:

Do not place the SST connector under the tire because it could be damaged.



(3) Tie the tires together with the 2 wires.

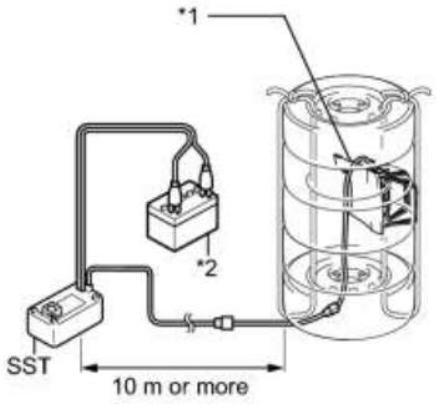
CAUTION:

Make sure that the wires are tight. Looseness in the wires results in the tires breaking loose when the airbag is deployed.

(f) Install SST.

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(1) Connect the SST connector.



P

Text in Illustration

*1	Driver Side Knee Airbag Assembly
*2	Battery

SST: 09082-00700

NOTICE:

To avoid damaging the SST connector or wire harness, do not lock the secondary lock of the twin lock. Also, secure some slack for the SST wire harness inside the tire.

(2) Move SST at least 10 m (32.8 ft.) away from the airbag tied down to the tire.

(g) Deploy the airbag.

(1) Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

(2) Check that no one is within a 10 m (32.8 ft.) radius of the tire to which the driver side knee airbag assembly is tied.

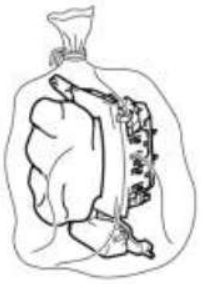
(3) Press the SST activation switch and deploy the airbag.

CAUTION:

Before deployment, make sure that no one is near the airbag.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.



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(h) Dispose of the driver side knee airbag assembly.

- The driver side knee airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a driver side knee airbag assembly with a deployed airbag.
- Do not apply water etc. to a driver side knee airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

(1) Remove the driver side knee airbag assembly from the tire.

(2) Place the driver side knee airbag assembly in a plastic bag, tie it

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tightly, and dispose of it according to local regulations.

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COMPONENTS

ILLUSTRATION



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ON-VEHICLE INSPECTION

CAUTION:

Be sure to follow the correct removal and installation procedures of the occupant classification ECU.

1. INSPECT OCCUPANT CLASSIFICATION ECU (for Vehicle not Involved in Collision)

(a) Perform a diagnostic system check INFO.

2. INSPECT OCCUPANT CLASSIFICATION ECU (for Vehicle Involved in Collision and Airbag not Deployed)

(a) Perform a diagnostic system check INFO.

(b) Visually check for defects with the occupant classification ECU.

(1) The defects are as follows:

- Cracks on the ECU housing
- Dents on the ECU housing
- Chips on the ECU housing
- Cracks or other damage to the connector
- Damage to the serial number

OK:

No defects are found.

HINT:

If any of the defects is found, replace the occupant classification ECU with a new one.

3. INSPECT OCCUPANT CLASSIFICATION ECU (for Vehicle Involved in Collision and Airbag is Deployed)

(a) Perform a diagnostic system check INFO.

(b) Visually check for defects with the occupant classification ECU.

(1) The defects are as follows:

- Cracks on the ECU housing
- Dents on the ECU housing
- Chips on the ECU housing
- Cracks or other damage to the connector
- Damage to the serial number

OK:

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No defects are found.

HINT:

If any of the defects is found, replace the occupant classification ECU with a new one.

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REMOVAL

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO.

NOTICE:

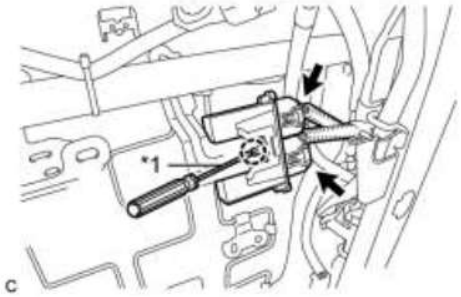
- When removing front seat assembly RH, perform zero point calibration and sensitivity check INFO.
- When replacing the occupant classification ECU, perform zero point calibration and sensitivity check INFO.

2. REMOVE FRONT SEAT ASSEMBLY RH

HINT:

- Use the same procedure for the RH side and LH side.
- Refer to the procedure up to Remove Front Seat Assembly INFO.

3. REMOVE OCCUPANT CLASSIFICATION ECU



(a) Disconnect the 2 connectors.

(b) Using a screwdriver with the tip wrapped with protective tape, disengage the claw and remove the occupant classification ECU.

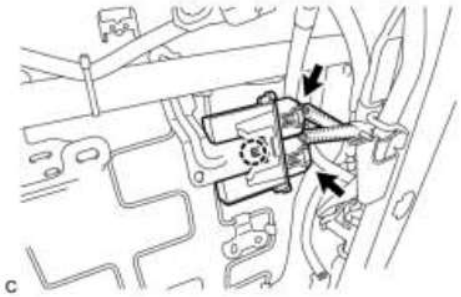
Text in Illustration

*1	Protective Tape

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INSTALLATION

1. INSTALL OCCUPANT CLASSIFICATION ECU



(a) Install the occupant classification ECU with the claw.

NOTICE:

If the occupant classification ECU has been dropped, or there are any cracks, dents or other defects in the case or connector, replace the occupant classification ECU with a new one.

(b) Connect the 2 connectors.

NOTICE:

When installing the occupant classification ECU, be careful that the SRS wiring does not interfere with or is pinched between other parts.

2. INSTALL FRONT SEAT ASSEMBLY RH

HINT:

- Use the same procedure for the RH side and LH side.
- Refer to the procedure from Install Front Seat Assembly INFO.

3. ZERO POINT CALIBRATION AND SENSITIVITY CHECK

(a) Perform zero point calibration and sensitivity check INFO.

4. PERFORM DIAGNOSTIC SYSTEM CHECK

(a) Perform a diagnostic system check INFO.

5. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light INFO.

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PRECAUTION

NOTICE:

When disconnecting the cable from the negative (-) battery terminal, initialize the following systems after the cable is reconnected.

System Name	See Procedure
Advanced Parking Guidance System	INFO

1. GENERAL PRECAUTION

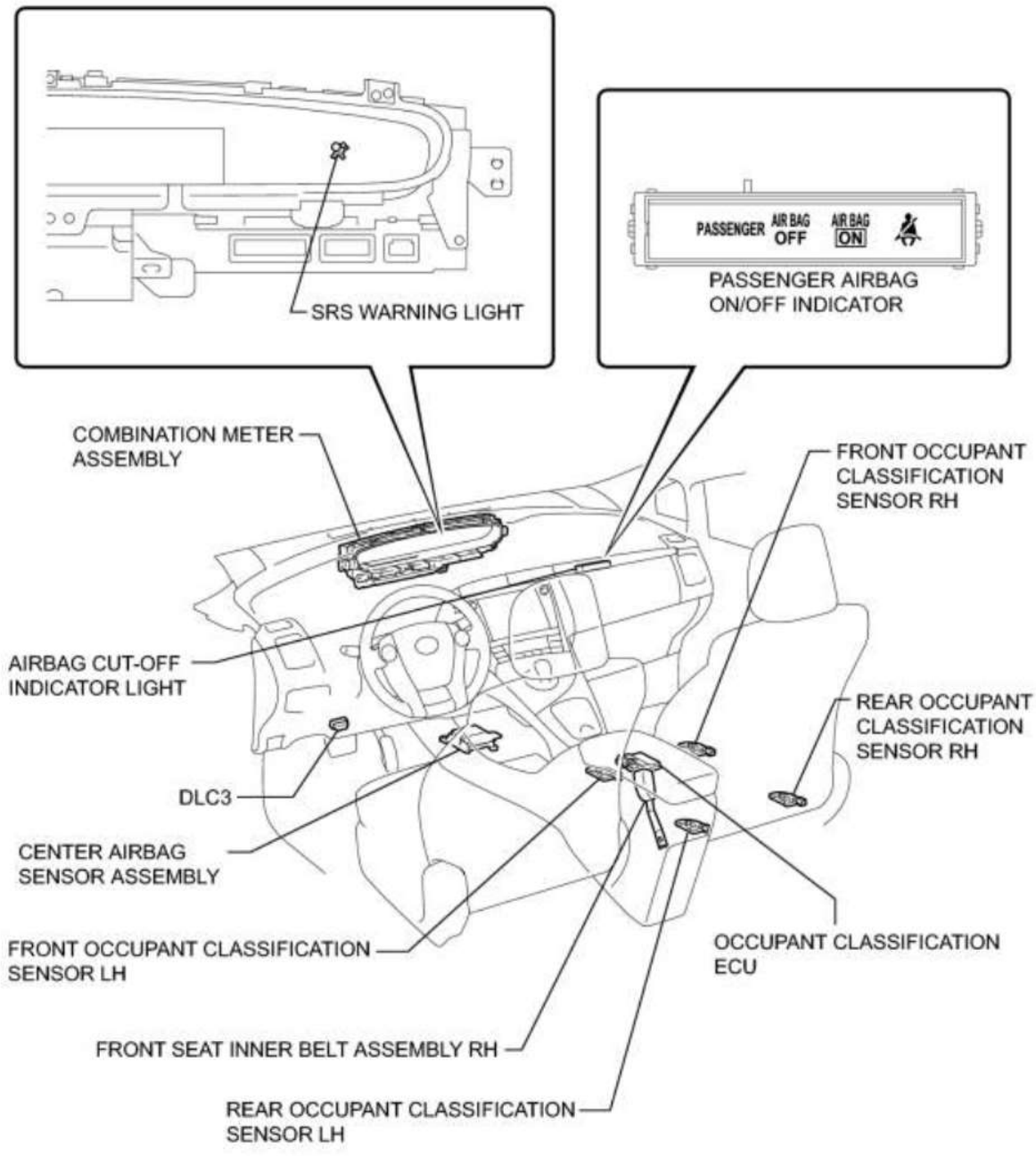
(a) Perform zero point calibration and sensitivity check if any of the following conditions occur:

- The occupant classification ECU is replaced.
- Accessories (seatback tray and seat cover, etc.) are installed.
- The front passenger seat is removed from the vehicle.
- The passenger airbag ON/OFF indicator ("OFF") comes on when the front passenger seat is not occupied.
- The vehicle is brought to the workshop for repair due to an accident or a collision.

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PARTS LOCATION

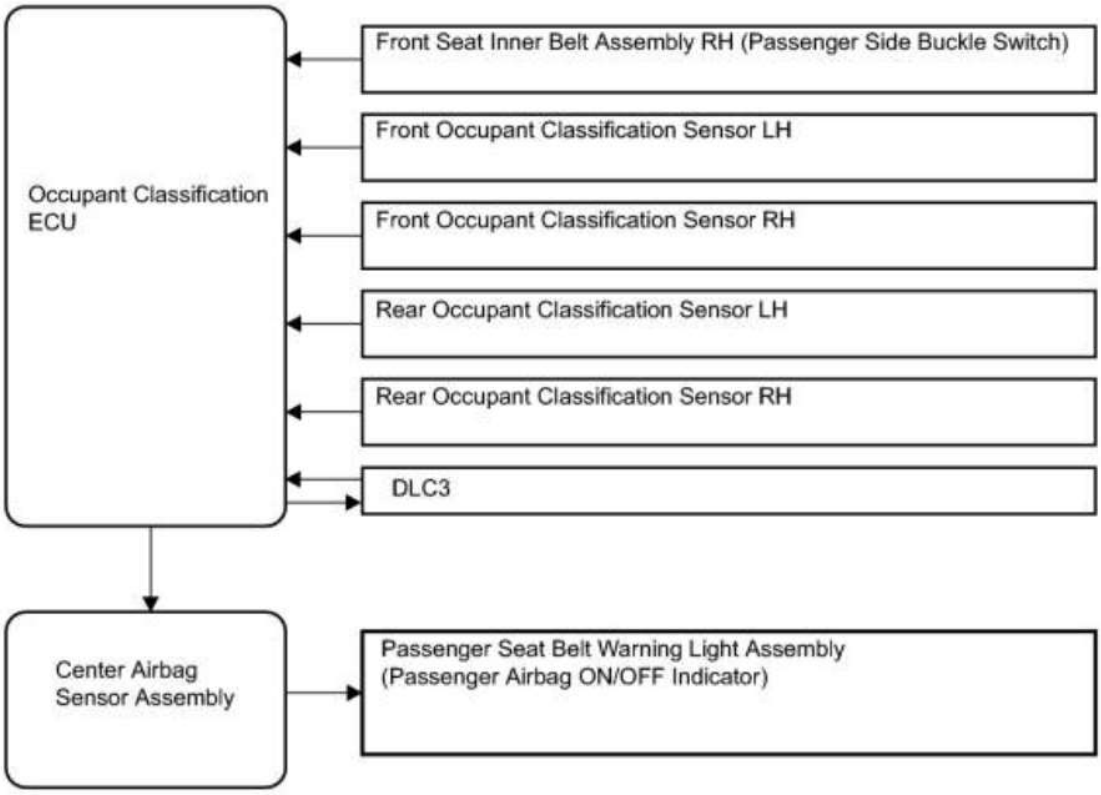
ILLUSTRATION



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SYSTEM DIAGRAM



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SYSTEM DESCRIPTION

1. GENERAL

(a) In the occupant classification system, the occupant classification ECU calculates the weight of the occupant based on signals from the occupant classification sensors. This system recognizes the occupant as a child if it detects a weight of less than 36 kg (79.3 lb), and disables the front passenger airbag and front seat belt pretensioner RH.

(b) This system is mainly comprised of 4 occupant classification sensors that detect the load on the front passenger seat. The occupant classification ECU controls the system, and the passenger airbag ON/OFF indicator indicates the ON/OFF condition of the front passenger airbag and front seat belt pretensioner RH.

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HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

- Use the following procedure to troubleshooting the occupant classification system.
- *: Use the Techstream.

1.	VEHICLE BROUGHT TO WORKSHOP

NEXT

2.	CUSTOMER PROBLEM ANALYSIS

(a) Confirm problem symptoms INFO.

NEXT

3.	PASSENGER AIRBAG ON/OFF INDICATOR CHECK

NEXT

4.	DTC CHECK (Present and History DTCs)

(a) Check for DTCs.

Result:

Result	Proceed to
DTC is output.	A
DTC is not output.	B

B GO TO PROBLEM SYMPTOMS TABLE

A

5.	DTC CHART

NEXT

6.	CIRCUIT INSPECTION*

NEXT

7.	REPAIR

NEXT

8.	CLEAR DTCS (Present and History DTCs)*

(a) Clear the DTCs.

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NEXT

9.	DTC CHECK (Present and History DTCs)*

(a) Check for DTCs.

Result:

Result	Proceed to
DTC is not output.	A
DTC is output.	B

B GO TO DIAGNOSTIC TROUBLE CODE CHART

A

10.	SYMPTOM SIMULATION

(a) Check the passenger airbag ON/OFF indicator condition.

Result:

Result	Proceed to
Passenger airbag ON/OFF indicator operates normally.	A
Passenger airbag ON/OFF indicator ("OFF") and SRS warning light come on.	B

B GO TO DIAGNOSTIC TROUBLE CODE CHART

A

11.	CONFIRMATION TEST

NEXT **END**

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INITIALIZATION

NOTICE:

Make sure that the front passenger seat is not occupied before performing the operation.

HINT:

Perform zero point calibration and sensitivity check if any of the following conditions occur:

- The occupant classification ECU is replaced.
- Accessories (seatback tray and seat cover, etc.) are installed.
- The front passenger seat is removed from the vehicle.
- The passenger airbag ON/OFF indicator ("OFF") comes on when the front passenger seat is not occupied.
- The vehicle is brought to the workshop for repair due to an accident or a collision.

1. ZERO POINT CALIBRATION

(a) Zero point calibration procedure

HINT:

Make sure that zero point calibration has finished normally, and then perform the sensitivity check.

(1) Check that all of the following conditions are met:

- The vehicle is parked on a level surface.
- No objects are placed on the front passenger seat.
- The front passenger seat belt buckle switch is off.

(2) Adjust the seat position according to the table below.

Adjustment Item	Position
Slide Direction	Rearmost position
Reclining Angle	Upright position
Headrest Height	Lowest position
Lifter Height	Lowest position

(3) Turn the power switch off.

(4) Connect the Techstream to the DLC3.

(5) Turn the power switch on (IG).

(6) Turn the Techstream on.

(7) Enter the following menus: Body Electrical / Occupant Detection / Utility / Zero Point Calibration.

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(8) Perform zero point calibration by following the prompts on the Techstream screen.

HINT:

- Refer to the Techstream operator's manual for further details.
- If zero point calibration does not complete, replace the front seat cushion spring assembly.

OK:

"Zero Point Calibration is complete." is displayed.

2. SENSITIVITY CHECK

(a) Sensitivity check procedure

(1) Turn the power switch off.

(2) Connect the Techstream to the DLC3.

(3) Turn the power switch on (IG).

(4) Turn the Techstream on.

(5) Enter the following menus: Body Electrical / Occupant Detection / Utility / Sensitivity Check.

(6) Perform sensitivity check by following the prompts on the Techstream screen.

HINT:

Refer to the Techstream operator's manual for further details.

(7) Confirm that the initial sensor reading is within the specified range.

Standard:

-3.2 to 3.2 kg (-7.0 to 7.0 lb)

(8) Place a 30 kg (66.1 lb) weight (e.g. a 30 kg (66.1 lb) of lead mass) onto the front passenger seat.

(9) Confirm that sensitivity is within the specified range.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

HINT:

- When performing sensitivity check, use a solid metal weight (the check result may not appear properly if a liquid weight is used).

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- If sensitivity deviates from the specified range, retighten the bolts of the front passenger seat without deforming the seat rail. After performing this procedure, if sensitivity is not within the specified range, replace the Front seat cushion spring assembly.

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PROBLEM SYMPTOMS TABLE

HINT:

- Use the table below to help determine the cause of problem symptoms. If multiple suspected areas are listed, the potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.
- Inspect the fuses and relays related to this system before inspecting the suspected areas below.

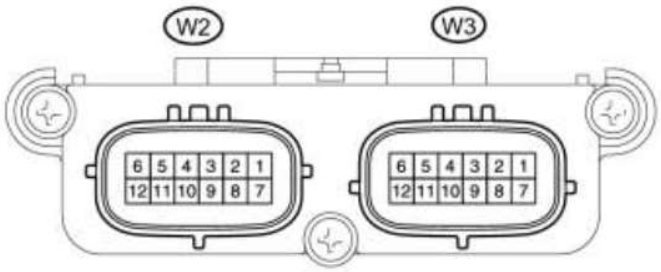
Occupant Classification System

Symptom	Suspected Area	See page
The front passenger seat condition differs from the indication by the passenger airbag ON/OFF indicator (DTC is not output).	Trouble in Passenger Airbag ON/OFF Indicator	INFO

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TERMINALS OF ECU

1. OCCUPANT CLASSIFICATION ECU



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Terminal No. (Symbol)	Wiring Color	Terminal Description	Condition	Specification
W3-1 (+B) - W3-3 (GND)	W - W-B	Battery	Always	11 to 14 V
W3-2 (DIA) - W3-3 (GND)	GR - W-B	Diagnosis (DLC3)	Power switch on (IG)	Pulse generation
W3-3 (GND) - Body ground	W-B - Body ground	Ground	Always	Below 1 V
W3-4 (FSR-) - W3-3 (GND)	LG - W-B	Center airbag sensor assembly communication line	Always	Below 1 V
W3-5 (BGND) - W3-3 (GND)	P - W-B	Passenger side buckle switch ground line	Always	Below 1 V
W3-7 (IG) - W3-3 (GND)	B - W-B	Power source	Power switch on (IG)	11 to 14 V
W3-8 (FSR+) - W3-4 (FSR-)	L - LG	Center airbag sensor assembly communication line	Power switch on (IG)	Pulse generation
W3-9 (BSW) - W3-5 (BGND)	G - P	Passenger side buckle switch line	Always	Pulse generation
W2-1 (SGD1) - W3-3 (GND)	G - W-B	Front occupant classification sensor LH ground line	Always	Below 1 V
W2-2 (SGD2) - W3-3 (GND)	LG - W-B	Front occupant classification sensor RH ground line	Always	Below 1 V
W2-3 (SGD3) - W3-3 (GND)	W - W-B	Rear occupant classification sensor LH ground line	Always	Below 1 V
W2-4 (SGD4) - W3-3 (GND)	BR - W-B	Rear occupant classification sensor RH ground line	Always	Below 1 V
W2-5 (SVC3) - W2-3 (SGD3)	GR - W	Rear occupant classification sensor LH power supply line	Power switch on (IG)	4.9 to 5.1 V
W2-6 (SVC4) -	V - BR	Rear occupant classification	Power switch on (IG)	4.9 to 5.1 V

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Terminal No. (Symbol)	Wiring Color	Terminal Description	Condition	Specification
W2-4 (SGD4)		sensor RH power supply line		
W2-7 (SIG1) - W2-1 (SGD1)	P - G	Front occupant classification sensor LH signal line	Power switch on (IG), a load applied to front occupant classification sensor LH	0 to 5.1 V
W2-8 (SIG2) - W2-2 (SGD2)	L - LG	Front occupant classification sensor RH signal line	Power switch on (IG), a load applied to front occupant classification sensor RH	0 to 5.1 V
W2-9 (SIG3) - W2-3 (SGD3)	SB - W	Rear occupant classification sensor LH signal line	Power switch on (IG), a load applied to rear occupant classification sensor LH	0 to 5.1 V
W2-10 (SIG4) - W2-4 (SGD4)	B - BR	Rear occupant classification sensor RH signal line	Power switch on (IG), a load applied to rear occupant classification sensor RH	0 to 5.1 V
W2-11 (SVC1) - W2-1 (SGD1)	R - G	Front occupant classification sensor LH power supply line	Power switch on (IG)	4.9 to 5.1 V
W2-12 (SVC2) - W2-2 (SGD2)	W - LG	Front occupant classification sensor RH power supply line	Power switch on (IG)	4.9 to 5.1 V

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DIAGNOSIS SYSTEM

1. CHECK DLC3

(a) Check the DLC3 INFO.

2. FUNCTION OF PASSENGER AIRBAG ON/OFF INDICATOR

(a) Initial check

(1) Turn the power switch on (IG).

(2) The passenger airbag ON/OFF indicator ("ON" and "OFF") comes on for approximately 4 seconds, then goes off for approximately 2 seconds.

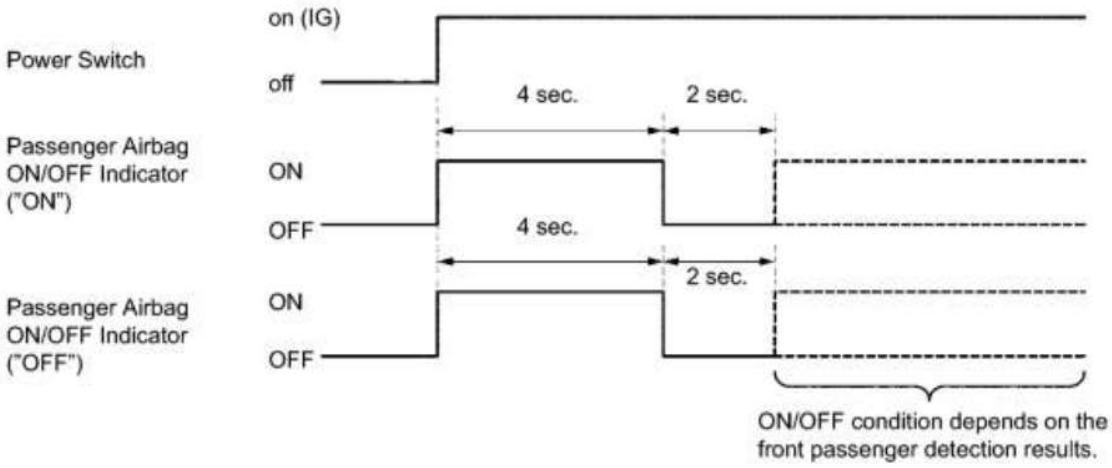
(3) Approximately 6 seconds after the power switch is turned on (IG), the passenger airbag ON/OFF indicator will indicate ON or OFF depending on the conditions listed below.

Front Passenger Seat Condition	Passenger Airbag ON/OFF Indicator		SRS Warning Light
	ON Indicator	OFF Indicator	
Vacant	OFF	OFF	OFF
Adult is seated.	ON	OFF	OFF
Child is seated.	OFF	ON	OFF
Child restraint system is set.	OFF	ON	OFF
Occupant classification system failure	OFF	ON	ON

HINT:

- The passenger airbag ON/OFF indicator illuminates based on the timing chart below in order to check the indicator light circuit.
- When the occupant classification system has trouble, both the SRS warning light and passenger airbag ON/OFF indicator ("OFF") come on. In this case, check the DTCs in the airbag system first.

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3. CHECK PASSENGER AIRBAG ON/OFF INDICATOR



(a) Turn the power switch on (IG).

P

(b) Check that the passenger airbag ON/OFF indicator ("ON" and "OFF") comes on for approximately 4 seconds, then goes off for approximately 2 seconds.

HINT:

Refer to the table in previous step regarding the passenger airbag ON/OFF indicator when the power switch is turned on (IG) and approximately 6 seconds elapse.

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DTC CHECK / CLEAR

1. DTC CHECK

(a) Turn the power switch off.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Turn the Techstream on.

(e) Enter the following menus: Body Electrical / Occupant Detection / Trouble Codes.

(f) Check the DTCs by following the prompts on the Techstream screen.

HINT:

Refer to the Techstream operator's manual for further details.

2. DTC CLEAR

(a) Turn the power switch off.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Turn the Techstream on.

(e) Enter the following menus: Body Electrical / Occupant Detection / Trouble Codes.

(f) Clear the DTCs by following the prompts on the Techstream screen.

HINT:

Refer to the Techstream operator's manual for further details.

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FAIL-SAFE CHART

1. FAIL SAFE FUNCTION

(a) The following chart shows the status of the controls when the system is normal and malfunctioning.

- The passenger airbag ON/OFF indicator ("ON" and "OFF") comes on for approximately 4 seconds, then goes off for approximately 2 seconds.
- Approximately 6 seconds after the power switch turned on (IG), the passenger airbag ON/OFF indicator will indicate ON or OFF depending on the conditions listed below.

Condition	ON Indicator	OFF Indicator	Front Passenger Airbag	Front Seat Side Airbag RH	Front Seat Belt Pretensioner RH	Curtain Shield Airbag RH
Adult is seated	ON	OFF	○	○	○	○
Child is seated	OFF	ON	X	○	○	○
Vacant	OFF	OFF	X	○	X	○
Failure	OFF	ON	X	○	○	○

HINT:

○: Deployable

X: Not deployable

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DATA LIST / ACTIVE TEST

1. DATA LIST

HINT:

Using the Techstream to read the Data List allows the values or states of switches, sensors, actuators and other items to be read without removing any parts. This non-intrusive inspection can be very useful because intermittent conditions or signals may be discovered before parts or wiring is disturbed. Reading the Data List information early in troubleshooting is one way to save diagnostic time.

NOTICE:

In the table below, the values listed under "Normal Condition" are reference values. Do not depend solely on these reference values when deciding whether a part is faulty or not.

(a) Turn the power switch off.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Turn the Techstream on.

(e) Enter the following menus: Body Electrical / Occupant Detection / Data List.

(f) Check the values by referring to the table below.

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
IG Switch	Power switch condition/ ON: Power switch on (IG) OFF: Power switch off	ON/OFF	-
Passenger Buckle SW	Passenger side buckle switch/ Set: The seat belt is fastened Unset: The seat belt is not fastened NG: Data is not determined	Set/Unset	-
Passenger Classification	Passenger classification/ AM50: Adult (more than 54 kg (119.1 lb)) is seated AF05: Adult (36 to 54 kg (79.4 to 119.1 lb)) is	AM50/AF05/Child/CRS/OFF	-

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Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
	seated Child: Child (less than 36 kg (79.3 lb)) is seated CRS: Child restraint system is installed (less than 32kg (70.6 lb) and passenger side buckle switch is on) OFF: Vacant		
Sensor Range Info	Sensor range information/ OK: The value of a sensor is within the range NG: The value of a sensor is over the range	OK	-
FL Sensor Range Info	Front left sensor range information/ OK: Sensor range is -17 to 27 kg (-37.5 to 59.5 lb) Min.: Less than -17 kg (-37.5 lb) Max.: More than 27 kg (59.5 lb)	OK	-
FR Sensor Range Info	Front right sensor range information/ OK: Sensor range is -17 to 27 kg (-37.5 to 59.5 lb) Min.: Less than -17 kg (-37.5 lb) Max.: More than 27 kg (59.5 lb)	OK	-
RL Sensor Range Info	Rear left sensor range information/ OK: Sensor range is -17 to 37 kg (-37.5 to 81.6 lb) Min.: Less than -17 kg (-37.5 lb) Max.: More than 37 kg (81.6 lb)	OK	-
RR Sensor Range Info	Rear right sensor range information/ OK: Sensor range is -17 to 37 kg (-37.5 to 81.6 lb) Min.: Less than -17 kg (-37.5 lb) Max.: More than 37 kg (81.6 lb)	OK	-

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Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
FL Sensor Voltage	Front left sensor voltage/ Min.: 0 V Max.: 19.8 V	0 to 5 V	-
FR Sensor Voltage	Front right sensor voltage/ Min.: 0 V Max.: 19.8 V	0 to 5 V	-
RL Sensor Voltage	Rear left sensor voltage/ Min.: 0 V Max.: 19.8 V	0 to 5 V	-
RR Sensor Voltage	Rear right sensor voltage/ Min.: 0 V Max.: 19.8 V	0 to 5 V	-
FL Sensor Weight Info	Front left sensor weight information/ Min.: -17 kg (-37.5 lb) Max.: 27 kg (59.5 lb)	-17 to 27 kg (-37.5 to 59.5 lb)	-
FR Sensor Weight Info	Front right sensor weight information/ Min.: -17 kg (-37.5 lb) Max.: 27 kg (59.5 lb)	-17 to 27 kg (-37.5 to 59.5 lb)	-
RL Sensor Weight Info	Rear left sensor weight information/ Min.: -17 kg (-37.5 lb) Max.: 37 kg (81.6 lb)	-17 to 37 kg (-37.5 to 81.6 lb)	-
RR Sensor Weight Info	Rear right sensor weight information/ Min.: -17 kg (-37.5 lb) Max.: 37 kg (81.6 lb)	-17 to 37 kg (-37.5 to 81.6 lb)	-
Total Weight Information	Total weight information/ Min.: -68 kg (-149.9 lb) Max.: 128 kg (282.2 lb)	-68 to 128 kg (-149.9 to 282.2 lb)	-

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Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
Number of Present DTC	Number of present DTC recorded/ Min.: 0, Max.: 255	0	-
Number of Past DTC	Number of past DTC recorded/ Min.: 0, Max.: 255	0	-

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DIAGNOSTIC TROUBLE CODE CHART

If a trouble code is displayed during the DTC check, check the circuit listed for the code in the table below (proceed to the page listed for that circuit).

