AIRBAG SYSTEM

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 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.

RS

- **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 (see page RS-31).**
- **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 (see page IN-5).**
- **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	IN-32

HINT:
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.

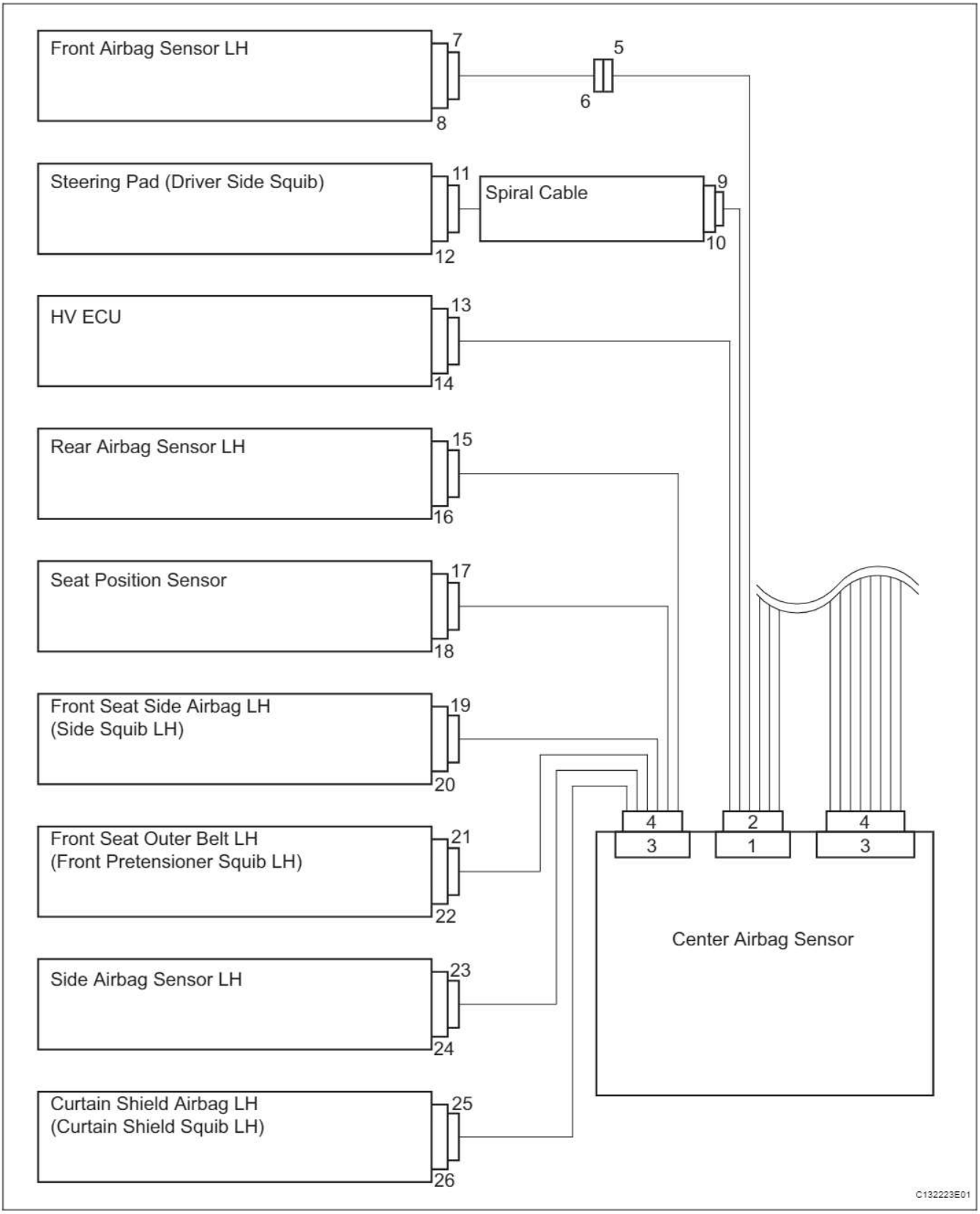
2. INSPECTION PROCEDURE FOR VEHICLE INVOLVED IN ACCIDENT

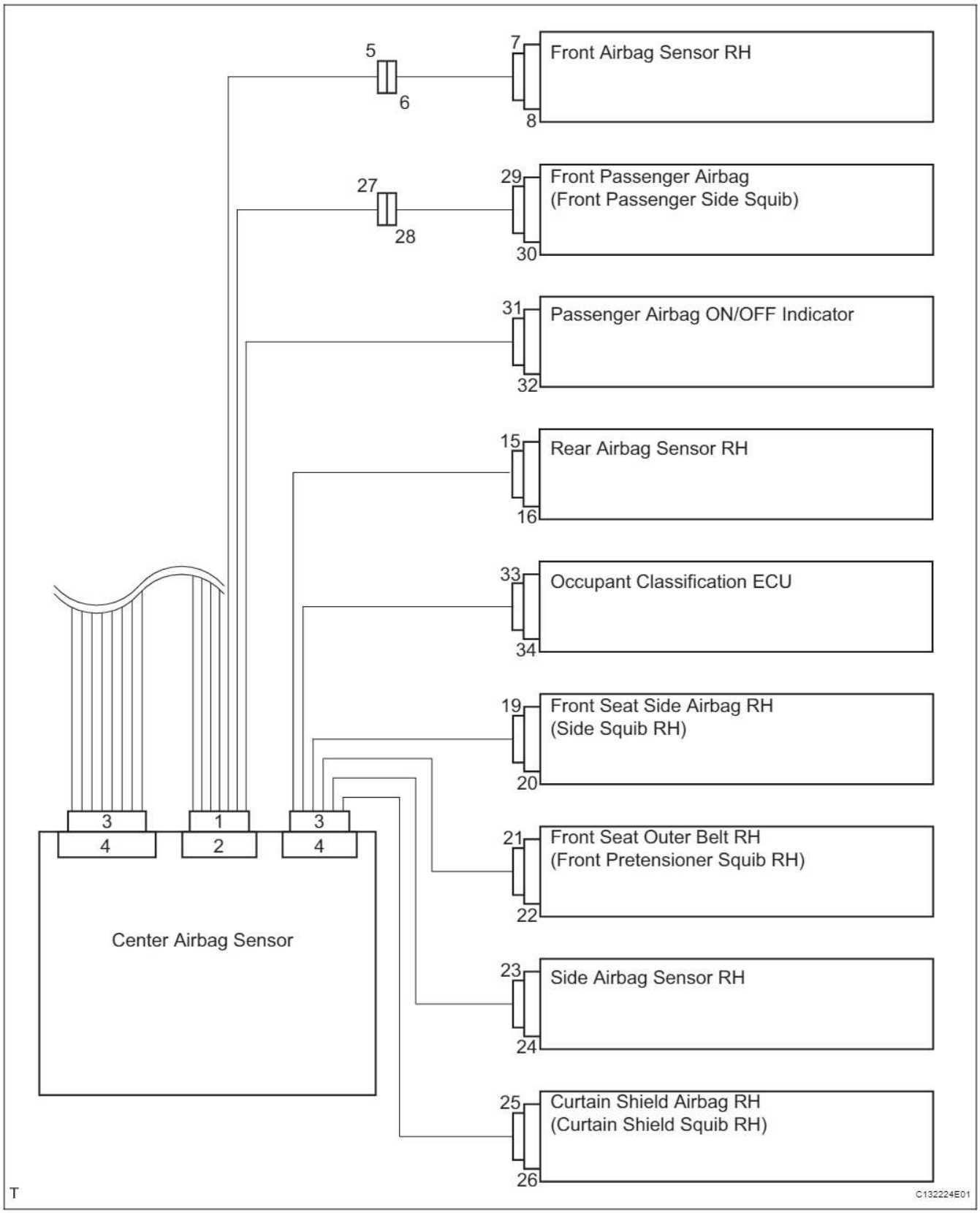
(a) When the airbag has not deployed, confirm the DTCs by checking the SRS warning light. If there is any malfunction in the SRS airbag system, perform troubleshooting.

(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.

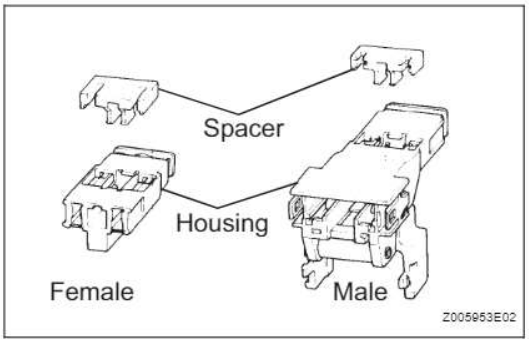




No.	Item	Application
(1)	Terminal Twin-Lock Mechanism	Connectors 2, 4, 5, 6, 7, 9, 15, 23, 24
(2)	Activation Prevention Mechanism	Connectors 2, 4, 10, 12, 20, 22, 26, 28, 30
(3)	Half Connection Prevention Mechanism	Connectors 6, 7, 9, 15, 19, 23, 27

No.	Item	Application
(4)	Connector Lock Mechanism (1)	Connectors 11, 21, 25, 29
(5)	Connector Lock Mechanism (2)	Connector 2, 4
(6)	Improper Connection Prevention Lock Mechanism	Connector 1, 3

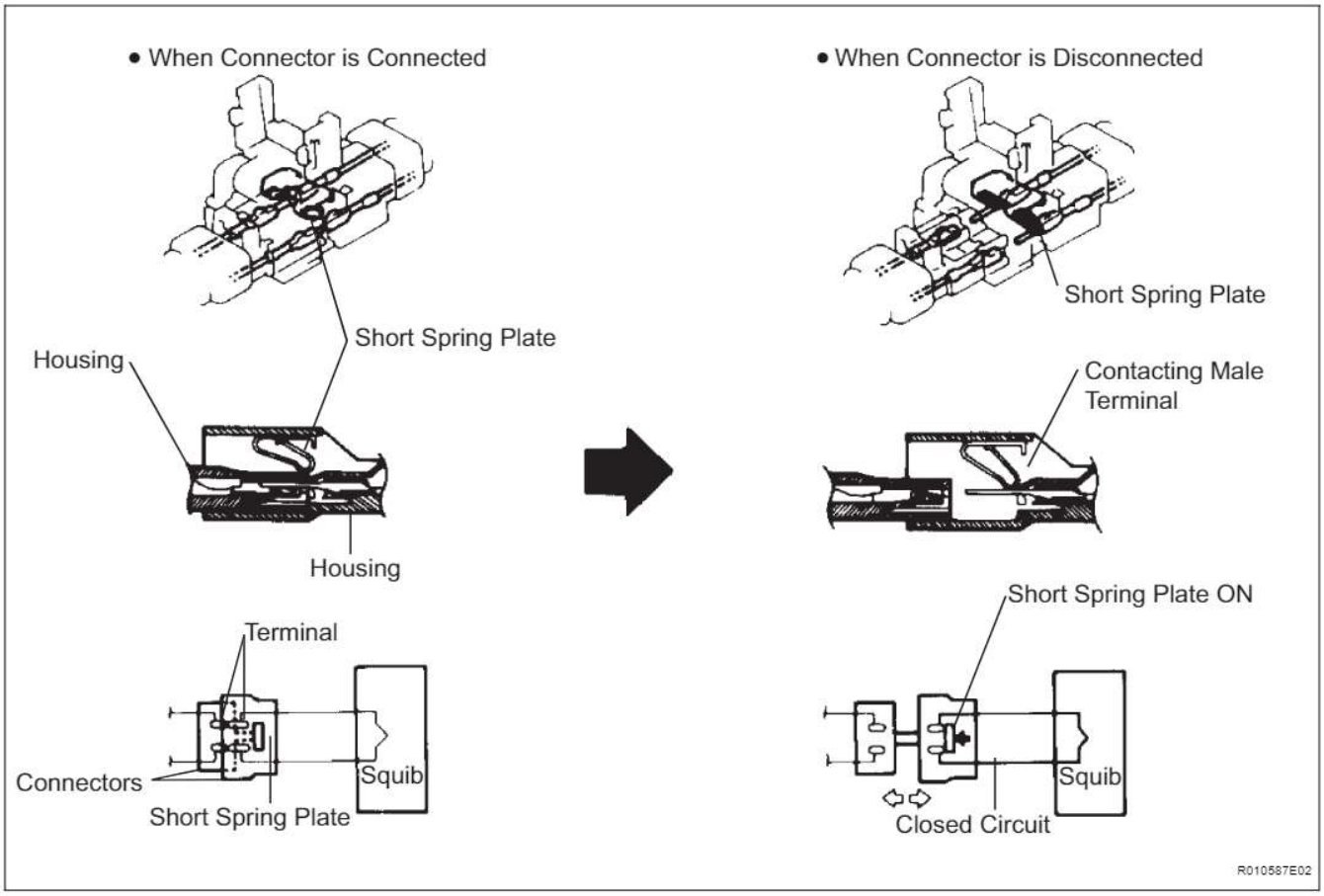
RS



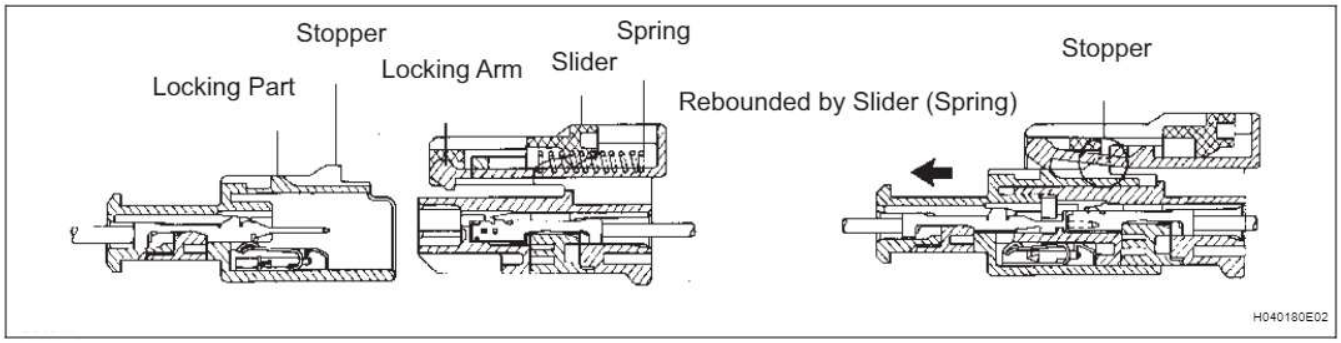
(b) All connectors in the SRS, except the seat position airbag sensor connector, are colored yellow to distinguish them from other connectors. These connectors have special functions, and are specially designed for the SRS. All SRS connectors use durable gold-plated terminals, and are placed in the locations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

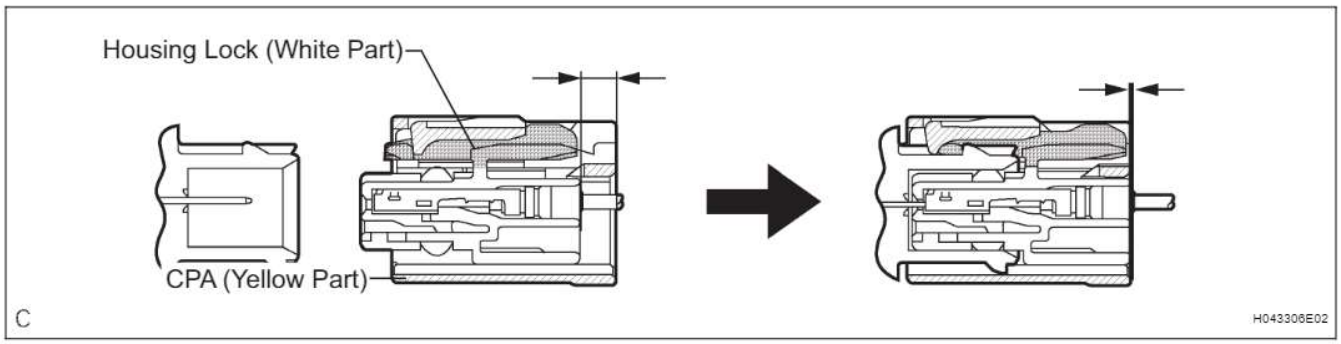
(2) Activation prevention mechanism:
All connectors with an activation prevention mechanism contain a short spring plate. When these connectors are disconnected, the short spring plate creates a short circuit by automatically connecting the positive (+) and negative (-) terminals of the squib.



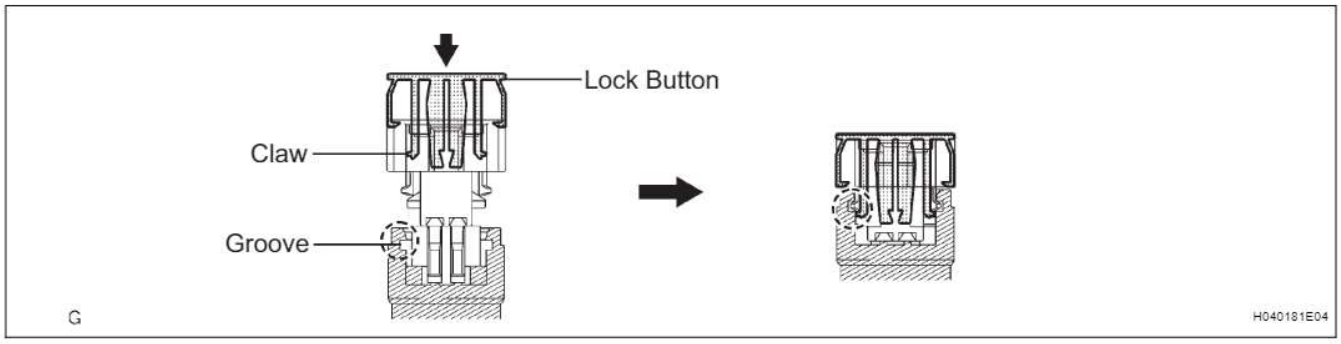
(3) Half connection prevention mechanism:
If the connector is not completely connected, the connector is disconnected due to the spring operation so that no continuity exists.



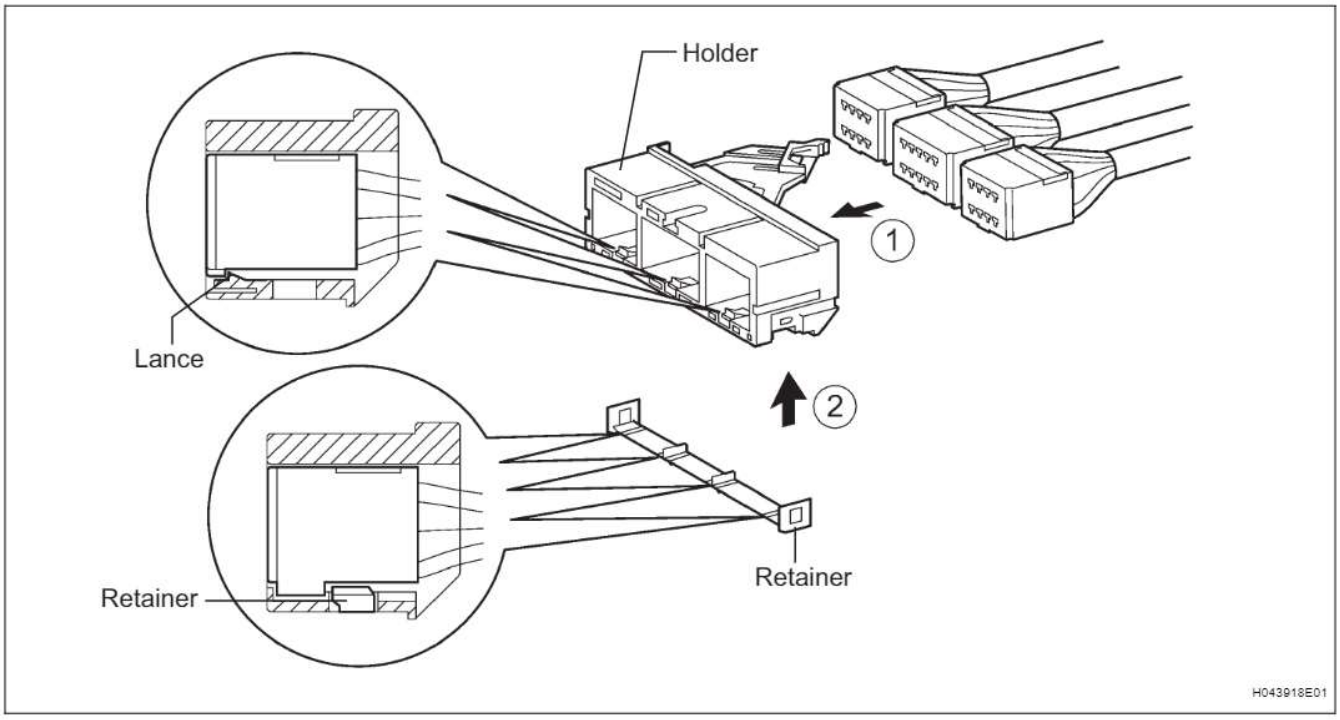
(4) Connector position assurance mechanism:
Only when the housing lock (white part) is completely engaged, the CPA (yellow part) slides, which completes the connector engagement.



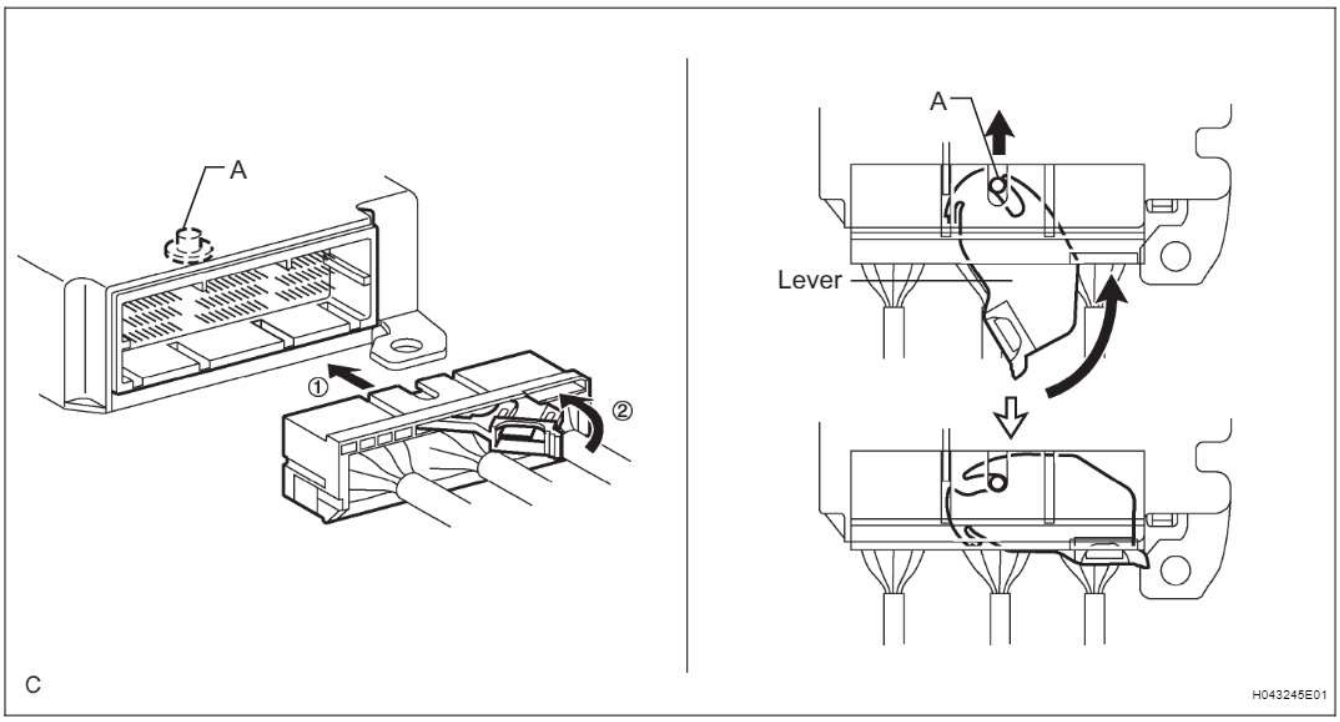
(5) Connector lock mechanism (1):
Locking the connector lock button connects the connector securely.



(6) Connector lock mechanism (2):
Both the primary lock with holder lances and the secondary lock with retainer prevent the connectors from being disconnected.



(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.



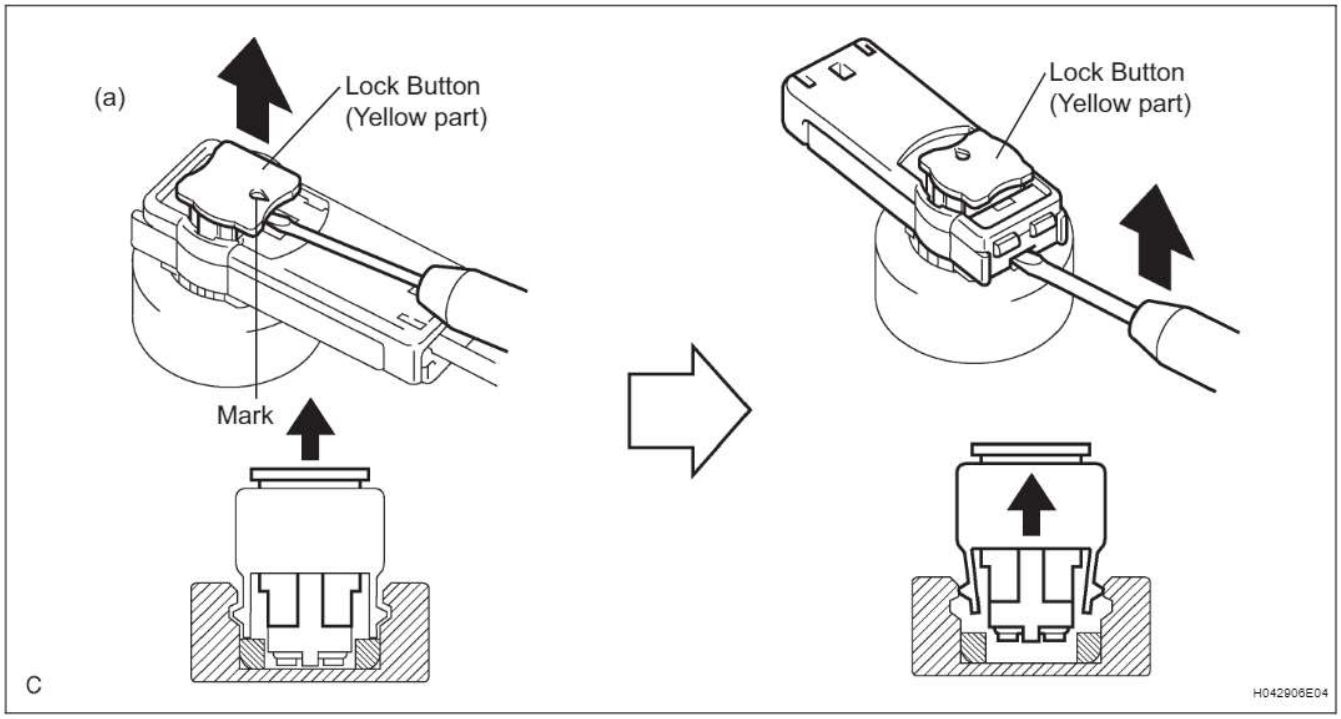
4. DISCONNECTION OF CONNECTORS FOR STEERING PAD, FRONT PASSENGER AIRBAG (SQUIB SIDE), CURTAIN SHIELD AIRBAG AND FRONT SEAT OUTER BELT

HINT:

Tape the screwdriver tip before use.