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, perform troubleshooting for the occupant classification system as shown in the chart below.

Occupant Classification System

DTC Code	Detection Item	Trouble Area	Passenger Airbag ON/OFF Indicator (OFF indicator)	See page
B1771	Passenger Side Buckle Switch Circuit Malfunction	1. Front seat wire RH 2. Front seat inner belt assembly RH (Passenger side buckle switch) 3. Occupant classification ECU	ON	INFO
B1780	Front Occupant Classification Sensor LH Circuit Malfunction	1. Front seat wire RH 2. Front seat cushion spring assembly (Front occupant classification sensor LH)	ON	INFO
B1781	Front Occupant Classification Sensor RH Circuit Malfunction	1. Front seat wire RH 2. Front seat cushion spring assembly (Front occupant classification sensor RH)	ON	INFO
B1782	Rear Occupant Classification Sensor LH Circuit Malfunction	1. Front seat wire RH 2. Front seat cushion spring assembly (Rear occupant classification sensor LH)	ON	INFO
B1783	Rear Occupant Classification Sensor RH Circuit Malfunction	1. Front seat wire RH 2. Front seat cushion spring assembly (Rear occupant classification sensor RH)	ON	INFO
B1785	Front Occupant Classification Sensor LH Collision Detection	Front seat cushion spring assembly (Front occupant classification sensor LH)	ON	INFO
B1786	Front Occupant Classification Sensor RH Collision Detection	Front seat cushion spring assembly (Front occupant classification sensor RH)	ON	INFO
B1787	Rear Occupant Classification	Front seat cushion spring	ON	INFO

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DTC Code	Detection Item	Trouble Area	Passenger Airbag ON/OFF Indicator (OFF indicator)	See page
	Sensor LH Collision Detection	assembly (Rear occupant classification sensor LH)		
B1788	Rear Occupant Classification Sensor RH Collision Detection	Front seat cushion spring assembly (Rear occupant classification sensor RH)	ON	INFO
B1790	Center Airbag Sensor Assembly Communication Circuit Malfunction	1. No. 2 floor wire 2. Front seat wire RH 3. Occupant classification ECU 4. Center airbag sensor assembly	ON	INFO
B1793	Occupant Classification Sensor Power Supply Circuit Malfunction	1. Front seat wire RH 2. Front seat cushion spring assembly (Occupant classification sensors)	ON	INFO
B1794	Open in Occupant Classification ECU Battery Positive Line	1. Auxiliary battery 2. ECU-B fuse 3. Wire harness 4. Occupant classification ECU	ON	INFO
B1795	Occupant Classification ECU Malfunction	Occupant classification ECU	ON	INFO
B1796	Sleep Operation Failure of Occupant Classification ECU	Occupant classification ECU	ON	INFO

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DTC	B1771	Passenger Side Buckle Switch Circuit Malfunction

DESCRIPTION

The passenger side buckle switch circuit consists of the occupant classification ECU and front seat inner belt assembly RH.

DTC B1771 is stored when a malfunction is detected in the passenger side buckle switch circuit.

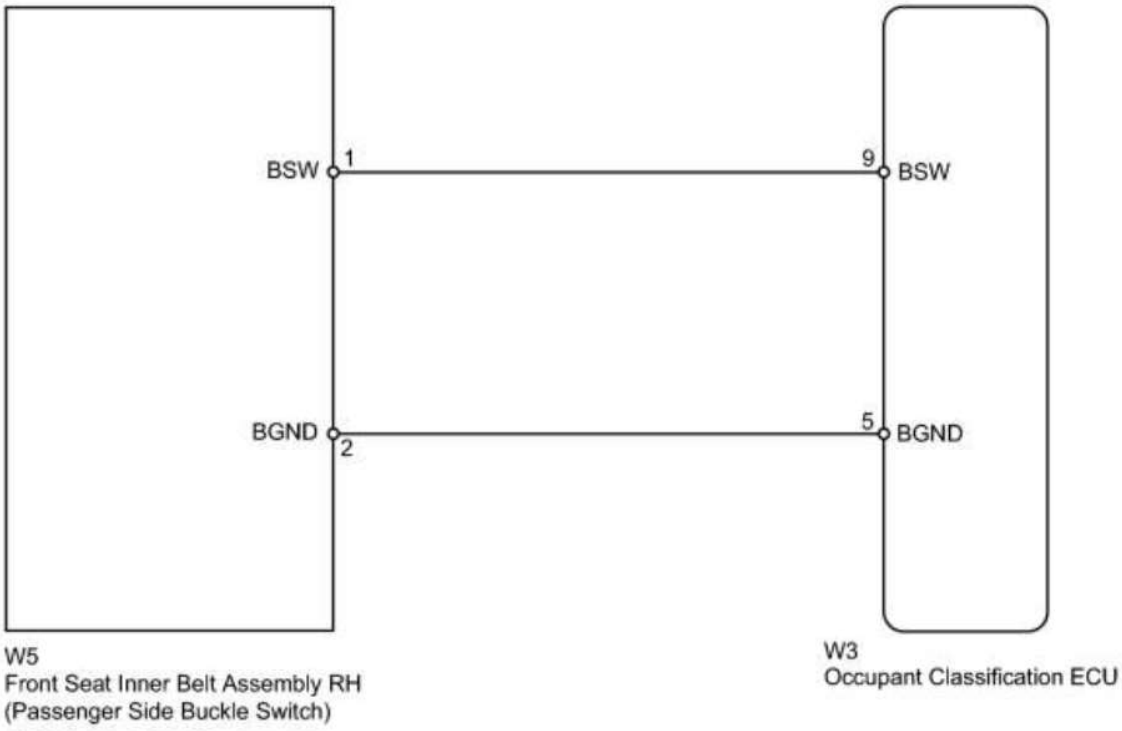
DTC No.	DTC Detection Condition	Trouble Area
B1771	• The occupant classification ECU receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the passenger side buckle switch circuit. • Passenger side buckle switch malfunction • Occupant classification ECU malfunction	• Front seat wire RH • Front seat inner belt assembly RH (Passenger side buckle switch) • Occupant classification ECU

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1771 is output, perform troubleshooting for the DTC.

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see under the seat cushion.
- In the above case, hold the seat so that it does not fall down. Hold the seat only as necessary because holding the seat for a long period of time may cause seat rail deformation.

PROCEDURE

1.	CHECK CONNECTORS

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Check that the connectors are properly connected to the occupant classification ECU and front seat inner belt assembly RH.

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OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the occupant classification ECU and front seat inner belt assembly RH.

(e) Check that the terminals of connectors are not damaged.

OK:

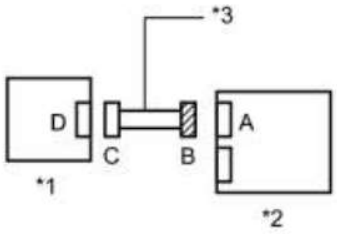
The terminals are not deformed or damaged.

NG ▶ REPLACE FRONT SEAT WIRE RH

OK

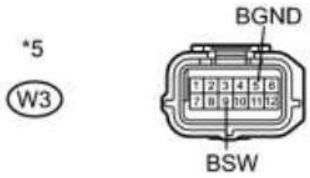
▼

2.	CHECK FRONT SEAT WIRE RH (SHORT TO B+)



(a) Connect the cable to the negative (-) battery terminal.

*4



(b) Turn the power switch on (IG).

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

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Standard Voltage:

Tester Connection	Condition	Specified Condition
W3-9 (BSW) - Body ground	Power switch on (IG)	Below 1 V
W3-5 (BGND) - Body ground	Power switch on (IG)	Below 1 V

Text in Illustration

*1	Front Seat Inner Belt Assembly RH
*2	Occupant Classification ECU
*3	Front Seat Wire RH
*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B

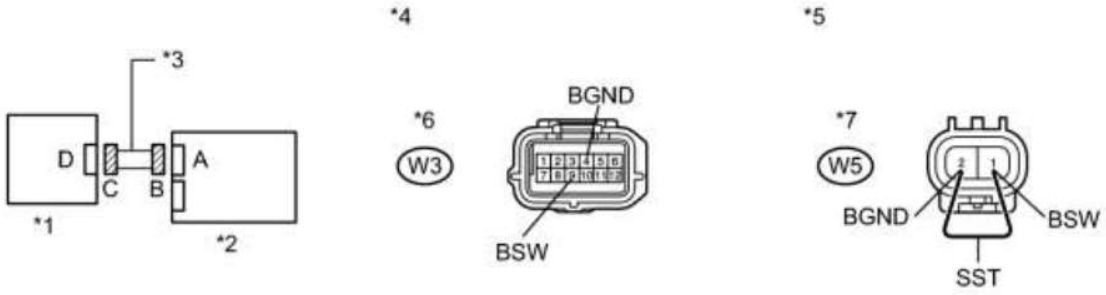
NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

3.	CHECK FRONT SEAT WIRE RH (OPEN)

(a) Turn the power switch off.



P

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Using SST, connect terminals 1 (BSW) and 2 (BGND) of connector C.

NOTICE:

Do not forcibly insert SST into the terminals of the connector when connecting.

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SST: 09843-18040

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

Standard Resistance:

Tester Connection	Condition	Specified Condition
W3-9 (BSW) - W3-5 (BGND)	Always	Below 1 Ω

Text in Illustration

*1	Front Seat Inner Belt Assembly RH	*2	Occupant Classification ECU
*3	Front Seat Wire RH	*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Front view of wire harness connector (to Front Seat Inner Belt Assembly RH)	*6	Connector B
*7	Connector C	-	-

NG ▶ REPLACE FRONT SEAT WIRE RH

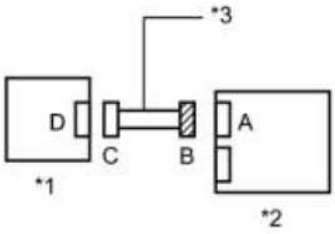
OK

▼

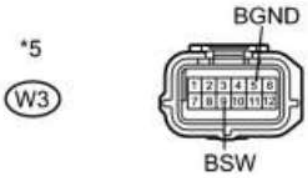
4.	CHECK FRONT SEAT WIRE RH (SHORT)

(a) Disconnect SST from connector C.

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*4



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

Standard Resistance:

Tester Connection	Condition	Specified Condition
W3-9 (BSW) - W3-5 (BGND)	Always	1 MΩ or higher

Text in Illustration

*1	Front Seat Inner Belt Assembly RH
*2	Occupant Classification ECU
*3	Front Seat Wire RH
*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B

NG ▶ REPLACE FRONT SEAT WIRE RH

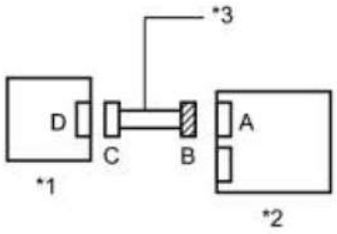
OK

▼

5.	CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)

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

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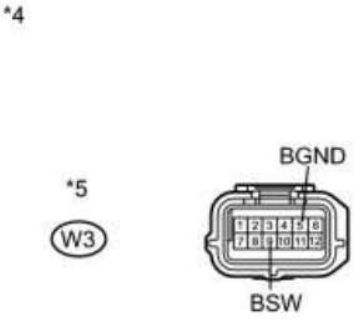


Standard Resistance:

Tester Connection	Condition	Specified Condition
W3-9 (BSW) - Body ground	Always	1 MΩ or higher
W3-5 (BGND) - Body ground	Always	1 MΩ or higher

Text in Illustration

*1	Front Seat Inner Belt Assembly RH
*2	Occupant Classification ECU
*3	Front Seat Wire RH
*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B



NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

6.	CHECK DTC

(a) Connect the connectors to the occupant classification ECU and front seat inner belt assembly RH.

(b) Connect the cable to the negative (-) battery terminal.

(c) Turn the power switch on (IG).

(d) Clear the DTCs stored in the occupant classification ECU INFO.

(e) Clear the DTCs stored in the center airbag sensor assembly INFO.

(f) Turn the power switch off.

(g) Turn the power switch on (IG).

(h) Check for DTCs INFO.

OK:

DTC B1771 is not output.

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HINT:

Codes other than DTC B1771 may be output at this time, but they are not related to this check.

NG ▶ REPLACE FRONT SEAT INNER BELT ASSEMBLY RH

OK ▶ **USE SIMULATION METHOD TO CHECK**

7.	REPLACE FRONT SEAT INNER BELT ASSEMBLY RH

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the front seat inner belt assembly RH INFO.

HINT:

Perform the inspection using parts from a normal vehicle if possible.

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the power switch on (IG).

(f) Clear the DTCs stored in the occupant classification ECU INFO.

(g) Clear the DTCs stored in the center airbag sensor assembly INFO.

(h) Turn the power switch off.

(i) Turn the power switch on (IG).

(j) Check for DTCs INFO.

OK:

DTC B1771 is not output.

HINT:

Codes other than DTC B1771 may be output at this time, but they are not related to this check.

NG ▶ REPLACE OCCUPANT CLASSIFICATION ECU

OK ▶ **END**

8.	REPLACE OCCUPANT CLASSIFICATION ECU

(a) Turn the power switch off.

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(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the occupant classification ECU INFO.

NEXT

▼

9.	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NEXT

▼

10.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NEXT ▶ **END**

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DTC	B1780	Front Occupant Classification Sensor LH Circuit Malfunction

DESCRIPTION

The front occupant classification sensor LH circuit consists of the occupant classification ECU and front occupant classification sensor LH.

DTC B1780 is stored when a malfunction is detected in the front occupant classification sensor LH circuit.

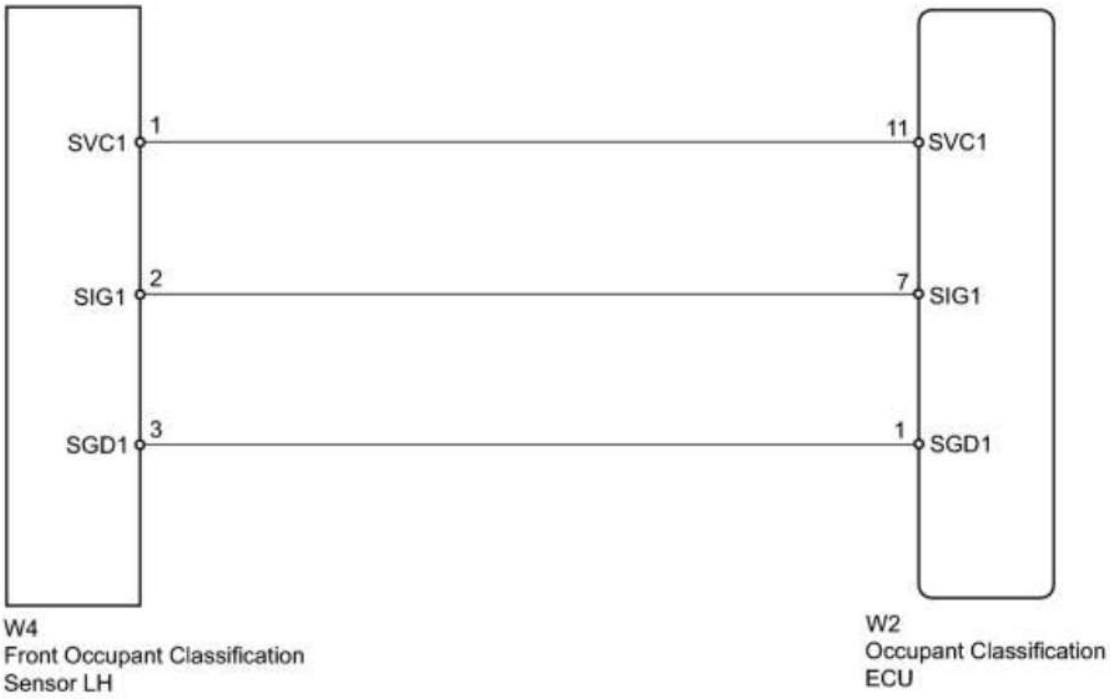
DTC No.	DTC Detection Condition	Trouble Area
B1780	• The occupant classification ECU receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the front occupant classification sensor LH circuit. • Front occupant classification sensor LH malfunction	• Front seat wire RH • Front seat cushion spring assembly (Front occupant classification sensor LH)

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1780 is output, perform troubleshooting for the DTC.

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see under the seat cushion.
- In the above case, hold the seat so that it does not fall down. Hold the seat only as necessary because holding the seat for a long period of time may cause seat rail deformation.

PROCEDURE

1.	CHECK CONNECTORS

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Check that the connectors are properly connected to the occupant classification ECU and front occupant classification sensor LH.

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OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the occupant classification ECU and front occupant classification sensor LH.

(e) Check that the terminals of connectors are not damaged.

OK:

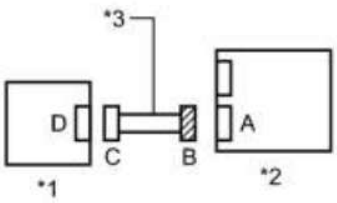
The terminals are not deformed or damaged.

NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

2.	CHECK FRONT SEAT WIRE RH (SHORT TO B+)



(a) Connect the cable to the negative (-) battery terminal.

*4



(b) Turn the power switch on (IG).

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

Standard Voltage:

Tester Connection	Condition	Specified Condition
W2-1 (SGD1) - Body ground	Power switch on (IG)	Below 1 V
W2-7 (SIG1) - Body ground	Power switch on (IG)	Below 1 V
W2-11 (SVC1) - Body ground	Power switch on (IG)	Below 1 V

Text in Illustration

*1	Front Occupant Classification Sensor LH
*2	Occupant Classification ECU
*3	Front Seat Wire RH
*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B

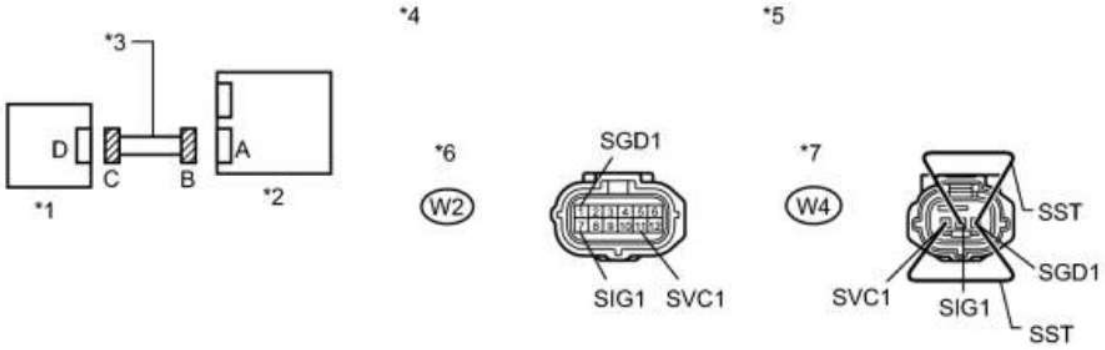
NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

3.	CHECK FRONT SEAT WIRE RH (OPEN)

(a) Turn the power switch off.



(b) Disconnect the cable from the negative (-) battery terminal.

(c) Using SST, connect terminals 1 (SVC1) and 3 (SGD1), and connect terminals 2 (SIG1) and 3 (SGD1) of connector C.

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NOTICE:

Do not forcibly insert SST into the terminals of the connector when connecting.

SST: 09843-18040

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

Standard Resistance:

Tester Connection	Condition	Specified Condition
W2-7 (SIG1) - W2-1 (SGD1)	Always	Below 1 Ω
W2-11 (SVC1) - W2-1 (SGD1)	Always	Below 1 Ω

Text in Illustration

*1	Front Occupant Classification Sensor LH	*2	Occupant Classification ECU
*3	Front Seat Wire RH	*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Front view of wire harness connector (to Front Occupant Classification Sensor LH)	*6	Connector B
*7	Connector C	-	-

NG ▶ REPLACE FRONT SEAT WIRE RH

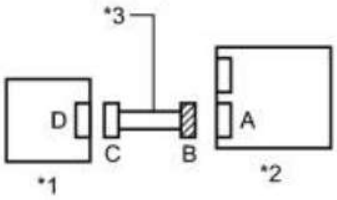
OK

▼

4.	CHECK FRONT SEAT WIRE RH (SHORT)

(a) Disconnect SST from connector C.

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*4



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

Standard Resistance:

Tester Connection	Condition	Specified Condition
W2-7 (SIG1) - W2-1 (SGD1)	Always	1 MΩ or higher
W2-11 (SVC1) - W2-1 (SGD1)	Always	1 MΩ or higher
W2-7 (SIG1) - W2-11 (SVC1)	Always	1 MΩ or higher

Text in Illustration

*1	Front Occupant Classification Sensor LH
*2	Occupant Classification ECU
*3	Front Seat Wire RH
*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B

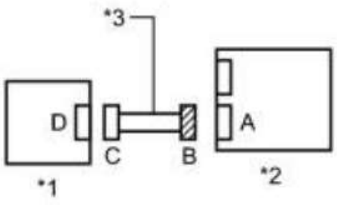
NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

5.	CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)

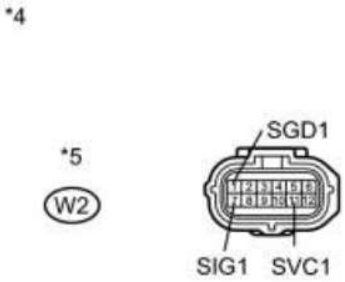
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(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

Tester Connection	Condition	Specified Condition
W2-1 (SGD1) - Body ground	Always	1 MΩ or higher
W2-7 (SIG1) - Body ground	Always	1 MΩ or higher
W2-11 (SVC1) - Body ground	Always	1 MΩ or higher



Text in Illustration

*1	Front Occupant Classification Sensor LH
*2	Occupant Classification ECU
*3	Front Seat Wire RH
*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B

NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

6.	CHECK DTC

(a) Connect the connectors to the occupant classification ECU and front occupant classification sensor LH.

(b) Connect the cable to the negative (-) battery terminal.

(c) Turn the power switch on (IG).

(d) Clear the DTCs stored in the occupant classification ECU INFO.

(e) Clear the DTCs stored in the center airbag sensor assembly INFO.

(f) Turn the power switch off.

(g) Turn the power switch on (IG).

(h) Check for DTCs INFO.

OK:

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DTC B1780 is not output.

HINT:

Codes other than DTC B1780 may be output at this time, but they are not related to this check.

NG ▶ REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

OK ▶ **USE SIMULATION METHOD TO CHECK**

7.	REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the front seat cushion spring assembly INFO.

NEXT

▼

8.	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NEXT

▼

9.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NEXT ▶ **END**

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DTC	B1781	Front Occupant Classification Sensor RH Circuit Malfunction

DESCRIPTION

The front occupant classification sensor RH circuit consists of the occupant classification ECU and front occupant classification sensor RH.

DTC B1781 is stored when a malfunction is detected in the front occupant classification sensor RH circuit.

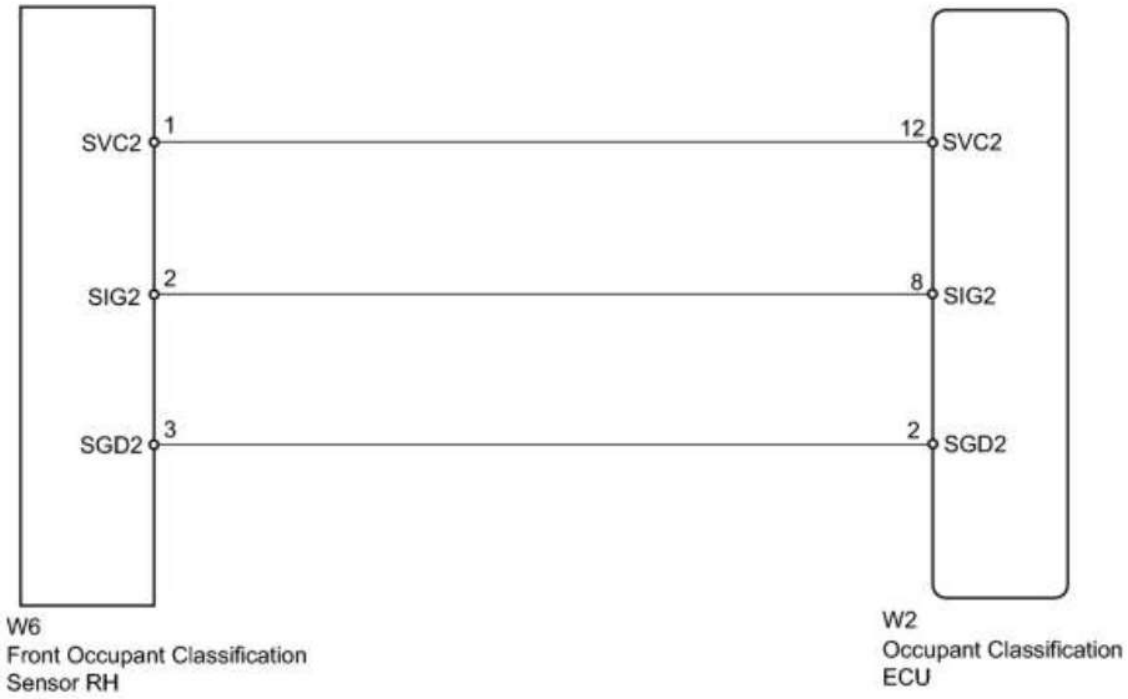
DTC No.	DTC Detection Condition	Trouble Area
B1781	• The occupant classification ECU receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the front occupant classification sensor RH circuit. • Front occupant classification sensor RH malfunction	• Front seat wire RH • Front seat cushion spring assembly (Front occupant classification sensor RH)

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1781 is output, perform troubleshooting for the DTC.

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see under the seat cushion.
- In the above case, hold the seat so that it does not fall down. Hold the seat only as necessary because holding the seat for a long period of time may cause seat rail deformation.

PROCEDURE

1.	CHECK CONNECTORS

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Check that the connectors are properly connected to the occupant classification ECU and front occupant classification sensor RH.

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OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the occupant classification ECU and front occupant classification sensor RH.

(e) Check that the terminals of connectors are not damaged.

OK:

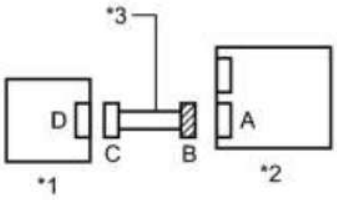
The terminals are not deformed or damaged.

NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

2.	CHECK FRONT SEAT WIRE RH (SHORT TO B+)



(a) Connect the cable to the negative (-) battery terminal.

*4



(b) Turn the power switch on (IG).

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

Standard Voltage:

Tester Connection	Condition	Specified Condition
W2-2 (SGD2) - Body ground	Power switch on (IG)	Below 1 V
W2-8 (SIG2) - Body ground	Power switch on (IG)	Below 1 V
W2-12 (SVC2) - Body ground	Power switch on (IG)	Below 1 V

Text in Illustration

*1	Front Occupant Classification Sensor RH
*2	Occupant Classification ECU
*3	Front Seat Wire RH
*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B

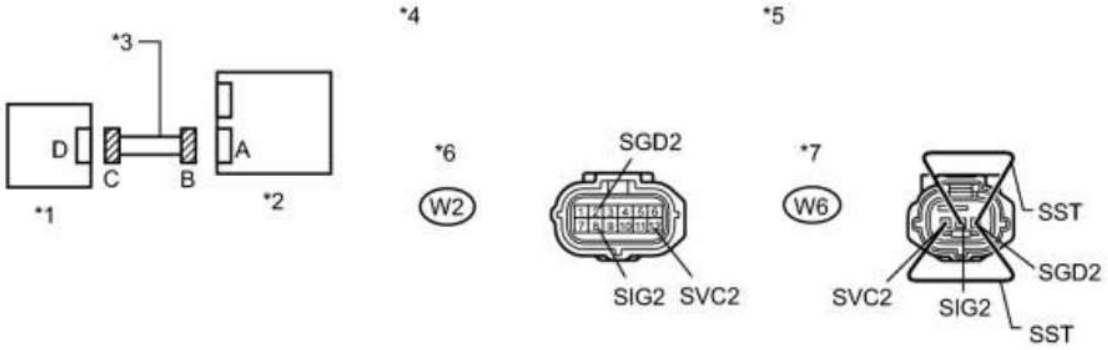
NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

3.	CHECK FRONT SEAT WIRE RH (OPEN)

(a) Turn the power switch off.