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

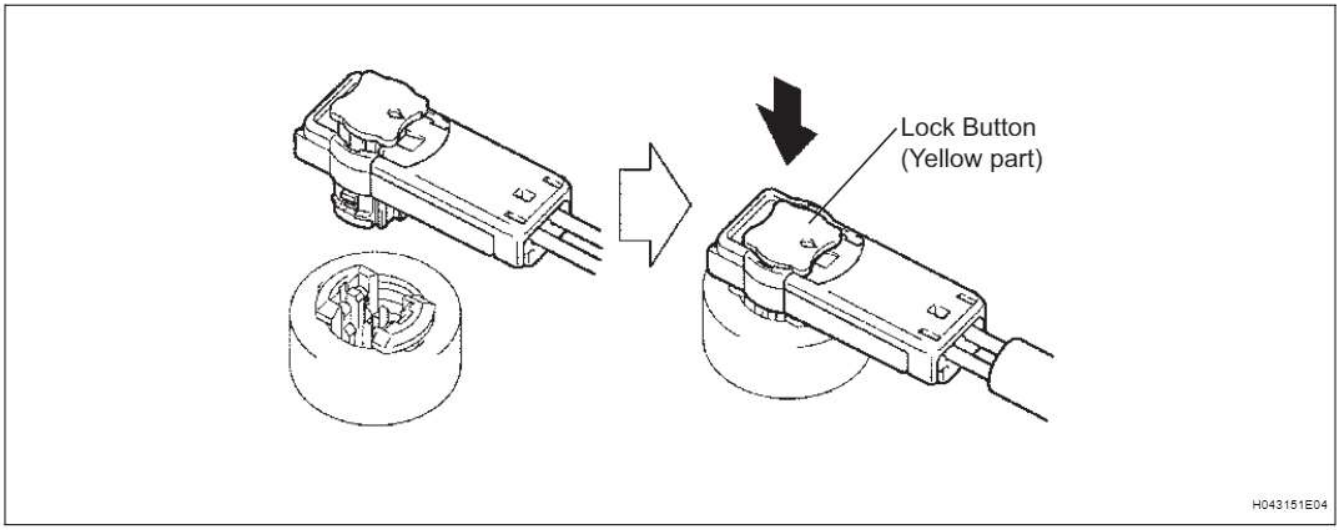
(b) Insert the screwdriver tip between the connector and the base, and then raise the connector.



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

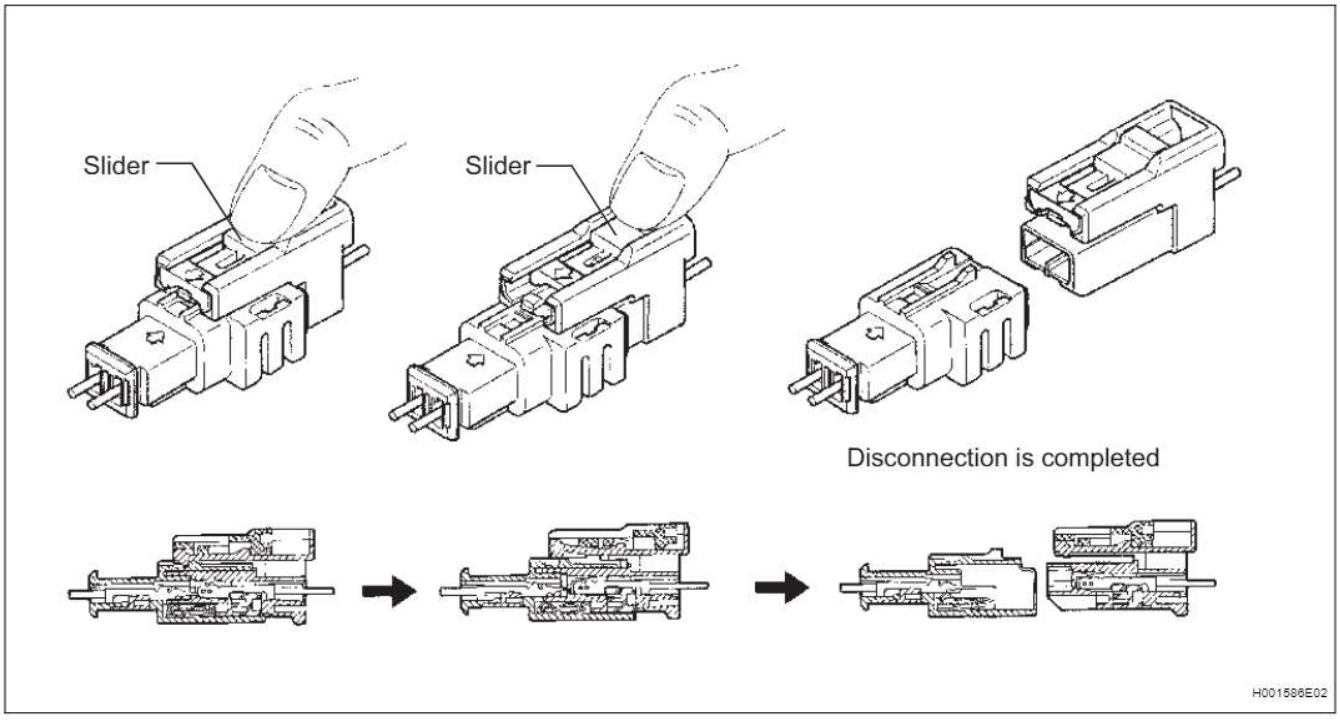
(a) Connect the connector.

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



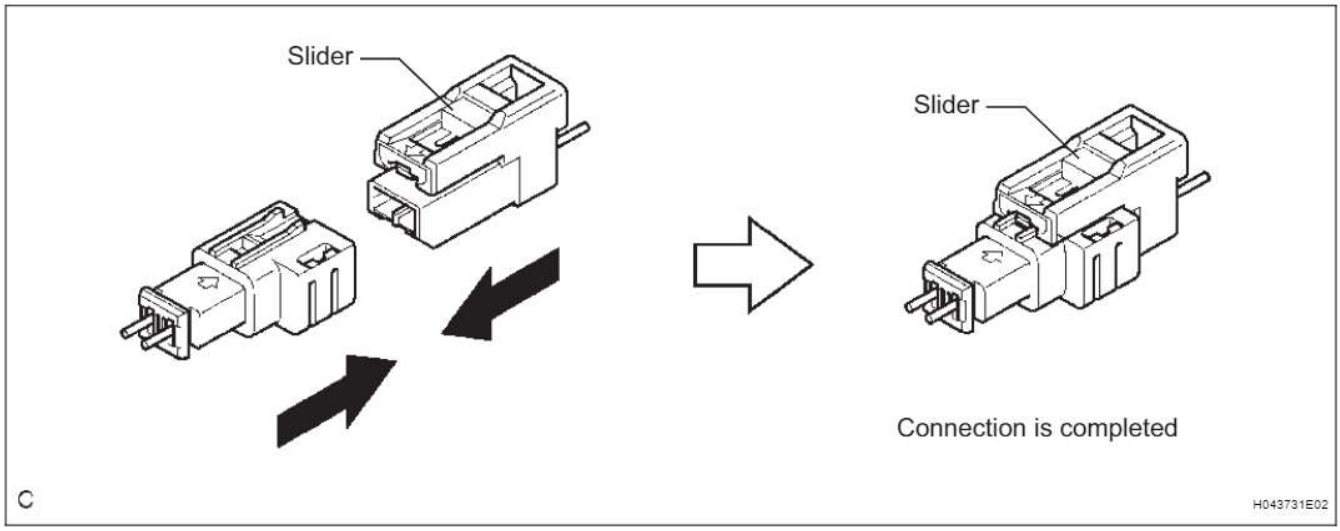
6. DISCONNECTION OF CONNECTOR FOR FRONT PASSENGER AIRBAG (INSTRUMENT PANEL WIRE SIDE)

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



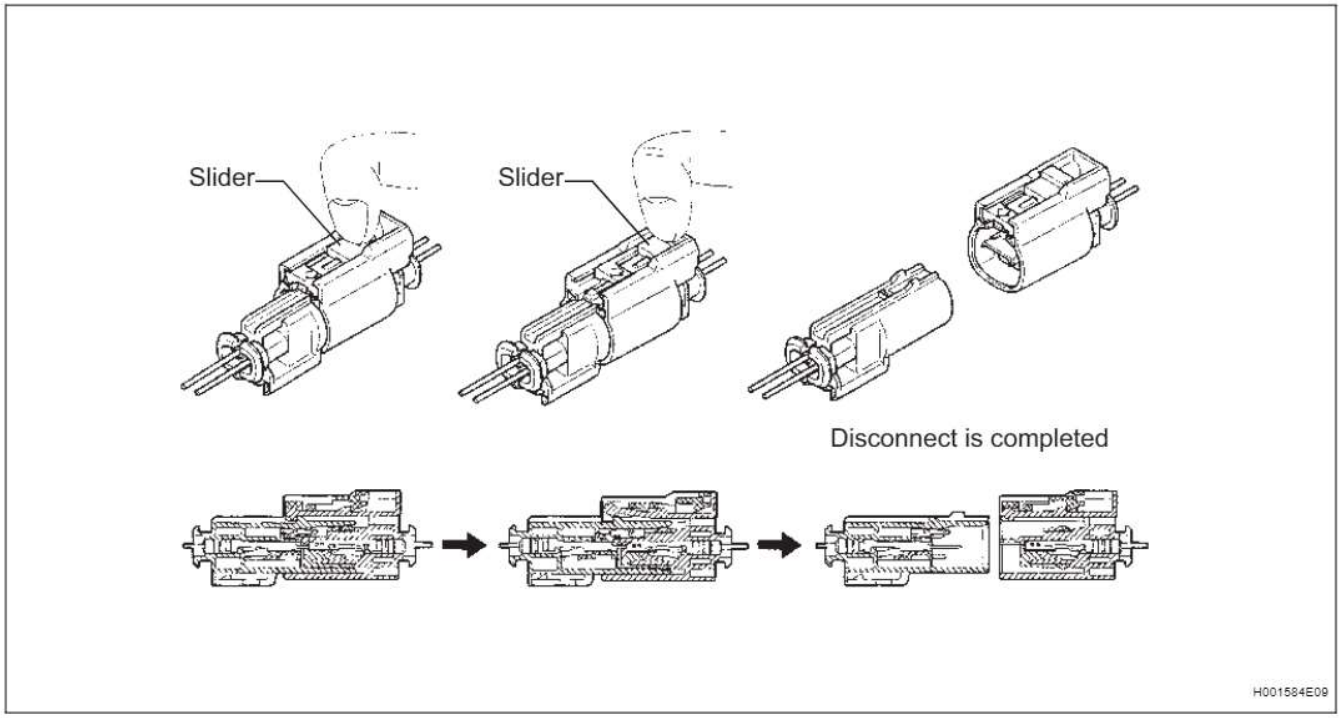
7. CONNECTION OF CONNECTOR FOR FRONT PASSENGER AIRBAG (INSTRUMENT PANEL WIRE SIDE)

(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

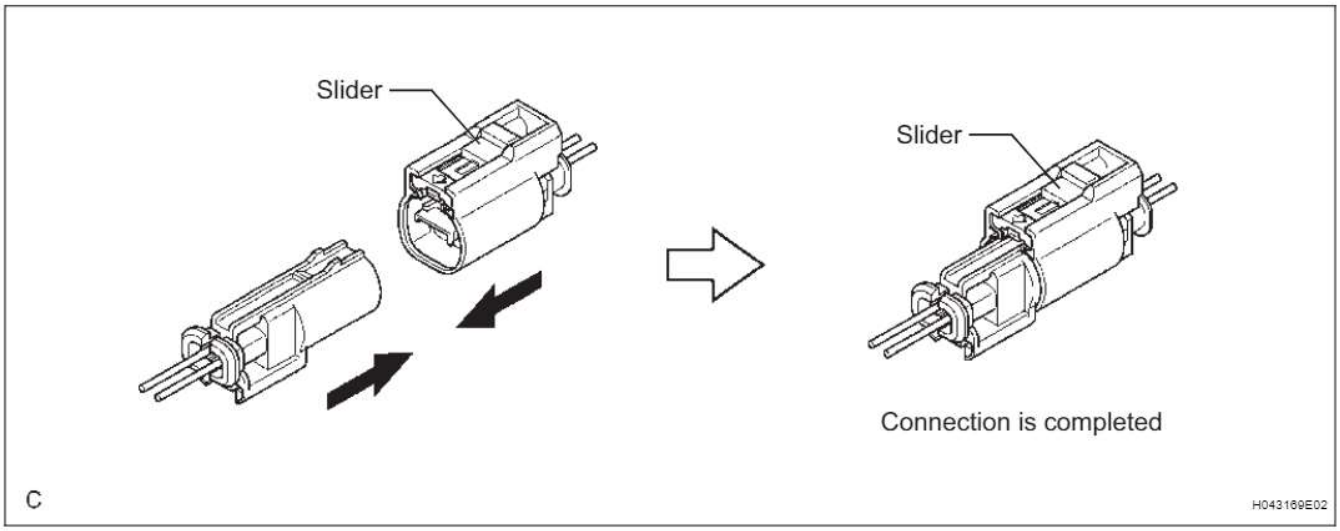
(a) Place a finger on the slider, slide the slider to release the lock, and then disconnect the connector.



RS

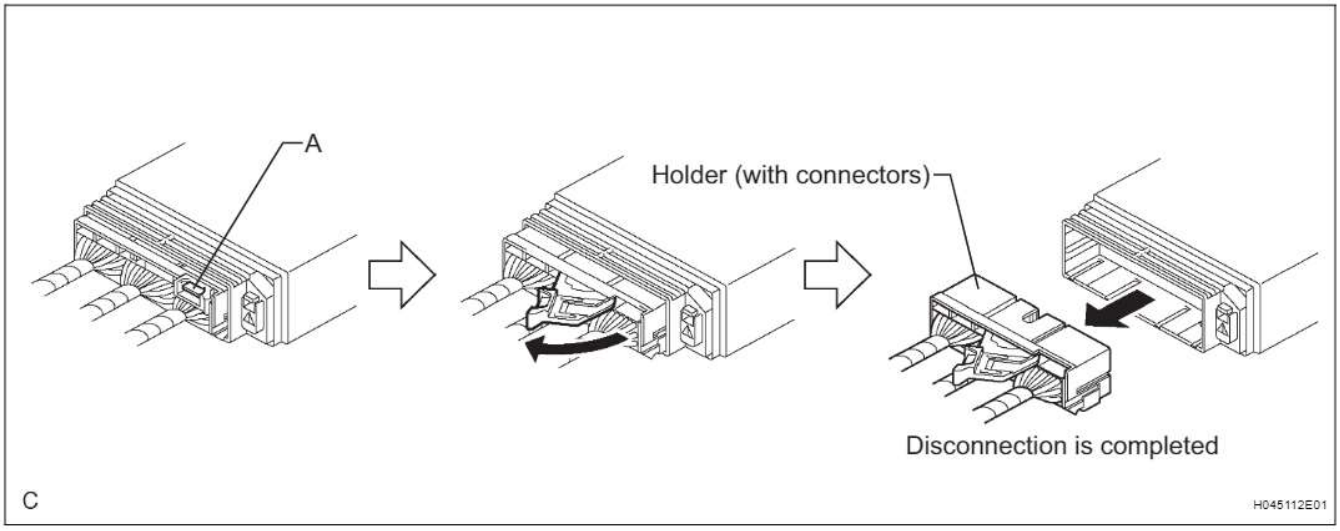
9. CONNECTION OF CONNECTORS FOR FRONT SEAT AIRBAG

(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.



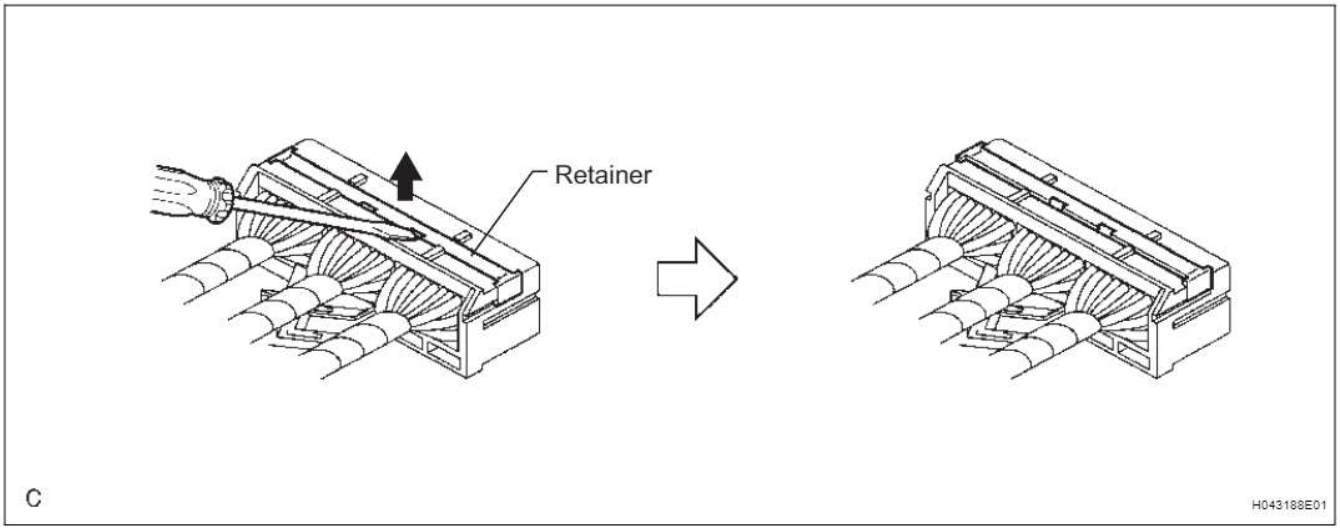
10. DISCONNECTION OF CONNECTOR FOR CENTER AIRBAG SENSOR

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

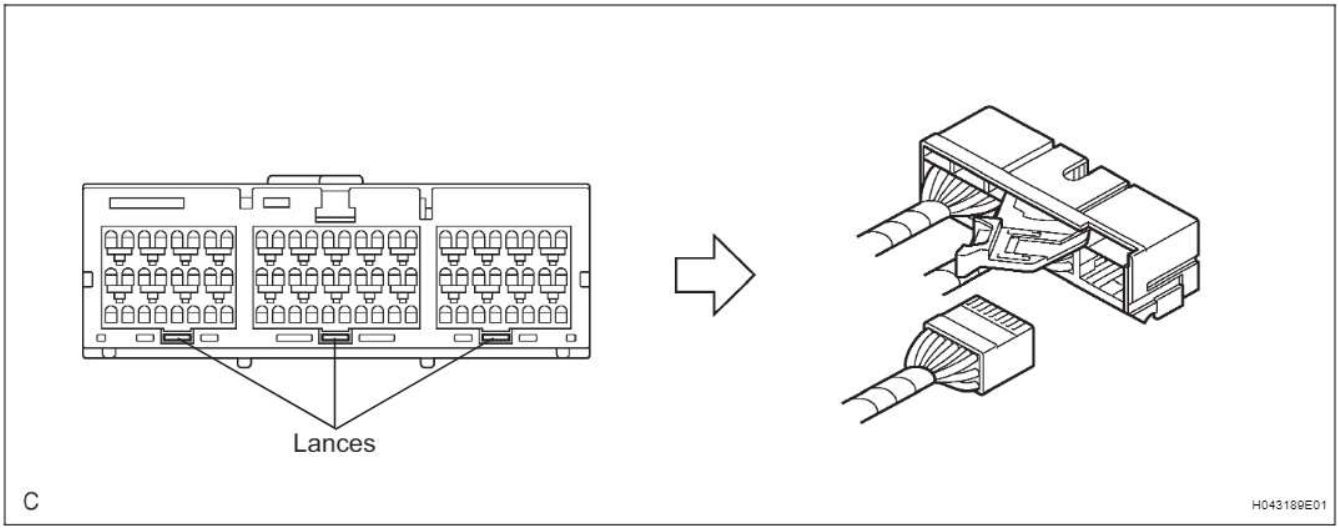


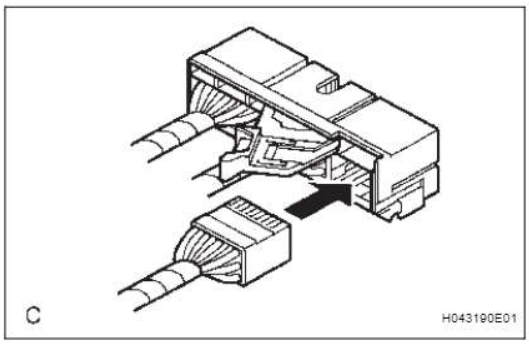
HINT:
Perform the following procedures when replacing the holder.

(b) Remove the holder.
(1) Using a screwdriver, unlock the retainer.



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



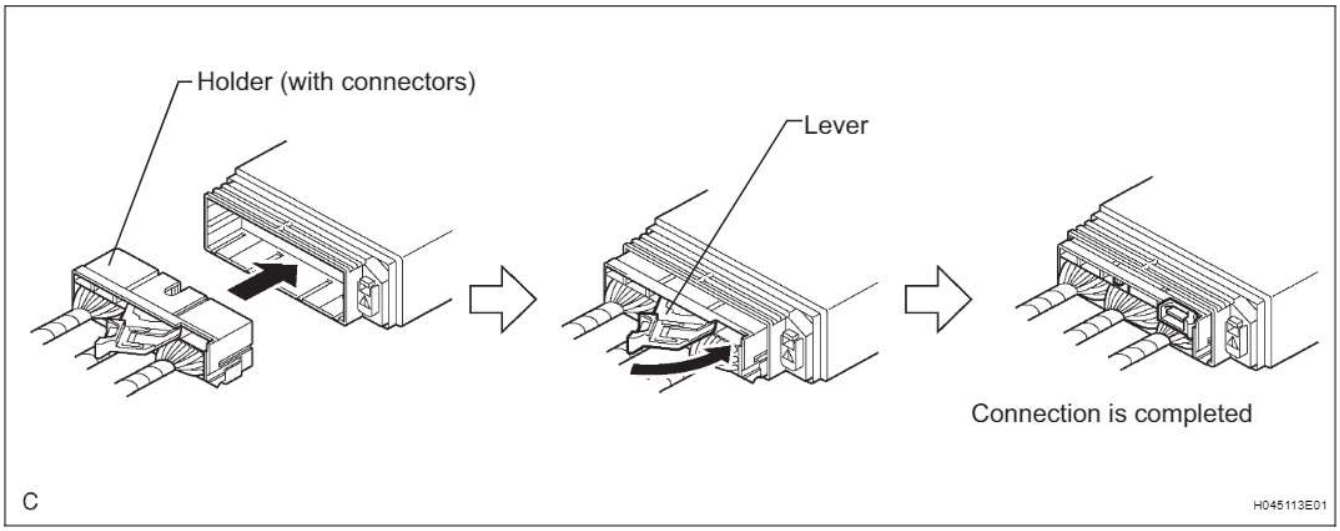


(c) Install the holder.
(1) Install the connectors to the holder. When locking, a click sound can be heard.
HINT:
The retainer is locked when the holder is connected.

11. CONNECTION OF CONNECTOR FOR CENTER AIRBAG SENSOR ASSEMBLY

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

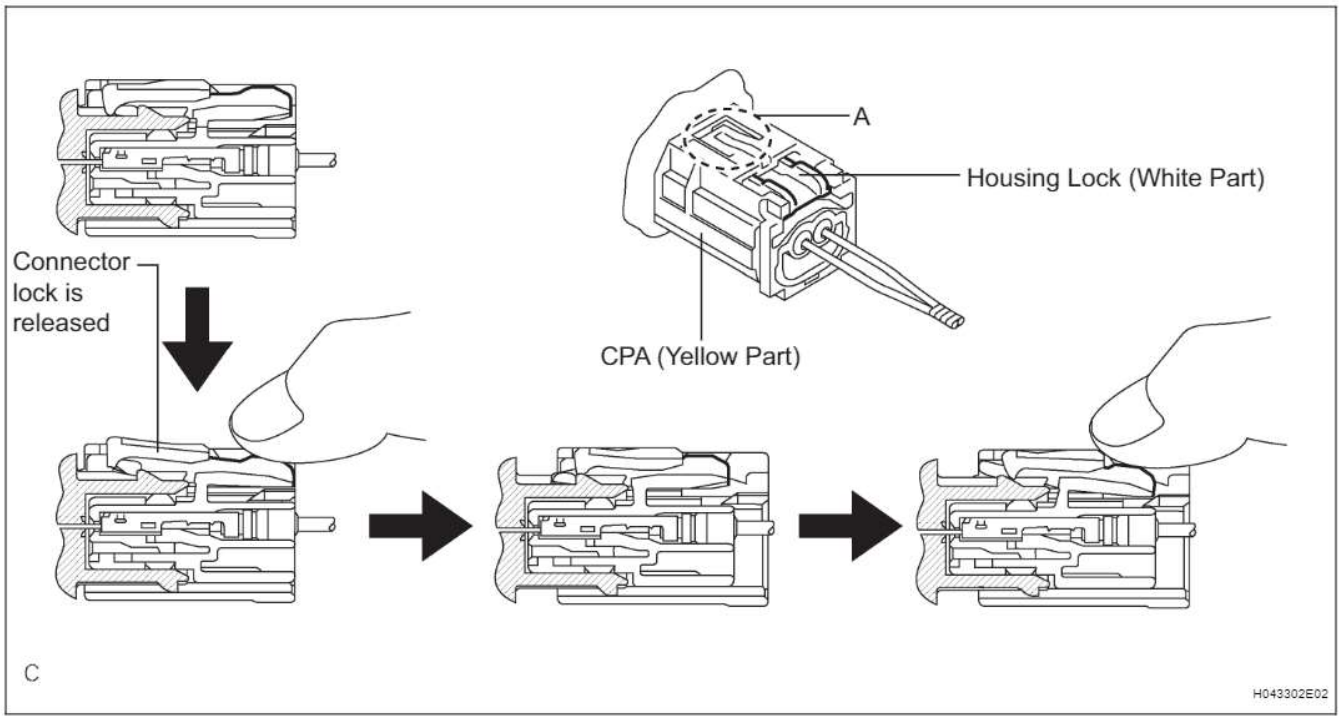
(b) Push the lever to connect the holder (with connectors). When locking, a click sound can be heard.
HINT:
The holder slides in to the center airbag sensor when it is being connected. Be sure not to hold the holder while connecting, as it may result in an insecure fit.



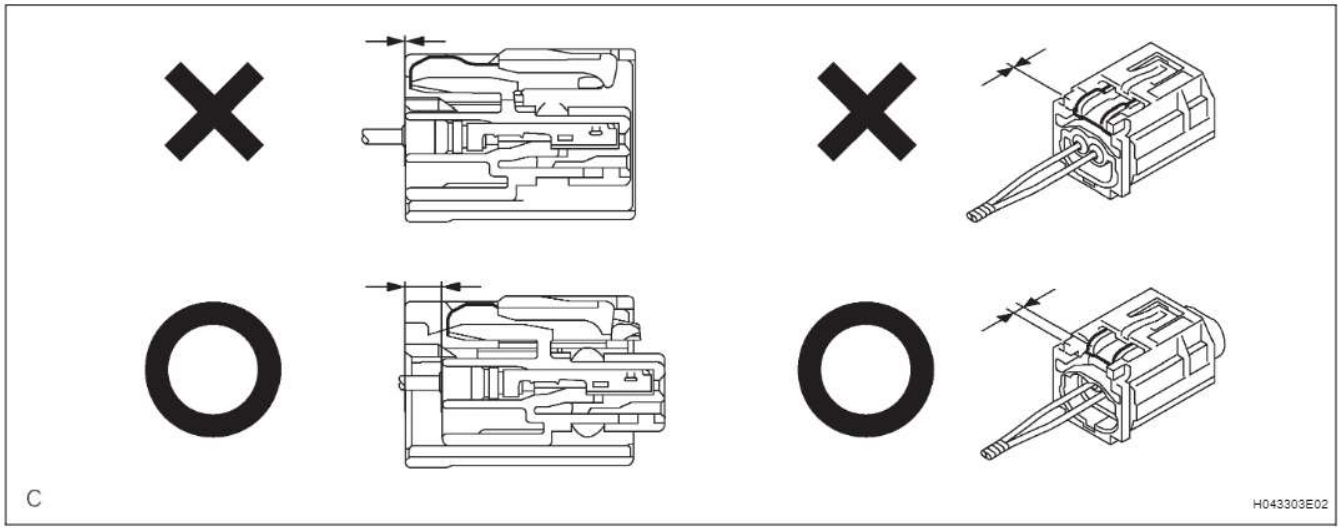
12. DISCONNECTION OF CONNECTOR FOR FRONT AIRBAG SENSOR

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

(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.