(b) Disconnect the cable from the negative (-) battery terminal.

(c) Using SST, connect terminals 1 (SVC2) and 3 (SGD2), and connect terminals 2 (SIG2) and 3 (SGD2) of connector C.

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NOTICE:

Do not forcibly insert SST into the terminals of the connector when connecting.

SST: 09843-18040

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

Standard Resistance:

Tester Connection	Condition	Specified Condition
W2-8 (SIG2) - W2-2 (SGD2)	Always	Below 1 Ω
W2-12 (SVC2) - W2-2 (SGD2)	Always	Below 1 Ω

Text in Illustration

*1	Front Occupant Classification Sensor RH	*2	Occupant Classification ECU
*3	Front Seat Wire RH	*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Front view of wire harness connector (to Front Occupant Classification Sensor RH)	*6	Connector B
*7	Connector C	-	-

NG ▶ REPLACE FRONT SEAT WIRE RH

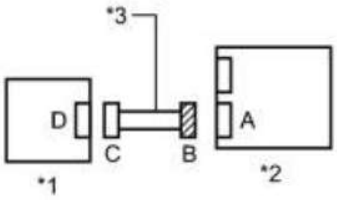
OK

▼

4.	CHECK FRONT SEAT WIRE RH (SHORT)

(a) Disconnect SST from connector C.

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*4



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

Standard Resistance:

Tester Connection	Condition	Specified Condition
W2-8 (SIG2) - W2-2 (SGD2)	Always	1 MΩ or higher
W2-12 (SVC2) - W2-2 (SGD2)	Always	1 MΩ or higher
W2-8 (SIG2) - W2-12 (SVC2)	Always	1 MΩ or higher

Text in Illustration

*1	Front Occupant Classification Sensor RH
*2	Occupant Classification ECU
*3	Front Seat Wire RH
*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B

NG ▶ REPLACE FRONT SEAT WIRE RH

OK

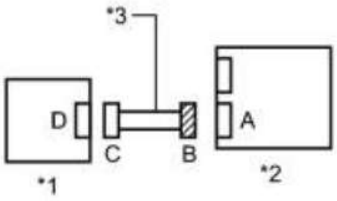
▼

5.	CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)

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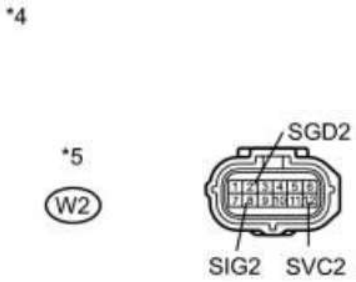
(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



Tester Connection	Condition	Specified Condition
W2-2 (SGD2) - Body ground	Always	1 MΩ or higher
W2-8 (SIG2) - Body ground	Always	1 MΩ or higher
W2-12 (SVC2) - Body ground	Always	1 MΩ or higher

Text in Illustration



*1	Front Occupant Classification Sensor RH
*2	Occupant Classification ECU
*3	Front Seat Wire RH
*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B

NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

6.	CHECK DTC

(a) Connect the connectors to the occupant classification ECU and front occupant classification sensor RH.

(b) Connect the cable to the negative (-) battery terminal.

(c) Turn the power switch on (IG).

(d) Clear the DTCs stored in the occupant classification ECU INFO.

(e) Clear the DTCs stored in the center airbag sensor assembly INFO.

(f) Turn the power switch off.

(g) Turn the power switch on (IG).

(h) Check for DTCs INFO.

OK:

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DTC B1781 is not output.

HINT:

Codes other than DTC B1781 may be output at this time, but they are not related to this check.

NG ▶ REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

OK ▶ **USE SIMULATION METHOD TO CHECK**

7.	REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the front seat cushion spring assembly INFO.

NEXT

▼

8.	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NEXT

▼

9.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NEXT ▶ **END**

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DTC	B1782	Rear Occupant Classification Sensor LH Circuit Malfunction

DESCRIPTION

The rear occupant classification sensor LH circuit consists of the occupant classification ECU and rear occupant classification sensor LH.

DTC B1782 is stored when a malfunction is detected in the rear occupant classification sensor LH circuit.

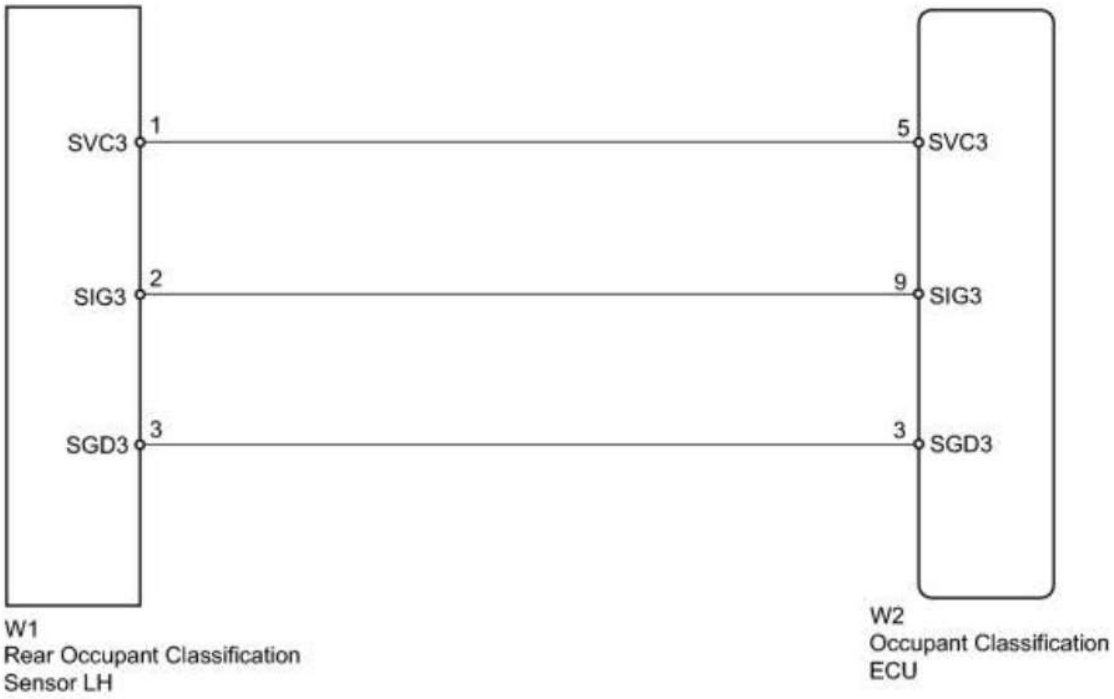
DTC No.	DTC Detection Condition	Trouble Area
B1782	• The occupant classification ECU receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the rear occupant classification sensor LH circuit. • Rear occupant classification sensor LH malfunction	• Front seat wire RH • Front seat cushion spring assembly (Rear occupant classification sensor LH)

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1782 is output, perform troubleshooting for the DTC.

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see under the seat cushion.
- In the above case, hold the seat so that it does not fall down. Hold the seat only as necessary because holding the seat for a long period of time may cause seat rail deformation.

PROCEDURE

1.	CHECK CONNECTORS

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Check that the connectors are properly connected to the occupant classification ECU and rear occupant classification sensor LH.

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OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the occupant classification ECU and rear occupant classification sensor LH.

(e) Check that the terminals of connectors are not damaged.

OK:

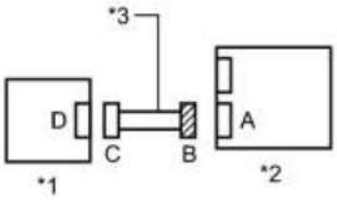
The terminals are not deformed or damaged.

NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

2.	CHECK FRONT SEAT WIRE RH (SHORT TO B+)



(a) Connect the cable to the negative (-) battery terminal.

*4



(b) Turn the power switch on (IG).

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

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Standard Voltage:

Tester Connection	Condition	Specified Condition
W2-3 (SGD3) - Body ground	Power switch on (IG)	Below 1 V
W2-5 (SVC3) - Body ground	Power switch on (IG)	Below 1 V
W2-9 (SIG3) - Body ground	Power switch on (IG)	Below 1 V

Text in Illustration

*1	Rear Occupant Classification Sensor LH
*2	Occupant Classification ECU
*3	Front Seat Wire RH
*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B

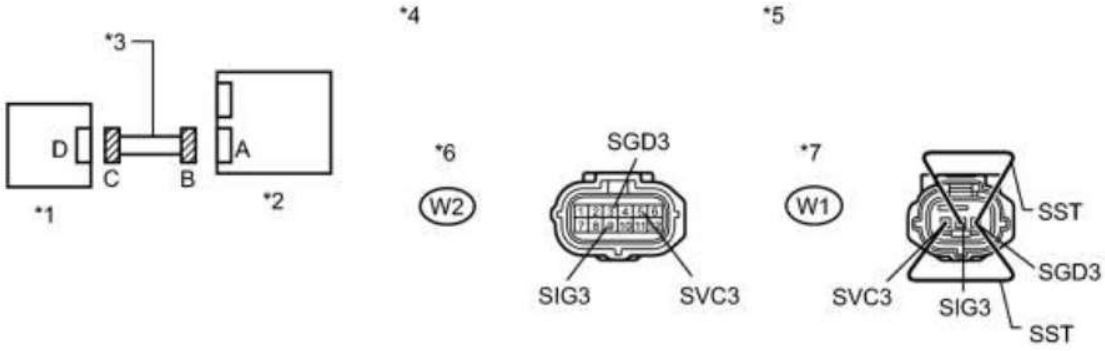
NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

3.	CHECK FRONT SEAT WIRE RH (OPEN)

(a) Turn the power switch off.



(b) Disconnect the cable from the negative (-) battery terminal.

(c) Using SST, connect terminals 1 (SVC3) and 3 (SGD3), and connect terminals 2 (SIG3) and 3 (SGD3) of connector C.

NOTICE:

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Do not forcibly insert SST into the terminals of the connector when connecting.

SST: 09843-18040

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

Standard Resistance:

Tester Connection	Condition	Specified Condition
W2-5 (SVC3) - W2-3 (SGD3)	Always	Below 1 Ω
W2-9 (SIG3) - W2-3 (SGD3)	Always	Below 1 Ω

Text in Illustration

*1	Rear Occupant Classification Sensor LH	*2	Occupant Classification ECU
*3	Front Seat Wire RH	*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Front view of wire harness connector (to Rear Occupant Classification Sensor LH)	*6	Connector B
*7	Connector C	-	-

NG ▶ REPLACE FRONT SEAT WIRE RH

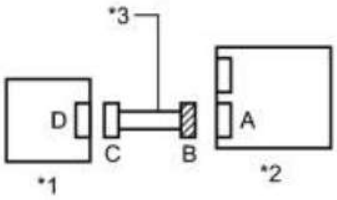
OK

▼

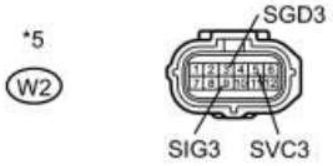
4.	CHECK FRONT SEAT WIRE RH (SHORT)

(a) Disconnect SST from connector C.

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*4



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

Standard Resistance:

Tester Connection	Condition	Specified Condition
W2-5 (SVC3) - W2-3 (SGD3)	Always	1 MΩ or higher
W2-9 (SIG3) - W2-3 (SGD3)	Always	1 MΩ or higher
W2-5 (SVC3) - W2-9 (SIG3)	Always	1 MΩ or higher

Text in Illustration

*1	Rear Occupant Classification Sensor LH
*2	Occupant Classification ECU
*3	Front Seat Wire RH
*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B

NG ▶ REPLACE FRONT SEAT WIRE RH

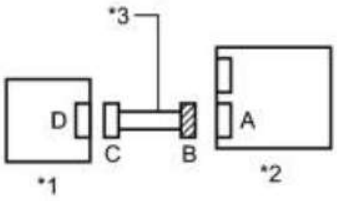
OK

▼

5.	CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)

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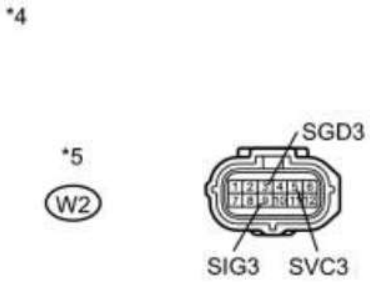
(a) Measure the resistance according to value(s) in the table below.



Standard Resistance:

Tester Connection	Condition	Specified Condition
W2-3 (SGD3) - Body ground	Always	1 MΩ or higher
W2-5 (SVC3) - Body ground	Always	1 MΩ or higher
W2-9 (SIG3) - Body ground	Always	1 MΩ or higher

Text in Illustration



*1	Rear Occupant Classification Sensor LH
*2	Occupant Classification ECU
*3	Front Seat Wire RH
*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B

NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

6.	CHECK DTC

(a) Connect the connectors to the occupant classification ECU and rear occupant classification sensor LH.

(b) Connect the cable to the negative (-) battery terminal.

(c) Turn the power switch on (IG).

(d) Clear the DTCs stored in the occupant classification ECU INFO.

(e) Clear the DTCs stored in the center airbag sensor assembly INFO.

(f) Turn the power switch off.

(g) Turn the power switch on (IG).

(h) Check for DTCs INFO.

OK:

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DTC B1782 is not output.

HINT:

Codes other than DTC B1782 may be output at this time, but they are not related to this check.

NG ▶ REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

OK ▶ **USE SIMULATION METHOD TO CHECK**

7.	REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the front seat cushion spring assembly INFO.

NEXT

▼

8.	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NEXT

▼

9.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NEXT ▶ **END**

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DTC	B1783	Rear Occupant Classification Sensor RH Circuit Malfunction

DESCRIPTION

The rear occupant classification sensor RH circuit consists of the occupant classification ECU and rear occupant classification sensor RH.

DTC B1783 is stored when a malfunction is detected in the rear occupant classification sensor RH circuit.

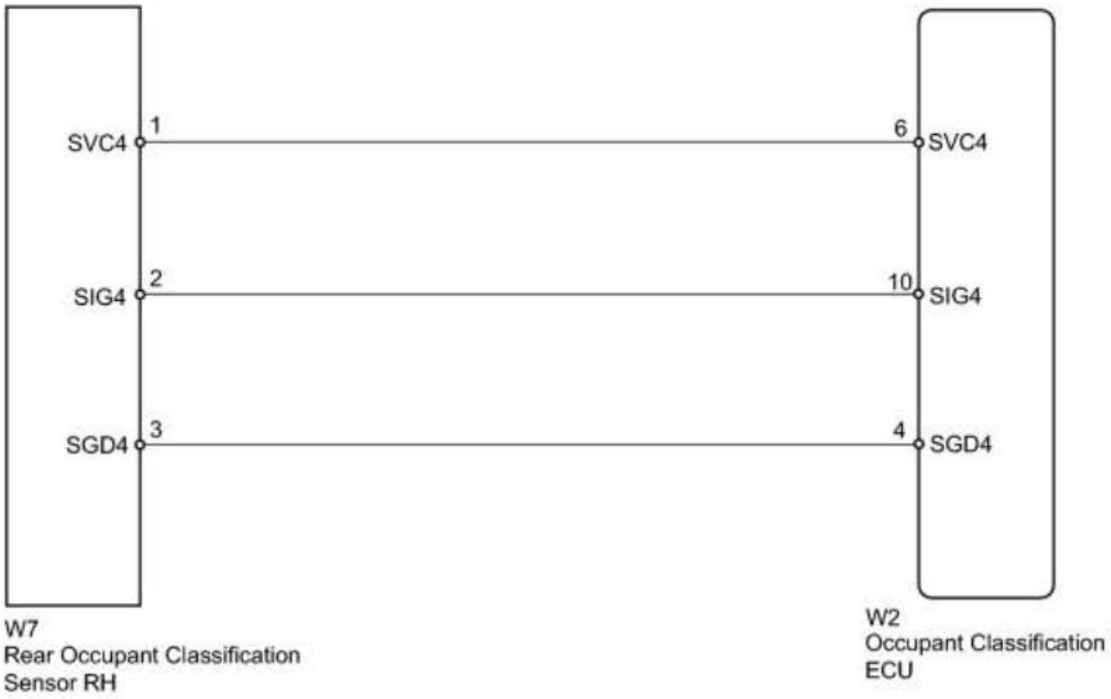
DTC No.	DTC Detecting Condition	Trouble Area
B1783	• The occupant classification ECU receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the rear occupant classification sensor RH circuit. • Rear occupant classification sensor RH malfunction	• Front seat wire RH • Front seat cushion spring assembly (Rear occupant classification sensor RH)

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1783 is output, perform troubleshooting for the DTC.

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see under the seat cushion.
- In the above case, hold the seat so that it does not fall down. Hold the seat only as necessary because holding the seat for a long period of time may cause seat rail deformation.

PROCEDURE

1.	CHECK CONNECTORS

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Check that the connectors are properly connected to the occupant classification ECU and rear occupant classification sensor RH.

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OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the occupant classification ECU and rear occupant classification sensor RH.

(e) Check that the terminals of connectors are not damaged.

OK:

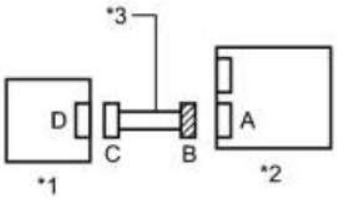
The terminals are not deformed or damaged.

NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

2.	CHECK FRONT SEAT WIRE RH (SHORT TO B+)



(a) Connect the cable to the negative (-) battery terminal.

*4



(b) Turn the power switch on (IG).

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

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Standard Voltage:

Tester Connection	Condition	Specified Condition
W2-4 (SGD4) - Body ground	Power switch on (IG)	Below 1 V
W2-6 (SVC4) - Body ground	Power switch on (IG)	Below 1 V
W2-10 (SIG4) - Body ground	Power switch on (IG)	Below 1 V

Text in Illustration

*1	Rear Occupant Classification Sensor RH
*2	Occupant Classification ECU
*3	Front Seat Wire RH
*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B

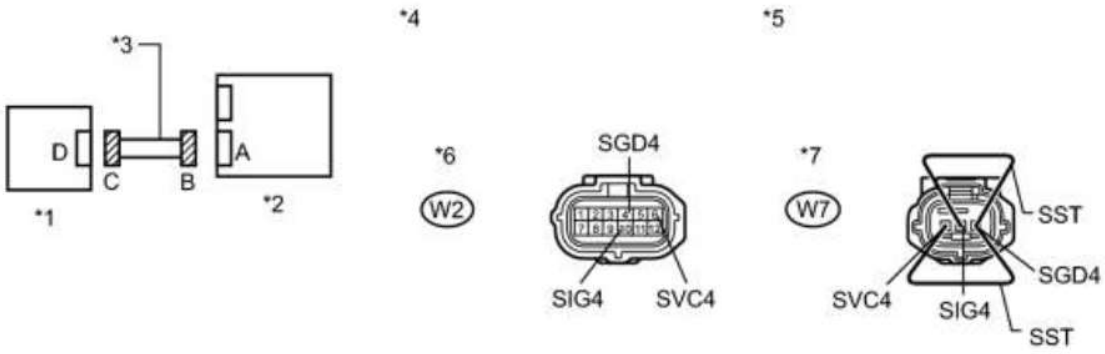
NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

3.	CHECK FRONT SEAT WIRE RH (OPEN)

(a) Turn the power switch off.



(b) Disconnect the cable from the negative (-) battery terminal.

(c) Using SST, connect terminals 1 (SVC4) and 3 (SGD4), and connect terminals 2 (SIG4) and 3 (SGD4) of connector C.

NOTICE:

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Do not forcibly insert SST into the terminals of the connector when connecting.

SST: 09843-18040

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

Standard Resistance:

Tester Connection	Condition	Specified Condition
W2-6 (SVC4) - W2-4 (SGD4)	Always	Below 1 Ω
W2-10 (SIG4) - W2-4 (SGD4)	Always	Below 1 Ω

Text in Illustration

*1	Rear Occupant Classification Sensor RH	*2	Occupant Classification ECU
*3	Front Seat Wire RH	*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Front view of wire harness connector (to Rear Occupant Classification Sensor RH)	*6	Connector B
*7	Connector C	-	-

NG ▶ REPLACE FRONT SEAT WIRE RH

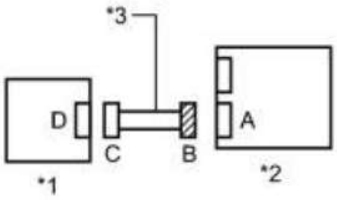
OK

▼

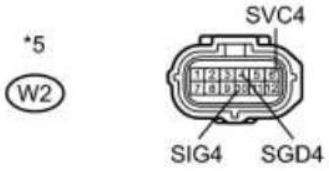
4.	CHECK FRONT SEAT WIRE RH (SHORT)

(a) Disconnect SST from connector C.

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*4



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

Standard Resistance:

Tester Connection	Condition	Specified Condition
W2-6 (SVC4) - W2-4 (SGD4)	Always	1 MΩ or higher
W2-10 (SIG4) - W2-4 (SGD4)	Always	1 MΩ or higher
W2-6 (SVC4) - W2-10 (SIG4)	Always	1 MΩ or higher

Text in Illustration

*1	Rear Occupant Classification Sensor RH
*2	Occupant Classification ECU
*3	Front Seat Wire RH
*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B

NG ▶ REPLACE FRONT SEAT WIRE RH

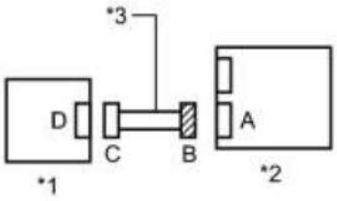
OK

▼

5.	CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)

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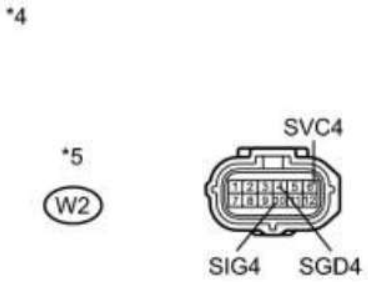
(a) Measure the resistance according to the value(s) in the table below.



Standard Resistance:

Tester Connection	Condition	Specified Condition
W2-4 (SGD4) - Body ground	Always	1 MΩ or higher
W2-6 (SVC4) - Body ground	Always	1 MΩ or higher
W2-10 (SIG4) - Body ground	Always	1 MΩ or higher

Text in Illustration



*1	Rear Occupant Classification Sensor RH
*2	Occupant Classification ECU
*3	Front Seat Wire RH
*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B

NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

6.	CHECK DTC

(a) Connect the connectors to the occupant classification ECU and rear occupant classification sensor RH.

(b) Connect the cable to the negative (-) battery terminal.

(c) Turn the power switch on (IG).

(d) Clear the DTCs stored in the occupant classification ECU INFO.

(e) Clear the DTCs stored in the center airbag sensor assembly INFO.

(f) Turn the power switch off.

(g) Turn the power switch on (IG).

(h) Check for DTCs INFO.

OK:

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DTC B1783 is not output.

HINT:

Codes other than DTC B1783 may be output at this time, but they are not related to this check.

NG ▶ REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

OK ▶ **USE SIMULATION METHOD TO CHECK**

7.	REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the front seat cushion spring assembly INFO.

NEXT

▼

8.	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NEXT

▼

9.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NEXT ▶ **END**

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DTC	B1785	Front Occupant Classification Sensor LH Collision Detection

DESCRIPTION

DTC B1785 is stored when the occupant classification ECU receives a collision detection signal sent by the front occupant classification sensor LH if an accident occurs.

DTC B1785 is also stored when the front seat assembly RH is subjected to a strong impact, even if an actual accident does not occur.

If the vehicle is not in a collision, but the occupant classification ECU outputs a collision detection signal and sets DTC B1785, the DTC can be cleared by performing Zero Point Calibration and Sensitivity Check.

Therefore, if DTC B1785 is output, first perform Zero Point Calibration and Sensitivity Check.

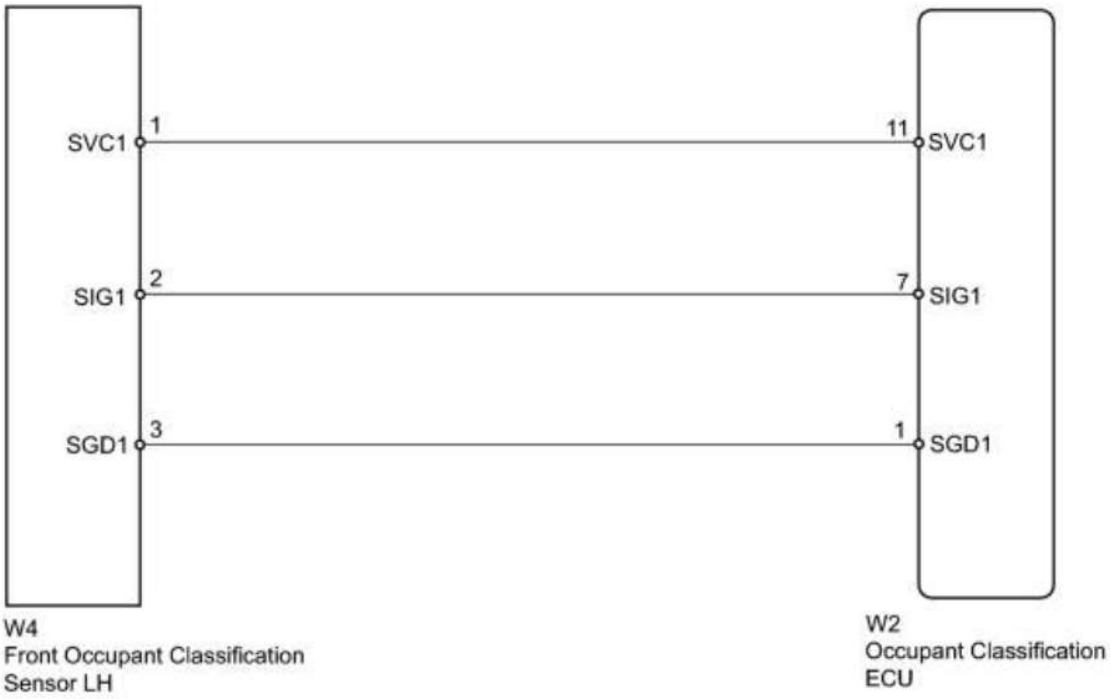
DTC No.	DTC Detection Condition	Trouble Area
B1785	• Front occupant classification sensor LH sensed large load • Front seat cushion spring assembly malfunction	• Front seat cushion spring assembly (Front occupant classification sensor LH)

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1785 is output, perform troubleshooting for the DTC.

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

1.	PERFORM ZERO POINT CALIBRATION

(a) Connect the Techstream to the DLC3.

(b) Turn the power switch on (IG).

(c) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NG ▶ REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

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OK

▼

2.	CHECK DTC

(a) Turn the power switch on (IG).

(b) Clear the DTCs stored in the occupant classification ECU INFO.

(c) Clear the DTCs stored in the center airbag sensor assembly INFO.

(d) Turn the power switch off.

(e) Turn the power switch on (IG).

(f) Check for DTCs INFO.

OK:

DTC B1785 is not output.

HINT:

Codes other than DTC B1785 may be output at this time, but they are not related to this check.

Result

Result	Proceed to
NG	A
OK	B

B ▶ PERFORM SENSITIVITY CHECK

A

▼

3.	REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the front seat cushion spring assembly INFO.

NEXT

▼

4.	PERFORM ZERO POINT CALIBRATION

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(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NEXT

5.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NEXT **END**

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DTC	B1786	Front Occupant Classification Sensor RH Collision Detection

DESCRIPTION

DTC B1786 is stored when the occupant classification ECU receives a collision detection signal sent by the front occupant classification sensor RH if an accident occurs.

DTC B1786 is also stored when the front seat assembly RH is subjected to a strong impact, even if an actual accident does not occur.

If the vehicle is not in a collision, but the occupant classification ECU outputs a collision detection signal and sets DTC B1786, the DTC can be cleared by performing Zero Point Calibration and Sensitivity Check.

Therefore, if DTC B1786 is output, first perform Zero Point Calibration and Sensitivity Check.

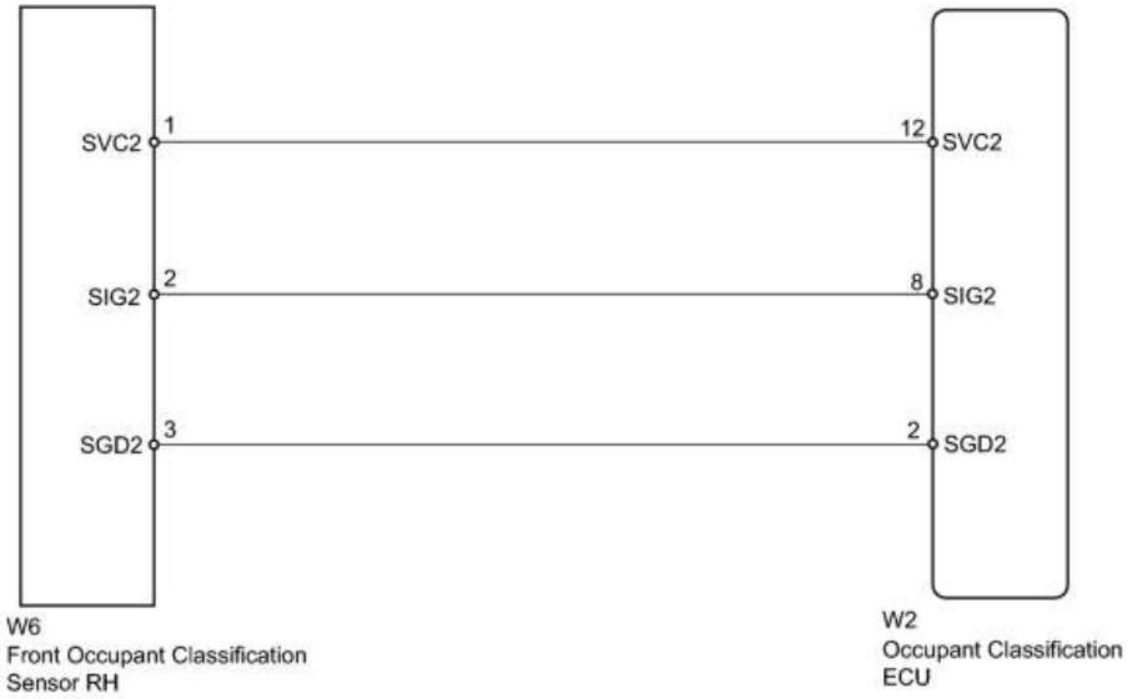
DTC No.	DTC Detection Condition	Trouble Area
B1786	• Front occupant classification sensor RH sensed large load • Front seat cushion spring assembly malfunction	• Front seat cushion spring assembly (Front occupant classification sensor RH)

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1786 is output, perform troubleshooting for the DTC.

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

1.	PERFORM ZERO POINT CALIBRATION

(a) Connect the Techstream to the DLC3.

(b) Turn the power switch on (IG).

(c) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NG ▶ REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

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OK

▼

2.	CHECK DTC

(a) Turn the power switch on (IG).

(b) Clear the DTCs stored in the occupant classification ECU INFO.

(c) Clear the DTCs stored in the center airbag sensor assembly INFO.

(d) Turn the power switch off.

(e) Turn the power switch on (IG).

(f) Check for DTCs INFO.

OK:

DTC B1786 is not output.

HINT:

Codes other than DTC B1786 may be output at this time, but they are not related to this check.

Result

Result	Proceed to
NG	A
OK	B

B ▶ PERFORM SENSITIVITY CHECK

A

▼

3.	REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the front seat cushion spring assembly INFO.

NEXT

▼

4.	PERFORM ZERO POINT CALIBRATION

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(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NEXT

5.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NEXT **END**

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DTC	B1787	Rear Occupant Classification Sensor LH Collision Detection

DESCRIPTION

DTC B1787 is stored when the occupant classification ECU receives a collision detection signal sent by the rear occupant classification sensor LH if an accident occurs.

DTC B1787 is also stored when the front seat assembly RH is subjected to a strong impact, even if an actual accident does not occur.

If the vehicle is not in a collision, but the occupant classification ECU outputs a collision detection signal and sets DTC B1787, the DTC can be cleared by performing Zero Point Calibration and Sensitivity Check.

Therefore, if DTC B1787 is output, first perform Zero Point Calibration and Sensitivity Check.

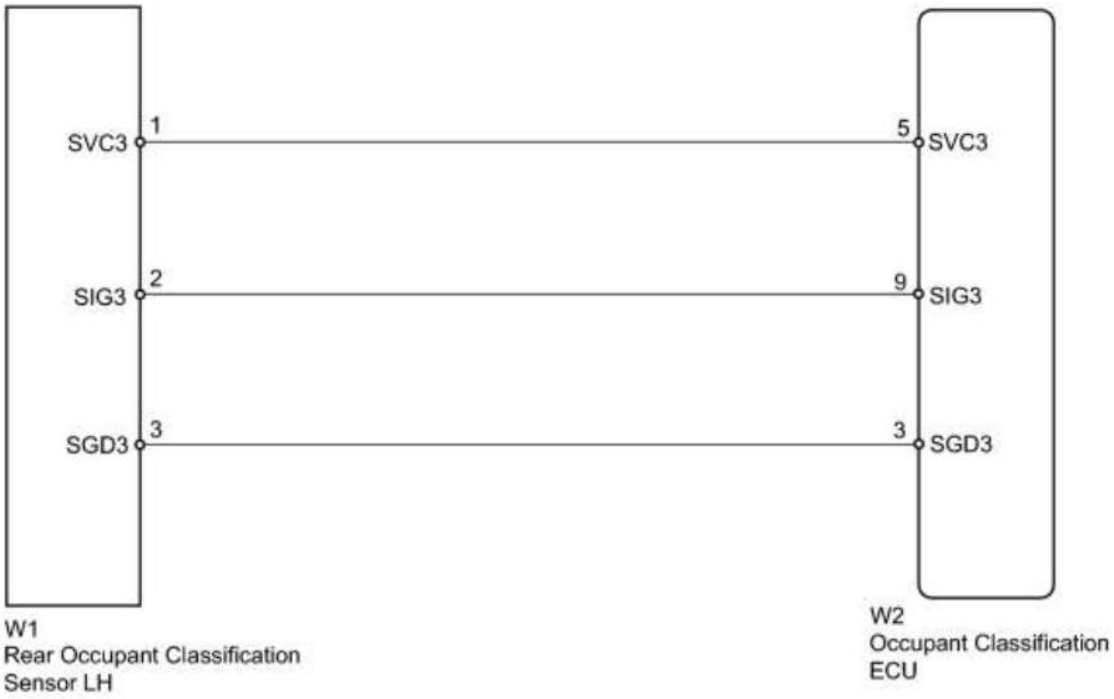
DTC No.	DTC Detection Condition	Trouble Area
B1787	• Rear occupant classification sensor LH sensed large load • Front seat cushion spring assembly malfunction	• Front seat cushion spring assembly (Rear occupant classification sensor LH)

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1787 is output, perform troubleshooting for the DTC.

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

1.	PERFORM ZERO POINT CALIBRATION

(a) Connect the Techstream to the DLC3.

(b) Turn the power switch on (IG).

(c) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NG ▶ REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

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OK

▼

2.	CHECK DTC

(a) Turn the power switch on (IG).

(b) Clear the DTCs stored in the occupant classification ECU INFO.

(c) Clear the DTCs stored in the center airbag sensor assembly INFO.

(d) Turn the power switch off.

(e) Turn the power switch on (IG).

(f) Check for DTCs INFO.

OK:

DTC B1787 is not output.

HINT:

Codes other than DTC B1787 may be output at this time, but they are not related to this check.

Result

Result	Proceed to
NG	A
OK	B

B ▶ PERFORM SENSITIVITY CHECK

A

▼

3.	REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the front seat cushion spring assembly INFO.

NEXT

▼

4.	PERFORM ZERO POINT CALIBRATION

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(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NEXT

5.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NEXT **END**

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DTC	B1788	Rear Occupant Classification Sensor RH Collision Detection

DESCRIPTION

DTC B1788 is stored when the occupant classification ECU receives a collision detection signal sent by the rear occupant classification sensor RH if an accident occurs.

DTC B1788 is also stored when the front seat assembly RH is subjected to a strong impact, even if an actual accident does not occur.

If the vehicle is not in a collision, but the occupant classification ECU outputs a collision detection signal and sets DTC B1788, the DTC can be cleared by performing the Zero Point Calibration and Sensitivity Check.

Therefore, if DTC B1788 is output, first perform Zero Point Calibration and Sensitivity Check.

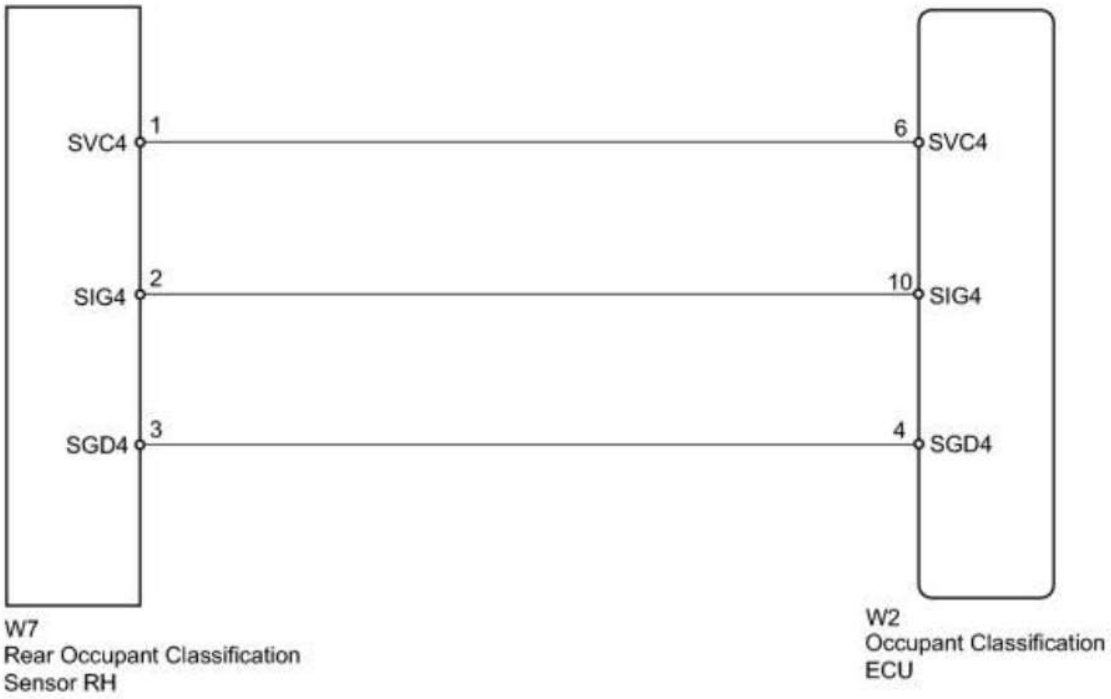
DTC No.	DTC Detection Condition	Trouble Area
B1788	• Rear occupant classification sensor RH sensed large load • Front seat cushion spring assembly malfunction	• Front seat cushion spring assembly (Rear occupant classification sensor RH)

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1788 is output, perform troubleshooting for the DTC.

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

1.	PERFORM ZERO POINT CALIBRATION

(a) Connect the Techstream to the DLC3.

(b) Turn the power switch on (IG).

(c) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NG ▶ REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

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OK

▼

2.	CHECK DTC

(a) Turn the power switch on (IG).

(b) Clear the DTCs stored in the occupant classification ECU INFO.

(c) Clear the DTCs stored in the center airbag sensor assembly INFO.

(d) Turn the power switch off.

(e) Turn the power switch on (IG).

(f) Check for DTCs INFO.

OK:

DTC B1788 is not output.

HINT:

Codes other than DTC B1788 may be output at this time, but they are not related to this check.

Result

Result	Proceed to
NG	A
OK	B

B ▶ PERFORM SENSITIVITY CHECK

A

▼

3.	REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the front seat cushion spring assembly INFO.

NEXT

▼

4.	PERFORM ZERO POINT CALIBRATION

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(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

OK

▼

5.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NEXT ▶ **END**

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DTC	B1790	Center Airbag Sensor Assembly Communication Circuit Malfunction

DESCRIPTION

The center airbag sensor assembly communication circuit consists of the occupant classification ECU and center airbag sensor assembly.

DTC B1790 is stored when a malfunction is detected in the center airbag sensor assembly communication circuit.

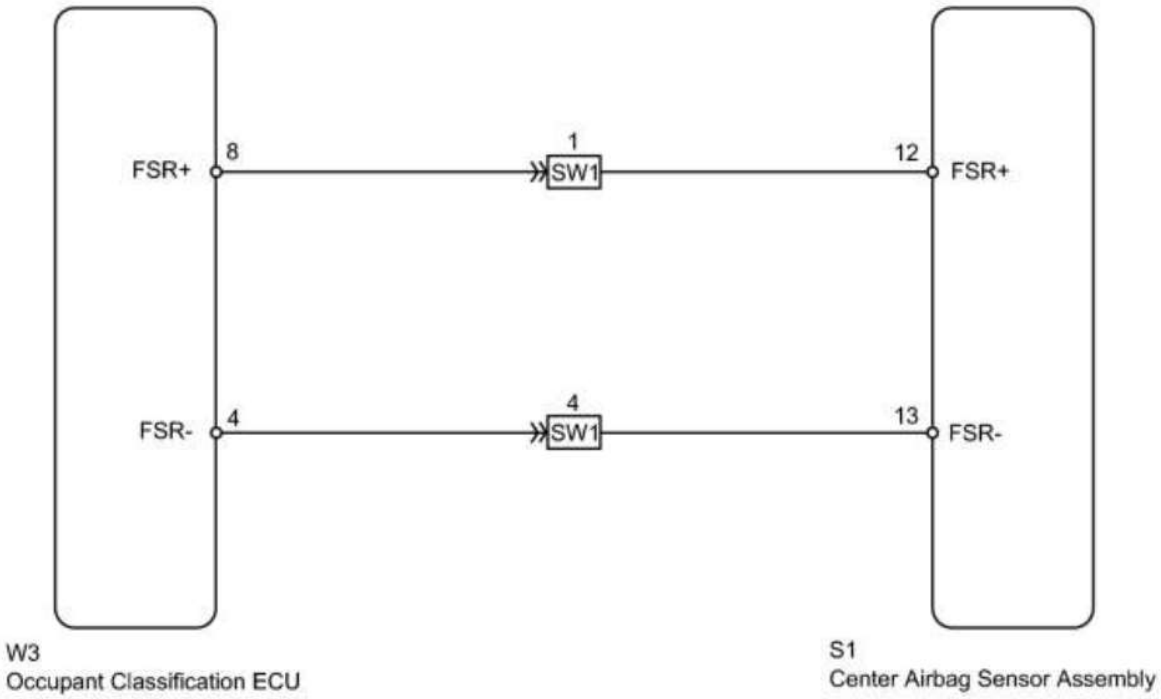
DTC No.	DTC Detection Condition	Trouble Area
B1790	• The occupant classification ECU receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the center airbag sensor assembly communication circuit. • Occupant classification ECU malfunction • Center airbag sensor assembly malfunction	• No. 2 floor wire • Front seat wire RH • Occupant classification ECU • Center airbag sensor assembly

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1790 is output, perform troubleshooting for the DTC.

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see under the seat cushion.
- In the above case, hold the seat so that it does not fall down. Hold the seat only as necessary because holding the seat for a long period of time may cause seat rail deformation.

PROCEDURE

1.	CHECK CONNECTORS

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

CAUTION:

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Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(c) Check that the connectors are properly connected to the center airbag sensor assembly and occupant classification ECU. Also check that the connectors that link the front seat wire RH and No. 2 floor wire are properly connected.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the center airbag sensor assembly and occupant classification ECU. Also disconnect the connectors that link the front seat wire RH and No. 2 floor wire.

(e) Check that the terminals of connectors are not damaged.

OK:

The terminals are not deformed or damaged.

NG ▶ REPLACE WIRE HARNESS

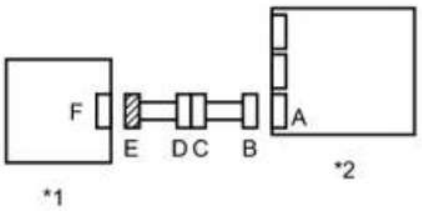
OK

▼

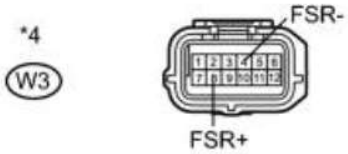
2.	CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT (SHORT TO B+)

(a) Connect the cable to the negative (-) battery terminal.

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*3



(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
W3-8 (FSR+) - Body ground	Power switch on (IG)	Below 1 V
W3-4 (FSR-) - Body ground	Power switch on (IG)	Below 1 V

Text in Illustration

*1	Occupant Classification ECU
*2	Center Airbag Sensor Assembly
*3	Front view of wire harness connector (to Occupant Classification ECU)
*4	Connector E

NG ▶ CHECK NO. 2 FLOOR WIRE (SHORT TO B+)

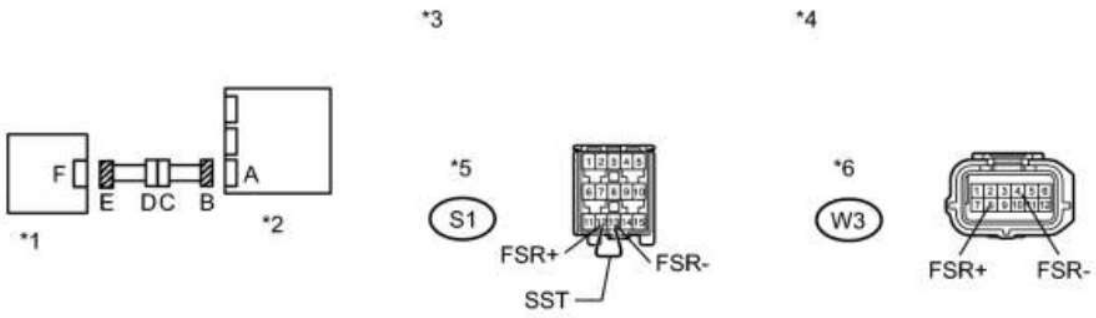
OK

▼

3.	CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT (OPEN)

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(a) Turn the power switch off.



(b) Disconnect the cable from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(c) Using SST, connect terminals 12 (FSR+) and 13 (FSR-) of connector B.

NOTICE:

Do not forcibly insert SST into the terminals of the connector when connecting.

SST: 09843-18040

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

Standard Resistance:

Tester Connection	Condition	Specified Condition
W3-8 (FSR+) - W3-4 (FSR-)	Always	Below 1 Ω

Text in Illustration

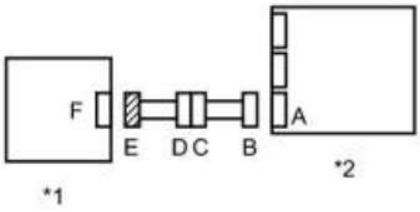
*1	Occupant Classification ECU	*2	Center Airbag Sensor Assembly
*3	Front view of wire harness connector (to Center Airbag Sensor Assembly)	*4	Front view of wire harness connector (to Occupant Classification ECU)
*5	Connector B	*6	Connector E

NG ▶ CHECK NO. 2 FLOOR WIRE (OPEN)

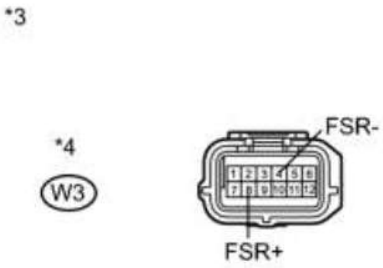
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OK

4.	CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT (SHORT)



(a) Disconnect SST from connector B.



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

Standard Resistance:

Tester Connection	Condition	Specified Condition
W3-8 (FSR+) - W3-4 (FSR-)	Always	1 MΩ or higher

Text in Illustration

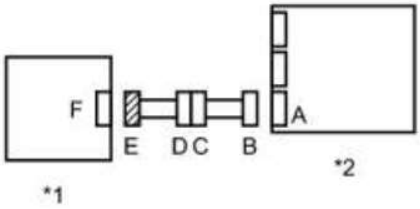
*1	Occupant Classification ECU
*2	Center Airbag Sensor Assembly
*3	Front view of wire harness connector (to Occupant Classification ECU)
*4	Connector E

NG CHECK NO. 2 FLOOR WIRE (SHORT)

OK

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5.	CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT (SHORT TO GROUND)

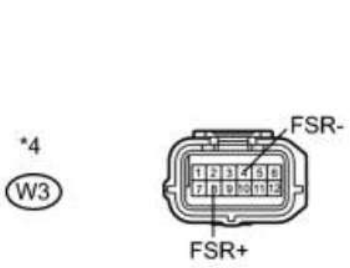


(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

Tester Connection	Condition	Specified Condition
W3-8 (FSR+) - Body ground	Always	1 MΩ or higher
W3-4 (FSR-) - Body ground	Always	1 MΩ or higher

Text in Illustration



*1	Occupant Classification ECU
*2	Center Airbag Sensor Assembly
*3	Front view of wire harness connector (to Occupant Classification ECU)
*4	Connector E

NG ▶ CHECK NO. 2 FLOOR WIRE (SHORT TO GROUND)

OK

6.	CHECK DTC

(a) Connect the connectors to the occupant classification ECU and center airbag sensor assembly.

(b) Connect the Techstream to the DLC3.

(c) Connect the cable to the negative (-) battery terminal.

(d) Turn the power switch on (IG).

(e) Clear the DTCs stored in the occupant classification ECU INFO.

(f) Clear the DTCs stored in the center airbag sensor assembly INFO.

(g) Turn the power switch off.

(h) Turn the power switch on (IG).

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(i) Using the Techstream, check for DTCs of the occupant classification ECU INFO.

OK:

DTC B1790 is not output.

HINT:

Codes other than DTC B1790 may be output at this time, but they are not related to this check.

NG ▶ REPLACE OCCUPANT CLASSIFICATION ECU

OK ▶ **USE SIMULATION METHOD TO CHECK**

7.	REPLACE OCCUPANT CLASSIFICATION ECU

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminals.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(c) Replace the occupant classification ECU INFO.

HINT:

Perform the inspection using parts from a normal vehicle if possible.

NEXT

▼

8.	RECHECK DTC

(a) Turn the power switch on (IG).

(b) Clear the DTCs stored in the occupant classification ECU INFO.

(c) Clear the DTCs stored in the center airbag sensor assembly INFO.

(d) Turn the power switch off.

(e) Turn the power switch on (IG).

(f) Using the Techstream, check for DTCs of the occupant classification ECU INFO.

OK:

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DTC B1790 is not output.

HINT:

Codes other than DTC B1790 may be output at this time, but they are not related to this check.

NG ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK

▼

9.	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NEXT

▼

10.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

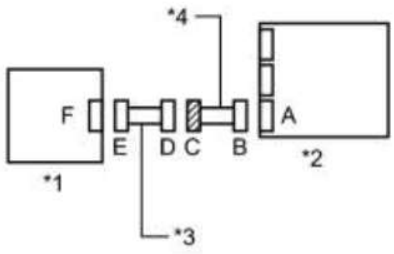
27 to 33 kg (59.5 to 72.8 lb)

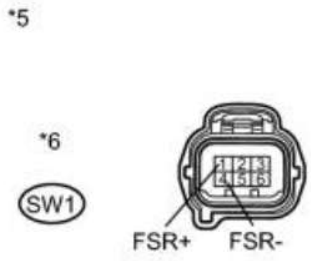
NEXT ▶ **END**

11.	CHECK NO. 2 FLOOR WIRE (SHORT TO B+)

(a) Turn the power switch off.

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(b) Disconnect the cable from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(c) Disconnect the front seat wire RH connector from the No. 2 floor wire.

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the power switch on (IG).

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

Standard Voltage:

Tester Connection	Condition	Specified Condition
SW1-1 (FSR+) - Body ground	Power switch on (IG)	Below 1 V
SW1-4 (FSR-) - Body ground	Power switch on (IG)	Below 1 V

Text in Illustration

*1	Occupant Classification ECU
*2	Center Airbag Sensor Assembly
*3	Front Seat Wire RH
*4	No. 2 Floor Wire
*5	Front view of wire harness connector (to Front Seat Wire RH)

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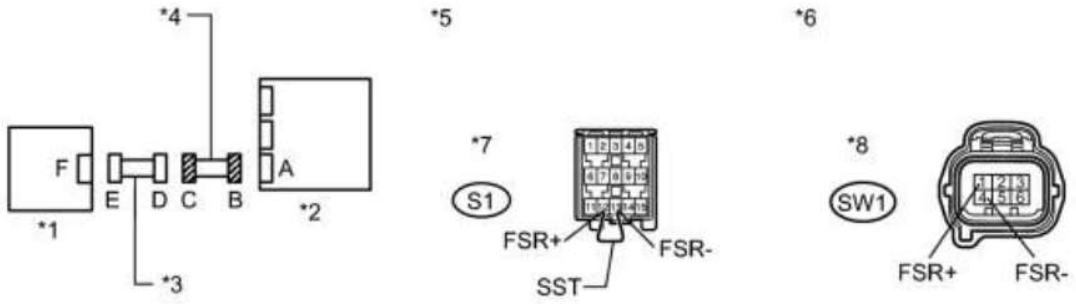
*6	Connector C

NG ▶ REPLACE NO. 2 FLOOR WIRE

OK ▶ **REPLACE FRONT SEAT WIRE RH**

12.	CHECK NO. 2 FLOOR WIRE (OPEN)

(a) Disconnect the front seat wire RH connector from the No. 2 floor wire.



HINT:

SST 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
SW1-1 (FSR+) - SW1-4 (FSR-)	Always	Below 1 Ω

Text in Illustration

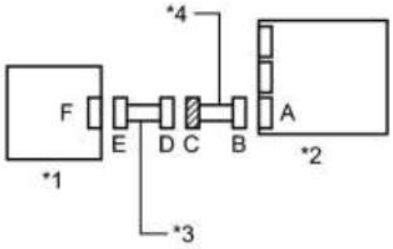
*1	Occupant Classification ECU	*2	Center Airbag Sensor Assembly
*3	Front Seat Wire RH	*4	No. 2 Floor Wire
*5	Front view of wire harness connector (to Center Airbag Sensor Assembly)	*6	Front view of wire harness connector (to Front Seat Wire RH)
*7	Connector B	*8	Connector C

NG ▶ REPLACE NO. 2 FLOOR WIRE

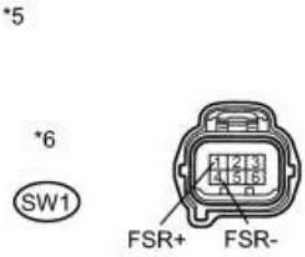
OK ▶ **REPLACE FRONT SEAT WIRE RH**

13.	CHECK NO. 2 FLOOR WIRE (SHORT)

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(a) Disconnect the front seat wire RH connector from the No. 2 floor wire.



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

Standard Resistance:

Tester Connection	Condition	Specified Condition
SW1-1 (FSR+) - SW1-4 (FSR-)	Always	1 MΩ or higher

Text in Illustration

*1	Occupant Classification ECU
*2	Center Airbag Sensor Assembly
*3	Front Seat Wire RH
*4	No. 2 Floor Wire
*5	Front view of wire harness connector (to Front Seat Wire RH)
*6	Connector C

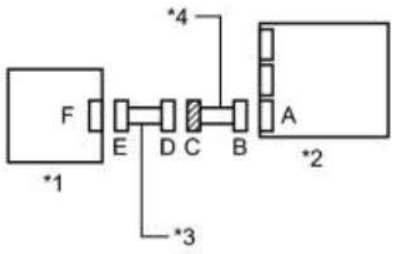
NG ▶ REPLACE NO. 2 FLOOR WIRE

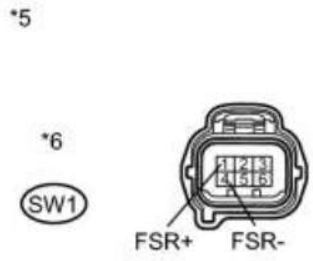
OK ▶ **REPLACE FRONT SEAT WIRE RH**

14.	CHECK NO. 2 FLOOR WIRE (SHORT TO GROUND)

(a) Disconnect the front seat wire RH connector from the No. 2 floor wire.

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

Standard Resistance:

Tester Connection	Condition	Specified Condition
SW1-1 (FSR+) - Body ground	Always	1 MΩ or higher
SW1-4 (FSR-) - Body ground	Always	1 MΩ or higher

Text in Illustration

*1	Occupant Classification ECU
*2	Center Airbag Sensor Assembly
*3	Front Seat Wire RH
*4	No. 2 Floor Wire
*5	Front view of wire harness connector (to Front Seat Wire RH)
*6	Connector C

NG ▶ REPLACE NO. 2 FLOOR WIRE

OK ▶ **REPLACE FRONT SEAT WIRE RH**

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DTC	B1793	Occupant Classification Sensor Power Supply Circuit Malfunction

DESCRIPTION

The occupant classification sensor power supply circuit consists of the occupant classification ECU and occupant classification sensors.

DTC B1793 is stored when a malfunction is detected in the occupant classification sensor power supply circuit.