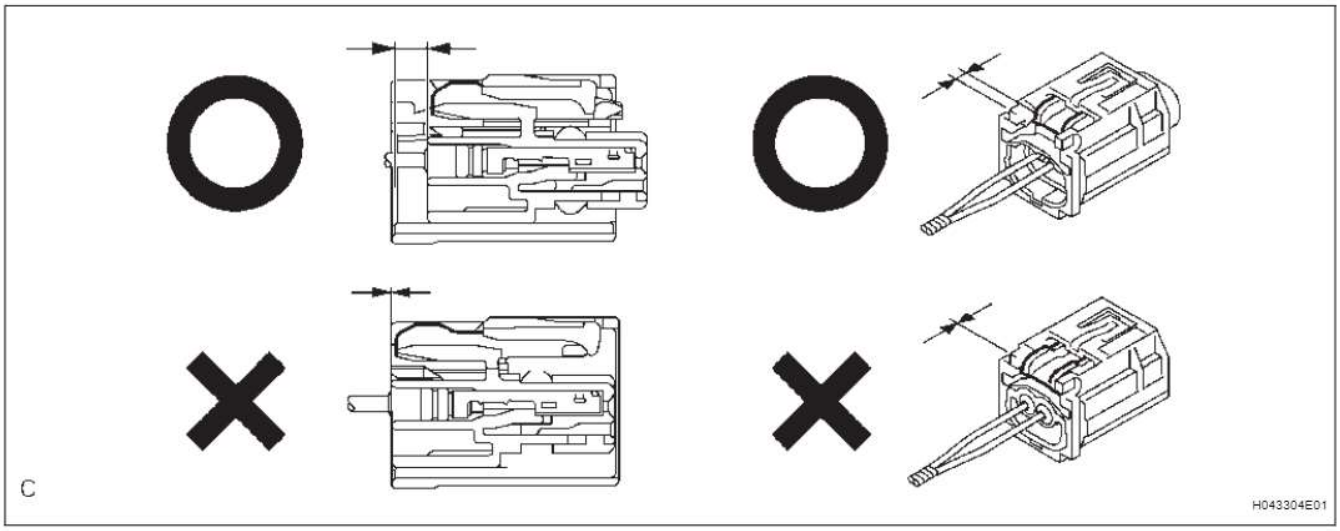
(c) After disconnecting the connector, check that the position of the housing lock (white part) is as shown in the illustration.



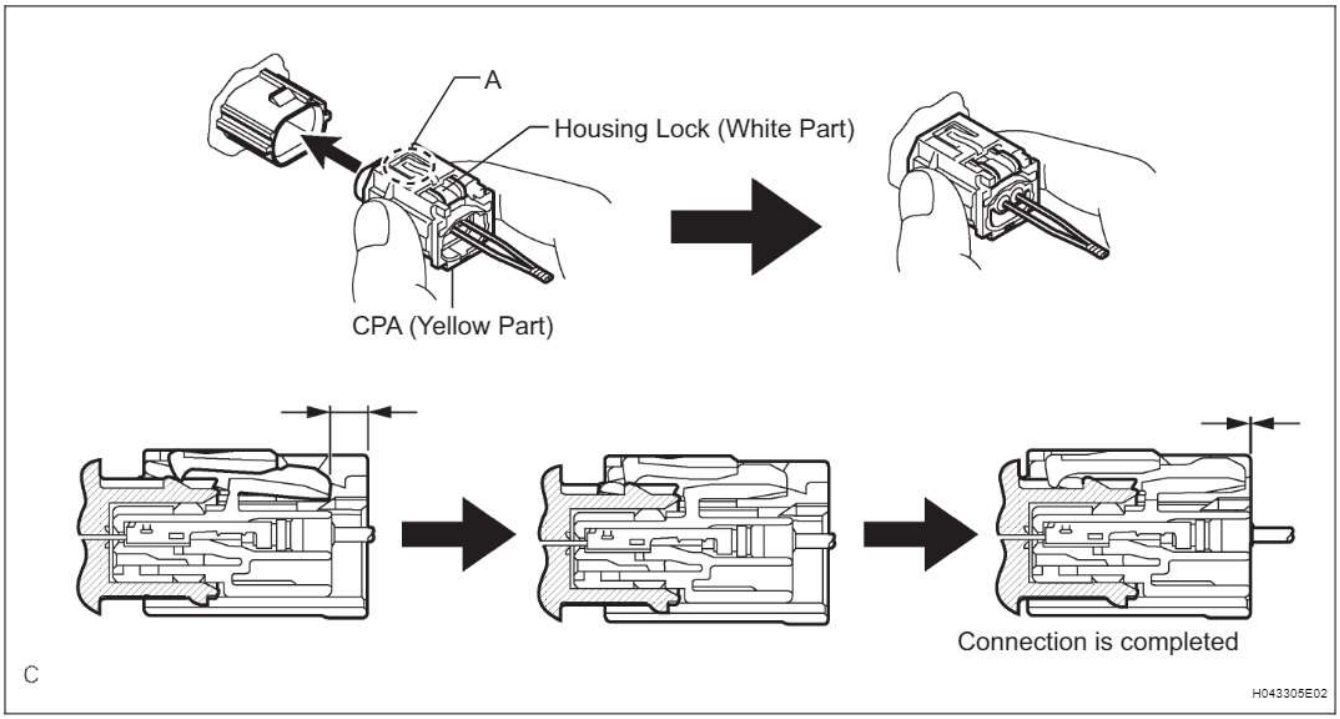
RS

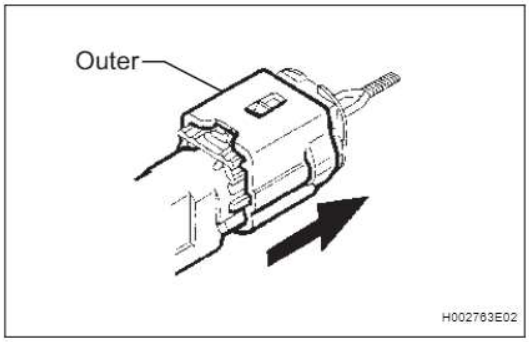
13. CONNECTION OF CONNECTOR FOR FRONT AIRBAG SENSOR

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



(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.

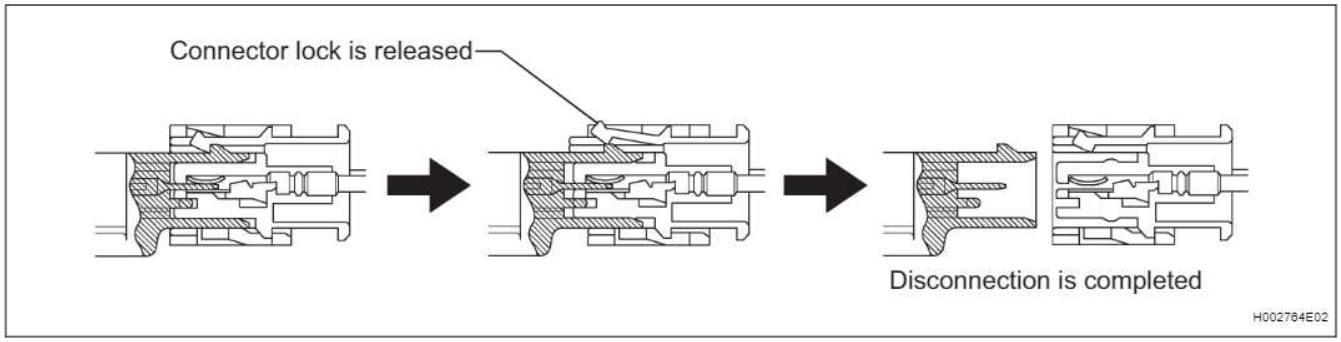




14. DISCONNECTION OF CONNECTORS FOR SIDE AIRBAG SENSOR AND REAR AIRBAG SENSOR

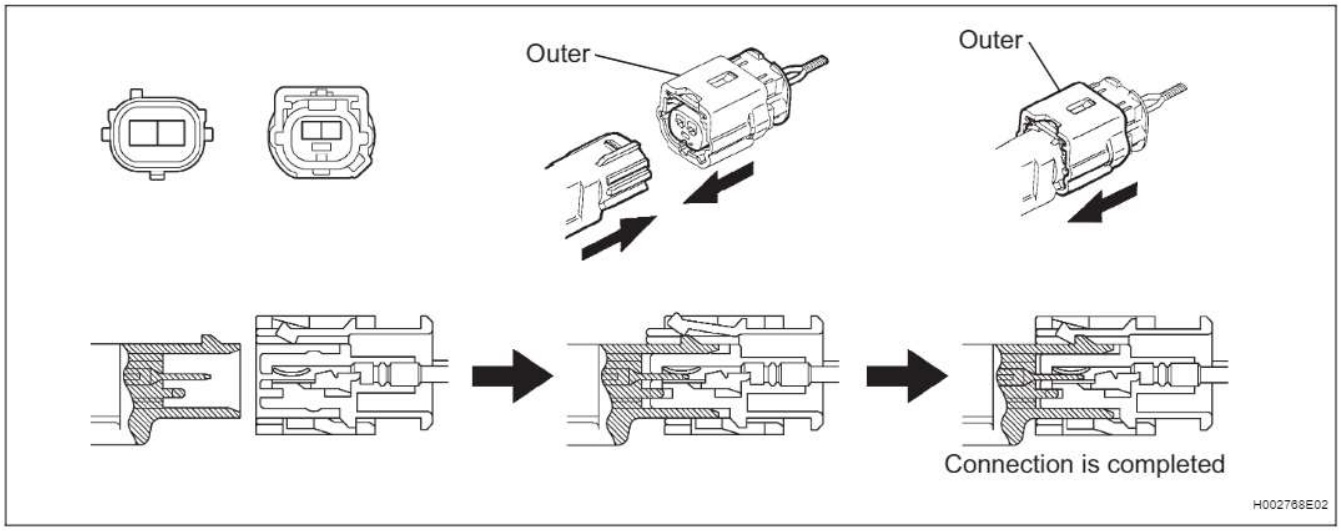
(a) While holding both the sides of the outer connector locking sleeve, slide the outer in the direction shown by the arrow.

(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.



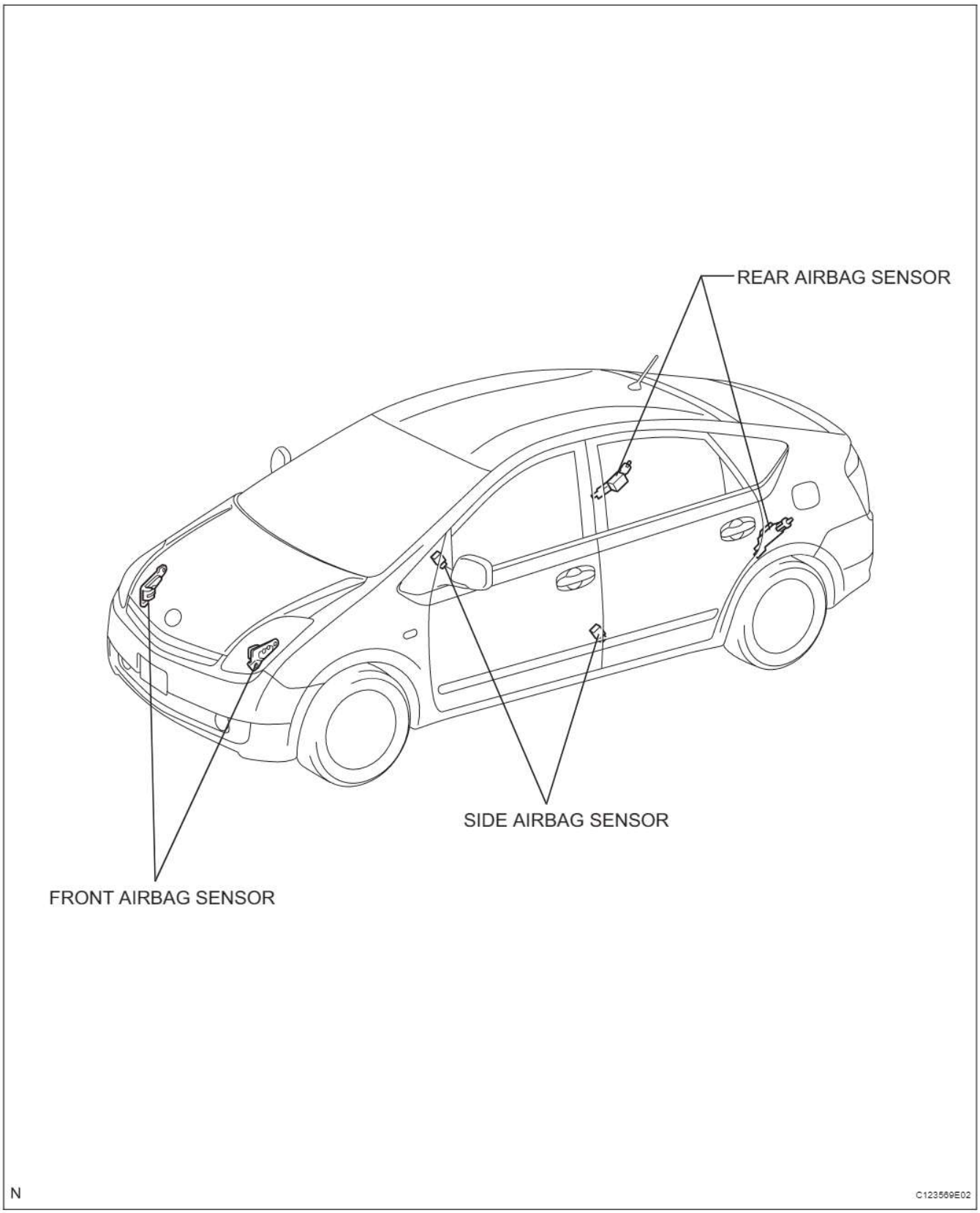
15. CONNECTION OF CONNECTORS FOR SIDE AIRBAG SENSOR AND REAR AIRBAG SENSOR

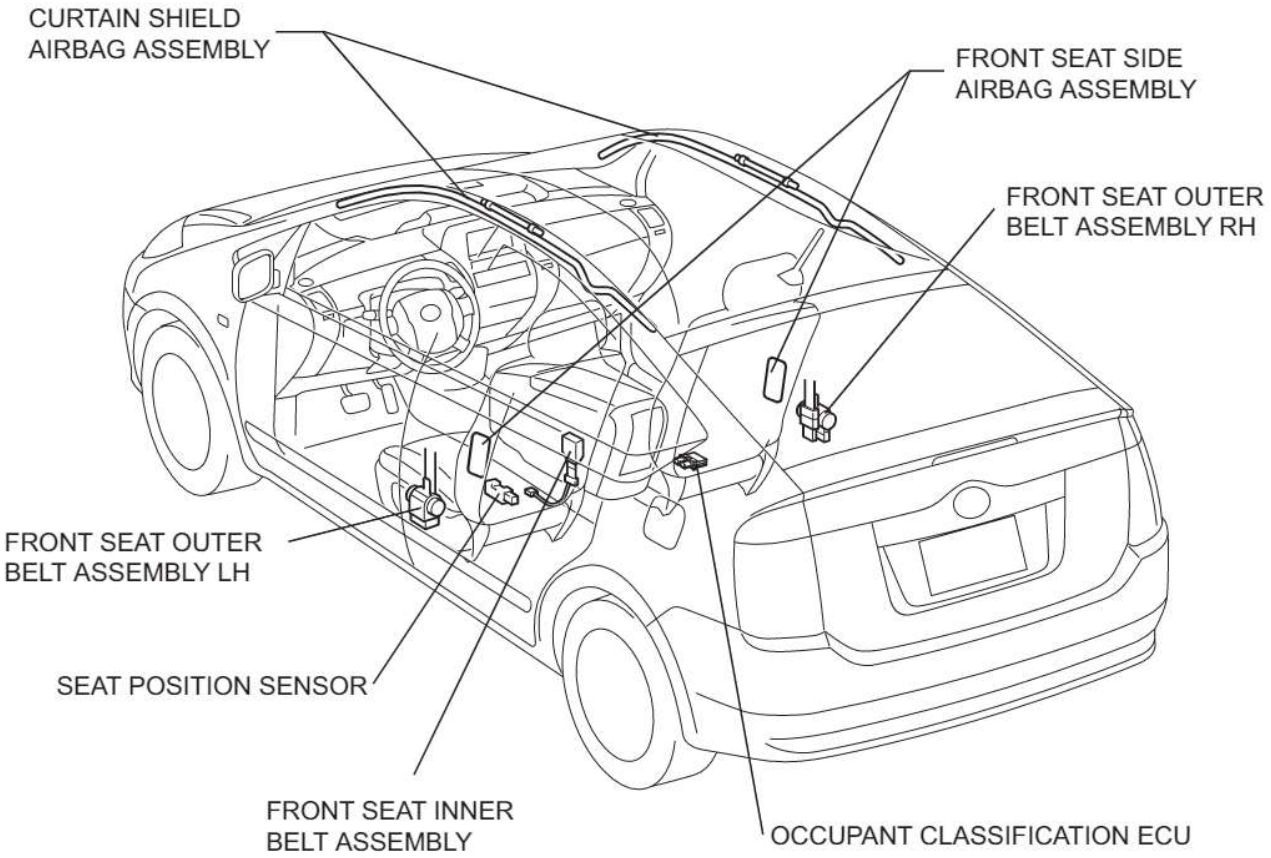
(a) Connect the connector as shown in the illustration
When locking, make sure that the outer returns to its original position and a click sound can be heard.
HINT:
When connecting, the outer will slide. Be sure not to hold the outer while connecting, as it may result in an insecure fit.



PARTS LOCATION

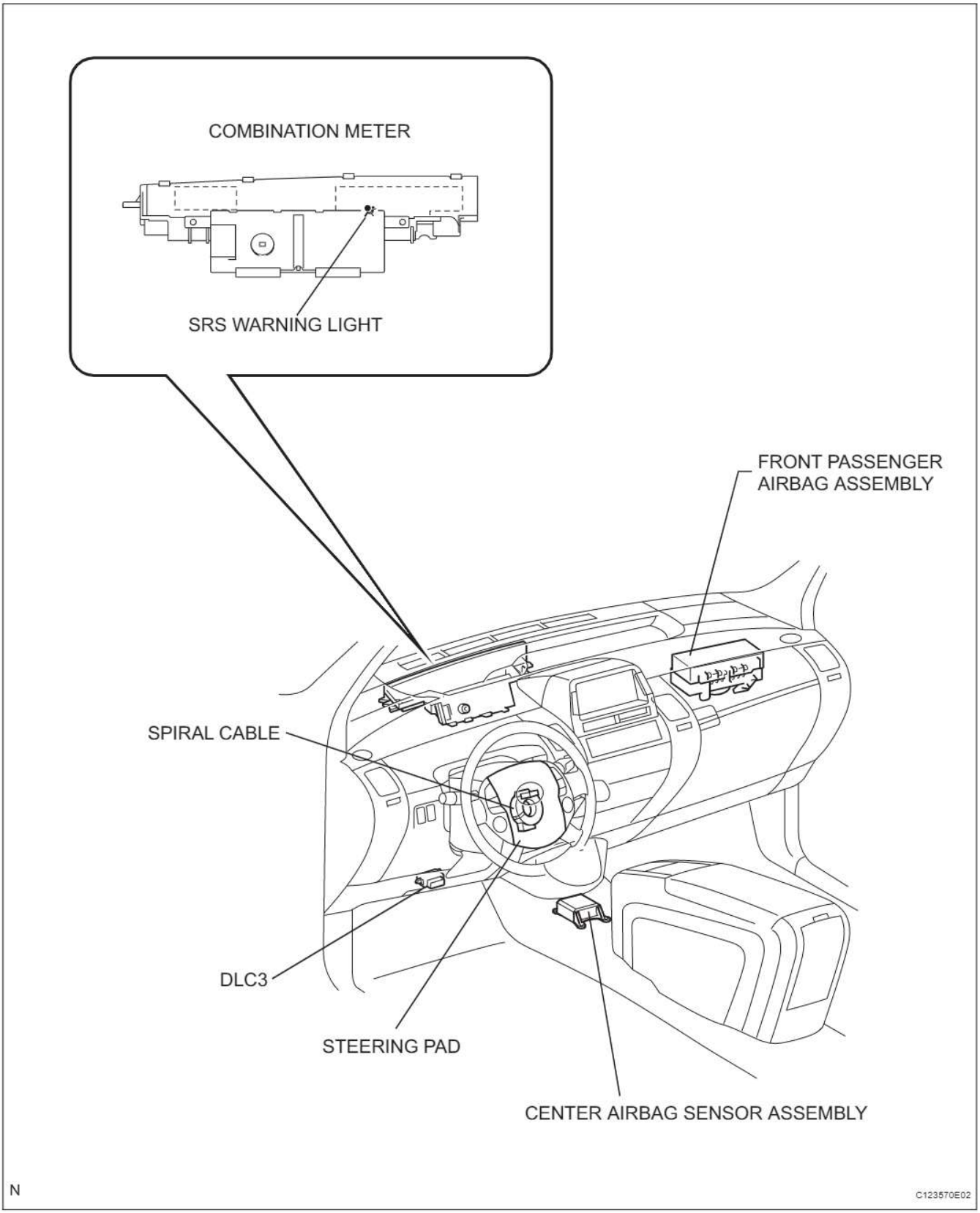
RS



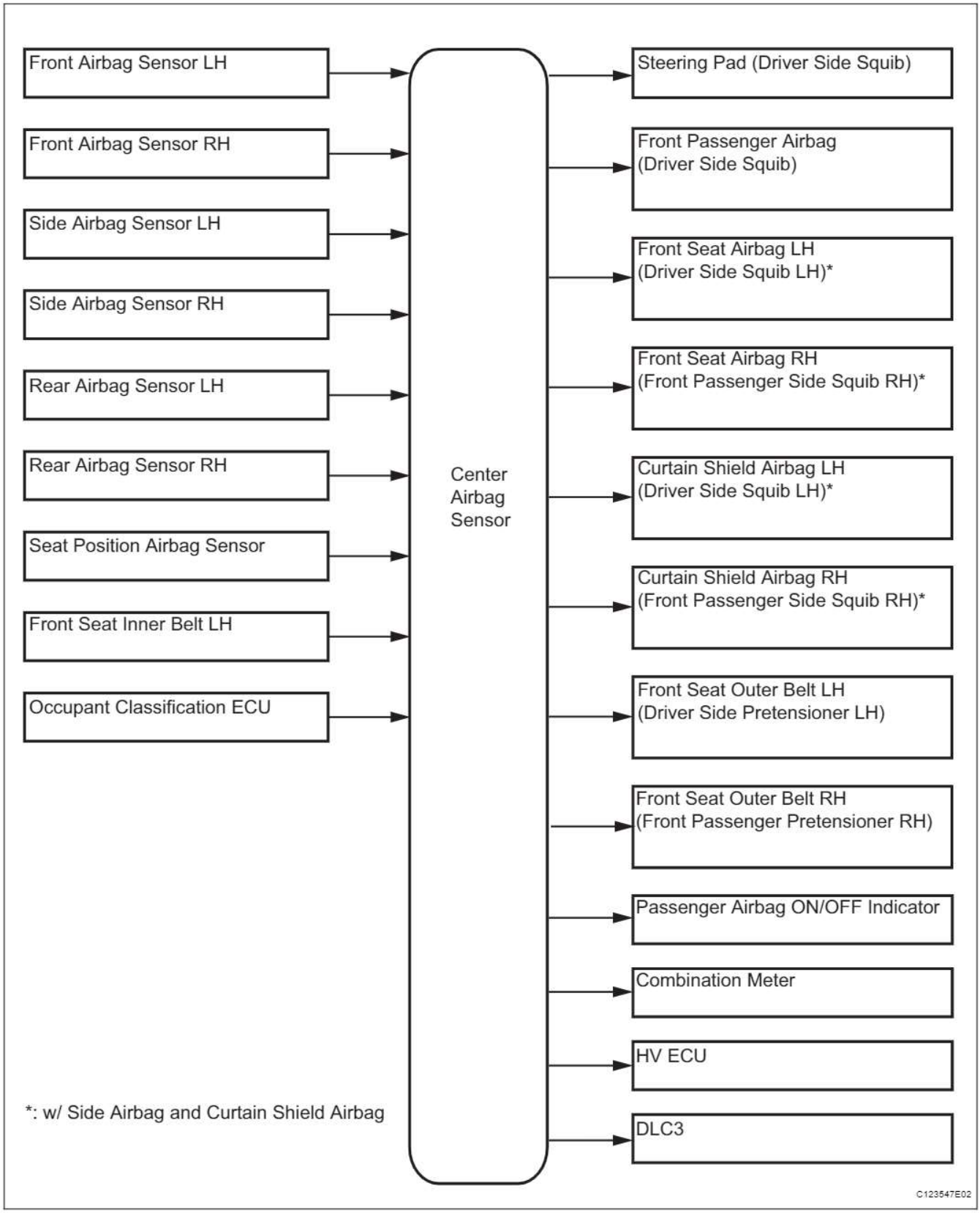


N C123571E02

RS


COMBINATION METER
SRS WARNING LIGHT
FRONT PASSENGER AIRBAG ASSEMBLY
SPIRAL CABLE
DLC3
STEERING PAD
CENTER AIRBAG SENSOR ASSEMBLY
N
C123570E02

SYSTEM DIAGRAM



RS

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

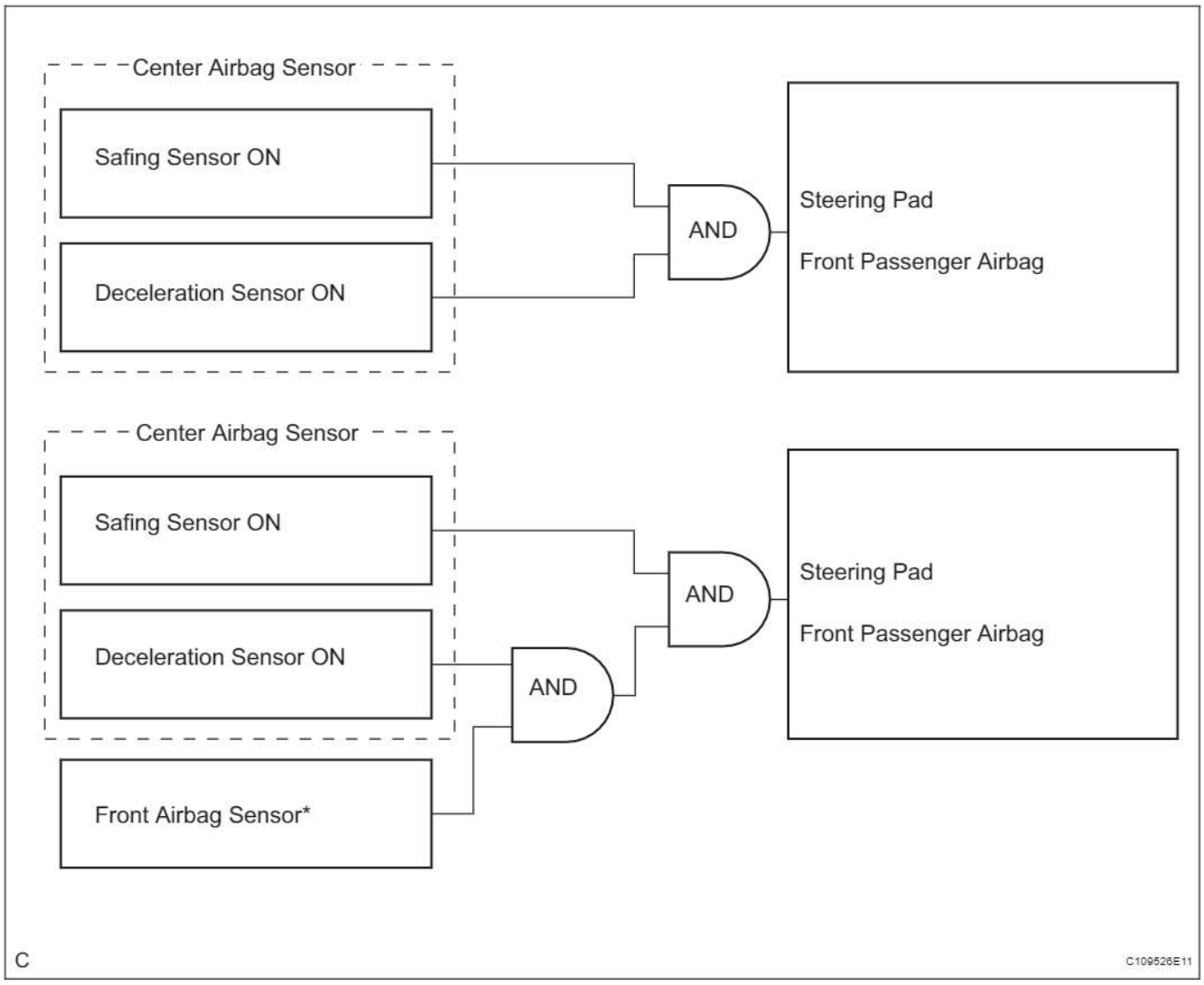
(e) SRS WARNING LIGHT

(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.

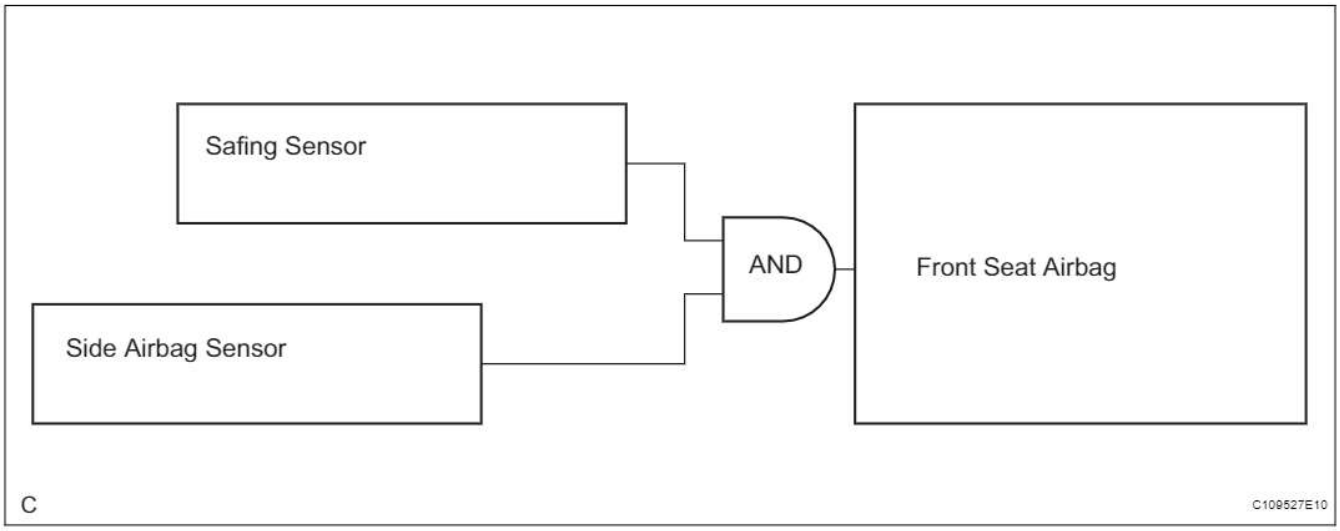
(a) The center airbag sensor determines whether or not ignition is necessary based on signals from the deceleration sensor and the front airbag sensor*. If the deceleration sensor, front airbag sensor* and safing sensor turn on simultaneously, current flows to the squibs to deploy the SRS as shown in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



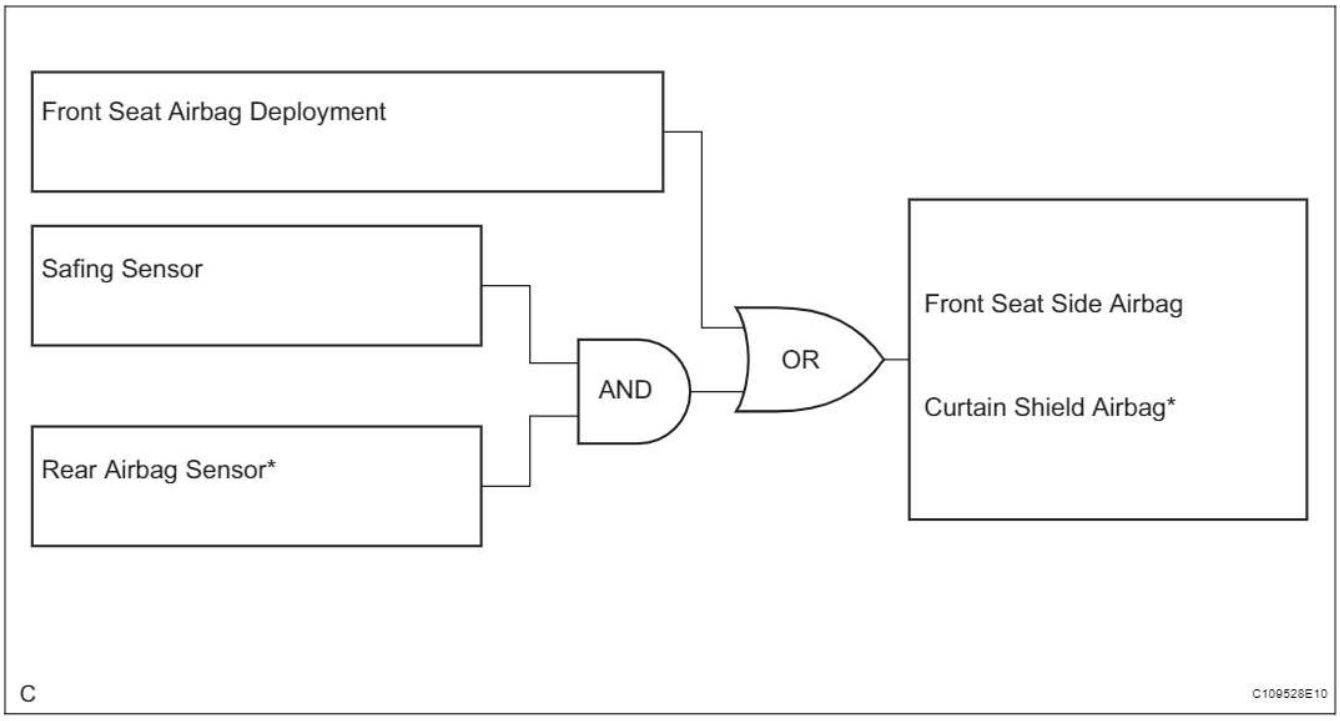
HINT:

*: 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.



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

HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

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

RS

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 (see page RS-38).
Result

Result	Proceed to
DTC is not output	A
DTC is output	B

B → CHECK MULTIPLEX COMMUNICATION SYSTEM

A

4	CHECK CAN COMMUNICATION SYSTEM*

(a) Check the DTC (see page RS-38).
Result

Result	Proceed to
DTC is not output	A
DTC is output	B

B → CHECK CAN COMMUNICATION CIRCUIT

A

5	WARNING LIGHT CHECK

NEXT

RS

6	CHECK DTC (Present and Past DTCs)*

(a) Check the DTC (see page RS-38).
Result

Result	Proceed to
DTC is not output	A
DTC is output	B

B → PROBLEM SYMPTOMS TABLE

A

7	DTC CHART

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 (see page RS-38).
Result

Result	Proceed to
DTC is not output	A
DTC is output	B

B → Go to step 6

A

12	CONFIRMATION TEST

NEXT

END

RS

PROBLEM SYMPTOMS TABLE

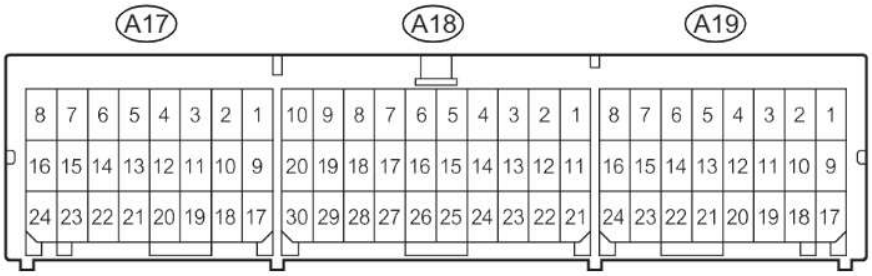
HINT:

- 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 sometimes comes on after approximately 6 seconds when the power switch is ON (IG).	SRS Warning Light Remains ON	RS-161
The SRS warning light remains on when DTC is not output.	SRS Warning Light Remains ON	RS-161
The SRS warning light does not come on with the power switch ON (IG).	SRS Warning Light does not Come ON	RS-165
SRS warning light blinks.	TC and CG Terminal Circuit	RS-167
DTC cannot read.	TC and CG Terminal Circuit	RS-167

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)

Terminal No.	Terminal Symbol	Destination
A18-13	PBEW	Combination meter ECU
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

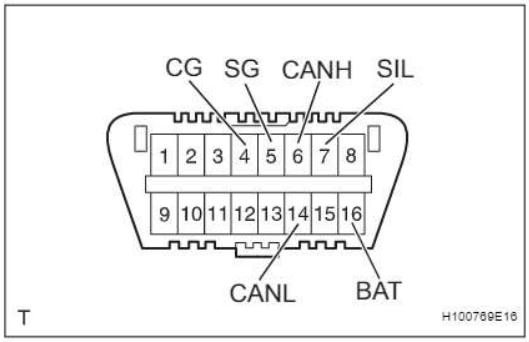
DIAGNOSIS SYSTEM

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 intelligent tester 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 ISO 15031-3 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)	HIGH-Level 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 intelligent tester (with CAN VIM) 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 tester.

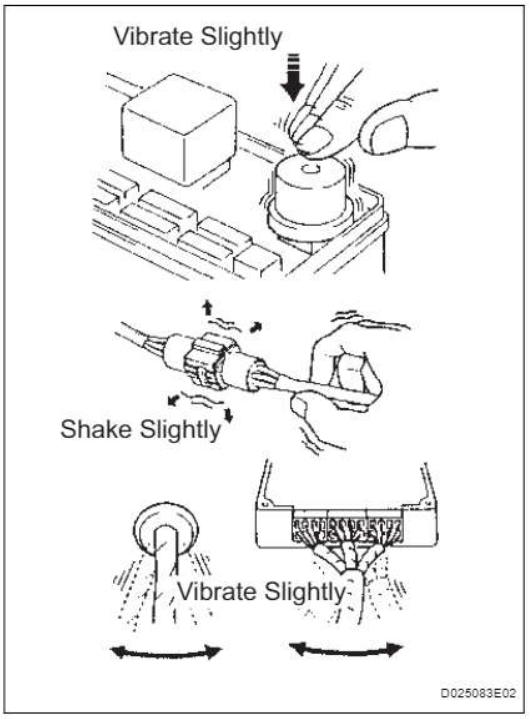
- If communication is normal when the tester is connected to another vehicle, inspect the DLC3 on the original vehicle.
- If communication is still not possible when the tool is connected to another vehicle, the problem is probably in the tester itself. Consult the Service Department listed in the tester's instruction manual.

RS

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.

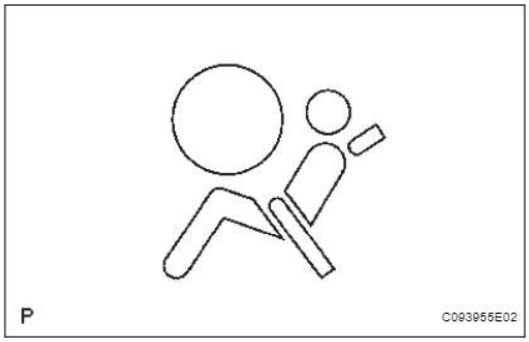
- The SRS warning light goes off, and then comes on. This blinking pattern indicates a source voltage drop. The SRS warning light goes off 10 seconds after the source voltage returns to normal.

(c) Review.

(1) When the airbag system is normal:
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" (see page RS-29).
- 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.

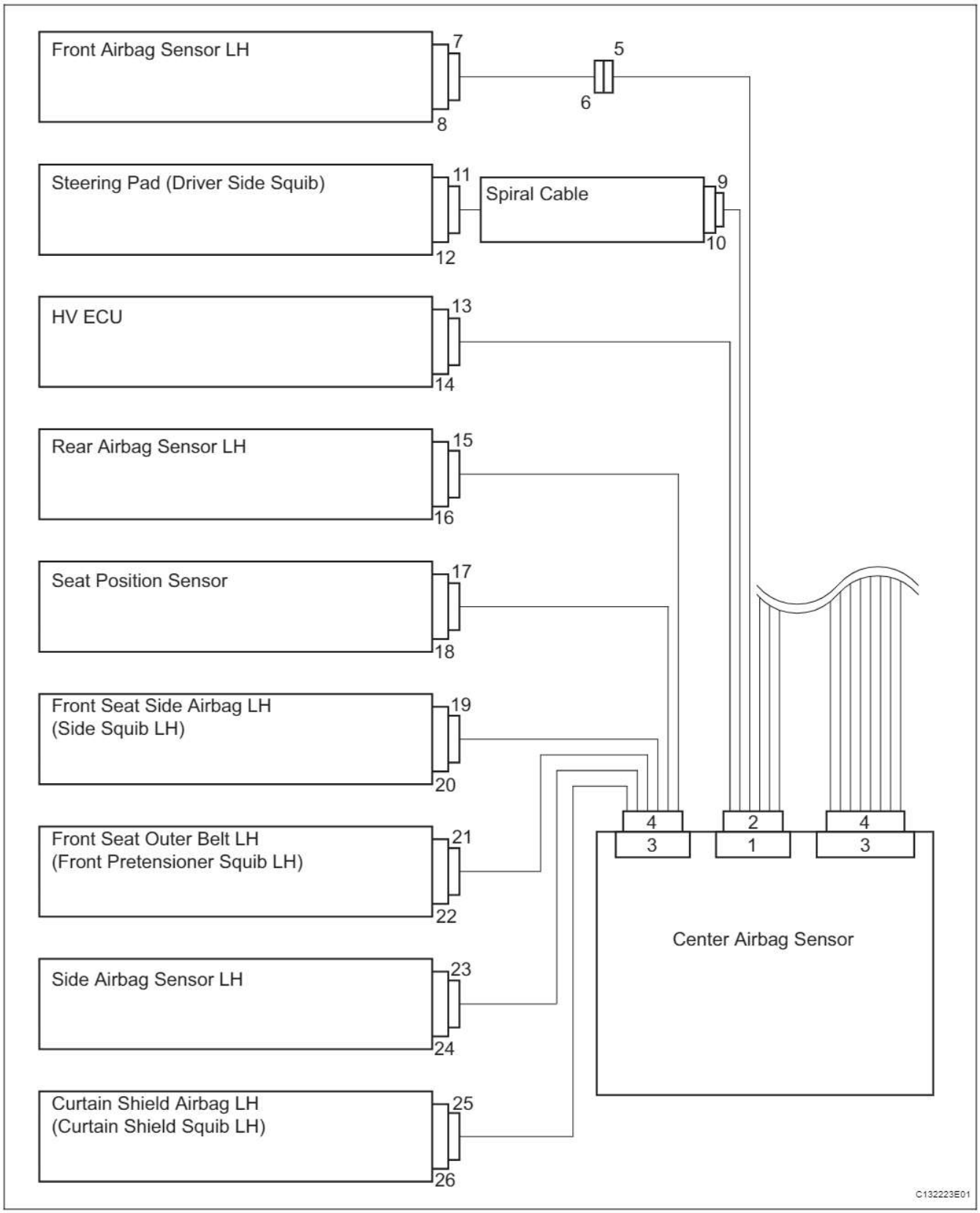
(2) Refer to the illustrations below concerning connectors utilizing the activation prevention mechanism and its release method.

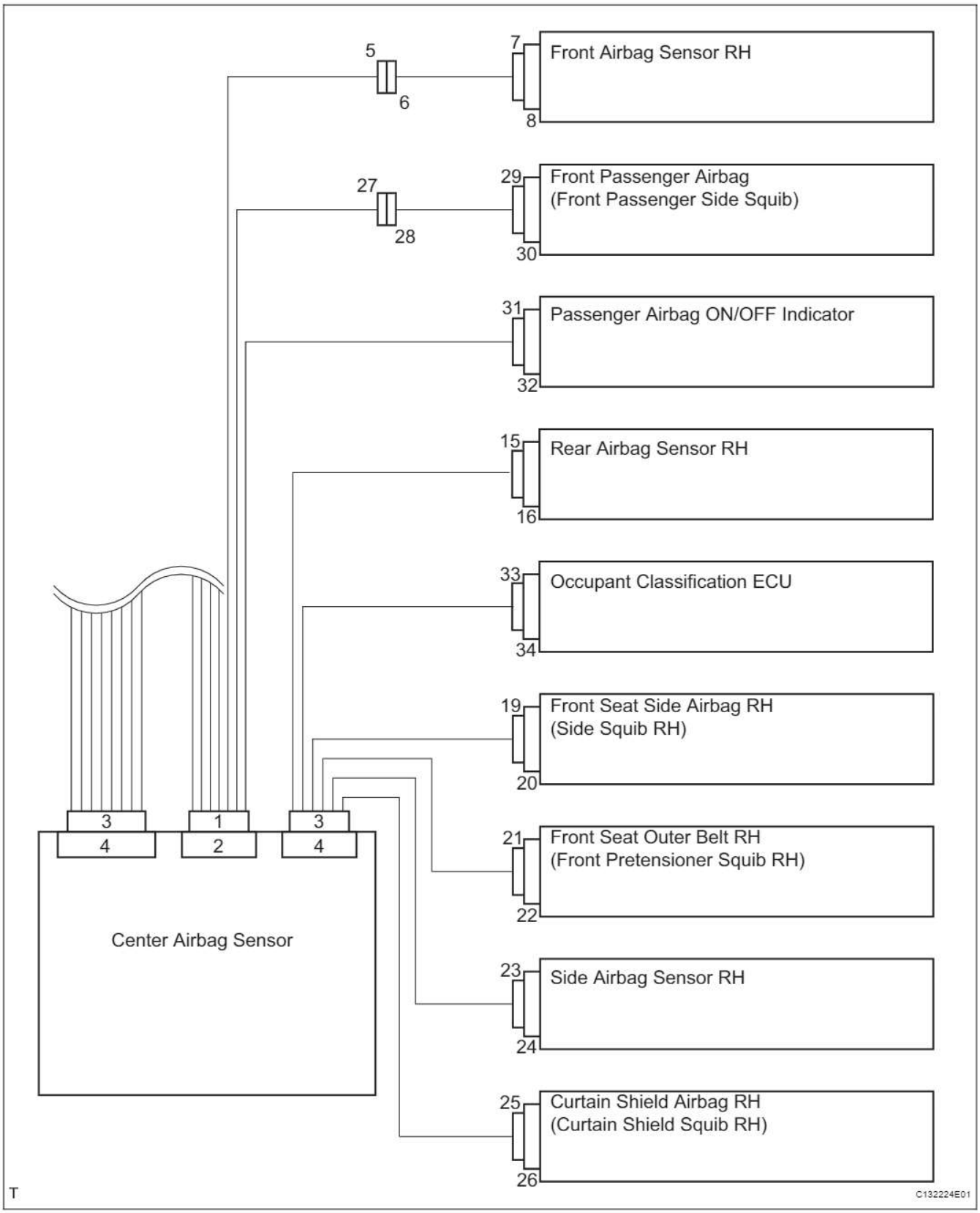
CAUTION:

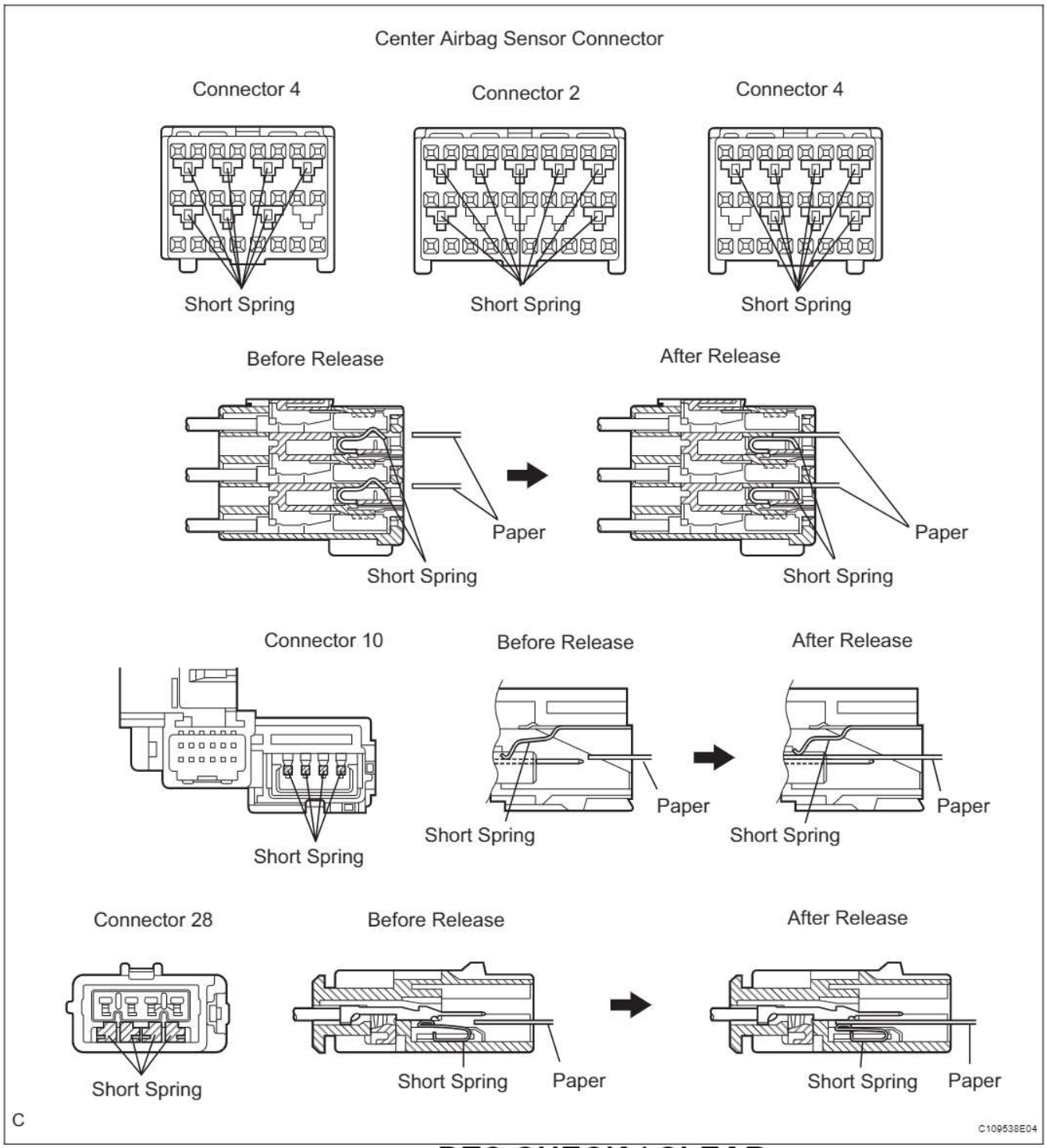
Never release the activation prevention mechanism on the squib connector even when inspecting with the squib disconnected.

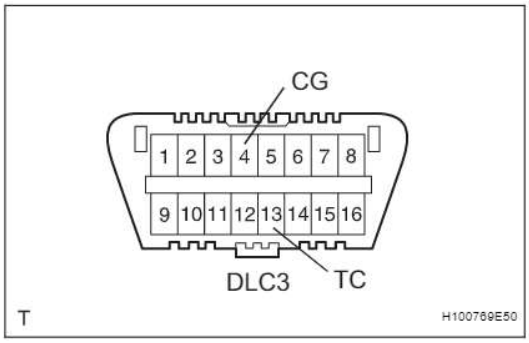
NOTICE:

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


Front Airbag Sensor LH
7
8
5
6
Steering Pad (Driver Side Squib)
11
12
Spiral Cable
9
10
HV ECU
13
14
Rear Airbag Sensor LH
15
16
Seat Position Sensor
17
18
Front Seat Side Airbag LH
(Side Squib LH)
19
20
Front Seat Outer Belt LH
(Front Pretensioner Squib LH)
21
22
Side Airbag Sensor LH
23
24
Curtain Shield Airbag LH
(Curtain Shield Squib LH)
25
26
4
3
2
1
4
3
Center Airbag Sensor
C132223E01


5
6
7
8
Front Airbag Sensor RH
27
28
29
30
Front Passenger Airbag
(Front Passenger Side Squib)
31
32
Passenger Airbag ON/OFF Indicator
15
16
Rear Airbag Sensor RH
33
34
Occupant Classification ECU
19
20
Front Seat Side Airbag RH
(Side Squib RH)
21
22
Front Seat Outer Belt RH
(Front Pretensioner Squib RH)
23
24
Side Airbag Sensor RH
25
26
Curtain Shield Airbag RH
(Curtain Shield Squib RH)
3
4
1
2
3
4
Center Airbag Sensor
T
C132224E01





DTC CHECK / CLEAR

1. CHECK DTC (USING SST CHECK WIRE)

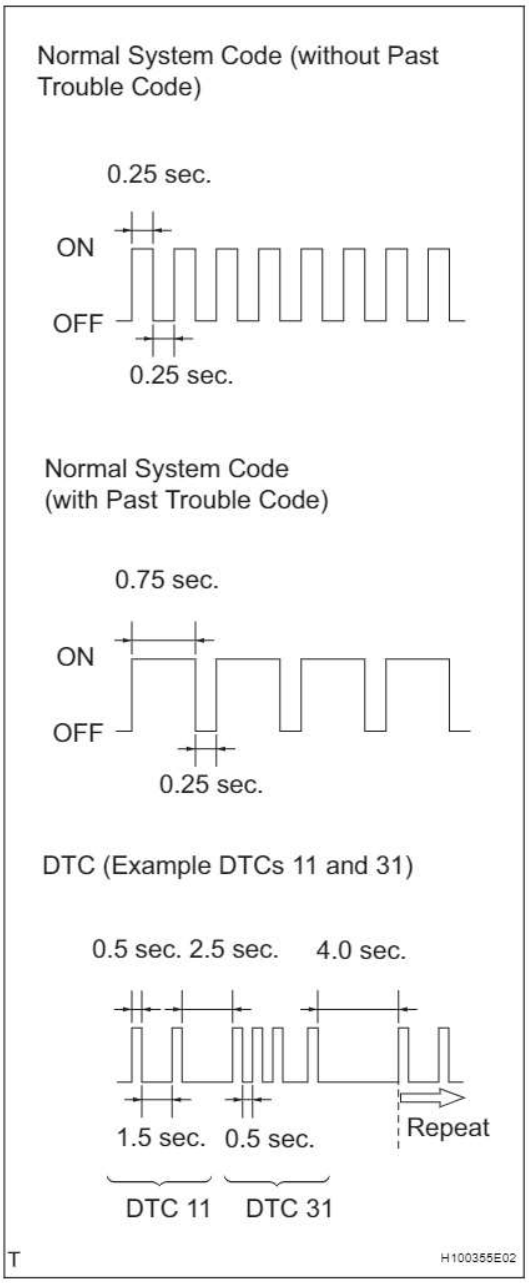
(a) Check for DTCs (Present DTC).