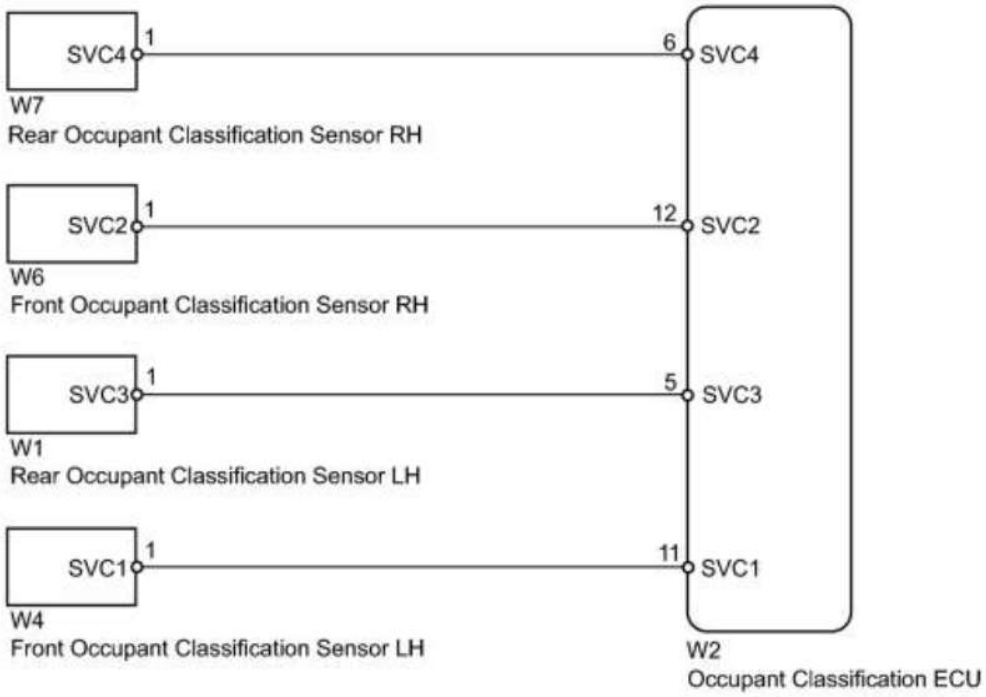
DTC No.	DTC Detection Condition	Trouble Area
B1793	• The occupant classification ECU receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the occupant classification sensor power supply circuit. • Occupant classification sensors malfunction	• Front seat wire RH • Front seat cushion spring assembly (Occupant classification sensors)

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1793 is output, perform troubleshooting for the DTC.

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see under the seat cushion.
- In the above case, hold the seat so that it does not fall down. Hold the seat only as necessary because holding the seat for a long period of time may cause seat rail deformation.

PROCEDURE

1.	CHECK CONNECTORS

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Check that the connectors are properly connected to the 4 occupant classification sensors and occupant classification ECU.

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OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the 4 occupant classification sensors and occupant classification ECU.

(e) Check that the terminals of connectors are not damaged.

OK:

The terminals are not deformed or damaged.

NG ▶ REPLACE FRONT SEAT WIRE RH

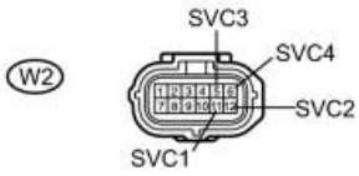
OK

▼

2.	CHECK FRONT SEAT WIRE RH (SHORT TO B+)

*1

(a) Connect the cable to the negative (-) battery terminal.



(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
W2-5 (SVC3) - Body ground	Power switch on (IG)	Below 1 V
W2-6 (SVC4) - Body ground	Power switch on (IG)	Below 1 V
W2-11 (SVC1) - Body ground	Power switch on (IG)	Below 1 V

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Tester Connection	Condition	Specified Condition
W2-12 (SVC2) - Body ground	Power switch on (IG)	Below 1 V

Text in Illustration

*1	Front view of wire harness connector (to Occupant Classification ECU)

NG ▶ REPLACE FRONT SEAT WIRE RH

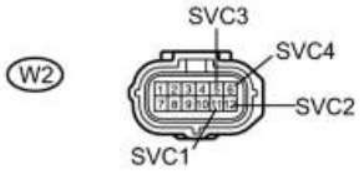
OK

▼

3.	CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)

*1

(a) Turn the power switch off.



(b) Disconnect the cable from the negative (-) battery terminal.

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

Standard Resistance:

Tester Connection	Condition	Specified Condition
W2-5 (SVC3) - Body ground	Always	1 MΩ or higher
W2-6 (SVC4) - Body ground	Always	1 MΩ or higher
W2-11 (SVC1) - Body ground	Always	1 MΩ or higher
W2-12 (SVC2) - Body ground	Always	1 MΩ or higher

Text in Illustration

*1	Front view of wire harness connector (to Occupant Classification ECU)

NG ▶ REPLACE FRONT SEAT WIRE RH

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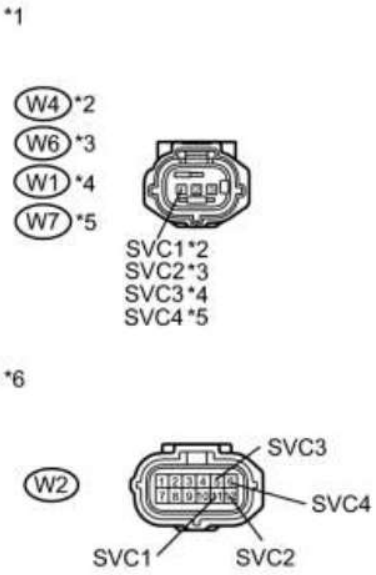
OK

4.	CHECK FRONT SEAT WIRE RH (OPEN)

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

Standard Resistance:

Tester Connection	Condition	Specified Condition
W2-5 (SVC3) - W1-1 (SVC3)	Always	Below 1 Ω
W2-6 (SVC4) - W7-1 (SVC4)	Always	Below 1 Ω
W2-11 (SVC1) - W4-1 (SVC1)	Always	Below 1 Ω
W2-12 (SVC2) - W6-1 (SVC2)	Always	Below 1 Ω



Text in Illustration

*1	Front view of wire harness connector (to Occupant Classification Sensor)
*2	Front LH
*3	Front RH
*4	Rear LH
*5	Rear RH
*6	Front view of wire harness connector (to Occupant Classification ECU)

NG REPLACE FRONT SEAT WIRE RH

OK

5.	CHECK FRONT SEAT WIRE RH (SHORT)

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

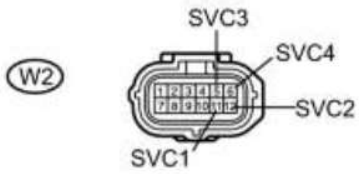
Standard Resistance:

Tester Connection	Condition	Specified Condition
W2-5 (SVC3) - W2-6 (SVC4)	Always	1 MΩ or higher
W2-5 (SVC3) - W2-11 (SVC1)	Always	1 MΩ or higher
W2-5 (SVC3) - W2-12 (SVC2)	Always	1 MΩ or higher
W2-6 (SVC4) - W2-11 (SVC1)	Always	1 MΩ or higher

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*1	W2-6 (SVC4) - W2-12 (SVC2)	Always	1 MΩ or higher
	W2-11 (SVC1) - W2-12 (SVC2)	Always	1 MΩ or higher

Text in Illustration



*1	Front view of wire harness connector (to Occupant Classification ECU)

NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

6.	CHECK DTC

(a) Connect the connectors to the occupant classification ECU and 4 occupant classification sensors.

(b) Connect the cable to the negative (-) battery terminal.

(c) Turn the power switch on (IG).

(d) Clear the DTCs stored in the occupant classification ECU INFO.

(e) Clear the DTCs stored in the center airbag sensor assembly INFO.

(f) Turn the power switch off.

(g) Turn the power switch on (IG).

(h) Check for DTCs INFO.

OK:

DTC B1793 is not output.

HINT:

Codes other than DTC B1793 may be output at this time, but they are not related to this check.

NG ▶ REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

OK ▶ **USE SIMULATION METHOD TO CHECK**

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7.	REPLACE FRONT SEAT CUSHION SPRING ASSEMBLY

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the front seat cushion spring assembly INFO.

NEXT

▼

8.	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NEXT

▼

9.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NEXT ▶ **END**

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DTC	B1794	Open in Occupant Classification ECU Battery Positive Line

DESCRIPTION

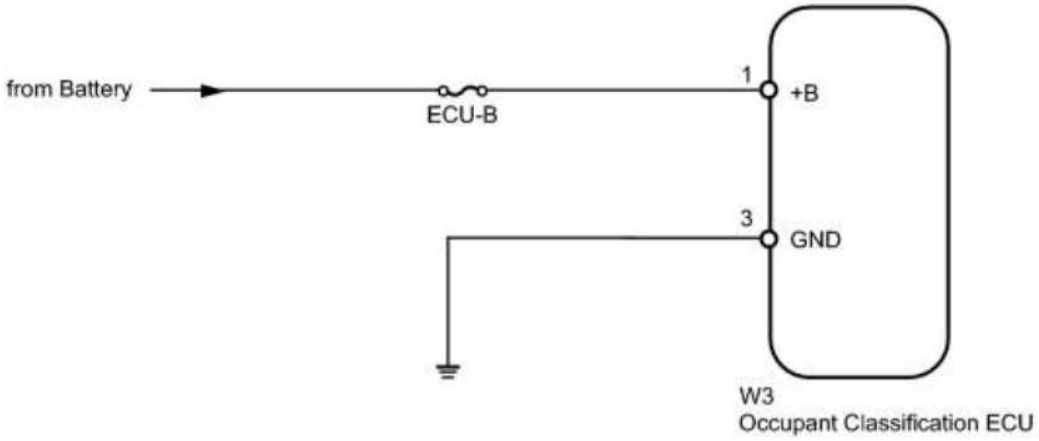
DTC B1794 is stored when a malfunction is detected in the occupant classification ECU battery positive line.

DTC No.	DTC Detections Conditions	Trouble Areas
B1794	• The occupant classification ECU receives an open circuit signal in the occupant classification ECU battery positive line. • Occupant classification ECU malfunction	• Auxiliary battery • ECU-B fuse • Wire harness • Occupant classification ECU

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1794 is output, perform troubleshooting for the DTC.

WIRING DIAGRAM



INSPECTION PROCEDURE

NOTICE:

Inspect the fuses for circuits related to this system before performing the following inspection procedure.

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PROCEDURE

1.	CHECK AUXILIARY BATTERY VOLTAGE

(a) Measure the voltage of the auxiliary battery.

Standard Voltage:

11 to 14 V

NG ▶ INSPECT AUXILIARY BATTERY

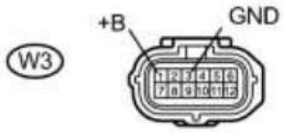
OK

▼

2.	CHECK WIRE HARNESS (SOURCE VOLTAGE)

*1

(a) Turn the power switch off.



(b) Disconnect the cable from the negative (-) battery terminal.

(c) Disconnect the connector from the occupant classification ECU.

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the power switch on (IG).

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

Standard Voltage:

Tester Connection	Condition	Specified Condition
W3-1 (+B) - Body ground	Always	11 to 14 V

(g) Turn the power switch off.

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

Standard Resistance:

Tester Connection	Condition	Specified Condition
W3-3 (GND) - Body ground	Always	Below 1 Ω

Text in Illustration

*1	Front view of wire harness connector (to Occupant Classification ECU)

NG ▶ REPLACE WIRE HARNESS

OK

▼

3.	CHECK DTC

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Connect the connector to the occupant classification ECU.

(d) Connect the Techstream to the DLC3.

(e) Connect the cable to the negative (-) battery terminal.

(f) Turn the power switch on (IG).

(g) Clear the DTCs stored in the occupant classification ECU INFO.

(h) Clear the DTCs stored in the center airbag sensor assembly INFO.

(i) Turn the power switch off.

(j) Turn the power switch on (IG), and wait for at least 10 seconds.

(k) Using the Techstream, check for DTCs of the occupant classification ECU INFO.

OK:

DTC B1794 is not output.

HINT:

Codes other than DTC B1794 may be output at this time, but they are not related to this check.

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NG ▶ REPLACE OCCUPANT CLASSIFICATION ECU

OK ▶ **USE SIMULATION METHOD TO CHECK**

4.	REPLACE OCCUPANT CLASSIFICATION ECU

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the occupant classification ECU INFO.

NEXT

▼

5.	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NEXT

▼

6.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NEXT ▶ **END**

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DTC	B1795	Occupant Classification ECU Malfunction

DESCRIPTION

DTC B1795 is stored when a malfunction is detected in the occupant classification ECU.

DTC No.	DTC Detection Condition	Trouble Area
B1795	Occupant classification ECU malfunction	Occupant classification ECU

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1795 is output, perform troubleshooting for the DTC.

INSPECTION PROCEDURE

PROCEDURE

1.	REPLACE OCCUPANT CLASSIFICATION ECU

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the occupant classification ECU INFO.

NEXT

2.	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NEXT

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3.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NEXT END

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DTC	B1796	Sleep Operation Failure of Occupant Classification ECU

DESCRIPTION

In sleep mode, the occupant classification ECU reads the condition of each sensor while the power switch is off.

In this mode, if occupant classification ECU detects an internal malfunction, DTC B1796 is stored.

DTC No.	DTC Detection Condition	Trouble Area
B1796	• Occupant classification ECU malfunction	• Occupant classification ECU

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1796 is output, perform troubleshooting for the DTC.

INSPECTION PROCEDURE

PROCEDURE

1.	REPLACE OCCUPANT CLASSIFICATION ECU

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the occupant classification ECU INFO.

NEXT

▼

2.	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

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NEXT

3.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NEXT **END**

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Trouble in Passenger Airbag ON/OFF Indicator

DESCRIPTION

The occupant classification system detects the front passenger seat condition. It then informs the front passenger airbag and front seat belt pretensioner RH condition (activated/not activated) with the passenger airbag ON/OFF indicator.

HINT:

Approximately 6 seconds after the power switch is turned on (IG), the passenger airbag ON/OFF indicator will indicate ON/OFF depending on the conditions listed below.

Front Passenger Seat Condition	Passenger Airbag ON/OFF Indicator		SRS Warning Light
	ON Indicator	OFF Indicator	
Vacant	OFF	OFF	OFF
Adult is seated.	ON	OFF	OFF
Child is seated.	OFF	ON	OFF
Child restraint system is set.	OFF	ON	OFF
Occupant classification system failure	OFF	ON	ON

INSPECTION PROCEDURE

PROCEDURE

1.	CHECK SRS WARNING LIGHT

(a) Turn the power switch on (IG), and check the SRS warning light condition.

HINT:

If this trouble occurs, the SRS warning light is off. If the light is on, a DTC is output. Troubleshoot for the output DTC.

OK:

After the primary check period, the SRS warning light goes off.

HINT:

The primary check is performed for approximately 6 seconds after the power switch is turned on (IG).

NG ▶ GO TO DTC CHART

OK

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▼

2.	PERFORM ZERO POINT CALIBRATION

(a) Turn the power switch off.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NG ▶ RETIGHTEN FRONT SEAT ASSEMBLY RH BOLT

OK

▼

3.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NG ▶ RETIGHTEN FRONT SEAT ASSEMBLY RH BOLT

OK ▶ **END**

4.	RETIGHTEN FRONT SEAT ASSEMBLY RH BOLT

(a) Turn the power switch off.

(b) Loosen the 4 installation bolts of the front seat assembly RH.

(c) Tighten the 4 installation bolts of the front seat assembly RH to the specified torque.

Torque: **37 N·m (374 kgf·cm, 27ft·lbf)**

NEXT

▼

5.	PERFORM ZERO POINT CALIBRATION

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(a) Connect the Techstream to the DLC3.

(b) Turn the power switch on (IG).

(c) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NG ▶ READ VALUE USING PASSENGER SIDE BUCKLE SWITCH

OK

▼

6.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NG ▶ READ VALUE USING PASSENGER SIDE BUCKLE SWITCH

OK ▶ **END**

7.	READ VALUE USING PASSENGER SIDE BUCKLE SWITCH

(a) Turn the power switch on (IG).

(b) Using the Techstream, read Data List INFO.

(1) Read the display when the passenger side buckle switch is operated.

Occupant Detection

Tester Display	Measurement Item / Range	Normal Condition	Diagnostic Note
Passenger Buckle SW	Passenger side buckle switch/ Set: The seat belt is fastened Unset: The seat belt is not fastened NG: Data is not determined	Unset/Set	-

OK:

The Techstream display changes correctly in accordance with the operation of the buckle switch.

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NG ▶ CHECK CONNECTORS

OK

▼

8.	CHECK CONNECTORS

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Disconnect the connectors from the occupant classification ECU and 4 occupant classification sensors.

(d) Check that the terminals of connectors are not damaged.

OK:

The terminals are not deformed or damaged.

NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

9.	REPLACE OCCUPANT CLASSIFICATION ECU

(a) Connect the connectors to the 4 occupant classification sensors.

(b) Replace the occupant classification ECU INFO.

NEXT

▼

10.	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

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NEXT

▼

11.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

27 to 33 kg (59.5 to 72.8 lb)

NEXT ▶ **END**

12.	CHECK CONNECTORS

(a) Turn the power switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Disconnect the connectors from the occupant classification ECU and front seat inner belt assembly RH.

(d) Check that the terminals of connectors are not damaged.

OK:

The terminals are not deformed or damaged.

NG ▶ REPLACE FRONT SEAT WIRE RH

OK

▼

13.	REPLACE FRONT SEAT INNER BELT ASSEMBLY RH

(a) Connect the connector to the occupant classification ECU.

(b) Replace the front seat inner belt assembly RH INFO.

NEXT

▼

14.	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal.

(b) Connect the Techstream to the DLC3.

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(c) Turn the power switch on (IG).

(d) Using the Techstream, perform Zero Point Calibration INFO.

OK:

"Zero Point Calibration is complete." is displayed.

NEXT

15.	PERFORM SENSITIVITY CHECK

(a) Using the Techstream, perform Sensitivity Check INFO.

Standard:

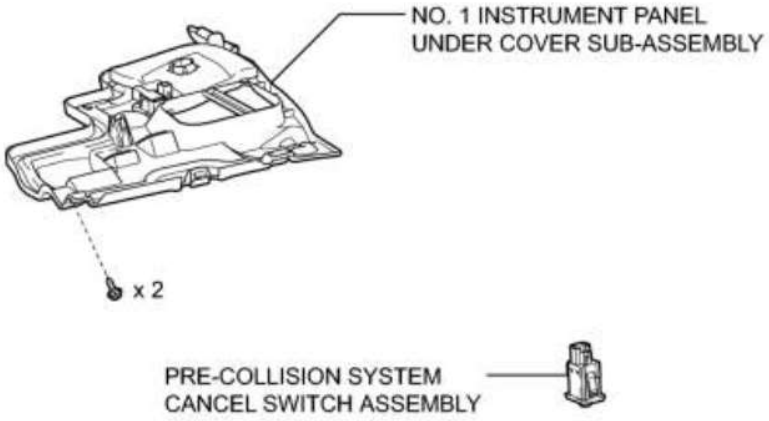
27 to 33 kg (59.5 to 72.8 lb)

NEXT **END**

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COMPONENTS

ILLUSTRATION



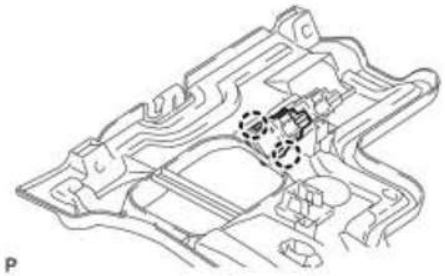
P

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REMOVAL

1. REMOVE NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY INFO

2. REMOVE PRE-COLLISION SYSTEM CANCEL SWITCH ASSEMBLY



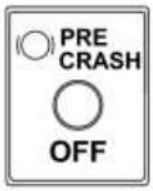
P

(a) Disengage the 2 claws and remove the pre-collision system cancel switch assembly.

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INSPECTION

1. INSPECT PRE-COLLISION BRAKE CANCEL SWITCH ASSEMBLY



*1



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

Standard Resistance:

Tester Connection	Switch Condition	Specified Condition
1 - 2	Pressed	Below 1 Ω
	Not pressed	10 kΩ or higher

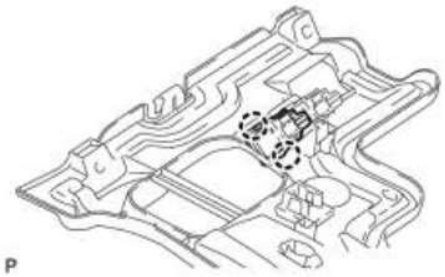
Text in Illustration

*1	Component without harness connected (Pre-collision Brake Cancel Switch Assembly)

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INSTALLATION

1. INSTALL PRE-COLLISION SYSTEM CANCEL SWITCH ASSEMBLY



P

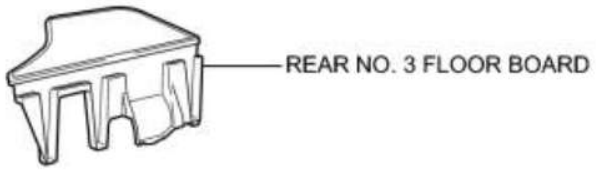
(a) Engage the 2 claws to install the pre-collision system cancel switch assembly.

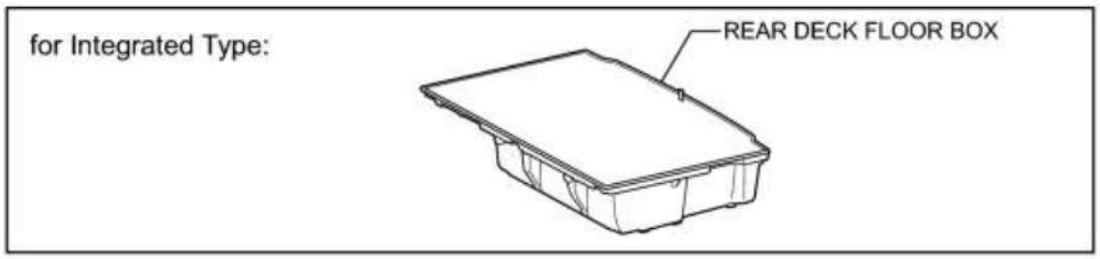
2. INSTALL NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY INFO

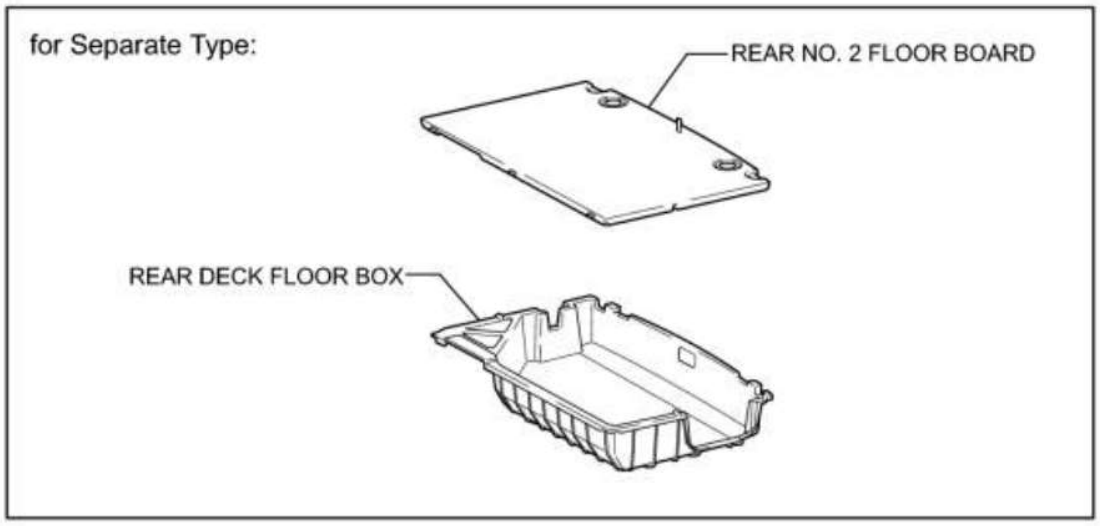
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COMPONENTS

ILLUSTRATION





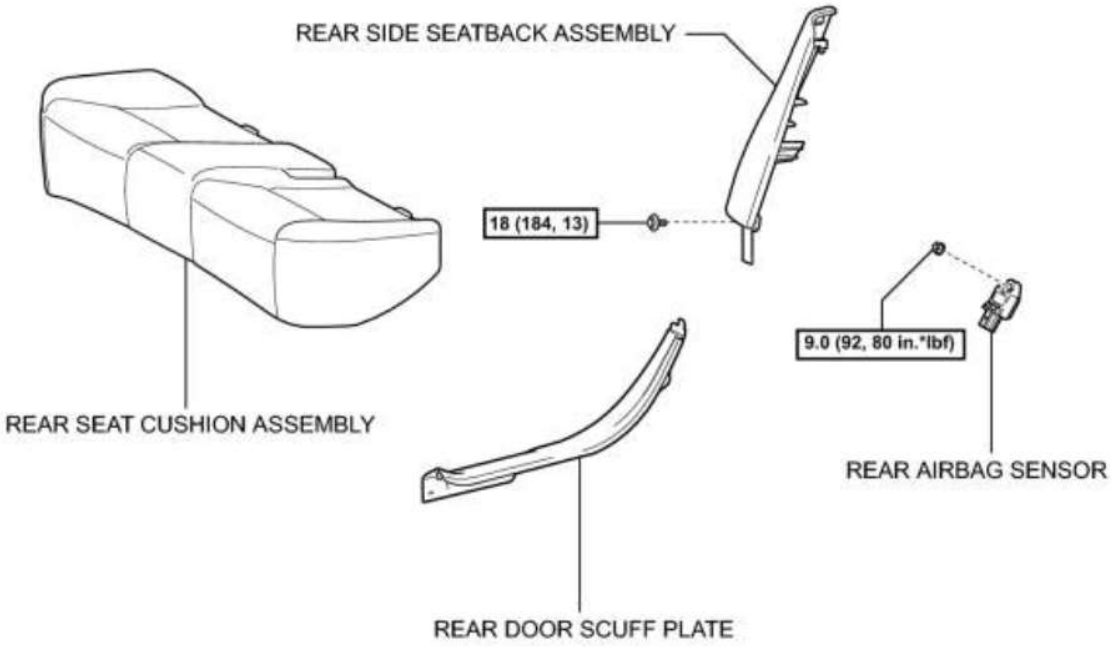


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ILLUSTRATION

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for LH Side:

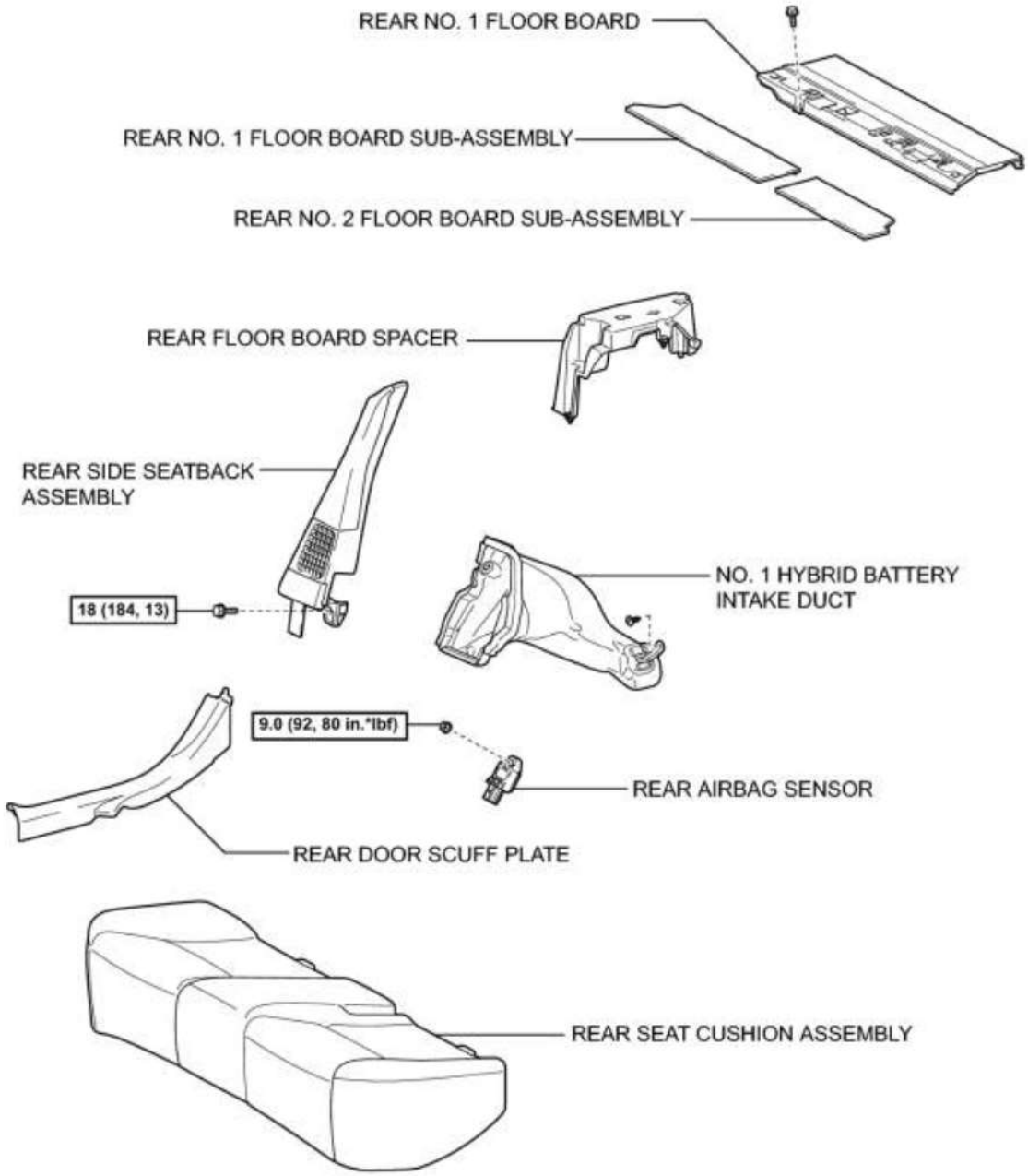


N*m (kgf*cm, ft.*lbf) : Specified torque

ILLUSTRATION

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for RH Side:



N*m (kgf*cm, ft.*lbf) : Specified torque

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ON-VEHICLE INSPECTION

CAUTION:

Be sure to follow the correct removal and installation procedures of the rear airbag sensors.

1. INSPECT REAR AIRBAG SENSOR (for Vehicle not Involved in Collision)

(a) Perform a diagnostic system check INFO.

2. INSPECT REAR AIRBAG SENSOR (for Vehicle Involved in Collision and Airbag not Deployed)

(a) Perform a diagnostic system check INFO.

(b) Visually check the rear airbag sensors for defects if a quarter panel of the vehicle or the area around a quarter panel is damaged.

(1) The defects are as follows:

- Cracks on the sensor housing
- Dents on the sensor housing
- Chips on the sensor housing
- Cracks or other damage to the connector
- Damage to the serial number

OK:

No defects are found.

HINT:

If any of the defects is found, replace the rear airbag sensor with a new one.

3. INSPECT REAR AIRBAG SENSOR (for Vehicle Involved in Collision and Airbag is Deployed)

(a) When airbags have deployed as the result of a collision, be sure to replace all rear airbag sensors in the damaged areas (anywhere in need of repair).

(b) Visually check the rear airbag sensors in undamaged areas for defects.

(1) The defects are as follows:

- Cracks on the sensor housing
- Dents on the sensor housing
- Chips on the sensor housing
- Cracks or other damage to the connector
- Damage to the serial number

OK:

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No defects are found.

HINT:

If any of the defects is found or a rear airbag sensor has detected a major collision, replace the rear airbag sensor with a new one.

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REMOVAL

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO.

2. REMOVE REAR NO. 2 FLOOR BOARD (for Separate Type) INFO

3. REMOVE REAR DECK FLOOR BOX INFO

4. REMOVE REAR NO. 3 FLOOR BOARD INFO

5. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

6. REMOVE REAR SEAT CUSHION ASSEMBLY INFO

7. REMOVE REAR DOOR SCUFF PLATE INFO

8. REMOVE REAR SIDE SEATBACK ASSEMBLY

for LH Side: INFO

for RH Side: INFO

9. REMOVE REAR NO. 1 FLOOR BOARD SUB-ASSEMBLY (for RH Side) INFO

10. REMOVE REAR NO. 2 FLOOR BOARD SUB-ASSEMBLY (for RH Side) INFO

11. REMOVE REAR NO. 1 FLOOR BOARD (for RH Side) INFO

12. REMOVE REAR FLOOR BOARD SPACER (for RH Side) INFO

13. REMOVE NO. 1 HYBRID BATTERY INTAKE DUCT (for RH Side) INFO

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14. REMOVE REAR AIRBAG SENSOR

(a) Check that the power switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(c) Disconnect the connector.

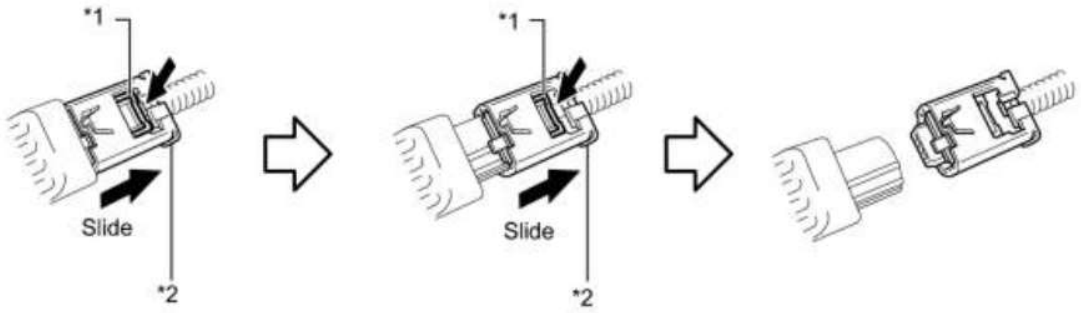


c

NOTICE:

When disconnecting any airbag connector, take care not to damage the airbag wire harness.

(1) Push and hold the white housing lock, and slide the yellow outer connector locking sleeve.



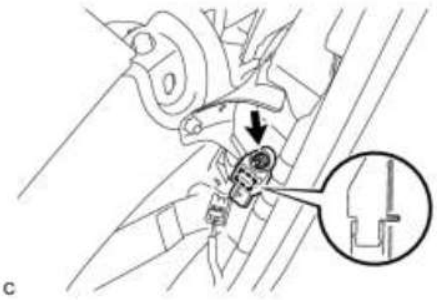
c

Text in Illustration

*1	Housing Lock	*2	Outer Connector Locking Sleeve

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(2) Push and hold the white housing lock again, and slide the yellow outer connector locking sleeve to disconnect the connector.



c

(d) Remove the nut and rear airbag sensor.

NOTICE:

Loosen the nut while holding the rear airbag sensor because the rear airbag sensor pin (stopper) is easily damaged.

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INSTALLATION

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

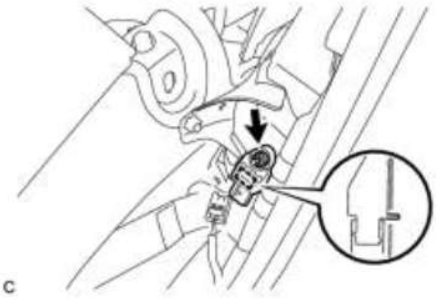
1. INSTALL REAR AIRBAG SENSOR

(a) Check that the power switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.



(c) Insert the pin (stopper) into the body hole to install the rear airbag sensor to the vehicle with the nut.

Torque: **9.0 N·m (92 kgf·cm, 80in·lbf)**

- If the rear airbag sensor has been dropped, or there are any cracks, dents or other defects in the case or connector, replace it with a new one.
- When installing the rear airbag sensor, be careful that the SRS wiring does not interfere with or is not pinched between other parts.
- Make sure that the pin (stopper) is securely inserted into the body hole.
- Tighten the nut while holding the rear airbag sensor because the rear airbag sensor pin (stopper) is easily damaged.

(d) Connect the connector to the rear airbag sensor.

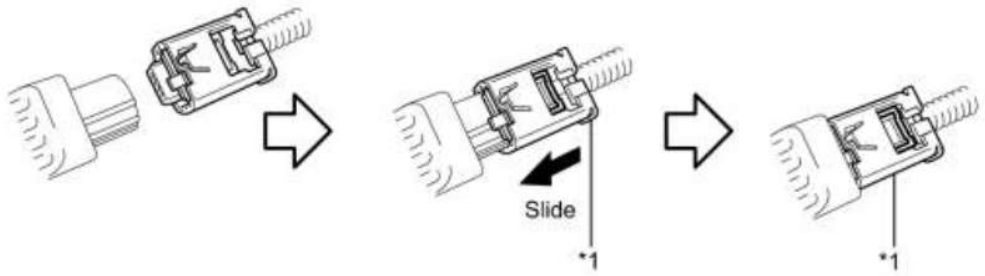


NOTICE:

When connecting any airbag connector, take care not to damage the airbag wire harness.

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(1) Connect the connector as shown in the illustration (when locking, make sure that the outer connector locking sleeve returns to its original position and a click sound can be heard).



c

Text in Illustration

*1	Outer Connector Locking Sleeve	-	-

HINT:

When connected, the outer connector locking sleeve will slide. Be sure not to hold the outer connector locking sleeve while connecting, as it may result in an insecure fit.

(e) Check that there is no looseness in the installation parts of the rear airbag sensor.

2. INSTALL NO. 1 HYBRID BATTERY INTAKE DUCT (for RH Side) INFO

3. INSTALL REAR FLOOR BOARD SPACER (for RH Side) INFO

4. INSTALL REAR NO. 1 FLOOR BOARD (for RH Side) INFO

5. INSTALL REAR NO. 2 FLOOR BOARD SUB-ASSEMBLY (for RH Side) INFO

6. INSTALL REAR NO. 1 FLOOR BOARD SUB-ASSEMBLY (for RH Side) INFO

7. INSTALL REAR SIDE SEATBACK ASSEMBLY

for LH Side: INFO

for RH Side: INFO

8. INSTALL REAR DOOR SCUFF PLATE INFO

9. INSTALL REAR SEAT CUSHION ASSEMBLY INFO

10. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

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NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

11. INSTALL REAR NO. 3 FLOOR BOARD INFO

12. INSTALL REAR DECK FLOOR BOX INFO

13. INSTALL REAR NO. 2 FLOOR BOARD (for Separate Type) INFO

14. PERFORM DIAGNOSTIC SYSTEM CHECK

(a) Perform a diagnostic system check INFO.

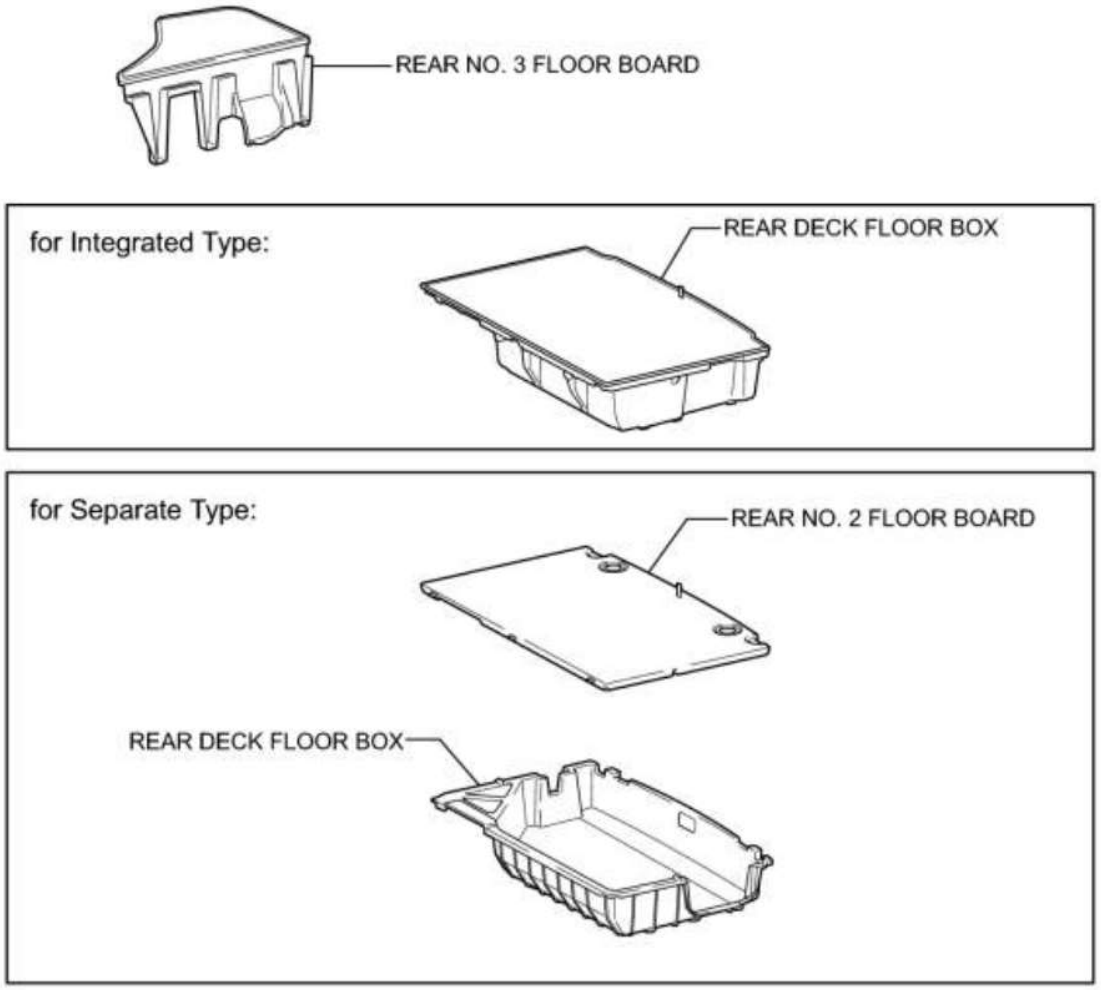
15. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light INFO.

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COMPONENTS

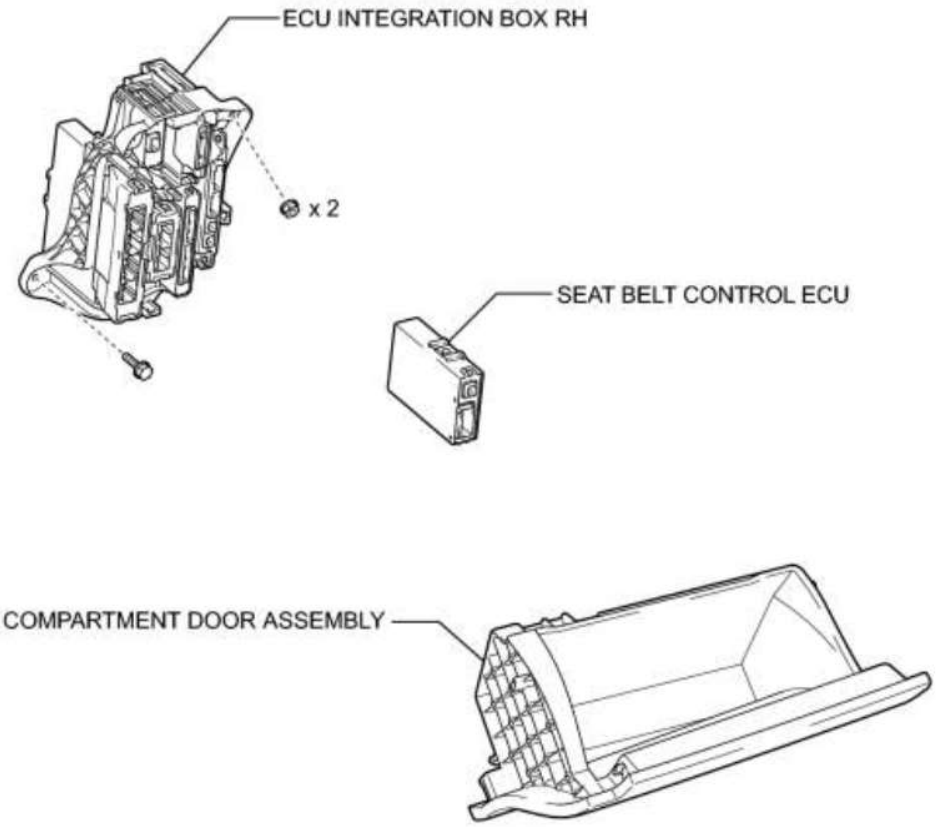
ILLUSTRATION



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ILLUSTRATION

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REMOVAL

1. REMOVE REAR NO. 2 FLOOR BOARD (for Separate Type) INFO

2. REMOVE REAR DECK FLOOR BOX INFO

3. REMOVE REAR NO. 3 FLOOR BOARD INFO

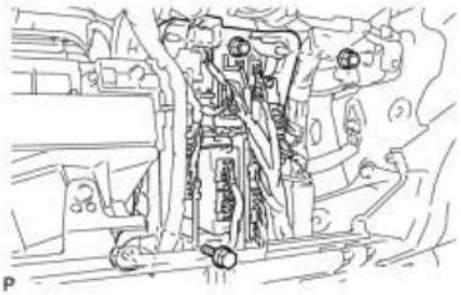
4. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

5. REMOVE GLOVE COMPARTMENT DOOR ASSEMBLY INFO

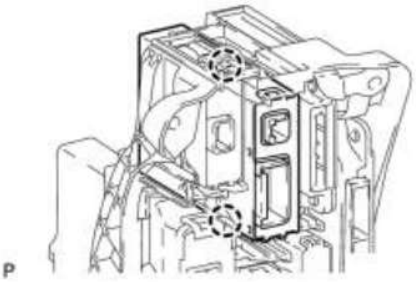
6. REMOVE ECU INTEGRATION BOX RH



(a) Remove the bolt and 2 nuts.

(b) Disconnect each connector and remove the ECU integration box RH.

7. REMOVE SEAT BELT CONTROL ECU

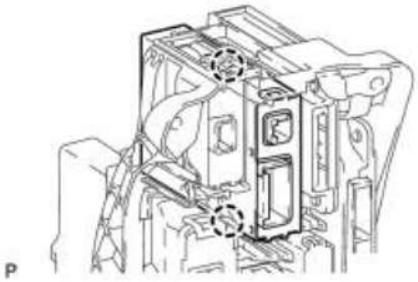


(a) Disengage the 2 claws and remove the seat belt control ECU.

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INSTALLATION

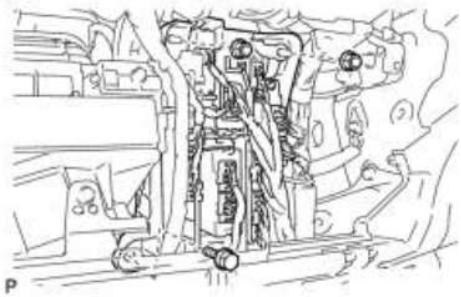
1. INSTALL SEAT BELT CONTROL ECU



(a) Engage the 2 claws to install the seat belt control ECU.

2. INSTALL ECU INTEGRATION BOX RH

(a) Connect each connector.



(b) Install the ECU integration box RH with the bolt and 2 nuts.

3. INSTALL GLOVE COMPARTMENT DOOR ASSEMBLY INFO

4. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

5. INSTALL REAR NO. 3 FLOOR BOARD INFO

6. INSTALL REAR DECK FLOOR BOX INFO

7. REMOVE REAR NO. 2 FLOOR BOARD (for Separate Type) INFO

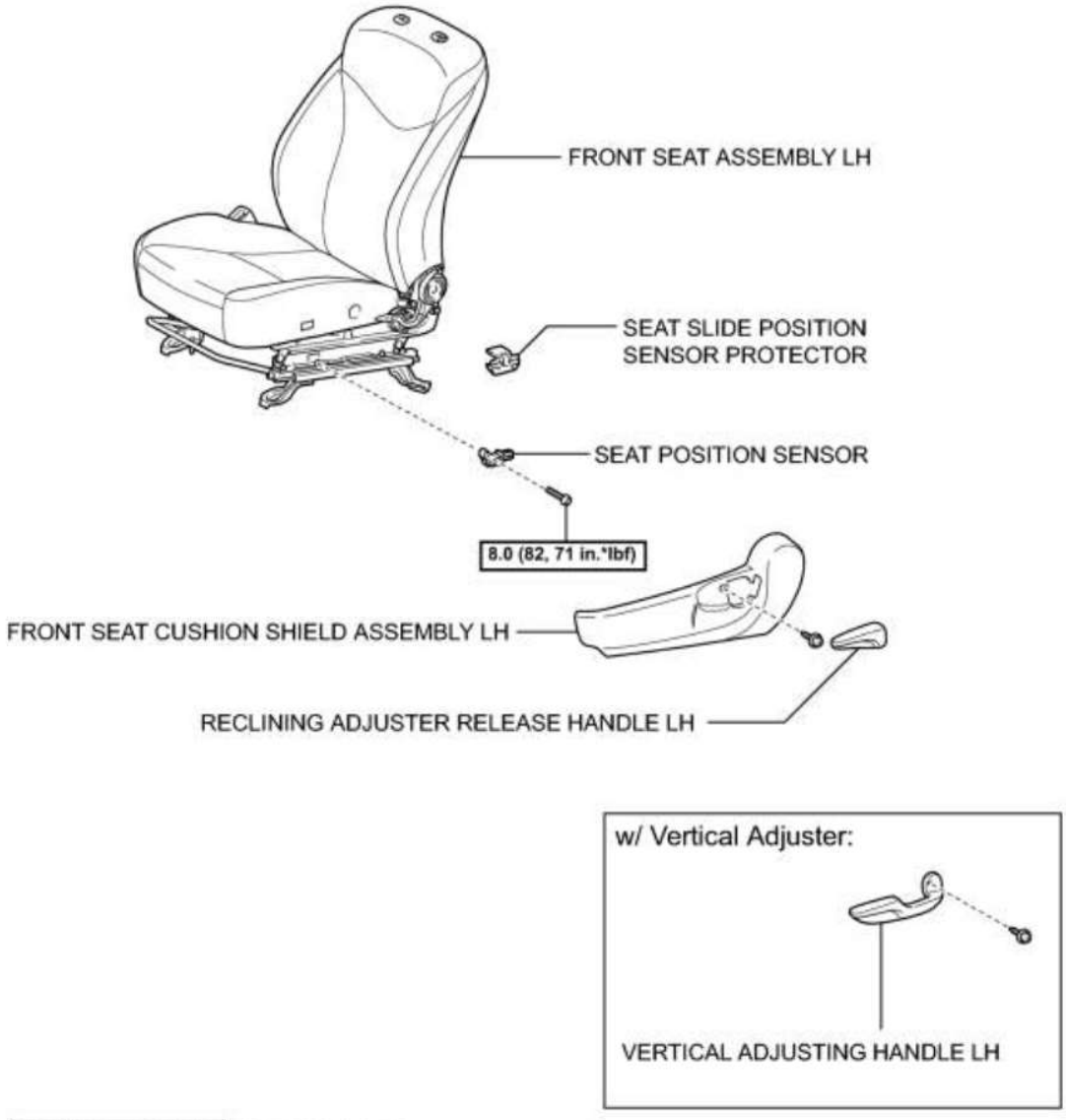
8. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light INFO.

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COMPONENTS

ILLUSTRATION



N*m (kgf*cm, ft.*lbf) : Specified torque

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ON-VEHICLE INSPECTION

CAUTION:

Be sure to follow the correct removal and installation procedures of the seat position sensor.

1. INSPECT SEAT POSITION SENSOR (for Vehicle not Involved in Collision)

(a) Perform a diagnostic system check INFO.

2. INSPECT SEAT POSITION SENSOR (for Vehicle Involved in Collision and Airbag not Deployed)

(a) Perform a diagnostic system check INFO.

(b) Visually check for defects with the seat position sensor removed from the vehicle.

(1) The defects are as follows:

- Cracks on the sensor housing
- Dents on the sensor housing
- Chips on the sensor housing
- Cracks or other damage to the connector

OK:

No defects are found.

HINT:

If any of the defects is found, replace the seat position sensor with a new one.

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REMOVAL

1. REMOVE FRONT SEAT ASSEMBLY LH

HINT:

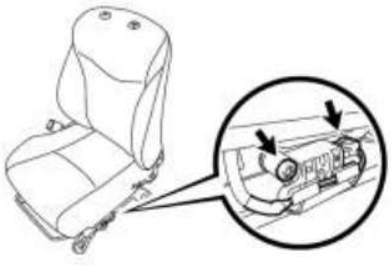
Refer to the procedure up to Remove Front Seat Assembly LH INFO.

2. REMOVE RECLINING ADJUSTER RELEASE HANDLE LH INFO

3. REMOVE VERTICAL ADJUSTING HANDLE LH (w/ Vertical Adjuster) INFO

4. REMOVE FRONT SEAT CUSHION SHIELD ASSEMBLY LH INFO

5. REMOVE SEAT POSITION SENSOR

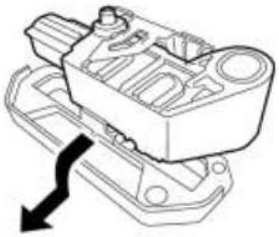


(a) Disconnect the connector.

c

(b) Separate the wire harness from the seat slide position sensor protector.

(c) Using a T30 "TORX" socket wrench, remove the "TORX" screw and seat position sensor with the seat slide position sensor protector.



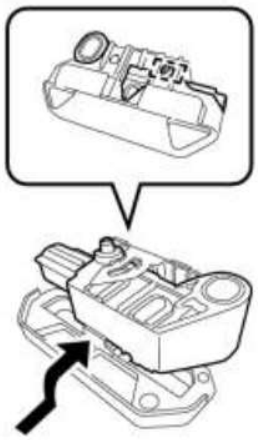
(d) Remove the seat position sensor from the seat slide position sensor protector as shown in the illustration.

c

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INSTALLATION

1. INSTALL SEAT POSITION SENSOR



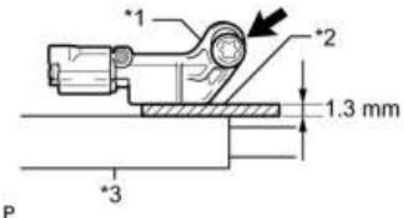
C

(a) Install the seat position sensor to the seat slide position sensor protector with the pin as shown in the illustration.

(b) Using a 1.3 mm (0.0512 in.) feeler gauge, temporarily install the seat position sensor.

Text in Illustration

*1	Seat Position Sensor
*2	Feeler Gauge
*3	Seat Rail

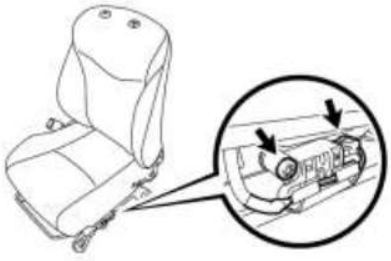


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- If the seat position sensor has been dropped, or there are any cracks, dents or other defects in the case or connector, replace the seat position sensor with a new one.
- When installing the seat position sensor, be careful that the SRS wiring does not interfere with or is pinched between other parts.

HINT:

Be sure that the clearance between the seat position sensor and seat rail is between 0.6 mm (0.0236 in.) and 2.0 mm (0.0787 in.).



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(c) Using a T30 "TORX" socket wrench, tighten the "TORX" screw to install the seat position sensor.

Torque: **8.0 N·m (82 kgf·cm, 71in·lbf)**

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(d) Make sure that the clearance between the seat position sensor and seat rail is between 0.6 mm (0.0236 in.) and 2.0 mm (0.0787 in.).

(e) Install the wire harness to the seat slide position sensor protector.

(f) Connect the connector.

(g) Check that there is no looseness in the installation parts of the seat position sensor.

2. INSTALL FRONT SEAT CUSHION SHIELD ASSEMBLY LH INFO

3. INSTALL VERTICAL ADJUSTING HANDLE LH (w/ Vertical Adjuster) INFO

4. INSTALL RECLINING ADJUSTER RELEASE HANDLE LH INFO

5. INSTALL FRONT SEAT ASSEMBLY LH

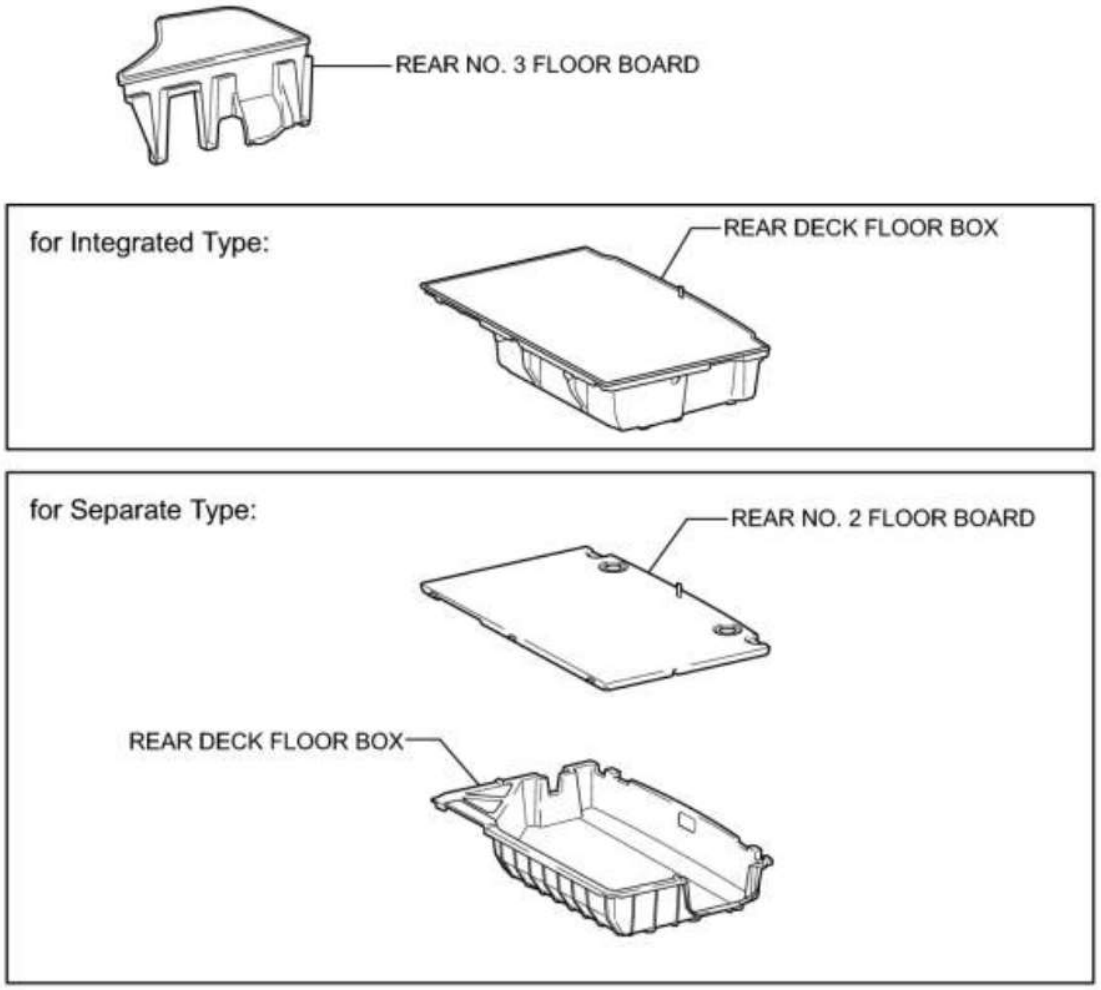
HINT:

Refer to the procedure from Install Front Seat Assembly INFO.