(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

RS



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.

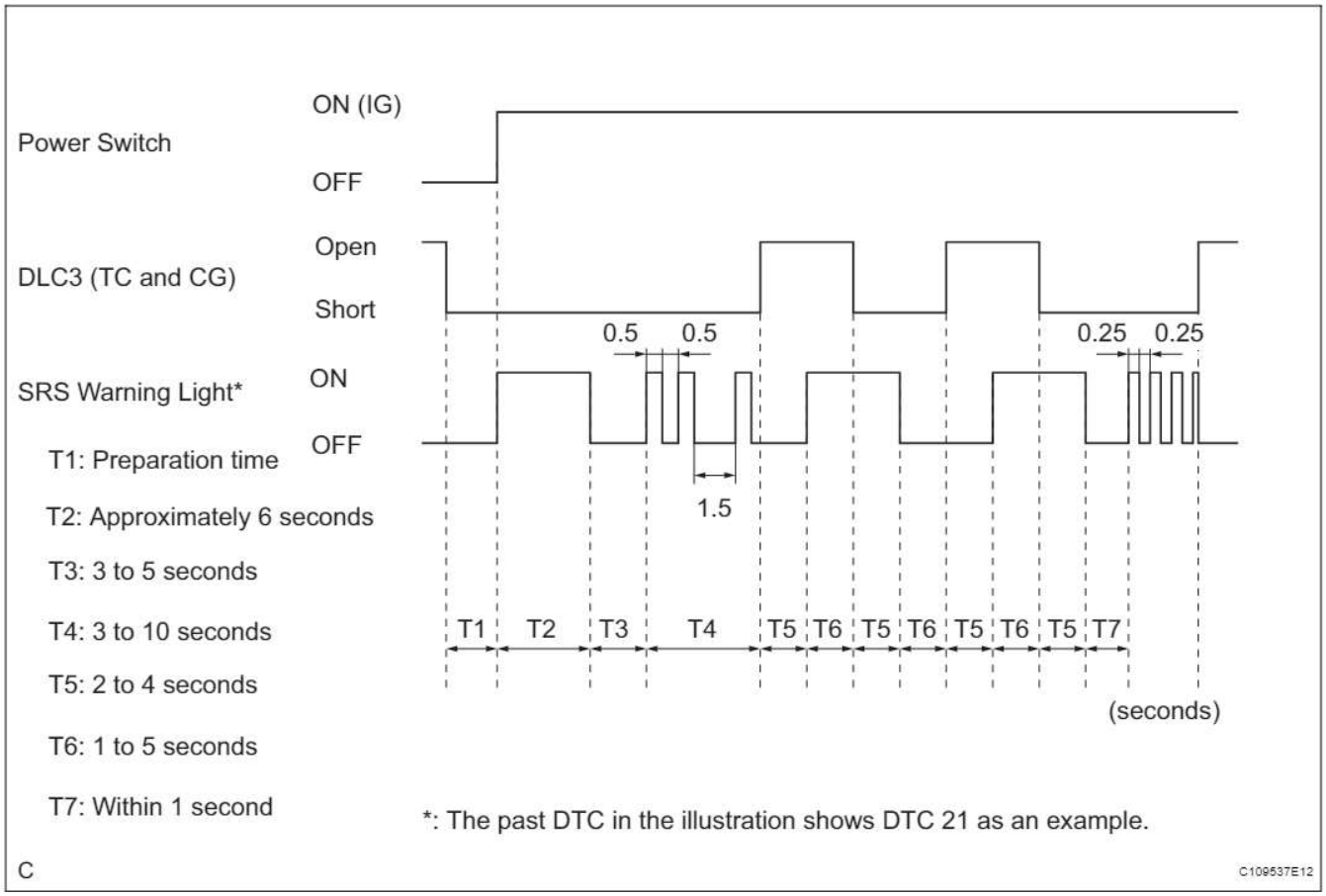
(c) Read the DTCs.
(1) Read the blinking patterns of the DTCs. As examples, the blinking patterns for the normal system code and DTCs 11 and 31 are shown in the illustration.
- Normal system code indication (without past DTC)
  The light blinks twice per second.
- Normal system code indication (with 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.

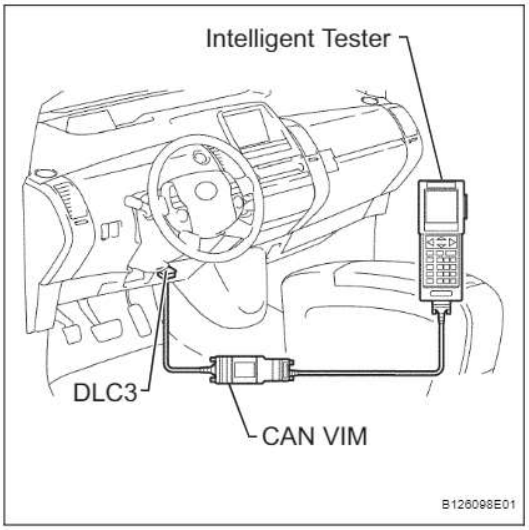
If there are 2 or more DTCs, there is a 2.5-second pause between each DTC. After all DTCs are shown, there is a 4.0-second pause, and they are all repeated.
HINT:
- If 2 or more malfunctions are found, the indication begins with the lowest numbered DTC.
- If DTCs are indicated without connecting the terminals, proceed to the "TC and CG Terminal Circuit" (see page RS-167).

2. CLEAR DTC (USING SST CHECK WIRE)

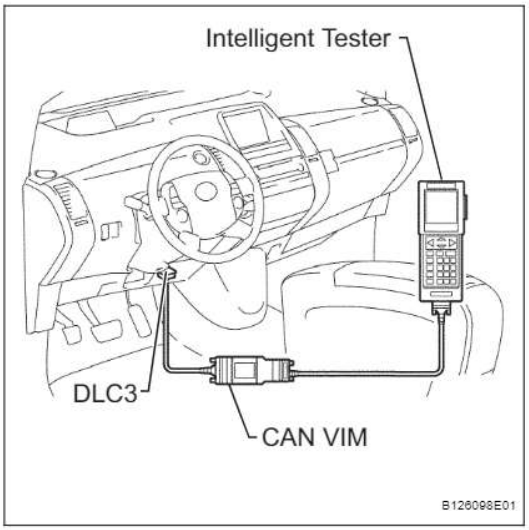
(a) Clear the DTCs.
(1) When the power switch is turned OFF, the DTCs are cleared.
HINT:
Depending on the DTCs, the DTCs may not all be cleared by turning off the power switch. In this case, proceed to the next step.
(2) Using SST, connect terminals 13 (TC) and 4 (CG) of the DLC3, and then turn the power 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.





3. **CHECK DTC (USING INTELLIGENT TESTER)**
   (a) Connect the intelligent tester (with CAN VIM) to the DLC3.
   (b) Turn the power switch ON (IG).
   (c) Check the DTCs by following the prompts on the tester screen.
   HINT:
   Refer to the intelligent tester operator's manual for further details.
4. **CLEAR DTC (USING INTELLIGENT TESTER)**
   (a) Connect the intelligent tester (with CAN VIM) to the DLC3.
   (b) Turn the power switch ON (IG).
   (c) Clear the DTCs by following the prompts on the tester screen.
   HINT:
   Refer to the intelligent tester operator's manual for further details.



CHECK MODE PROCEDURE

1. **CHECK MODE (SIGNAL CHECK): DTC CHECK**
   (a) Connect the intelligent tester (with CAN VIM) to the DLC3.
   (b) Turn the power switch ON (IG).
   (c) Select the SIGNAL CHECK, and proceed to check with the intelligent tester.
   NOTICE:
   Select the SIGNAL CHECK from the DTC CHECK screen displayed on the intelligent tester 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.

DATA LIST / ACTIVE TEST

1. READ DATA LIST

HINT:

Using the intelligent tester'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 intelligent tester (with CAN VIM) to the DLC3.

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

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

Center airbag sensor:

Item	Measure Item/ Range (Display)	Normal Condition	Diagnostic Note
D SEAT POSITION	Seat position (Driver side)/ FORWARD: Seat position forward BKWARD: Seat position backward FAIL: Failure detected	FORWARD/BKWARD	-
PASSENGER CLASS	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	-
D BUCKLE SW	Buckle switch (Driver side)/ UNSET: Seat belt not fastened SET: Seat belt fastened NG: Data not determined	UNSET/SET	-
P BUCKLE SW	Buckle switch (Front passenger side)/ UNSET: Seat belt not fastened SET: Seat belt fastened NG: Data not determined	UNSET/SET	-
DISPLAY TYPE	Display type identification information/ LR: Display indicated by LH/RH DP: Display indicated by Driver/ Passenger	DP	-
PAST CODES	Number of past DTCs/ Min.: 0, Max.: 255	0	-

RS

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 No.	Detection Item	Check Mode	SRS Warning Light	See page
B1000/31	Center Airbag Sensor Assembly Malfunction	-	ON	RS-46
B1610/13	Front Airbag Sensor RH Circuit Malfunction	-	ON	RS-47
B1615/14	Front Airbag Sensor LH Circuit Malfunction	-	ON	RS-56
B1620/21	Driver Side - Side Airbag Sensor Circuit Malfunction	-	ON	RS-65
B1625/22	Front Passenger Side - Side Airbag Sensor Circuit Malfunction	-	ON	RS-70
B1630/23	Driver Side Rear Airbag Sensor Circuit Malfunction	-	ON	RS-75
B1635/24	Front Passenger Side Rear Airbag Sensor Circuit Malfunction	-	ON	RS-80
B1650/32	Occupant Classification System Malfunction	-	ON	RS-85
B1653/35	Seat Position Airbag Sensor Circuit Malfunction	-	ON	RS-91
B1655/37	Driver Side Seat Belt Buckle Switch Circuit Malfunction	-	ON	RS-97
B1660/43	Passenger Airbag ON / OFF Indicator Circuit Malfunction	-	ON	RS-103
B1800/51	Short in Driver Side Squib Circuit	○	ON	RS-112
B1801/51	Open in Driver Side Squib Circuit	○	ON	RS-112

DTC No.	Detection Item	Check Mode	SRS Warning Light	See page
B1802/51	Short to GND in Driver Side Squib Circuit	○	ON	RS-112
B1803/51	Short to B+ in Driver Side Squib Circuit	○	ON	RS-112
B1805/52	Short in Front Passenger Side Squib Circuit	○	ON	RS-117
B1806/52	Open in Front Passenger Side Squib Circuit	○	ON	RS-117
B1807/52	Short to GND in Front Passenger Side Squib Circuit	○	ON	RS-117
B1808/52	Short to B+ in Front Passenger Side Squib Circuit	○	ON	RS-117
B1810/53	Short in Driver Side Squib 2nd Step Circuit	○	ON	RS-122
B1811/53	Open in Driver Side Squib 2nd Step Circuit	○	ON	RS-122
B1812/53	Short to GND in Driver Side Squib 2nd Step Circuit	○	ON	RS-122
B1813/53	Short to B+ in Driver Side Squib 2nd Step Circuit	○	ON	RS-122
B1815/54	Short in Front Passenger Side Squib 2nd Step Circuit	○	ON	RS-127
B1816/54	Open in Front Passenger Side Squib 2nd Step Circuit	○	ON	RS-127
B1817/54	Short to GND in Front Passenger Side Squib 2nd Step Circuit	○	ON	RS-127
B1818/54	Short to B+ in Front Passenger Side Squib 2nd Step Circuit	○	ON	RS-127
B1820/55	Short in Driver Side - Side Squib Circuit	○	ON	RS-132
B1821/55	Open in Driver Side - Side Squib Circuit	○	ON	RS-132
B1822/55	Short to GND in Driver Side - Side Squib Circuit	○	ON	RS-132
B1823/55	Short to B+ in Driver Side - Side Squib Circuit	○	ON	RS-132
B1825/56	Short in Front Passenger Side - Side Squib Circuit	○	ON	RS-137
B1826/56	Open in Front Passenger Side - Side Squib Circuit	○	ON	RS-137
B1827/56	Short to GND in Front Passenger Side - Side Squib Circuit	○	ON	RS-137
B1828/56	Short to B+ in Front Passenger Side - Side Squib Circuit	○	ON	RS-137
B1830/57	Short in Driver Side Curtain Shield Squib Circuit	○	ON	RS-142
B1831/57	Open in Driver Side Curtain Shield Squib Circuit	○	ON	RS-142

DTC No.	Detection Item	Check Mode	SRS Warning Light	See page
B1832/57	Short to GND in Driver Side Curtain Shield Squib Circuit	O	ON	RS-142
B1833/57	Short to B+ in Driver Side Curtain Shield Squib Circuit	O	ON	RS-142
B1835/58	Short in Front Passenger Side Curtain Shield Squib Circuit	O	ON	RS-146
B1836/58	Open in Front Passenger Side Curtain Shield Squib Circuit	O	ON	RS-146
B1837/58	Short to GND in Front Passenger Side Curtain Shield Squib Circuit	O	ON	RS-146
B1838/58	Short to B+ in Front Passenger Side Curtain Shield Squib Circuit	O	ON	RS-146
B1900/73	Short in Driver Side Front Pretensioner Squib Circuit	O	ON	RS-150
B1901/73	Open in Driver Side Front Pretensioner Squib Circuit	O	ON	RS-150
B1902/73	Short to GND in Driver Side Front Pretensioner Squib Circuit	O	ON	RS-150
B1903/73	Short to B+ in Driver Side Front Pretensioner Squib Circuit	O	ON	RS-150
B1905/74	Short in Front Passenger Side Front Pretensioner Squib Circuit	O	ON	RS-154
B1906/74	Open in Front Passenger Side Front Pretensioner Squib Circuit	O	ON	RS-154
B1907/74	Short to GND in Front Passenger Side Front Pretensioner Squib Circuit	O	ON	RS-154
B1908/74	Short to B+ in Front Passenger Side Front Pretensioner Squib Circuit	O	ON	RS-154

DTC	B1000/31	Center Airbag Sensor Assembly Malfunction

DESCRIPTION

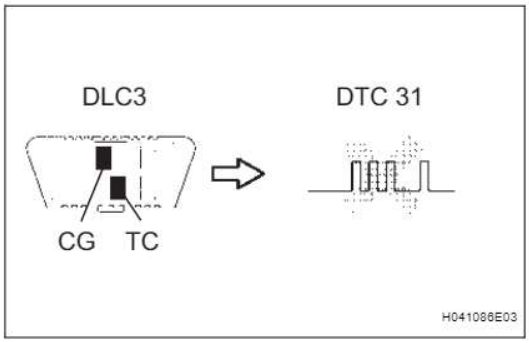
The center airbag sensor consists of the airbag sensor, the safing sensor, the drive circuit, the diagnosis circuit and the power control.
When the center airbag sensor receives signals from the airbag sensor, it determines whether or not the SRS should be activated.
DTC B1000/31 is set when a malfunction 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

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 (see page RS-38).
(f) Turn the power switch OFF.
(g) Turn the power switch ON (IG), and wait for at least 60 seconds.
(h) Check for DTCs (see page RS-38).
OK:
DTC B1000/31 is not output.

NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

USE SIMULATION METHOD TO CHECK

DTC	B1610/13	Front Airbag Sensor RH Circuit Malfunction

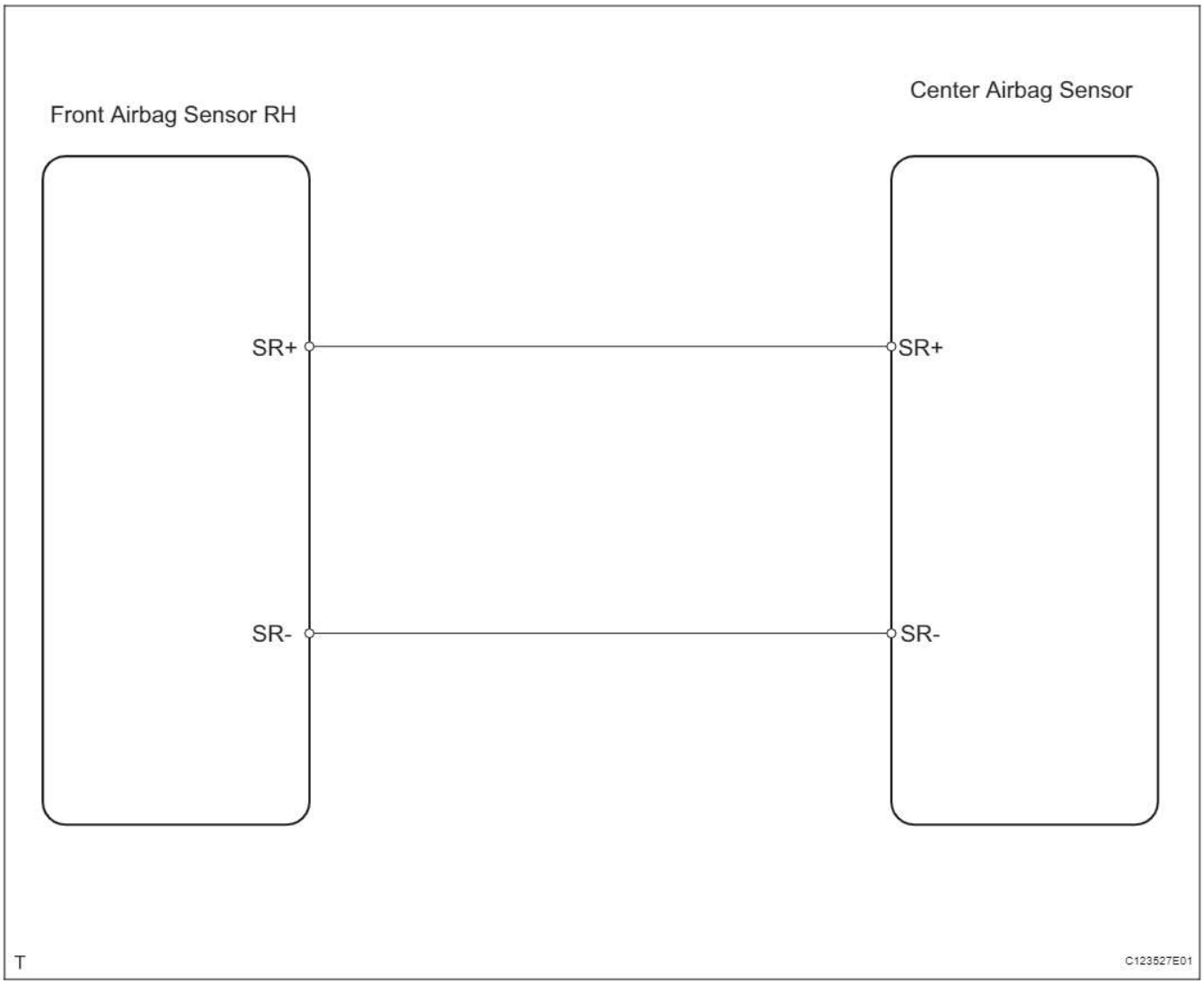
DESCRIPTION

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.

RS

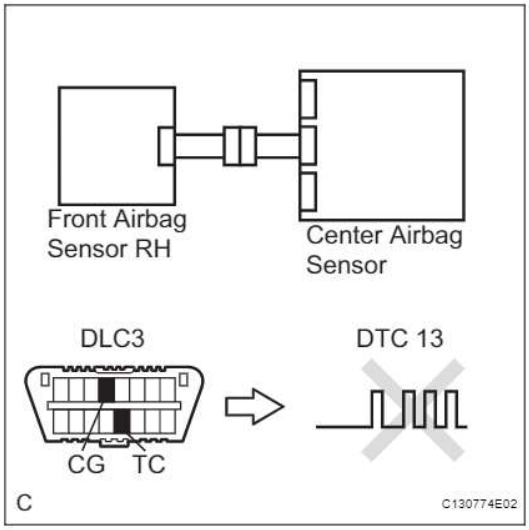
DTC No.	DTC Detection Condition	Trouble Area
B1610/13	When one of following conditions is met: • Center airbag sensor receives a line short signal, an open signal, a short to ground signal or a short to B+ signal from the front airbag sensor RH sensor for 2 seconds. • Front airbag sensor RH malfunction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

WIRING DIAGRAM



INSPECTION PROCEDURE

1	CHECK FOR DTC



(a) Turn the power switch ON (IG), and wait for at least 60 seconds.
(b) Clear the DTCs (see page RS-38).
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG), and wait for at least 60 seconds.
(e) Check the DTCs (see page RS-38).

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:

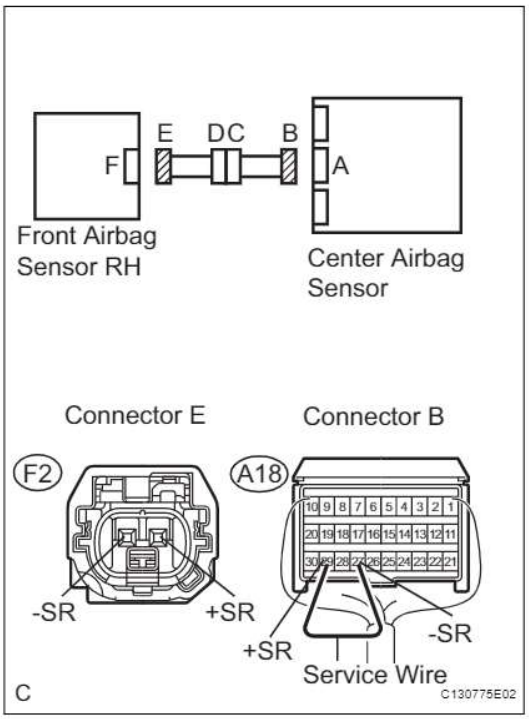
The connectors are properly connected.

NG → **CONNECT CONNECTOR**

OK

RS

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.

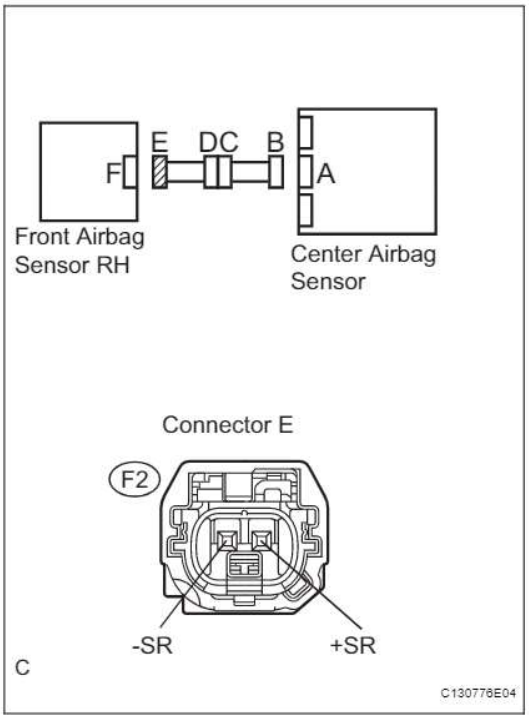
Standard resistance

Tester Connection	Specified Condition
F2-2 (+SR) - F2-1 (-SR)	Below 1 Ω

NG → **Go to step 8**

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.

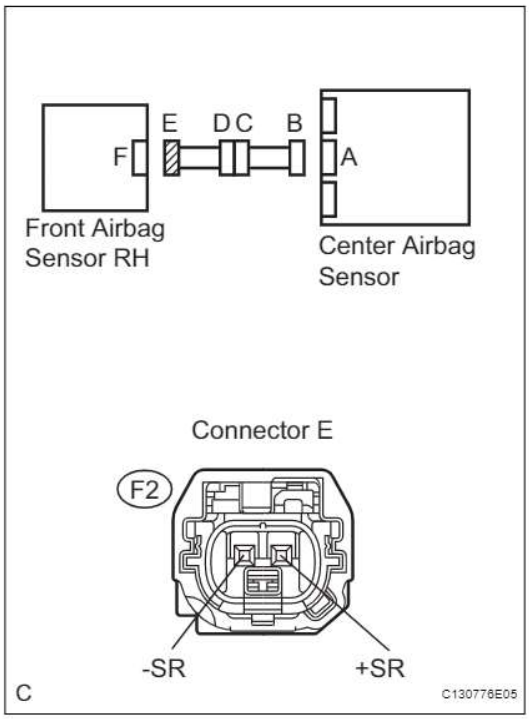
Standard resistance

Tester Connection	Specified Condition
F2-2 (+SR) - F2-1 (-SR)	1 MΩ or higher

NG → **Go to step 9**

OK

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.

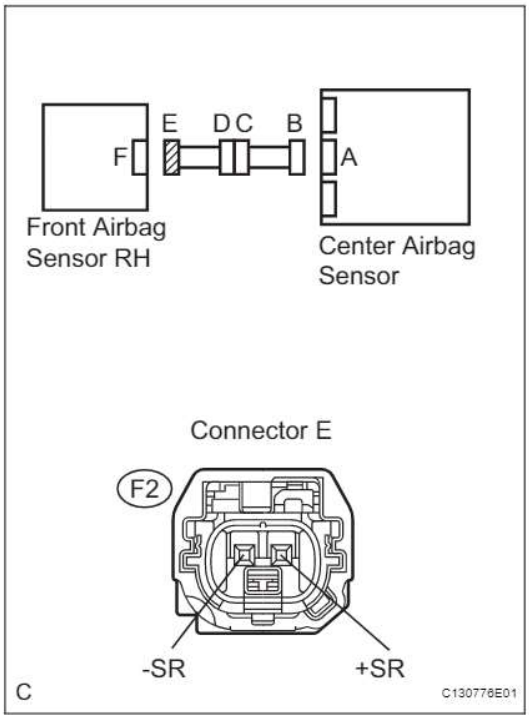
Standard voltage

Tester Connection	Specified Condition
F2-2 (+SR) - Body ground	Below 1 V
F2-1 (-SR) - Body ground	Below 1 V

NG → **Go to step 10**

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

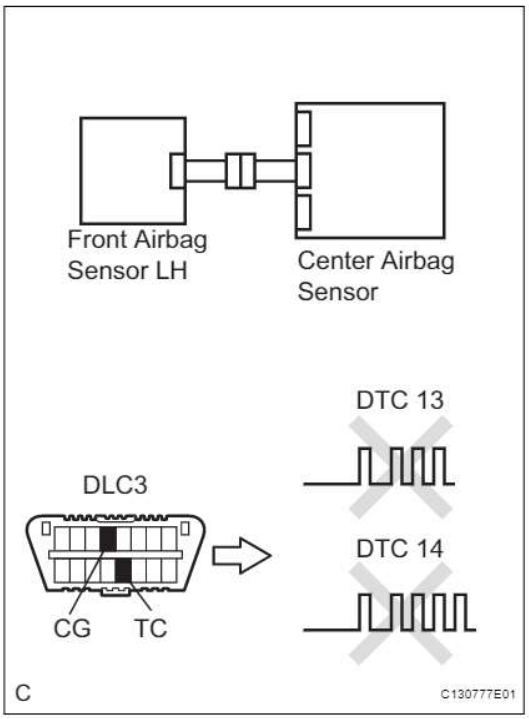
Tester Connection	Specified Condition
F2-2 (+SR) - Body ground	1 MΩ or higher
F2-1 (-SR) - Body ground	1 MΩ or higher

NG → **Go to step 11**

OK

RS

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 (see page RS-38).
(f) Turn the power switch OFF.
(g) Turn the power switch ON (IG), and wait for at least 60 seconds.
(h) Check the DTCs (see page RS-38).