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COMPONENTS

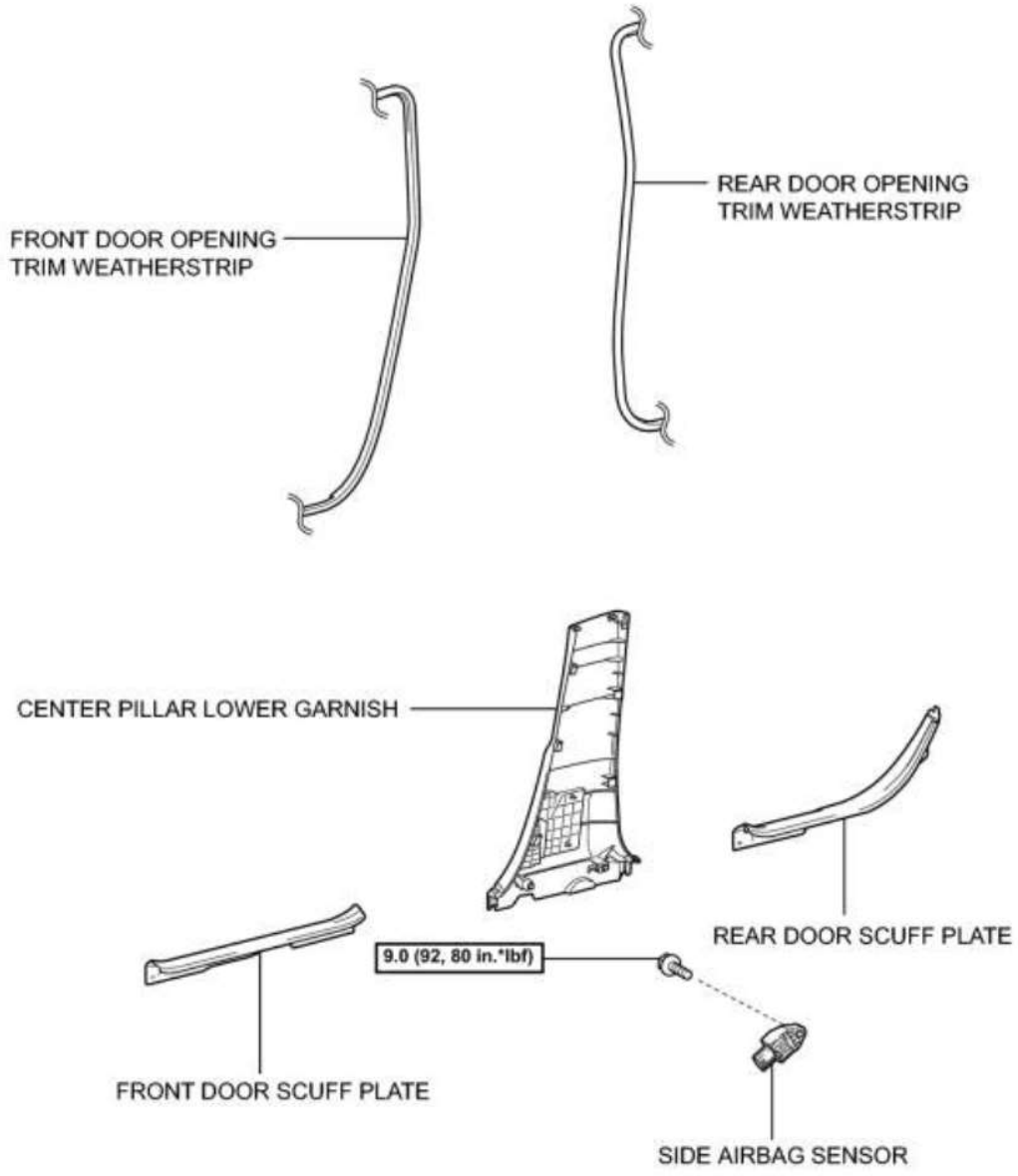
ILLUSTRATION



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ILLUSTRATION

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N*m (kgf*cm, ft.*lbf) : Specified torque

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ON-VEHICLE INSPECTION

CAUTION:

Be sure to follow the correct removal and installation procedures of the side airbag sensors.

1. INSPECT SIDE AIRBAG SENSOR (for Vehicle not Involved in Collision)

(a) Perform a diagnostic system check INFO.

2. INSPECT SIDE AIRBAG SENSOR (for Vehicle Involved in Collision and Airbag not Deployed)

(a) Perform a diagnostic system check INFO.

(b) Visually check the side airbag sensors for defects if a center pillar of the vehicle or the area around a center pillar is damaged.

(1) The defects are as follows:

- Cracks on the sensor housing
- Dents on the sensor housing
- Chips on the sensor housing
- Cracks or other damage to the connector
- Damage to the serial number

OK:

No defects are found.

HINT:

If any of the defects is found, replace the side airbag sensor with a new one.

3. INSPECT SIDE AIRBAG SENSOR (for Vehicle Involved in Collision and Airbag is Deployed)

(a) When airbags have deployed as the result of a collision, be sure to replace all side airbag sensors in the damaged areas (anywhere in need of repair).

(b) Visually check the side airbag sensors in undamaged areas for defects.

(1) The defects are as follows:

- Cracks on the sensor housing
- Dents on the sensor housing
- Chips on the sensor housing
- Cracks or other damage to the connector
- Damage to the serial number

OK:

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No defects are found.

HINT:

If any of the defects is found or a side airbag sensor has detected a major collision, replace the side airbag sensor with a new one.

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REMOVAL

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO.

2. REMOVE REAR NO. 2 FLOOR BOARD (for Separate Type) INFO

3. REMOVE REAR DECK FLOOR BOX INFO

4. REMOVE REAR NO. 3 FLOOR BOARD INFO

5. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

6. REMOVE FRONT DOOR SCUFF PLATE INFO

7. DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP

8. REMOVE REAR DOOR SCUFF PLATE INFO

9. DISCONNECT REAR DOOR OPENING TRIM WEATHERSTRIP

10. REMOVE CENTER PILLAR LOWER GARNISH INFO

11. REMOVE SIDE AIRBAG SENSOR

(a) Check that the power switch is off.

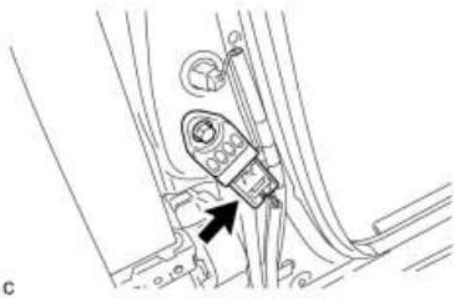
(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

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(c) Disconnect the connector.

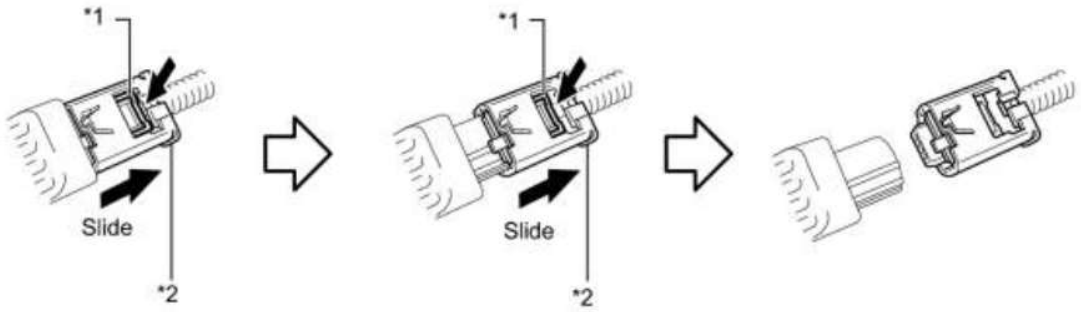


c

NOTICE:

When disconnecting any airbag connector, take care not to damage the airbag wire harness.

(1) Push and hold the white housing lock, and slide the yellow outer connector locking sleeve.



c

Text in Illustration

*1	Housing Lock	*2	Outer Connector Locking Sleeve

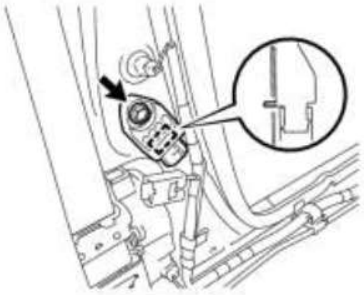
(2) Push and hold the white housing lock again, and slide the yellow outer connector locking sleeve to disconnect the connector.

(d) Remove the bolt and side airbag sensor.

NOTICE:

Loosen the bolt while holding the side airbag sensor because the side airbag sensor pin (stopper) is easily damaged.

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INSTALLATION

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

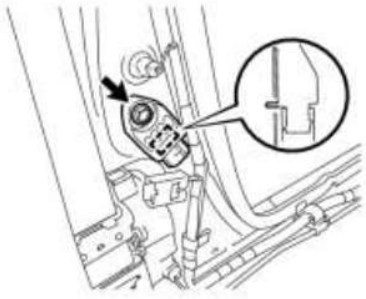
1. INSTALL SIDE AIRBAG SENSOR

(a) Check that the power switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

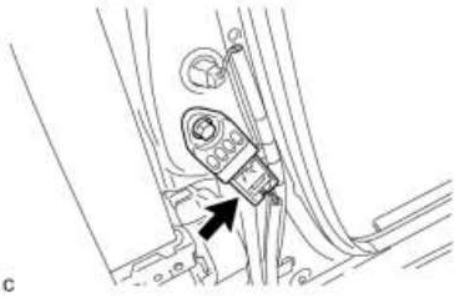


(c) Insert the pin (stopper) into the body hole to install the side airbag sensor to the vehicle with the bolt.

Torque: **9.0 N·m (92 kgf·cm, 80in·lbf)**

- If the side airbag sensor has been dropped, or there are any cracks, dents or other defects in the case or connector, replace it with a new one.
- When installing the side airbag sensor, be careful that the SRS wiring does not interfere with or is not pinched between other parts.
- Make sure that the pin (stopper) is securely inserted into the body hole.
- Tighten the bolt while holding the side airbag sensor because the side airbag sensor pin (stopper) is easily damaged.

(d) Connect the connector to the side airbag sensor.

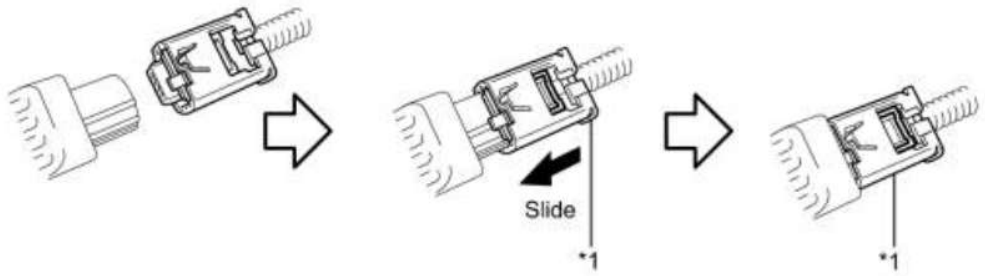


NOTICE:

When connecting any airbag connector, take care not to damage the airbag wire harness.

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(1) Connect the connector as shown in the illustration (when locking, make sure that the outer connector locking sleeve returns to its original position and a click sound can be heard).



c

Text in Illustration

*1	Outer Connector Locking Sleeve	-	-

HINT:

When connected, the outer connector locking sleeve will slide. Be sure not to hold the outer connector locking sleeve while connecting, as it may result in an insecure fit.

(e) Check that there is no looseness in the installation parts of the side airbag sensor.

2. INSTALL CENTER PILLAR LOWER GARNISH INFO

3. INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP

4. INSTALL REAR DOOR SCUFF PLATE INFO

5. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP

6. INSTALL FRONT DOOR SCUFF PLATE INFO

7. INSTALL REAR NO. 3 FLOOR BOARD INFO

8. INSTALL REAR DECK FLOOR BOX INFO

9. INSTALL REAR NO. 2 FLOOR BOARD (for Separate Type) INFO

10. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

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11. PERFORM DIAGNOSTIC SYSTEM CHECK

(a) Perform a diagnostic system check INFO.

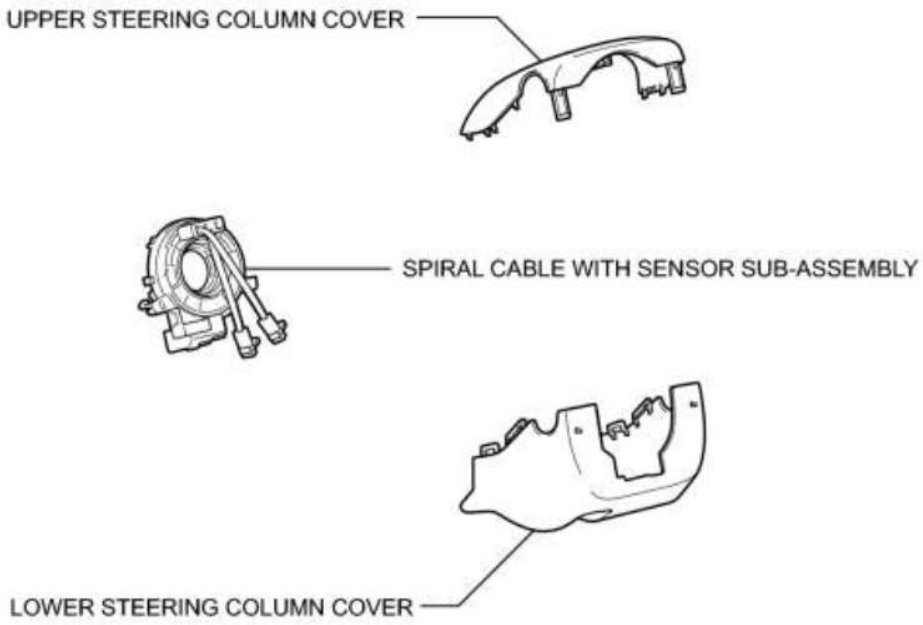
12. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light INFO.

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COMPONENTS

ILLUSTRATION



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REMOVAL

1. REMOVE STEERING WHEEL ASSEMBLY

HINT:

Refer to the procedure up to Remove Steering Wheel Assembly INFO.

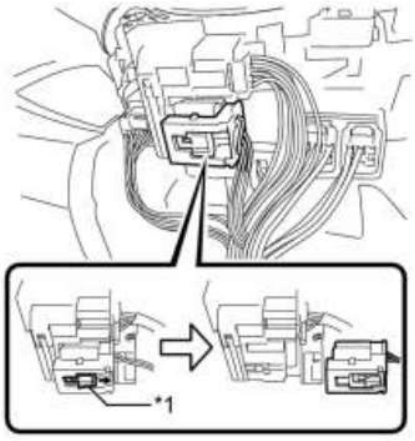
2. REMOVE LOWER STEERING COLUMN COVER INFO

3. REMOVE UPPER STEERING COLUMN COVER INFO

4. REMOVE SPIRAL CABLE WITH SENSOR SUB-ASSEMBLY

NOTICE:

- Do not replace the spiral cable with the battery connected and the power switch on (IG).
- Do not rotate the spiral cable with the battery connected and the power switch on (IG).
- Ensure that the steering wheel is installed and aligned straight when inspecting the steering sensor.
- Do not remove the steering sensor from the spiral cable.



C

(a) Slide the slider to release the lock, and then disconnect the yellow airbag connector from the spiral cable with sensor sub-assembly.

Text in Illustration

*1	Slider

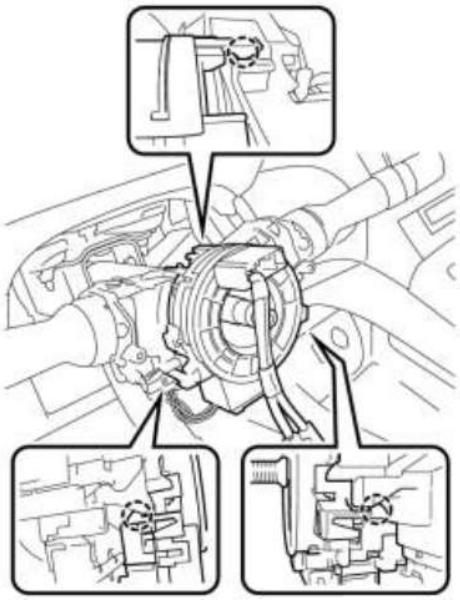
NOTICE:

When disconnecting any airbag connector, take care not to damage the airbag wire harness.

(b) Disconnect the other connector from the spiral cable with sensor sub-assembly.

(c) Disengage the 3 claws to remove the spiral cable with sensor sub-assembly.

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INSPECTION

1. INSPECT SPIRAL CABLE

(a) Visually check for defects with the spiral cable removed from the vehicle.

(1) The defects are as follows:

- Scratches on the spiral cable
- Small cracks the spiral cable
- Dents on the spiral cable
- Chips on the spiral cable
- Cracks or other damage to the connector

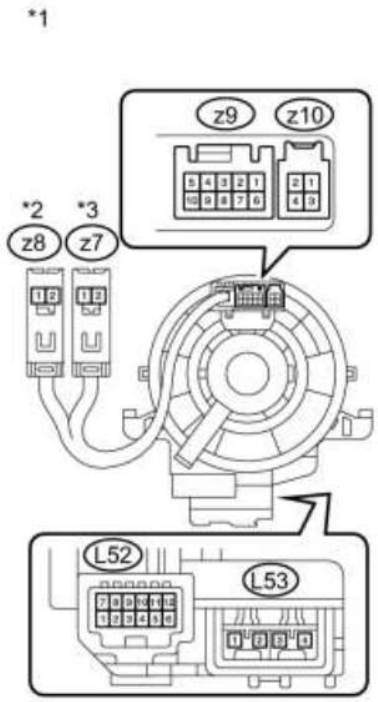
OK:

No defects are found.

HINT:

If any of the defects is found, replace the spiral cable with a new one.

(b) Inspect the spiral cable.



Text in Illustration

*1	Component without harness connected (Spiral Cable)
*2	Color: Orange
*3	Color: Black

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

NOTICE:

To avoid breakage of the spiral cable, do not turn the spiral cable more than necessary.

Standard Resistance

Tester Connection	Condition	Specified Condition
z9-1 - L52-8 (HO)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
z9-2 - L52-9 (IG)	Center	Below 1 Ω

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	2.5 rotations to the left	
	2.5 rotations to the right	
z9-3 - L52-10 (AC1)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
z9-4 - L52-11 (DIST)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
z9-5 - L52-12 (IL+2)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
z9-6 - L52-2 (ECC)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
z9-7 - L52-3 (TX1)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
z9-8 - L52-4 (EAU)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
z9-9 - L52-5 (AU2)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
z9-10 - L52-6 (AU1)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
z10-1 - L52-7 (R/N)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
z10-3 - L52-1 (CCS)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
z10-4 - L52-2 (ECC)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
z8-1 - L53-2 (D-)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	

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z8-2 - L53-1 (D+)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
z7-1 - L53-3 (D2-)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
z7-2 - L53-4 (D2+)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	

If the value is not within the specified range, replace the spiral cable.

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INSTALLATION

1. INSTALL SPIRAL CABLE WITH SENSOR SUB-ASSEMBLY

NOTICE:

- Do not replace the spiral cable with the battery connected and the power switch on (IG).
- Do not rotate the spiral cable with the battery connected and the power switch on (IG).
- Ensure that the steering wheel is installed and aligned straight when inspecting the steering sensor.
- Do not remove the steering sensor from the spiral cable.

(a) Check that the power switch is off.

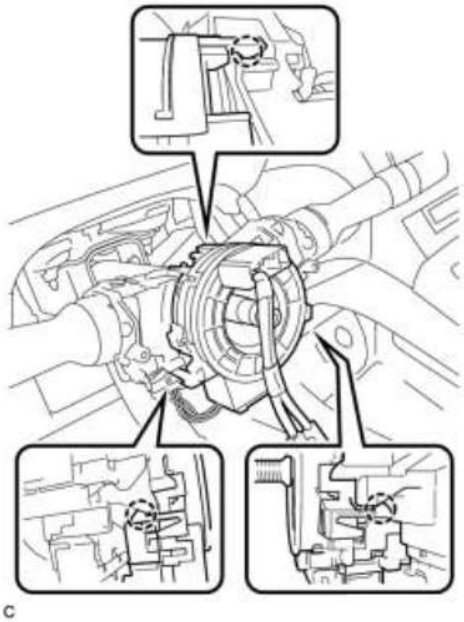
(b) Check that the cable is disconnected from the negative (-) battery terminal.

(c) Check that the front wheels are facing straight ahead.

(d) Set the turn signal switch to the neutral position.

NOTICE:

If it is not in the neutral position, the turn signal switch pin may snap.



C

(e) Install the spiral cable with sensor sub-assembly with the 3 claws.

NOTICE:

When replacing the spiral cable with sensor sub-assembly with a new one, remove the lock pin before installing the steering wheel assembly.

(f) Connect the connectors to the spiral cable with sensor sub-assembly.

NOTICE:

When connecting any airbag connector, take care not to damage the airbag wire harness.

2. INSTALL UPPER STEERING COLUMN COVER INFO

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3. INSTALL LOWER STEERING COLUMN COVER INFO

4. TURN FRONT WHEELS TO FACE STRAIGHT AHEAD

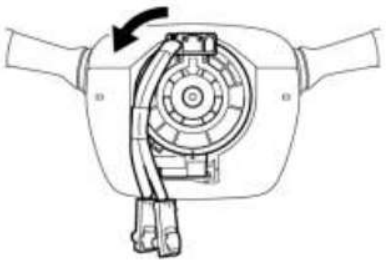
5. ADJUST SPIRAL CABLE WITH SENSOR SUB-ASSEMBLY

(a) Check that the power switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.



C

(c) Rotate the spiral cable counterclockwise slowly by hand until it stops.

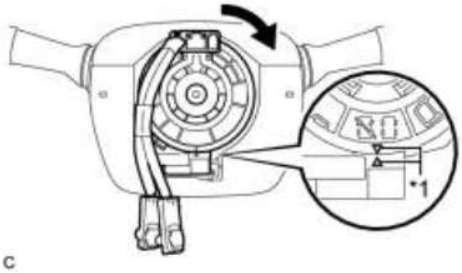
NOTICE:

Do not turn the spiral cable using the airbag wire harness.

(d) Rotate the spiral cable clockwise approximately 2.5 turns to align the marks.

Text in Illustration

*1	Alignment Mark



C

NOTICE:

Do not turn the spiral cable using the airbag wire harness.

HINT:

The spiral cable will rotate approximately 2.5 turns to both the left and right from the center.

6. INSTALL STEERING WHEEL ASSEMBLY

HINT:

Refer to the procedure from Install Steering Wheel Assembly INFO.

INSTALLATION

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1. INSTALL SPIRAL CABLE WITH SENSOR SUB-ASSEMBLY

NOTICE:

- Do not replace the spiral cable with the battery connected and the power switch on (IG).
- Do not rotate the spiral cable with the battery connected and the power switch on (IG).
- Ensure that the steering wheel is installed and aligned straight when inspecting the steering sensor.
- Do not remove the steering sensor from the spiral cable.

(a) Check that the power switch is off.

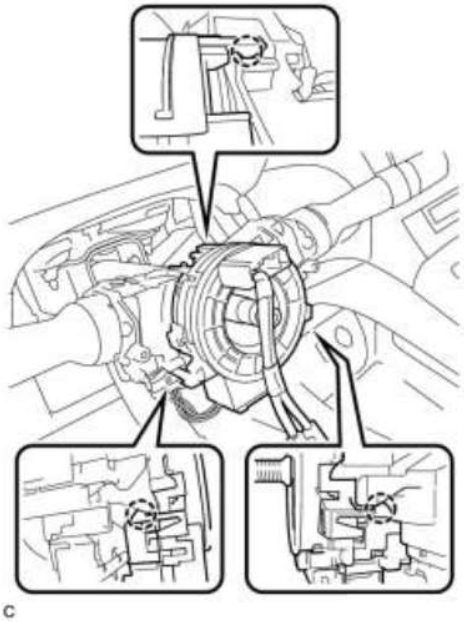
(b) Check that the cable is disconnected from the negative (-) battery terminal.

(c) Check that the front wheels are facing straight ahead.

(d) Set the turn signal switch to the neutral position.

NOTICE:

If it is not in the neutral position, the turn signal switch pin may snap.



C

(e) Install the spiral cable with sensor sub-assembly with the 3 claws.

NOTICE:

When replacing the spiral cable with sensor sub-assembly with a new one, remove the lock pin before installing the steering wheel assembly.

(f) Connect the connectors to the spiral cable with sensor sub-assembly.

NOTICE:

When connecting any airbag connector, take care not to damage the airbag wire harness.

2. INSTALL UPPER STEERING COLUMN COVER INFO

3. INSTALL LOWER STEERING COLUMN COVER INFO

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4. TURN FRONT WHEELS TO FACE STRAIGHT AHEAD

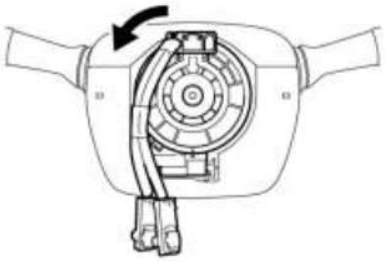
5. ADJUST SPIRAL CABLE WITH SENSOR SUB-ASSEMBLY

(a) Check that the power switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.



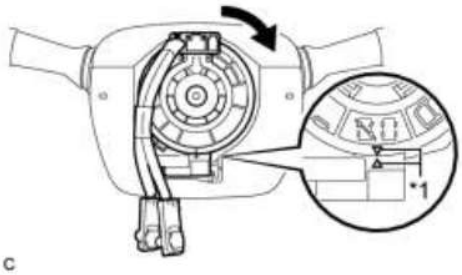
c

(c) Rotate the spiral cable counterclockwise slowly by hand until it stops.

NOTICE:

Do not turn the spiral cable using the airbag wire harness.

(d) Rotate the spiral cable clockwise approximately 2.5 turns to align the marks.



c

Text in Illustration

*1	Alignment Mark

NOTICE:

Do not turn the spiral cable using the airbag wire harness.

HINT:

The spiral cable will rotate approximately 2.5 turns to both the left and right from the center.

6. INSTALL STEERING WHEEL ASSEMBLY

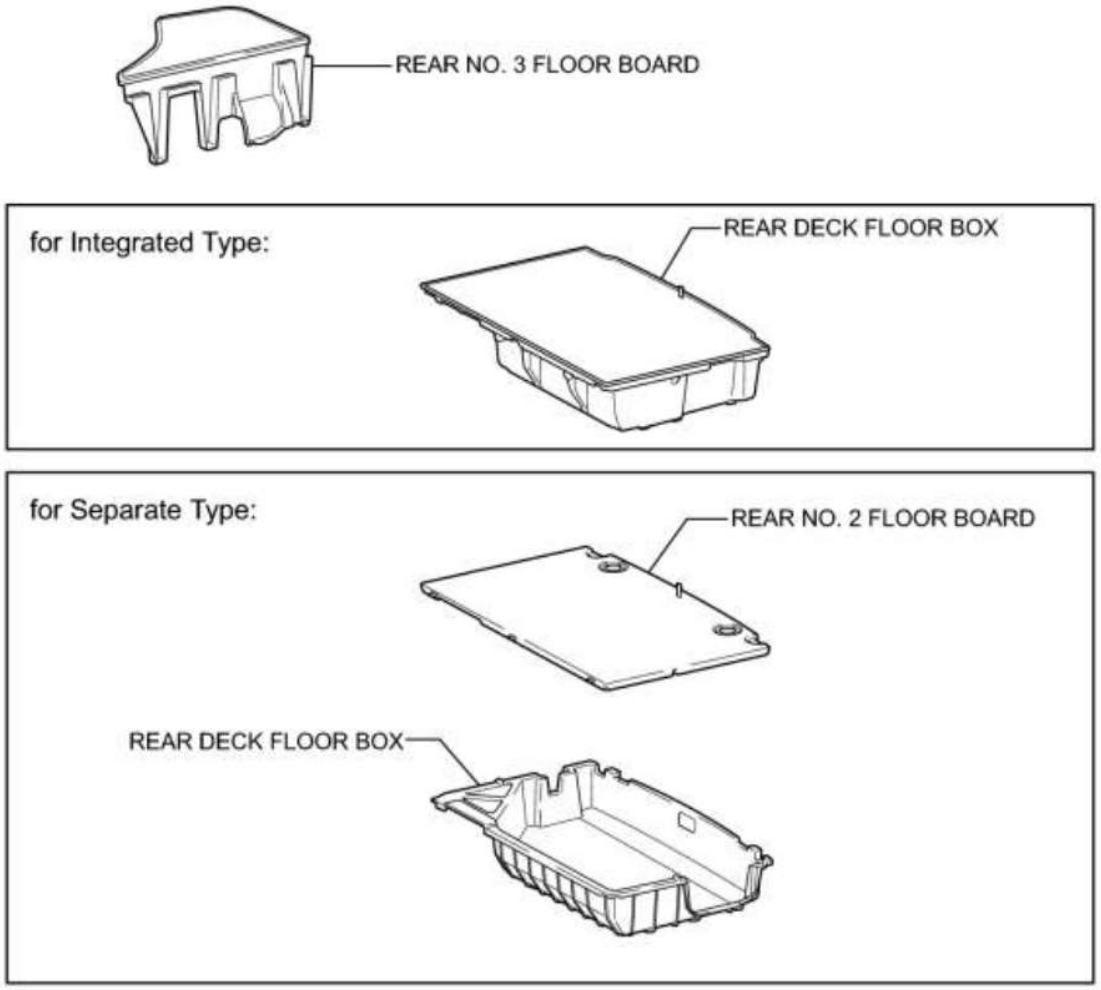
HINT:

Refer to the procedure from Install Steering Wheel Assembly INFO.

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COMPONENTS

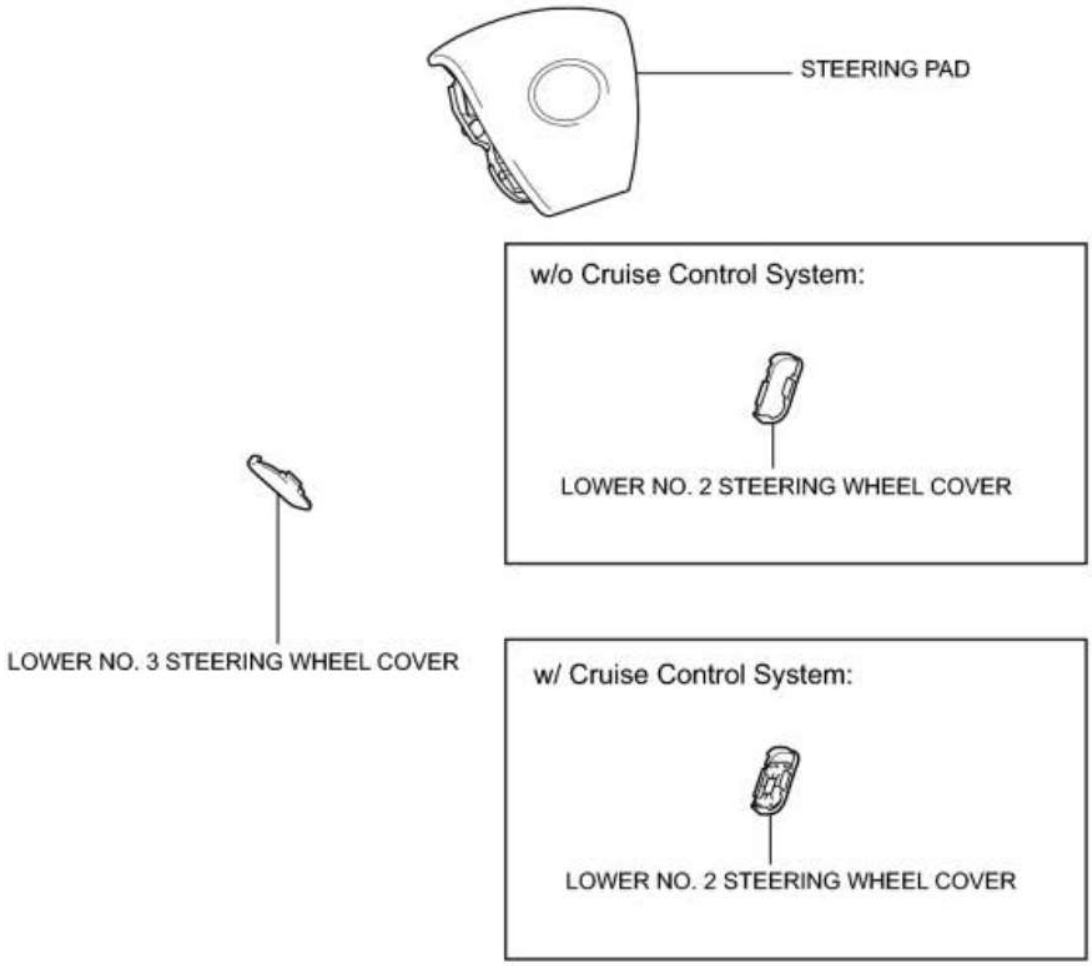
ILLUSTRATION



P

ILLUSTRATION

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ON-VEHICLE INSPECTION

CAUTION:

Be sure to follow the correct removal and installation procedures of the steering pad.

1. INSPECT STEERING PAD (for Vehicle not Involved in Collision)

(a) Perform a diagnostic system check INFO.

(b) Visually check for defects with the steering pad installed on the vehicle.

(1) The defects are as follows:

- Cuts on the surface and in the grooves of the steering pad
- Small cracks on the surface and in the grooves of the steering pad
- Significant discoloration on the surface and in the grooves of the steering pad

OK:

No defects are found.

HINT:

If any of the defects is found, replace the steering pad with a new one.

2. INSPECT STEERING PAD (for Vehicle Involved in Collision and Airbag not Deployed)

(a) Perform a diagnostic system check INFO.

(b) Visually check for defects with the steering pad removed from the vehicle.

(1) The defects are as follows:

- Cuts on the surface and in the grooves of the steering pad
- Small cracks on the surface and in the grooves of the steering pad
- Significant discoloration on the surface and in the grooves of the steering pad
- Cracks or other damage to the connector
- Deformation of the steering wheel assembly
- Deformation of the horn button contact plate of the steering pad
- Interference or uneven clearance between the steering pad and steering wheel assembly when the new steering pad is installed on the steering wheel assembly

OK:

No defects are found.

HINT:

If any of the defects is found, replace the steering pad or steering wheel assembly with a new one.

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REMOVAL

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO.

2. REMOVE REAR NO. 2 FLOOR BOARD (for Separate Type) INFO

3. REMOVE REAR DECK FLOOR BOX INFO

4. REMOVE REAR NO. 3 FLOOR BOARD INFO

5. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

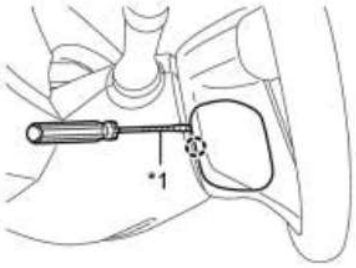
CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

6. REMOVE LOWER NO. 3 STEERING WHEEL COVER



C

(a) Using a screwdriver with its tip wrapped with protective tape, disengage the claw to remove the lower No. 3 steering wheel cover.

Text in Illustration

*1	Protective Tape

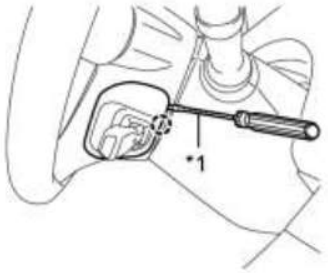
7. REMOVE LOWER NO. 2 STEERING WHEEL COVER

(a) Using a screwdriver with its tip wrapped with protective tape, disengage the claw to remove the lower No. 2 steering wheel cover.

Text in Illustration

*1	Protective Tape

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c

8. REMOVE STEERING PAD

CAUTION:

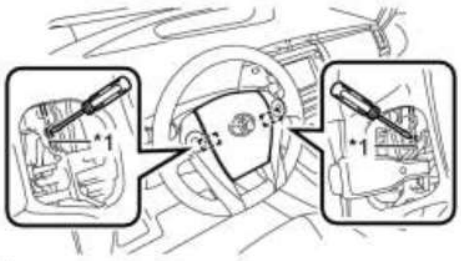
When storing the steering pad, keep the airbag deployment side facing upward.

(a) Check that the power switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

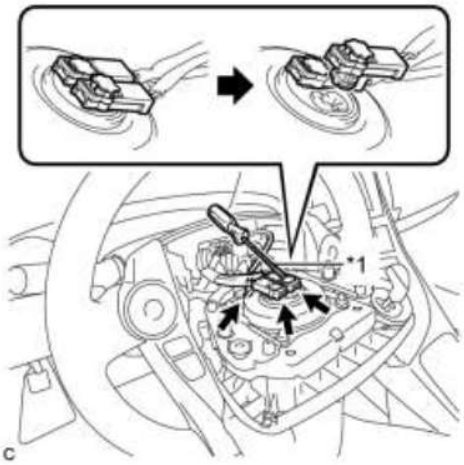


c

(c) Using a screwdriver, push the torsional spring to disengage the 2 pins.

Text in Illustration

*1	Torsional Spring



c

(d) Pull out the steering pad from the steering wheel assembly and support the steering pad with one hand.

NOTICE:

When removing the steering pad, do not pull the airbag wire harness.

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(e) Disconnect the horn connector from the steering pad.

(f) Using a screwdriver with its tip wrapped with protective tape, release the 2 airbag connector locks.

Text in Illustration

*1	Protective Tape

(g) Disconnect the 2 airbag connectors to remove the steering pad.

NOTICE:

When disconnecting any airbag connector, take care not to damage the airbag wire harness.

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INSTALLATION

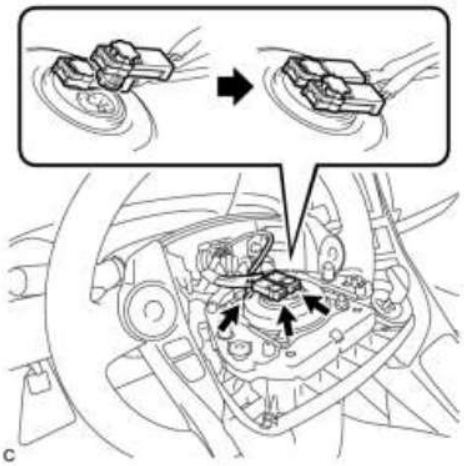
1. INSTALL STEERING PAD

(a) Check that the power switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.



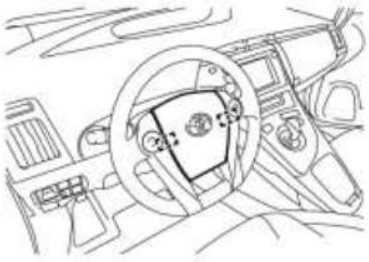
C

(c) Connect the 2 airbag connectors to the steering pad.

- When connecting any airbag connector, take care not to damage the airbag wire harness.
- Be sure to only connect the connectors to each corresponding color.

(d) Push in the 2 locks to install the 2 airbag connectors.

(e) Connect the horn connector to the steering pad.



C

(f) Push the steering pad to engage the 2 pins.

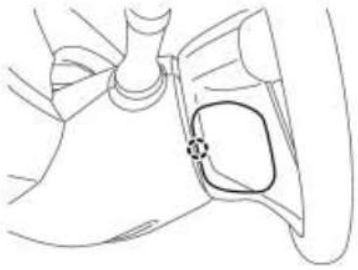
NOTICE:

Make sure that the pins are securely inserted into the steering holes.

2. INSTALL LOWER NO. 3 STEERING WHEEL COVER

(a) Engage the claw to install the lower No. 3 steering wheel cover.

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c

3. INSTALL LOWER NO. 2 STEERING WHEEL COVER



(a) Engage the claw to install the lower No. 2 steering wheel cover.

c

4. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected INFO.

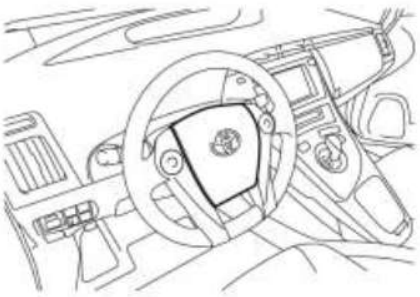
5. INSTALL REAR NO. 3 FLOOR BOARD INFO

6. INSTALL REAR DECK FLOOR BOX INFO

7. INSTALL REAR NO. 2 FLOOR BOARD (for Separate Type) INFO

8. INSPECT STEERING PAD

(a) Visually check for defects with the steering pad installed on the vehicle.



c

(1) The defects are as follows:

- Cuts on the surface and in the grooves of the steering pad
- Small cracks on the surface and in the grooves of the steering pad
- Significant discoloration on the surface and in the grooves of the steering pad

OK:

No defects are found.

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HINT:

If any of the defects is found, replace the steering pad with a new one.

(b) Make sure that the horn sounds.

HINT:

If the horn does not sound, inspect the horn system INFO.

9. PERFORM DIAGNOSTIC SYSTEM CHECK

(a) Perform a diagnostic system check INFO.

10. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light INFO.

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DISPOSAL

CAUTION:

Before performing pre-disposal deployment of any SRS part, review and closely follow all applicable environmental and hazardous material regulations. Pre-disposal deployment may be considered hazardous material treatment.

1. PRECAUTION

CAUTION:

- An airbag or pretensioner may be activated by static electricity. To prevent this, be sure to touch a metal surface with your bare hands to discharge static electricity before performing this procedure.
- Never dispose of a steering pad with an undeployed airbag.
- The airbag produces an exploding sound when it is deployed, so perform the operation outdoors and where it will not create a nuisance to nearby residents.
- When deploying the airbag, always use the specified SST (SRS Airbag Deployment Tool). Perform the operation in a place away from electrical noise.
- When deploying the airbag, perform the operation at least 10 m (32.8 ft.) away from the steering pad.
- The steering pad becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a steering pad with a deployed airbag.
- Do not apply water etc. to a steering pad with a deployed airbag.
- Always wash your hands with water after completing the operation.

HINT:

When scrapping a vehicle equipped with an SRS or disposing of the steering pad, be sure to deploy the airbag first in accordance with the procedure described below. If any abnormality occurs with the airbag deployment, contact the Service Dept. of TOYOTA MOTOR SALES, U.S.A., INC.

2. DISPOSE OF STEERING PAD (When Installed in Vehicle)

NOTICE:

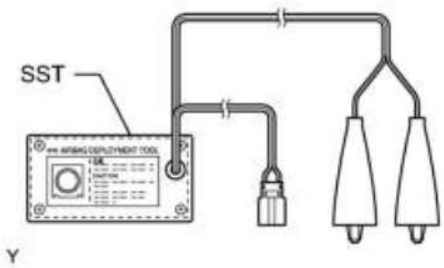
- When disposing of the steering pad, never use the customer's vehicle to deploy the airbag.
- Be sure to observe the following procedure when deploying the airbag.

HINT:

Prepare a battery as the power source to deploy the airbag.

(a) Check the function of SST.

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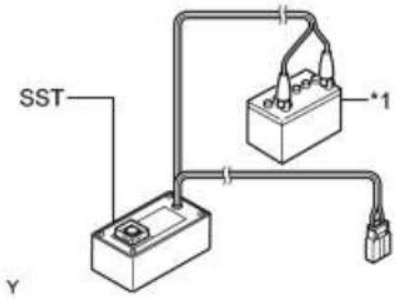


SST: 09082-00700

CAUTION:

When deploying the airbag, always use the specified SST:

SRS Airbag Deployment Tool

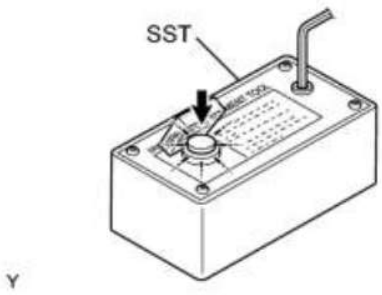


(1) Connect SST to the battery.

Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

Text in Illustration

*1	Battery



(2) Check the function of SST.

Press the SST activation switch and check that the LED of the SST activation switch comes on.

- Do not connect the yellow SST connector to the airbag.
- If the LED comes on when the activation switch is not being pressed, SST is malfunctioning. Replace SST.

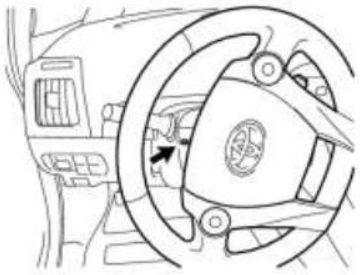
(3) Disconnect SST from the battery.

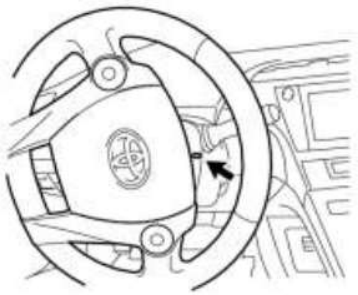
(b) Refer to Precaution INFO.

(c) Remove the lower steering column cover.

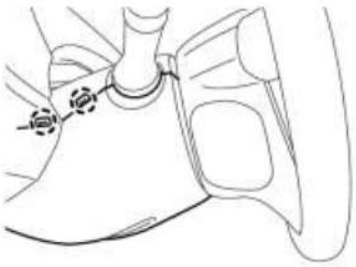
(1) While turning the steering wheel assembly to the right and left, disengage the 2 claws.

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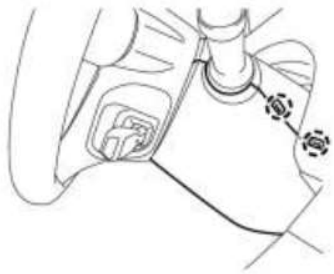




c



(2) Disengage the 4 claws to remove the lower steering column cover.



c

(d) Disconnect the cable from the negative (-) battery terminal.

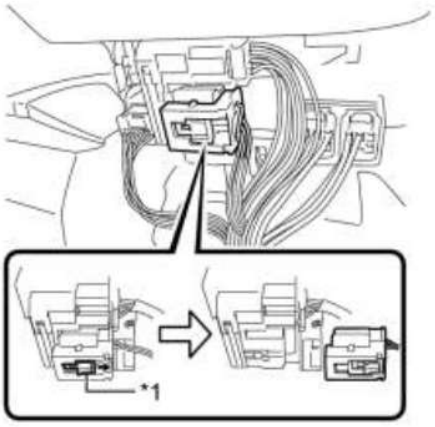
CAUTION:

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(e) Disconnect the yellow airbag connector from the spiral cable.

(1) Slide the slider to release the lock, and then disconnect the connector.

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c

Text in Illustration

*1	Slider

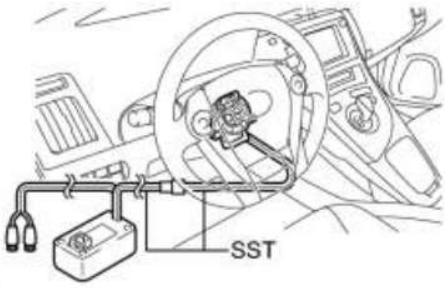
NOTICE:

When disconnecting any airbag connector, take care not to damage the airbag wire harness.

(f) Install SST.

CAUTION:

Check that there is no looseness in the steering wheel assembly and steering pad.



c

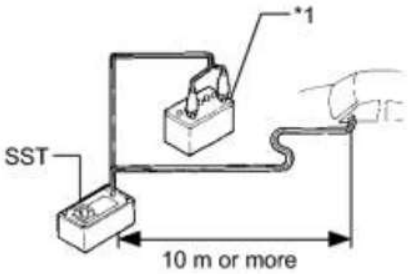
(1) Connect the SST connector to the airbag connector of the spiral cable.

SST: 09082-00700

SST: 09082-00780

NOTICE:

To avoid damaging the SST connector or wire harness, do not lock the secondary lock of the twin lock.



(2) Move SST at least 10 m (32.8 ft.) away from the front side window of the vehicle.

Text in Illustration

*1	Battery

(3) Maintaining sufficient clearance for the SST wire harness in the front side window, close all doors and windows of the vehicle.

NOTICE:

Take care not to damage the SST wire harness.

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(4) Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

(g) Deploy the airbag.

(1) Check that no one is inside the vehicle or within a 10 m (32.8 ft.) radius of the vehicle.

(2) Press the SST activation switch and deploy the airbag.

CAUTION:

- Before deployment, make sure that no one is near the vehicle.
- The steering pad becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a steering pad with a deployed airbag.
- Do not apply water etc. to a steering pad with a deployed airbag.
- Always wash your hands with water after completing the operation.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.

3. DISPOSE OF STEERING PAD (When Not Installed in Vehicle)

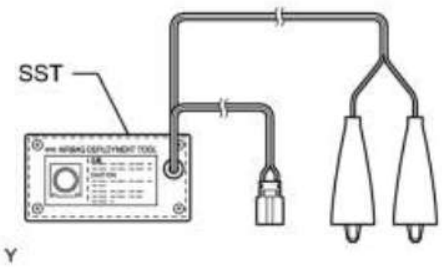
NOTICE:

Be sure to observe the following procedure when deploying the airbag.

HINT:

Prepare a battery as the power source to deploy the airbag.

(a) Check the function of SST.



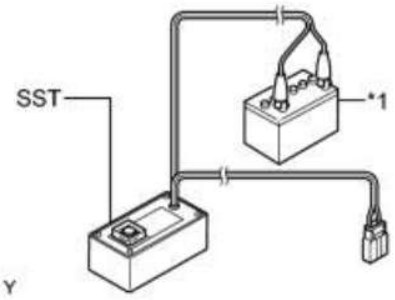
SST: 09082-00700

CAUTION:

When deploying the airbag, always use the specified SST:

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SRS Airbag Deployment Tool

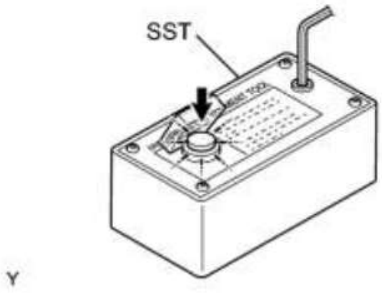


(1) Connect SST to the battery.

Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

Text in Illustration

*1	Battery



(2) Check the function of SST.

Press the SST activation switch and check that the LED of the SST activation switch comes on.

- Do not connect the yellow SST connector to the airbag.
- If the LED comes on when the activation switch is not being pressed, SST is malfunctioning. Replace SST.

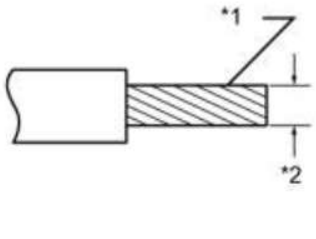
(3) Disconnect SST from the battery.

(b) Remove the steering pad INFO.

CAUTION:

- Before removing the steering pad, wait at least 90 seconds after turning the power switch off and disconnecting the cable from the negative (-) battery terminal.
- When storing the steering pad, keep the airbag deployment side facing upward.

(c) Using braided wire, tie down the steering pad to an unneeded wheel.



Text in Illustration

*1	Stripped Wire Section
*2	Wire Diameter

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Wire:

Stripped wire section

1.25 mm^2 (0.0019 $in.^2$) or more

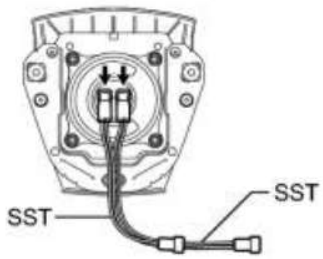
CAUTION:

If the wire harness is too thin or an alternative object is used to tie down the steering pad, it may snap when the airbag is deployed. Always use a wire for vehicle use with an area of at least 1.25 mm^2 (0.0019 $in.^2$).

HINT:

To calculate the area of the stripped wire section:

Area = 3.14 x $(Diameter)^2$ / 4



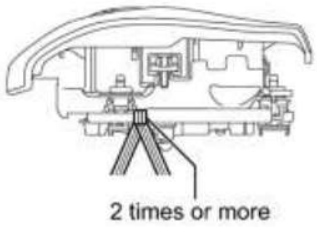
c

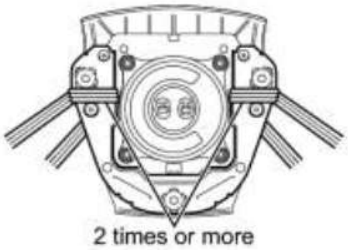
(1) After connecting the following SST to each other, connect them to the steering pad.

SST: 09082-00802

09082-10801

09082-30801





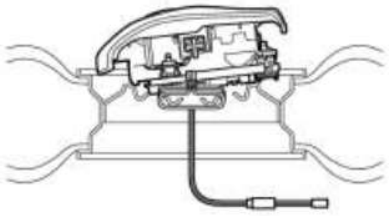
c

(2) Wind 3 wires at least 2 times around the horn button contact prate.

- Tightly wind the wires around the horn button contact prate without any slack.
- Make sure that the wires are tight. If there is slack in the wires, the steering pad may break loose when the airbag is deployed.

(3) Face the airbag deployment side of the steering pad upward on top of an unneeded tire and wheel set. Separately tie the left and right sides of the steering pad to the wheel through the hub nut holes. Position the SST

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c

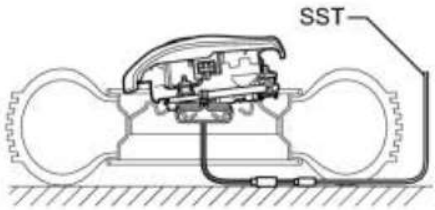
connector so that it hangs downward through the hub hole of the wheel.

- Make sure that the wires are tight. If there is slack in the wires, the steering pad may break loose when the airbag is deployed.
- Always tie down the steering pad with the airbag deployment side facing upward.

NOTICE:

The wheel will be damaged by the airbag deployment, so use an unneeded wheel.

(d) Install SST.



c

CAUTION:

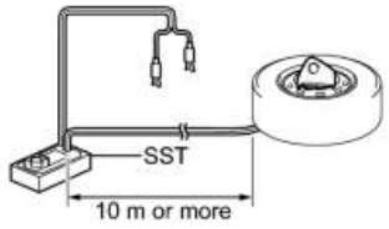
Place the wheel on level ground.

(1) Connect the SST connector.

SST: 09082-00700

NOTICE:

To avoid damaging the SST connector or wire harness, do not lock the secondary lock of the twin lock. Also, secure some slack for the SST wire harness inside the disc wheel.



c

(2) Move SST at least 10 m (32.8 ft.) away from the airbag tied down to the wheel.

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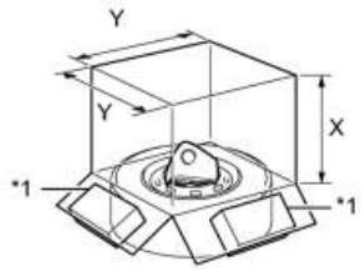
(e) Cover the steering pad (using a cardboard box).

Text in Illustration

*1	Weight

(1) Cover the steering pad with a cardboard box.

(2) Place weights on the cardboard box in 4 places totalling at least 190 N (19 kg, 42.7 lb).



c

Minimum cardboard box size:

Must exceed the following dimensions

X

460 mm (1.51 ft.)

Y

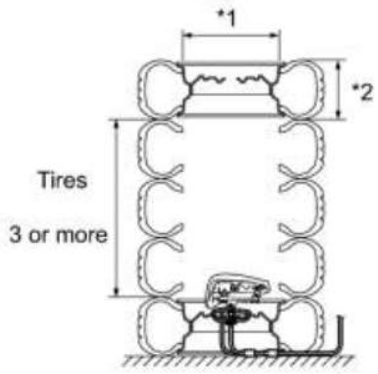
650 mm (2.13 ft.)

- When dimension Y of the cardboard box exceeds the diameter of the wheel and tire to which the steering pad is tied, X should be the following size.

  X = 460 mm (1.51 ft.) + width of tire

- If a cardboard box smaller than the specified size is used, it may be broken by the shock from the airbag deployment.

(f) Cover the steering pad (using tires).



c

(1) Place at least 3 tires without wheels onto the wheel and tire to which the steering pad is tied.

Text in Illustration

*1	Inner Diameter
*2	Width

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(2) Place a wheel and tire on top.

Minimum tire size:

Must exceed the following dimensions

Width:

185 mm (7.28 in.)

Inner diameter:

360 mm (1.18 ft.)

CAUTION:

Do not use tires with wheels except for on the top and bottom.

NOTICE:

- The tires may be damaged by the airbag deployment, so use unneeded tires.
- Do not place the SST connector under the tire because it could be damaged.



(3) Tie the tires together with the 2 wires.

CAUTION:

Make sure that the wires are tight. Looseness in the wires results in the tires breaking loose when the airbag is deployed.

(g) Deploy the airbag.

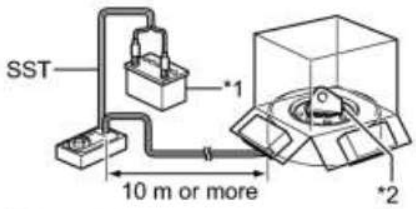
(1) Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

Text in Illustration

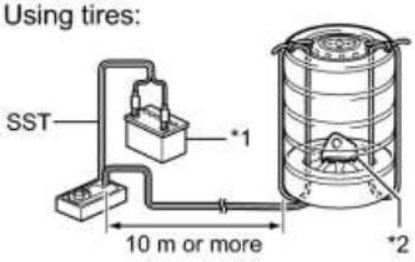
*1	Battery
*2	Steering Pad

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Using a cardboard box:



Using tires:



c

(2) Check that no one is within a 10 m (32.8 ft.) radius of the wheel to which the steering pad is tied.

(3) Press the SST activation switch and deploy the airbag.

CAUTION:

Before deployment, make sure that no one is near the airbag.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.



(h) Dispose of the steering pad.

- The steering pad becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a steering pad with a deployed airbag.
- Do not apply water etc. to a steering pad with a deployed airbag.
- Always wash your hands with water after completing the operation.

(1) Remove the steering pad from the wheel.

(2) Place the steering pad in a plastic bag, tie it tightly and dispose of it according to local regulations.

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