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.

B → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

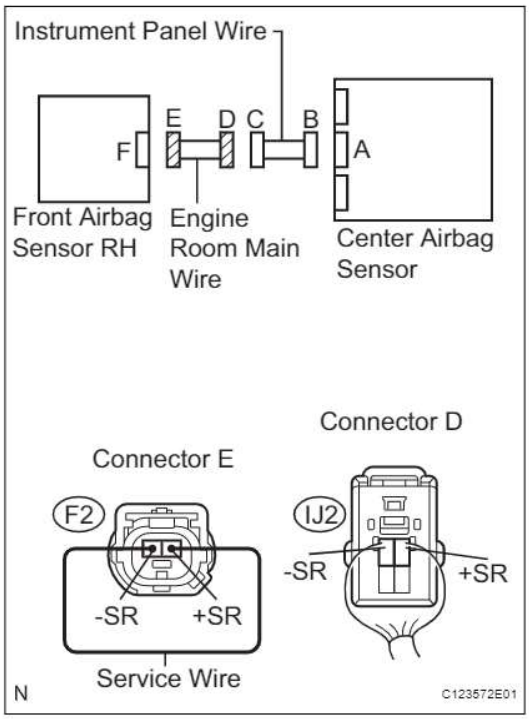
C → **REPLACE FRONT AIRBAG SENSOR RH**

A

USE SIMULATION METHOD TO CHECK

RS

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.
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

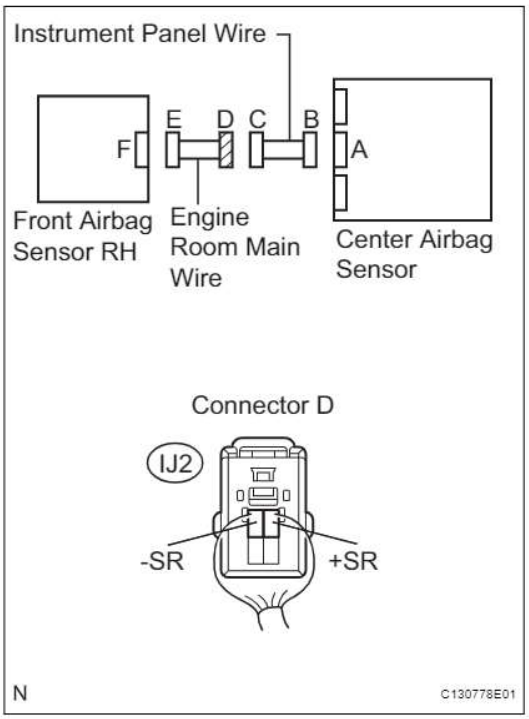
NG → **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

RS

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

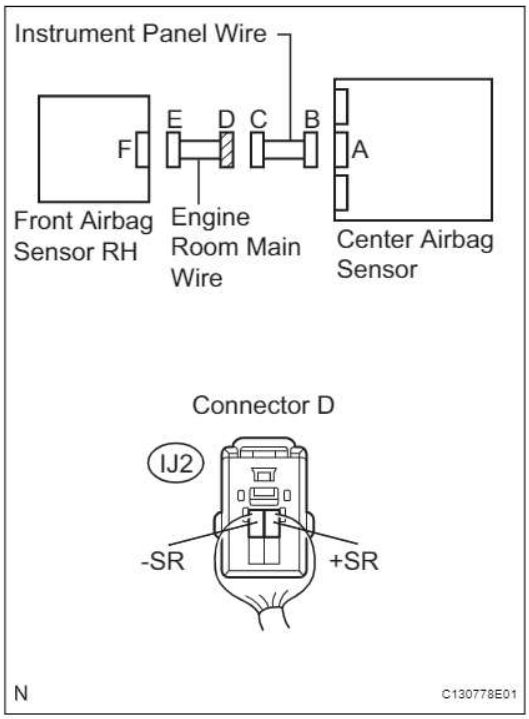
Tester Connection	Specified Condition
IJ2-1 (+SR) - IJ2-2 (-SR)	1 MΩ or higher

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

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

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

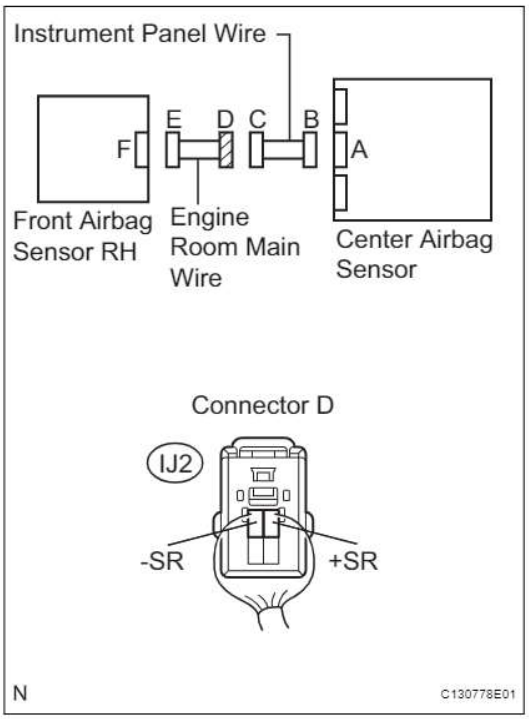
NG → **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

RS

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

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

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

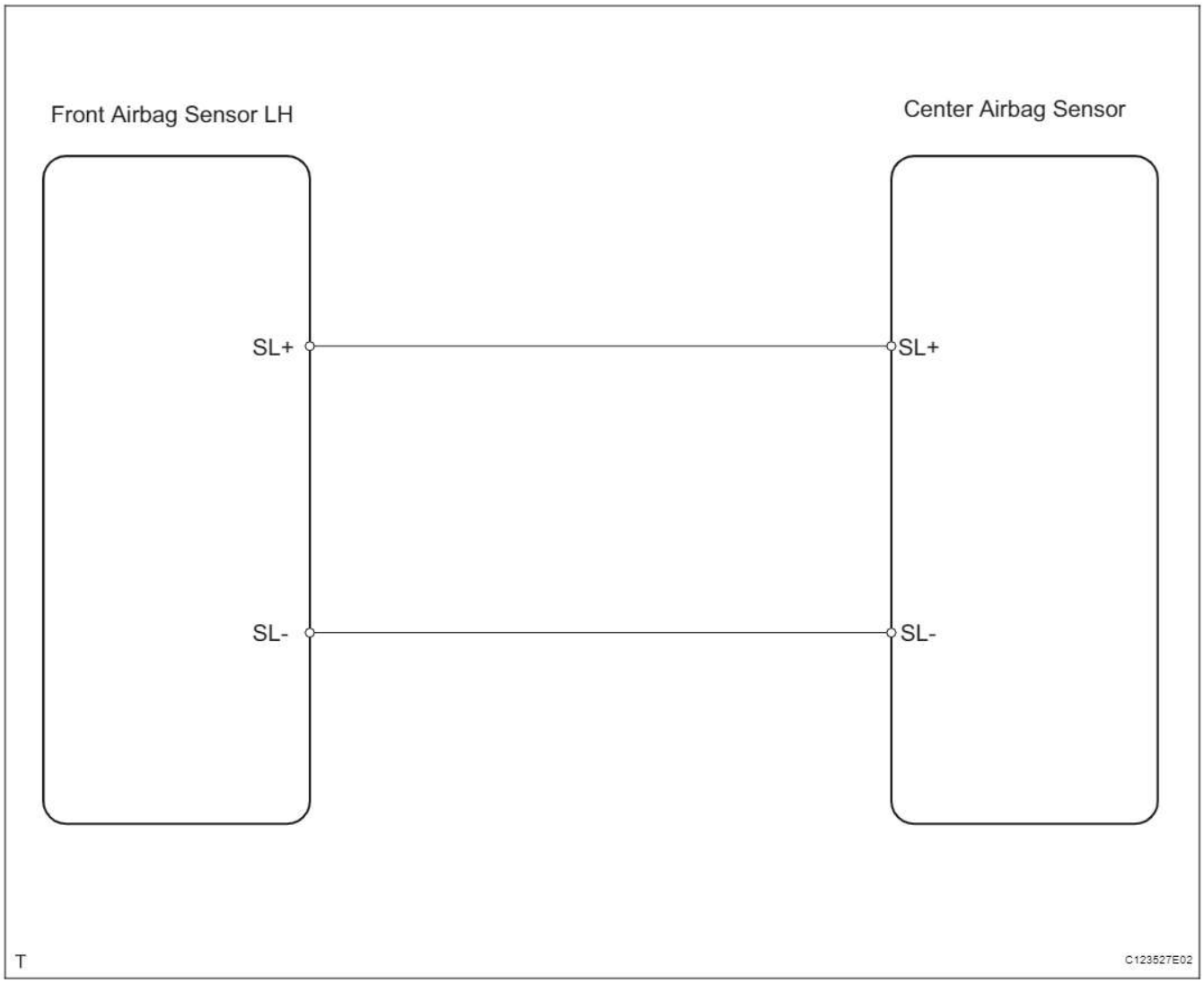
DTC	B1615/14	Front Airbag Sensor LH Circuit Malfunction

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.

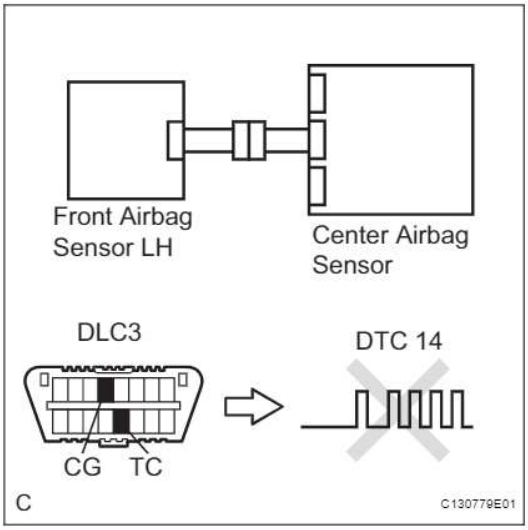
DTC No.	DTC Detection Condition	Trouble Area
B1615/14	When one of following conditions is met: • The center airbag sensor receives a line short signal, an open signal, a short to ground signal or a short to B+ signal from the front airbag sensor LH sensor for 2 seconds. • Front airbag sensor LH malfunction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

WIRING DIAGRAM



INSPECTION PROCEDURE

1	CHECK FOR DTC



(a) Turn the power switch ON (IG), and wait for at least 60 seconds.
(b) Clear the DTCs (see page RS-38).
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG), and wait for at least 60 seconds.
(e) Check for DTCs (see page RS-38).

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.

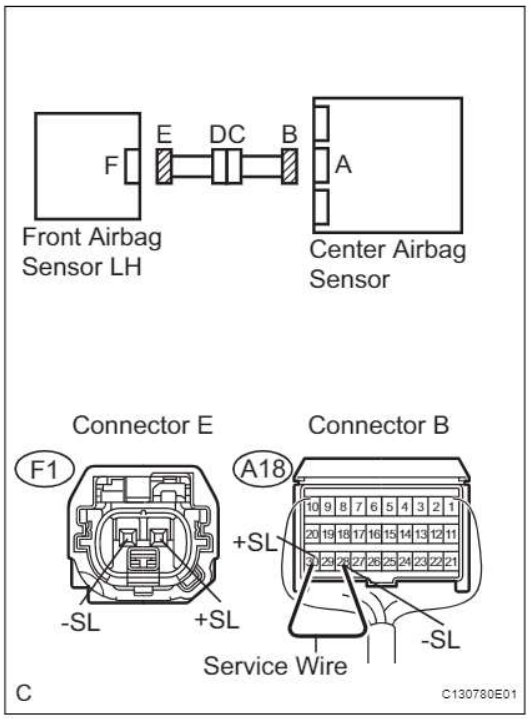
OK:

The connectors are properly connected.

NG → **CONNECT CONNECTOR**

OK

3 CHECK FRONT AIRBAG SENSOR LH CIRCUIT (OPEN)



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

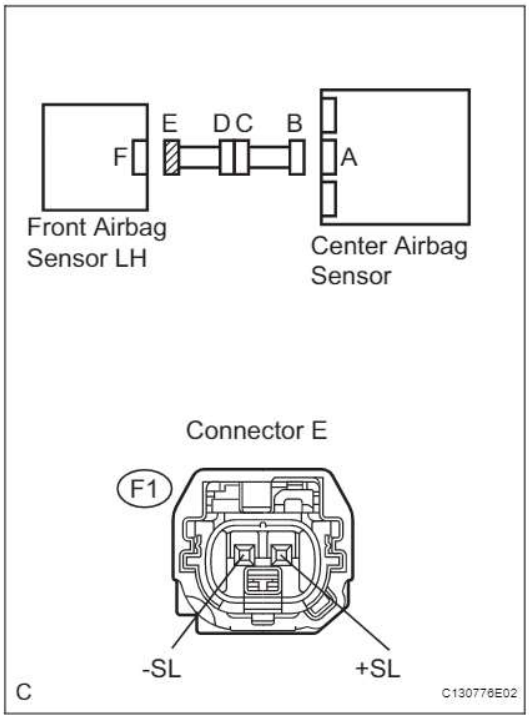
Standard resistance

Tester Connection	Specified Condition
F1-2 (+SL) - F1-1 (-SL)	Below 1 Ω

NG → **Go to step 8**

OK

4 CHECK FRONT AIRBAG SENSOR LH CIRCUIT (SHORT)



(a) Disconnect the service wire from connector B.

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

Standard resistance

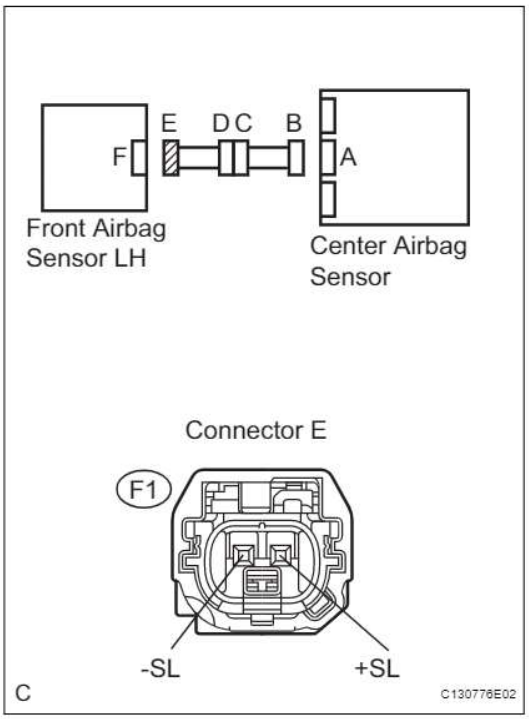
Tester Connection	Specified Condition
F1-2 (+SL) - F1-1 (-SL)	1 MΩ or higher

NG → **Go to step 9**

OK

RS

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.

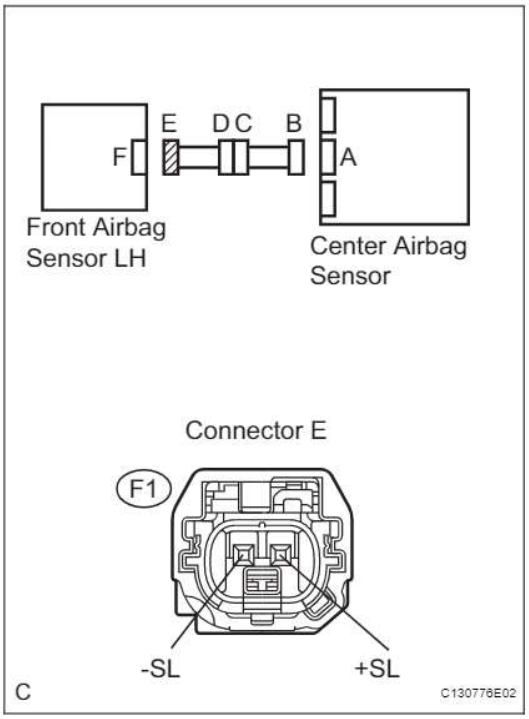
Standard voltage

Tester Connection	Specified Condition
F1-2 (+SL) - Body ground	Below 1 V
F1-1 (-SL) - Body ground	Below 1 V

NG → Go to step 10

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.

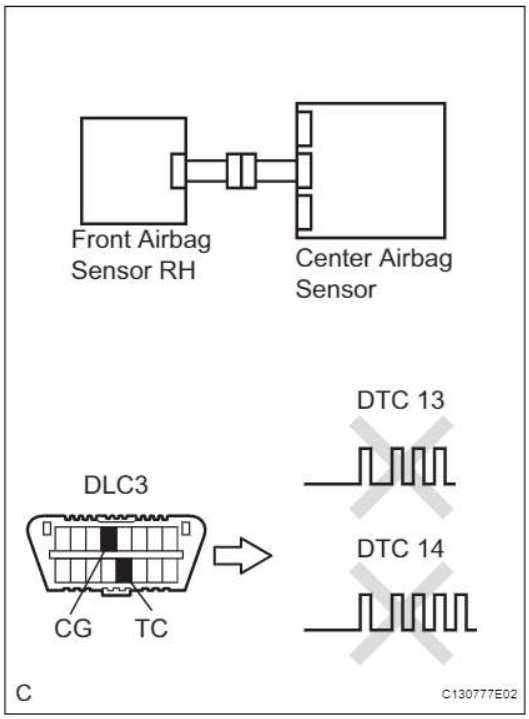
Standard resistance

Tester Connection	Specified Condition
F1-2 (+SL) - Body ground	1 MΩ or higher
F1-1 (-SL) - Body ground	1 MΩ or higher

NG → Go to step 11

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 (see page RS-38).
(f) Turn the power switch OFF.
(g) Turn the power switch ON (IG), and wait for at least 60 seconds.
(h) Check for DTCs (see page RS-38).

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.

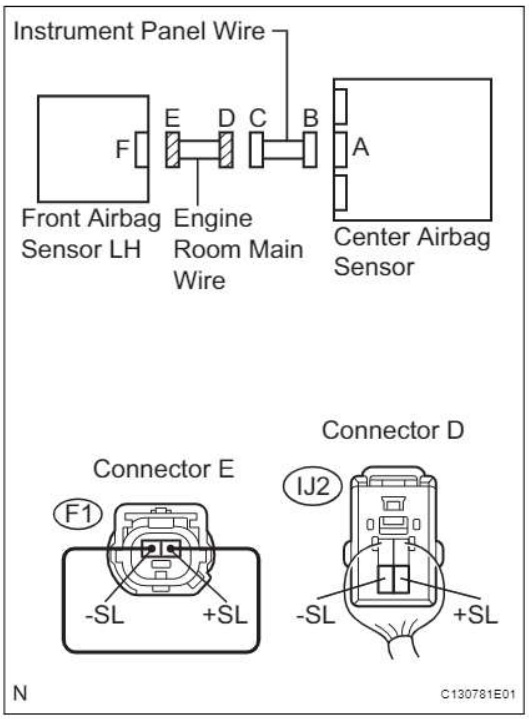
B	REPLACE CENTER AIRBAG SENSOR ASSEMBLY
C	REPLACE FRONT AIRBAG SENSOR LH

A

USE SIMULATION METHOD TO CHECK

RS

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

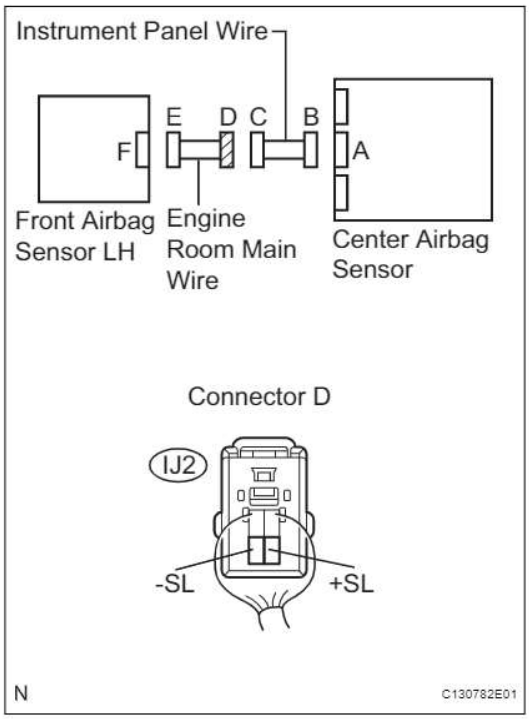
Tester Connection	Specified Condition
IJ2-3 (+SL) - IJ2-4(-SL)	Below 1 Ω

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

OK

REPAIR OR REPLACE 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

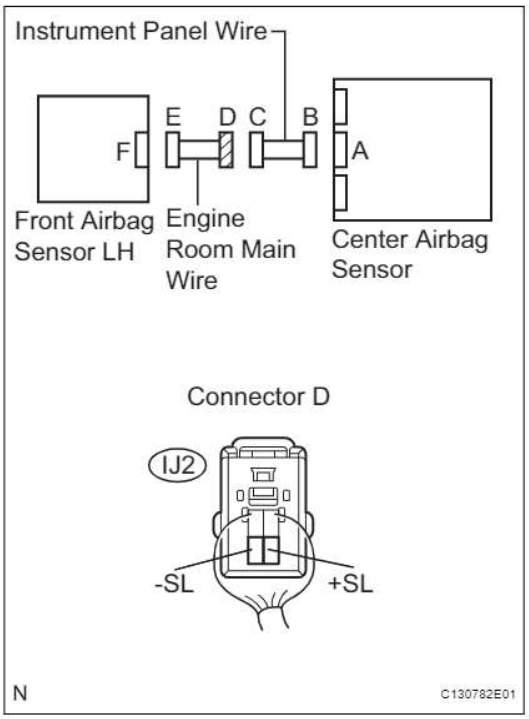
NG → **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

RS

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

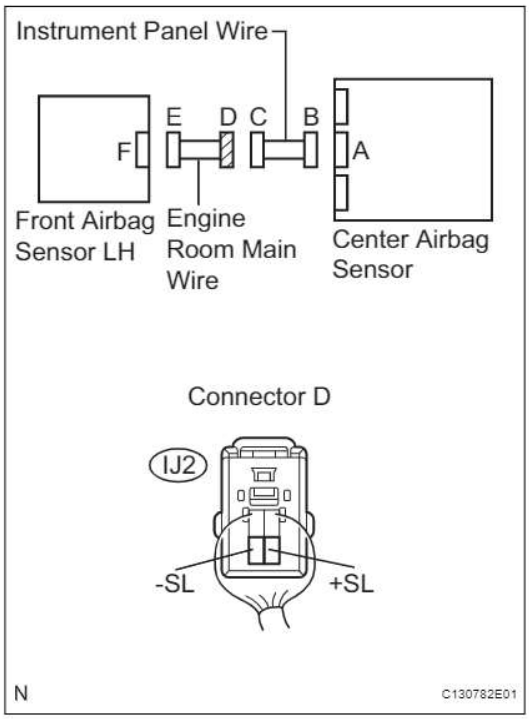
Tester Connection	Specified Condition
IJ2-3 (+SL) - Body ground	Below 1 V
IJ2-4 (-SL) - Body ground	Below 1 V

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

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

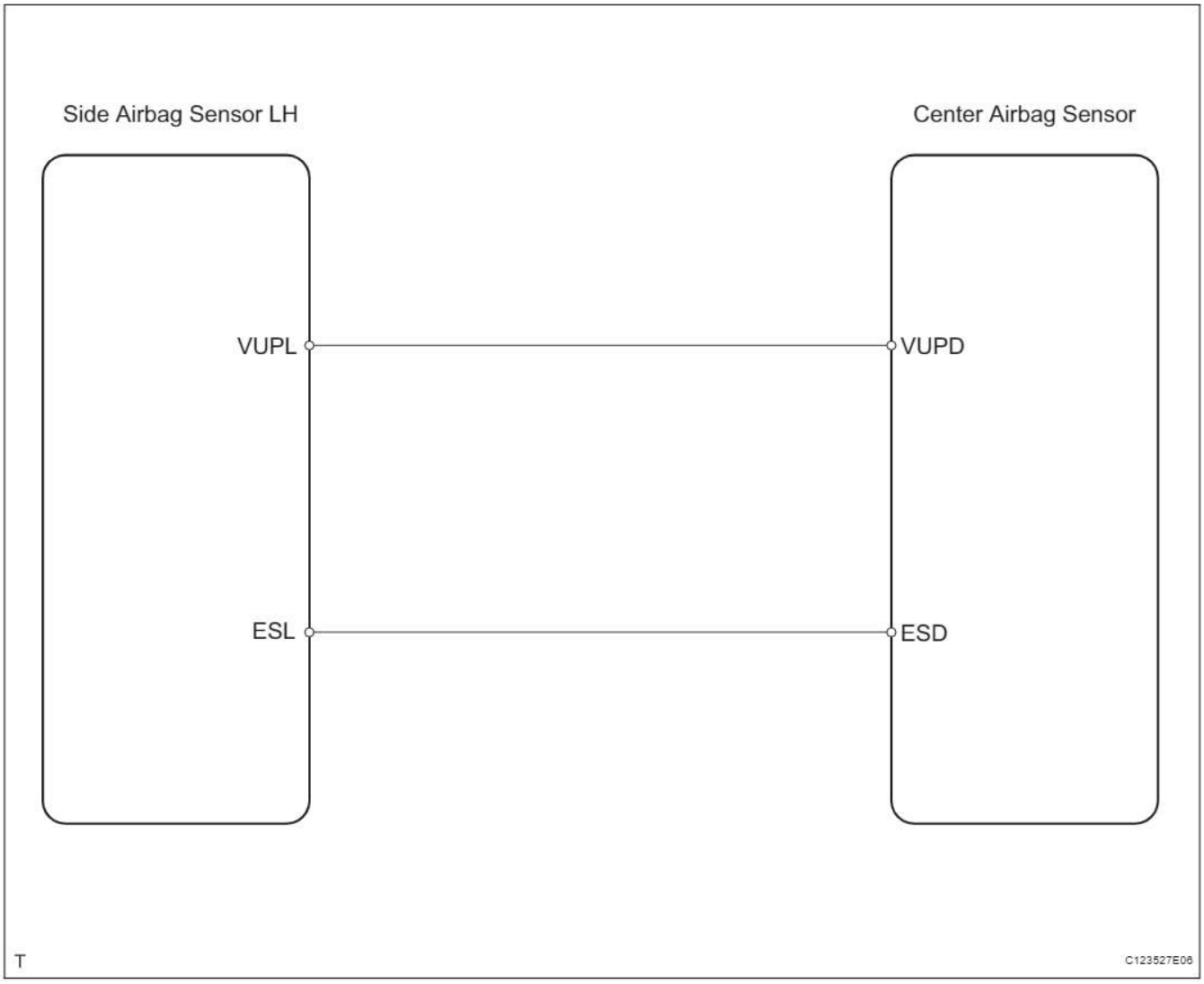
DESCRIPTION

RS

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.

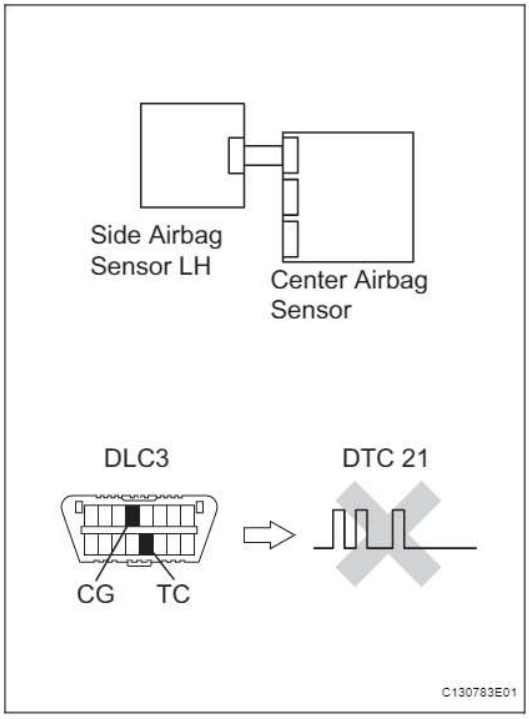
DTC No.	DTC Detection Condition	Trouble Area
B1620/21	When one of following conditions is met: • Center airbag sensor receives line short signal, open signal, short to ground or B+ short signal from side airbag sensor LH sensor for 2 seconds • Side airbag sensor LH malfunction • Center airbag sensor malfunction	• Floor wire • Center airbag sensor • Side airbag sensor LH

WIRING DIAGRAM



INSPECTION PROCEDURE

1	CHECK FOR DTC



(a) Turn the power switch ON (IG), and wait for at least 60 seconds.
(b) Clear the DTCs (see page RS-38).
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG), and wait for at least 60 seconds.
(e) Check for DTCs (see page RS-38).

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:

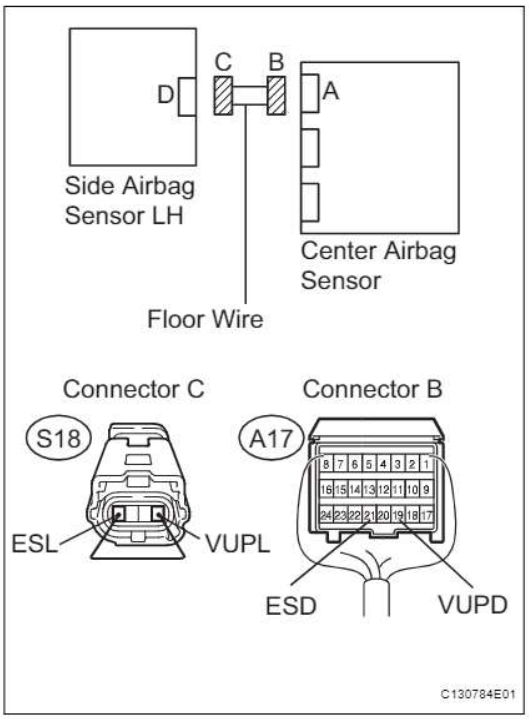
Connectors are connected.

NG → **CONNECT CONNECTOR**

OK

RS

3	CHECK FLOOR WIRE (OPEN)



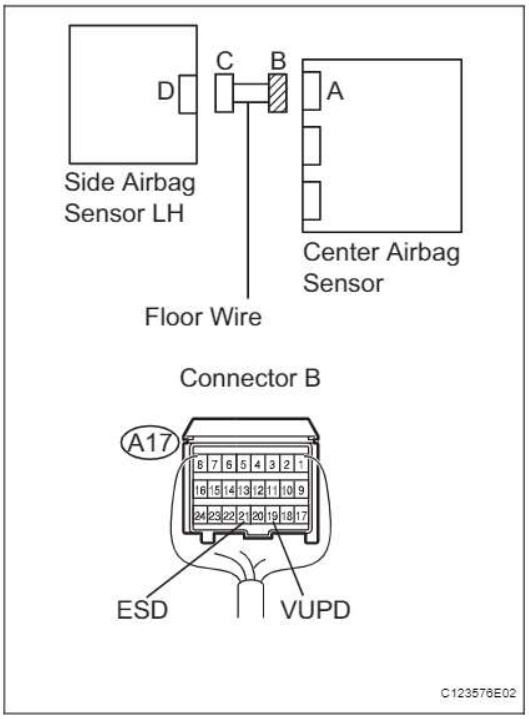
(a) Disconnect the connectors from the center airbag sensor and side airbag sensor LH.
(b) Using a service wire, connect terminals S18-2 (VUPL) and S18-1 (ESL) of connector C.
NOTICE:
Do not forcibly insert a service wire into the terminals of the connector.
(c) Measure the resistance of the wire harness 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)



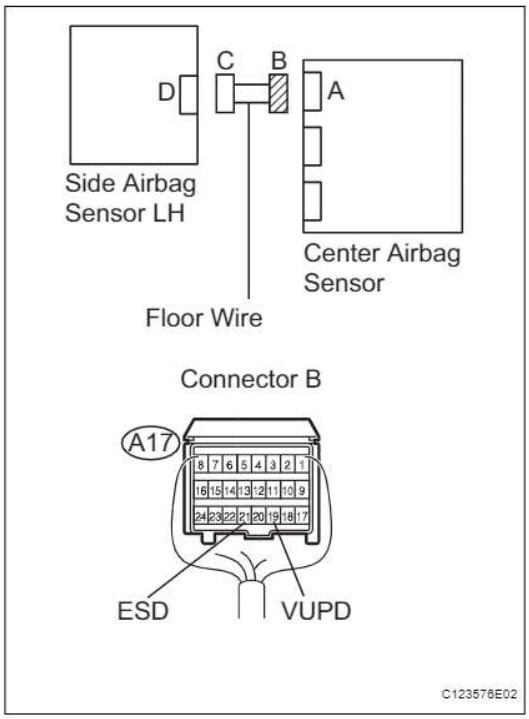
(a) Disconnect the service wire from connector C.
(b) Measure the resistance of the wire harness side connector.
Standard resistance

Tester Connection	Specified Condition
A17-19 (VUPD) - A17-21 (ESD)	1 MΩ or higher

NG → REPAIR OR REPLACE FLOOR WIRE

OK

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.

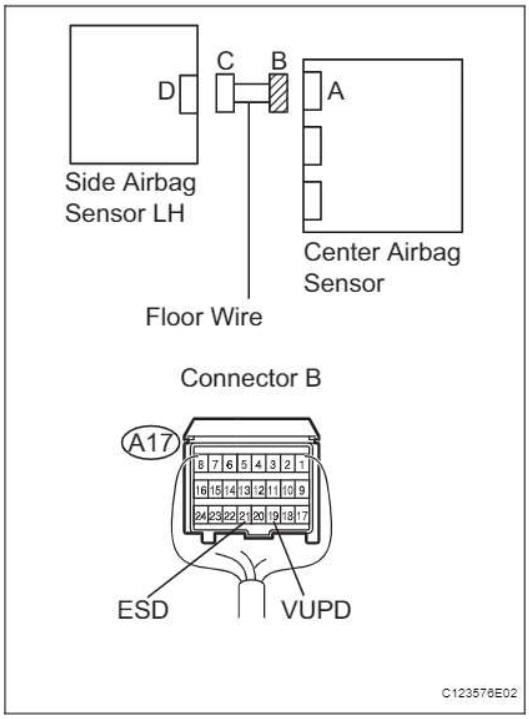
Standard voltage

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

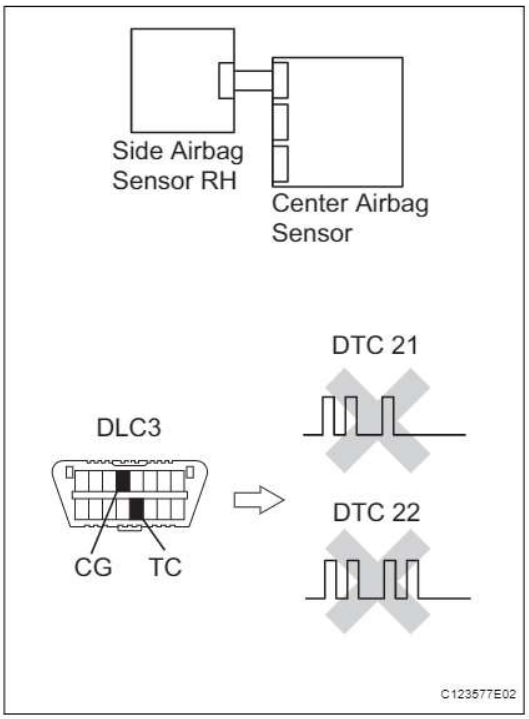
Tester Connection	Specified Condition
A17-19 (VUPD) - Body ground	1 MΩ or higher
A17-21 (ESD) - Body ground	1 MΩ or higher

NG → REPAIR OR REPLACE FLOOR WIRE

OK

RS

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 (see page RS-38).
(f) Turn the power switch OFF.
(g) Turn the power switch ON (IG), and wait for at least 60 seconds.
(h) Check for DTCs (see page RS-38).

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.

B → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

C → **REPLACE SIDE AIRBAG SENSOR LH**

A

USE SIMULATION METHOD TO CHECK

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

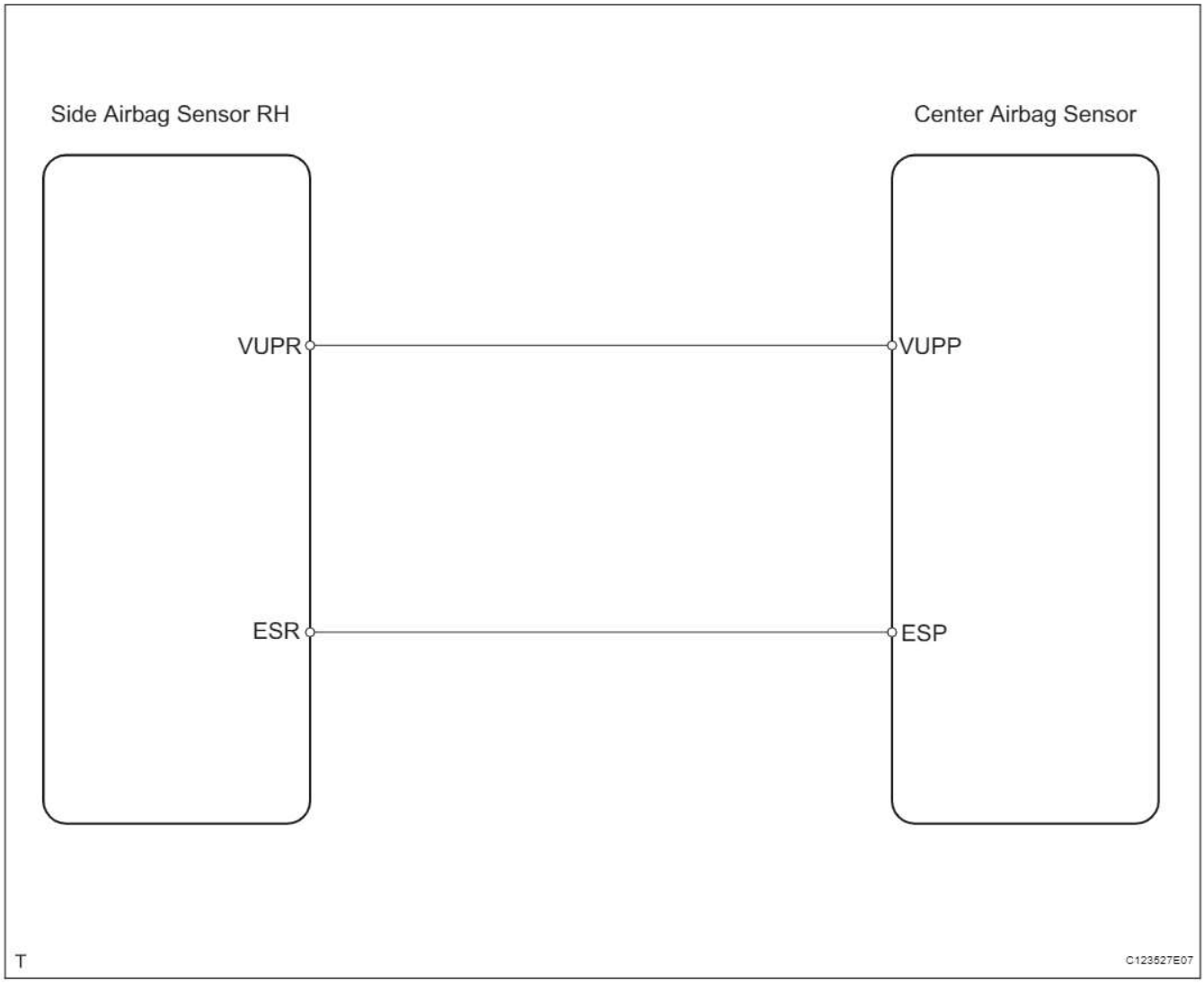
DESCRIPTION

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.

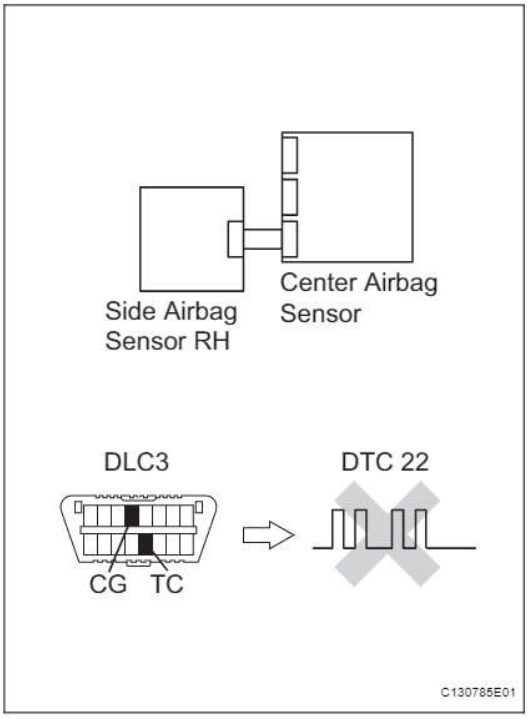
DTC No.	DTC Detection Condition	Trouble Area
B1625/22	When one of following conditions is met: • Center airbag sensor receives line short signal, open signal, short to ground or B+ short signal from side airbag sensor RH sensor for 2 seconds • Side airbag sensor RH malfunction • Center airbag sensor malfunction	• No. 2 floor wire • Center airbag sensor • Side airbag sensor RH

WIRING DIAGRAM



INSPECTION PROCEDURE

1	CHECK FOR DTC



(a) Turn the power switch ON (IG), and wait for at least 60 seconds.
(b) Clear the DTCs (see page RS-38).
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG), and wait for at least 60 seconds.
(e) Check for DTCs (see page RS-38).

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:

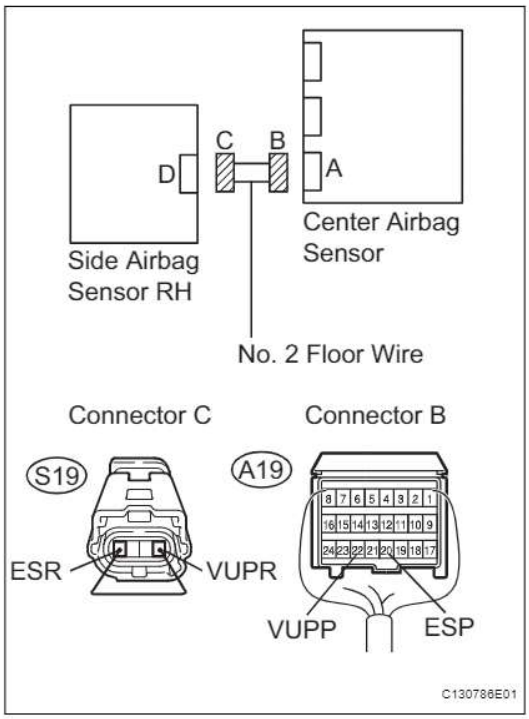
Connectors are connected.

NG → **CONNECT CONNECTOR**

OK

RS

3 CHECK NO. 2 FLOOR WIRE (OPEN)



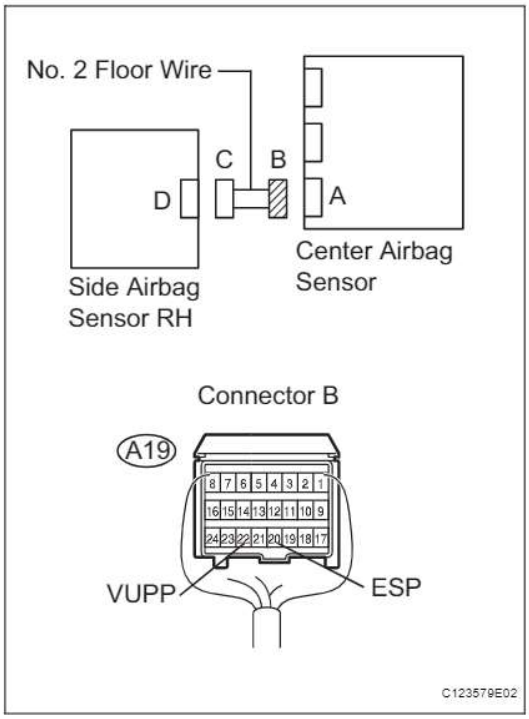
(a) Disconnect the connectors from the center airbag sensor and side airbag sensor RH.
(b) Using a service wire, connect terminals S19-2 (VUPR) and S19-1 (ESR) of connector C.
NOTICE:
Do not forcibly insert a service wire into the terminals of the connector.
(c) Measure the resistance of the wire harness side connector.
Standard resistance

Tester Connection	Specified Condition
A19-22 (VUPP) - A19-20 (ESP)	Below 1 Ω

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

OK

4 CHECK NO. 2 FLOOR WIRE (SHORT)



(a) Disconnect the service wire from connector C.
(b) Measure the resistance of the wire harness side connector.
Standard resistance

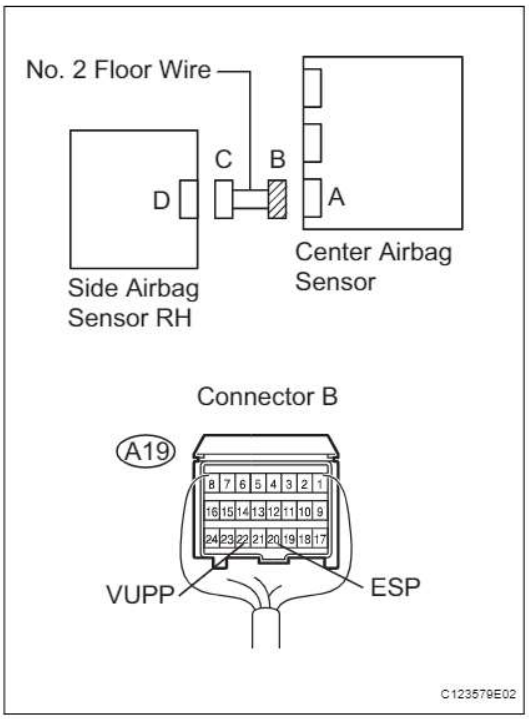
Tester Connection	Specified Condition
A19-22 (VUPP) - A19-20 (ESP)	1 MΩ or higher

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

OK

RS

5 CHECK NO. 2 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.

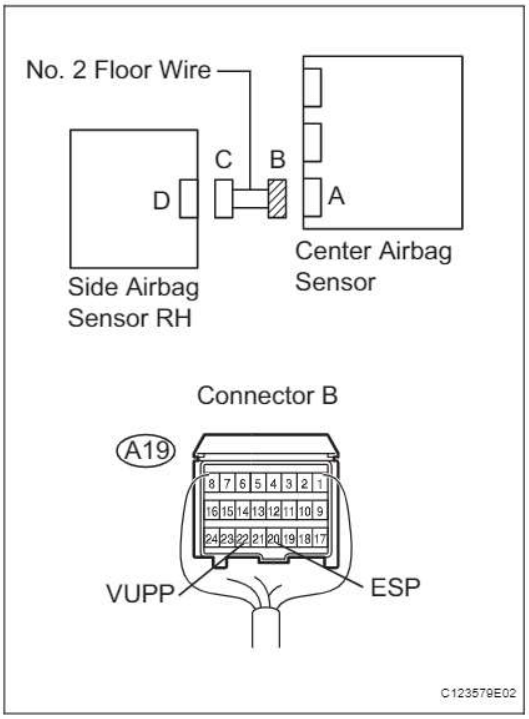
Standard voltage

Tester Connection	Specified Condition
A19-22 (VUPP) - Body ground	Below 1 V
A19-20 (ESP) - Body ground	Below 1 V

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

OK

6 CHECK NO. 2 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.

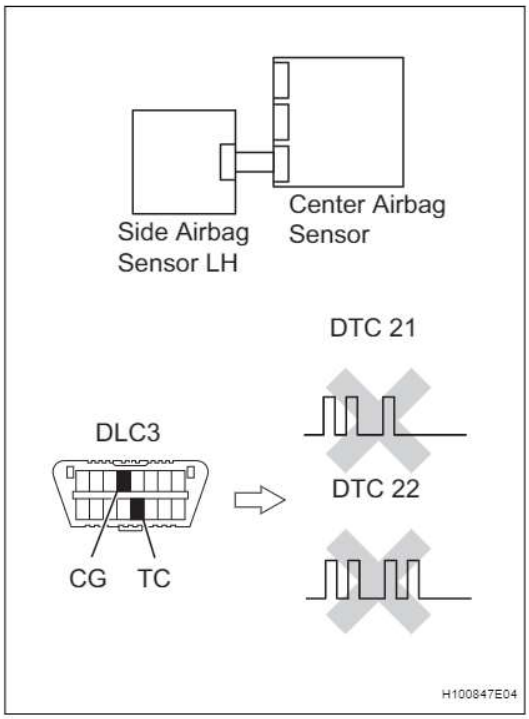
Standard resistance

Tester Connection	Specified Condition
A19-22 (VUPP) - Body ground	1 MΩ or higher
A19-20 (ESP) - Body ground	1 MΩ or higher

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

OK

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 (see page RS-38).
(f) Turn the power switch OFF.
(g) Turn the power switch ON (IG), and wait for at least 60 seconds.
(h) Check for DTCs (see page RS-38).

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.

B → REPLACE CENTER AIRBAG SENSOR ASSEMBLY

C → REPLACE SIDE AIRBAG SENSOR RH

A

USE SIMULATION METHOD TO CHECK

DTC	B1630/23	Driver Side Rear Airbag Sensor Circuit Malfunction

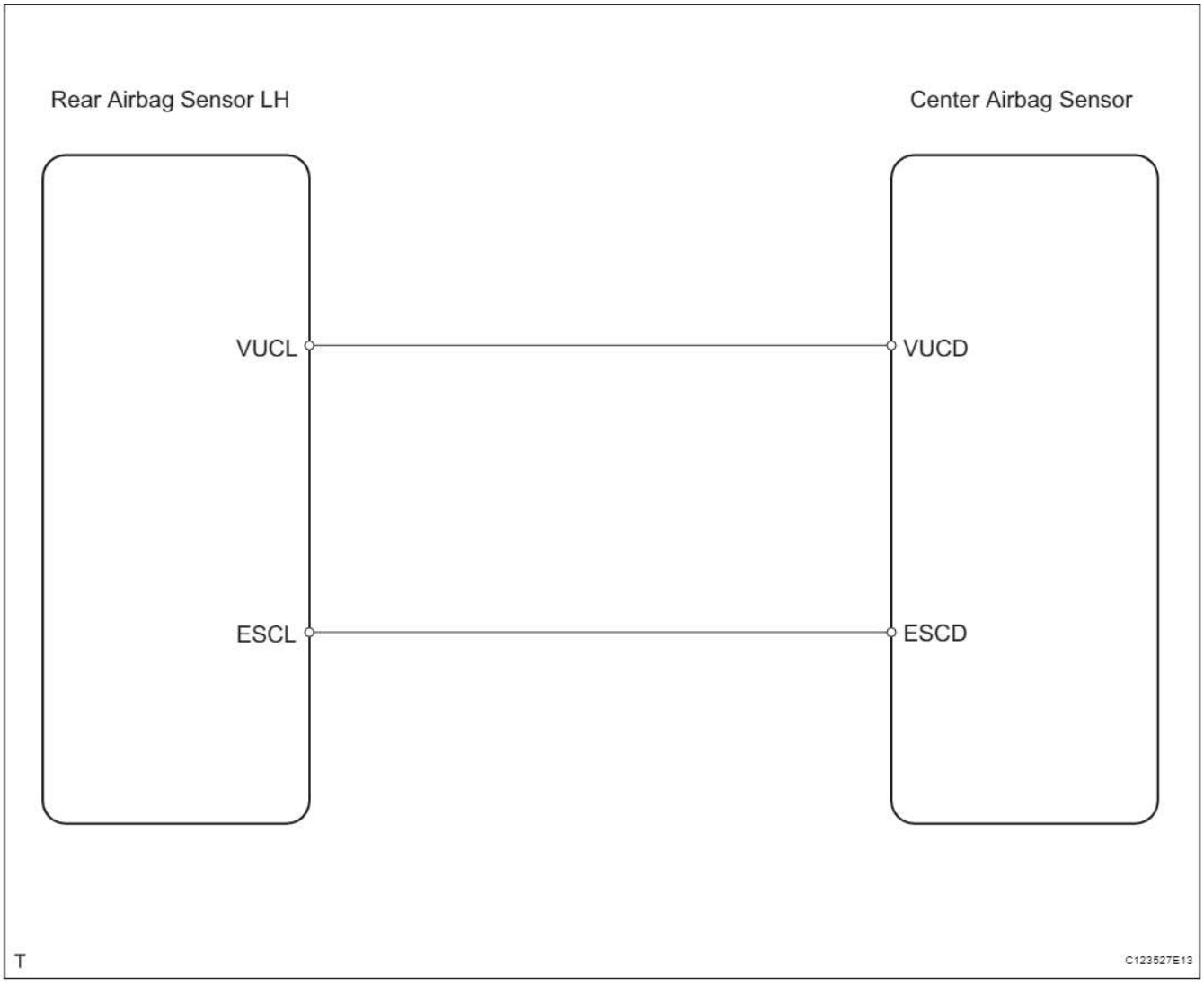
DESCRIPTION

RS

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.

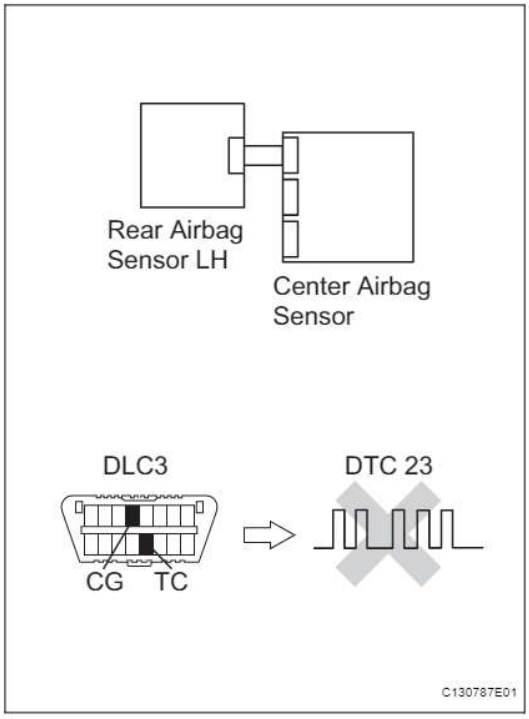
DTC No.	DTC Detection Condition	Trouble Area
B1630/23	When one of following conditions is met: • Center airbag sensor receives line short signal, open signal, short to ground or B+ short signal from rear airbag sensor LH sensor for 2 seconds • Rear airbag sensor LH malfunction • Center airbag sensor malfunction	• Floor wire • Center airbag sensor • Rear airbag sensor LH

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK FOR DTC



(a) Turn the power switch ON (IG), and wait for at least 60 seconds.
(b) Clear the DTCs (see page RS-38).
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG), and wait for at least 60 seconds.
(e) Check for DTCs (see page RS-38).

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:

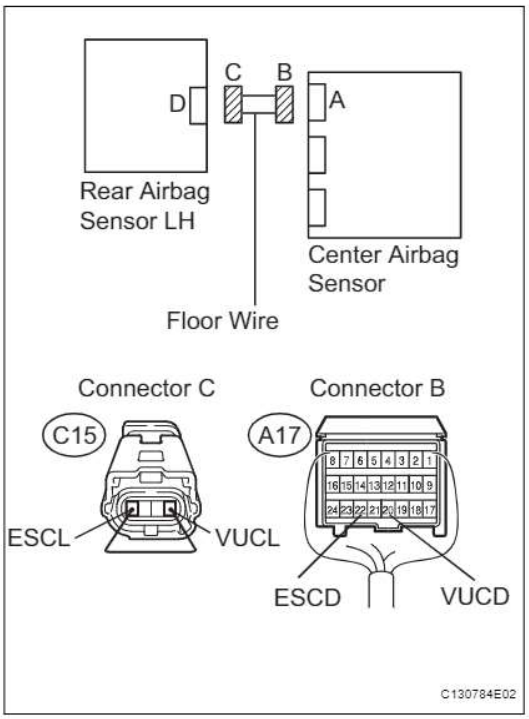
Connectors are connected.

NG → **CONNECT CONNECTOR**

OK

RS

3 CHECK FLOOR WIRE (OPEN)



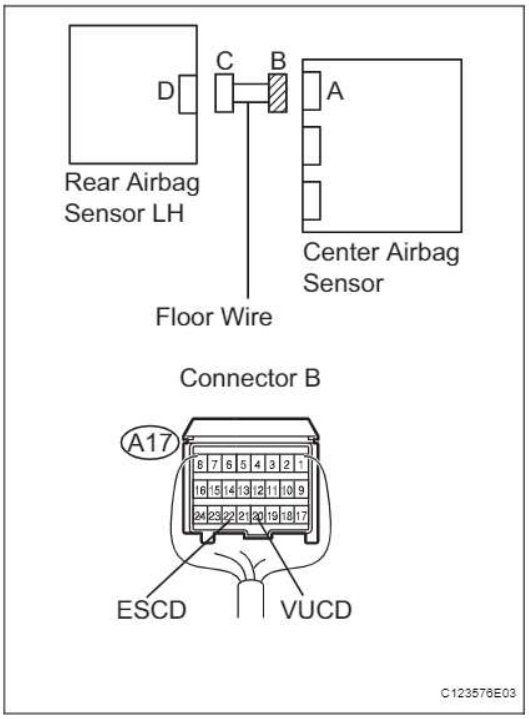
(a) Disconnect the connectors from the center airbag sensor and rear airbag sensor LH.
(b) Using a service wire, connect terminals C15-2 (VUCL) and C15-1 (ESCL) of connector C.
NOTICE:
Do not forcibly insert a service wire into the terminals of the connector.
(c) Measure the resistance of the wire harness 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)



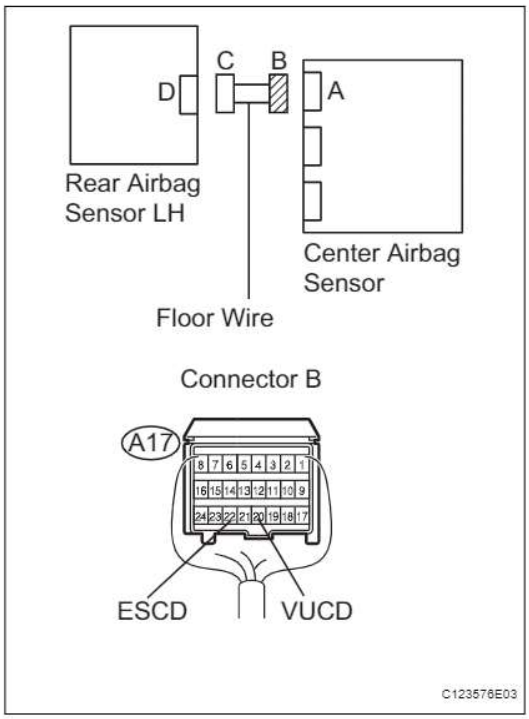
(a) Disconnect the service wire from connector C.
(b) Measure the resistance of the wire harness side connector.
Standard resistance

Tester Connection	Specified Condition
A17-20 (VUCD) - A17-22 (ESCD)	1 MΩ or higher

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

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.

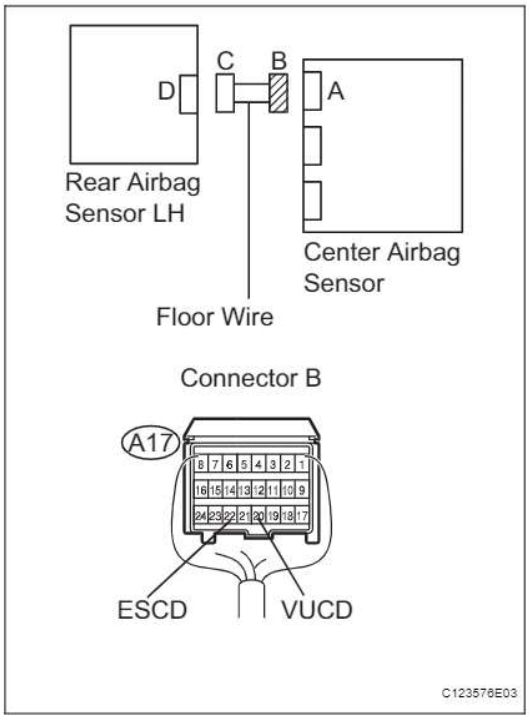
Standard voltage

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

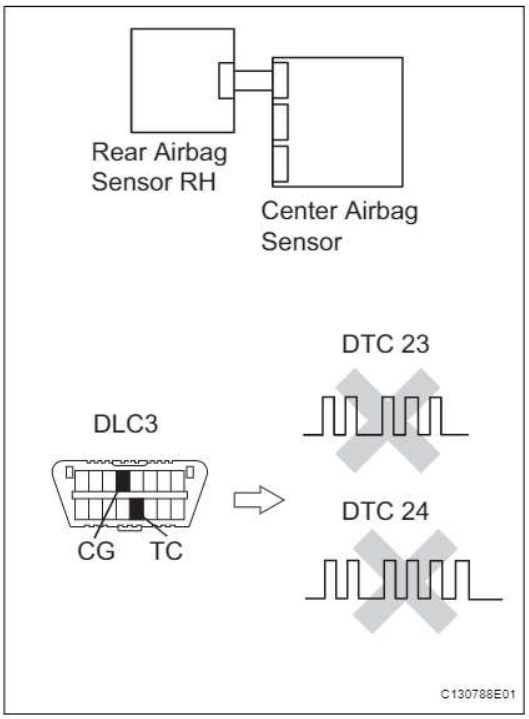
Tester Connection	Specified Condition
A17-20 (VUCD) - Body ground	1 MΩ or higher
A17-22 (ESCD) - Body ground	1 MΩ or higher

NG → REPAIR OR REPLACE FLOOR WIRE

OK

RS

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 (see page RS-38).
(f) Turn the power switch OFF.
(g) Turn the power switch ON (IG), and wait for at least 60 seconds.
(h) Check for DTCs (see page RS-38).

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.

B → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

C → **REPLACE REAR AIRBAG SENSOR LH**

A

USE SIMULATION METHOD TO CHECK

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

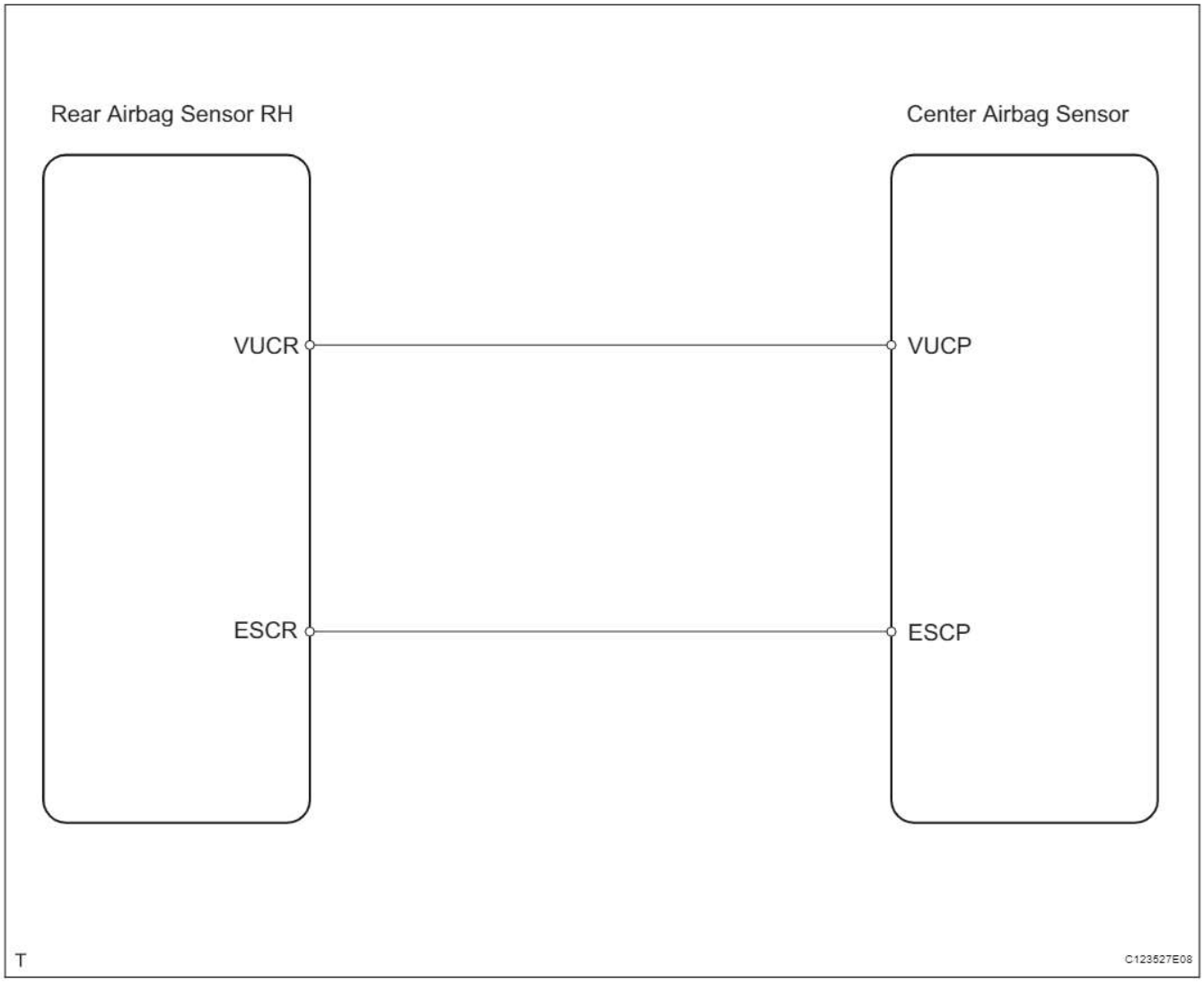
DESCRIPTION

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.

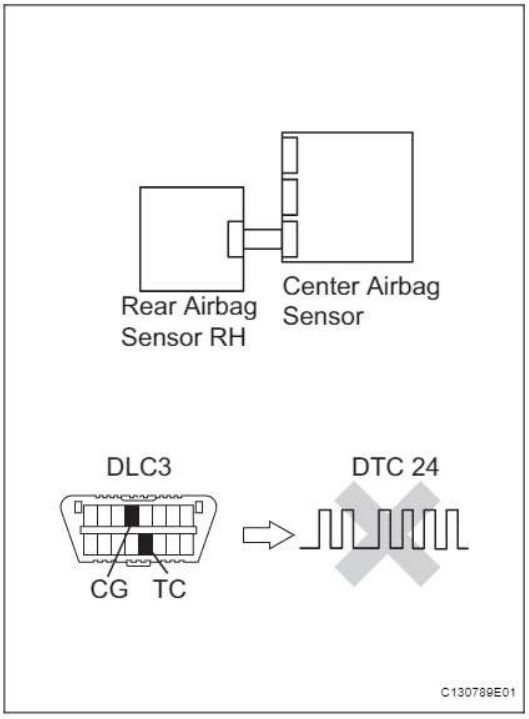
DTC No.	DTC Detection Condition	Trouble Area
B1635/24	When one of following conditions is met: • Center airbag sensor receives line short signal, open signal, short to ground or B+ short signal from side airbag sensor RH sensor for 2 seconds • Rear airbag sensor RH malfunction • Center airbag sensor malfunction	• No. 2 Floor wire • Center airbag sensor sensor • Rear airbag sensor RH

WIRING DIAGRAM



INSPECTION PROCEDURE

1	CHECK FOR DTC



(a) Turn the power switch ON (IG), and wait for at least 60 seconds.
(b) Clear the DTCs (see page RS-38).
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG), and wait for at least 60 seconds.
(e) Check for DTCs (see page RS-38).

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.

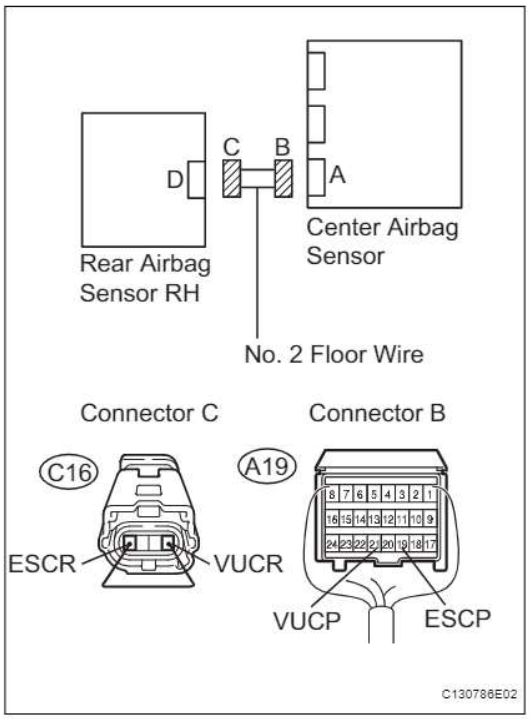
OK:

Connectors are connected.

NG → **CONNECT CONNECTOR**

OK

3 CHECK NO. 2 FLOOR WIRE (OPEN)



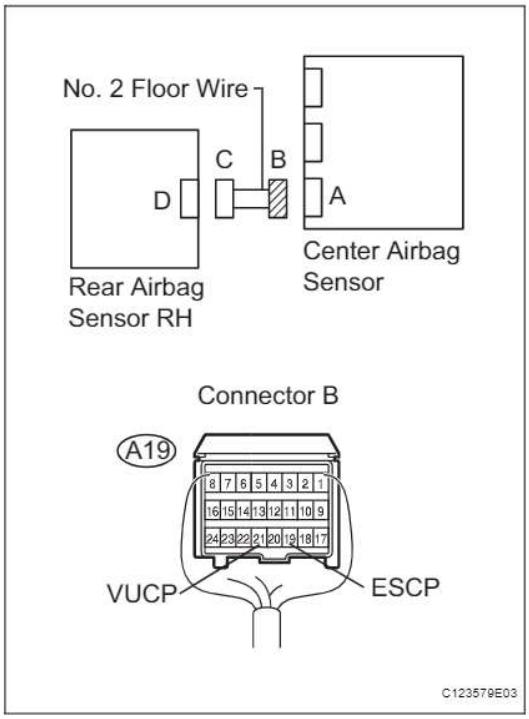
(a) Disconnect the connectors from the center airbag sensor and rear airbag sensor RH.
(b) Using a service wire, connect terminals C16-2 (VUCR) and C16-1 (ESCR) of connector C.
NOTICE:
Do not forcibly insert a service wire into the terminals of the connector.
(c) Measure the resistance of the wire harness side connector.
Standard resistance

Tester Connection	Specified Condition
A19-21 (VUCP) - A19-19 (ESCP)	Below 1 Ω

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

OK

4 CHECK NO. 2 FLOOR WIRE (SHORT)



(a) Disconnect the service wire from connector C.
(b) Measure the resistance of the wire harness side connector.
Standard resistance

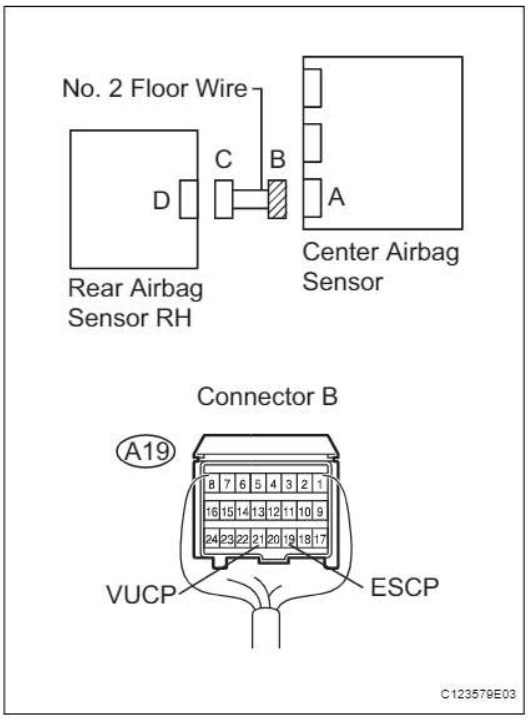
Tester Connection	Specified Condition
A19-21 (VUCP) - A19-19 (ESCP)	1 MΩ or higher

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

OK

RS

5	CHECK NO. 2 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.

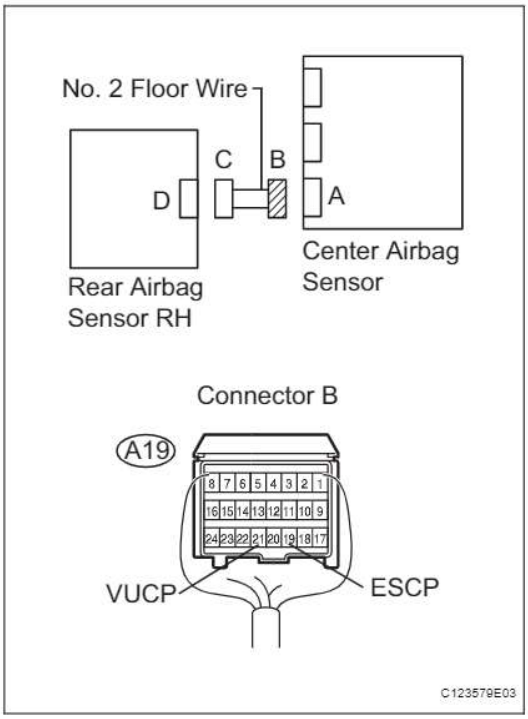
Standard voltage

Tester Connection	Specified Condition
A19-21 (VUCP) - Body ground	Below 1 V
A19-19 (ESCP) - Body ground	Below 1 V

NG → REPAIR OR REPLACE NO. 2 FLOOR WIRE

OK

6	CHECK NO. 2 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.

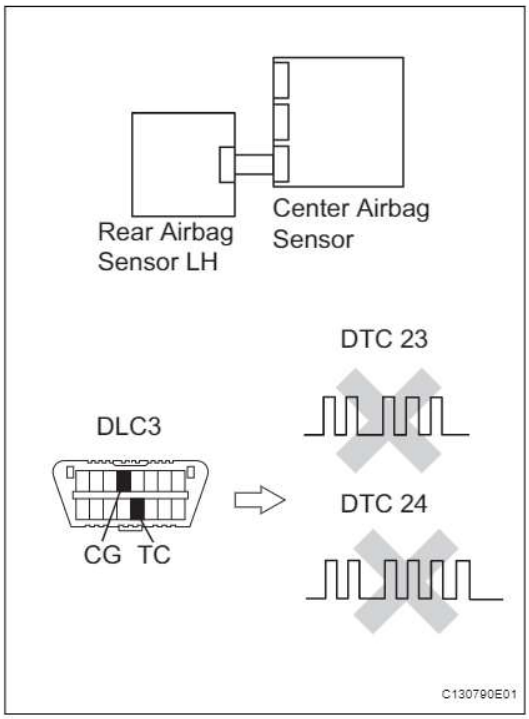
Standard resistance

Tester Connection	Specified Condition
A19-21 (VUCP) - Body ground	1 MΩ or higher
A19-19 (ESCP) - Body ground	1 MΩ or higher

NG → REPAIR OR REPLACE NO. 2 FLOOR WIRE

OK

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 (see page RS-38).
(f) Turn the power switch OFF.
(g) Turn the power switch ON (IG), and wait for at least 60 seconds.
(h) Check for DTCs (see page RS-38).

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.

B → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

C → **REPLACE REAR AIRBAG SENSOR RH**

A

USE SIMULATION METHOD TO CHECK

DTC	B1650/32	Occupant Classification System Malfunction

DESCRIPTION

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

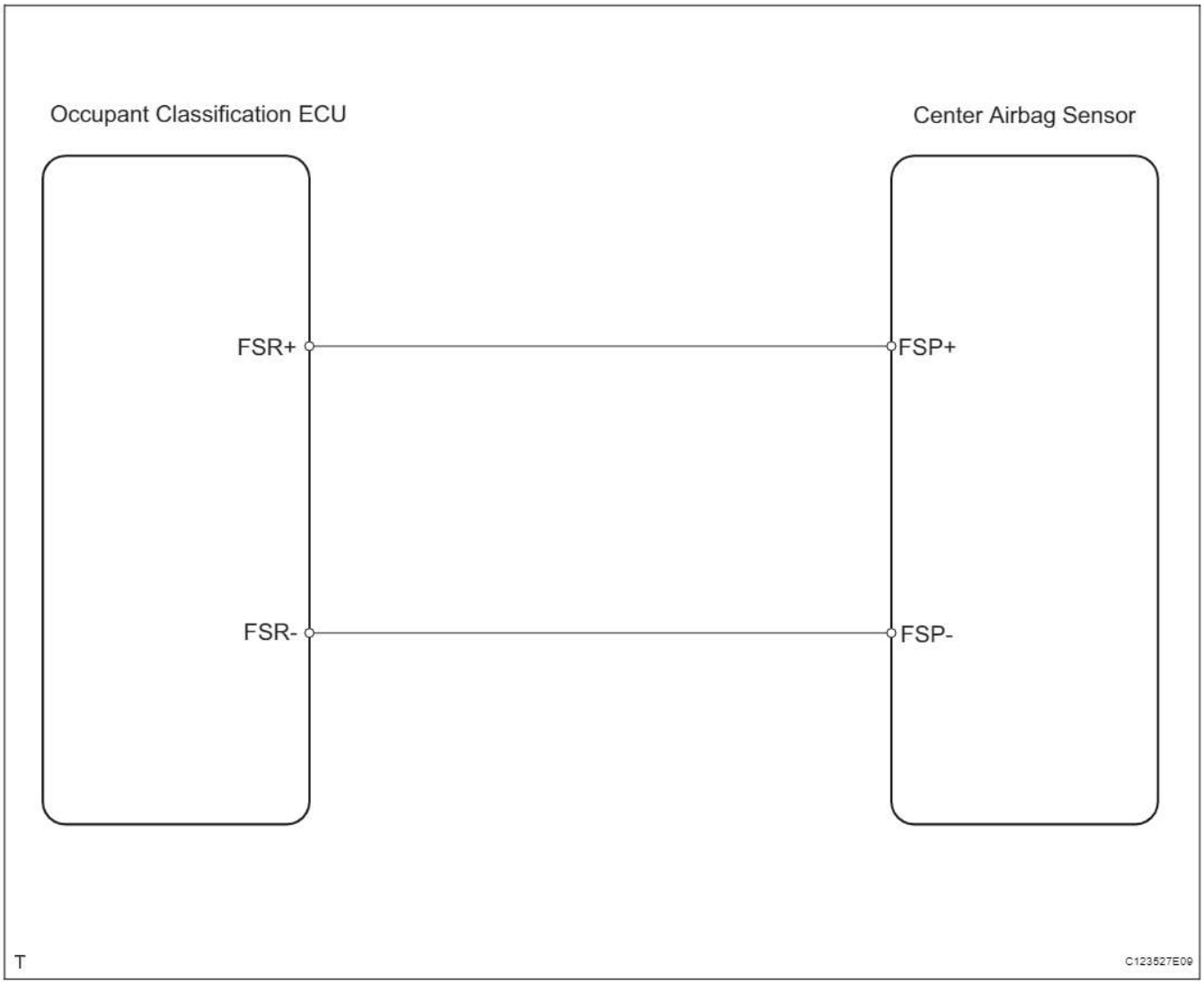
RS

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.

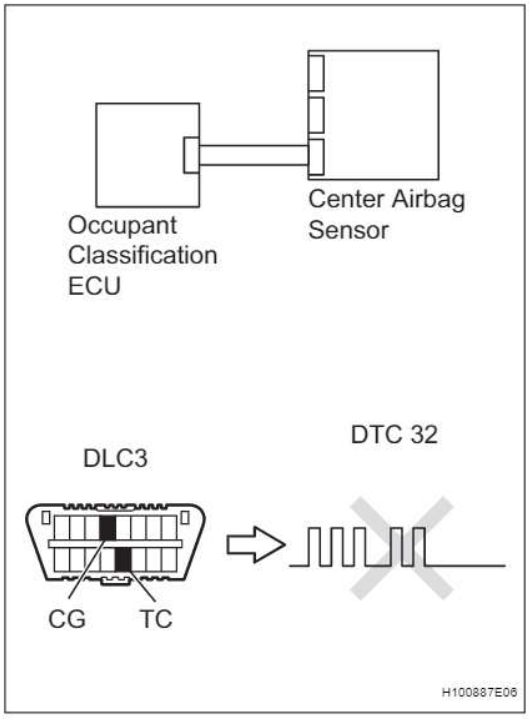
DTC No.	DTC Detection Conditions	Trouble Areas
B1650/32	When one of following conditions is met: • Occupant classification system malfunction • Center airbag sensor detects line short signal, open signal, short to ground signal or short to B+ signal from occupant classification system circuit for 2 seconds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

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK DTC (CENTER AIRBAG SENSOR ASSEMBLY)



(a) Turn the power switch ON (IG), and wait for at least 60 seconds.
(b) Clear the DTCs (see page RS-38).
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG), and wait for at least 60 seconds.
(e) Check for DTCs (see page RS-38).

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

2 CHECK DTC (OCCUPANT CLASSIFICATION ECU)

(a) Turn the power switch ON (IG), and wait for at least 10 seconds.
(b) Using the intelligent tester (with CAN VIM), check for DTCs of the occupant classification ECU (see page RS-182).

OK:

DTC is not output.

NG → **GO TO DTC CHART**

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:

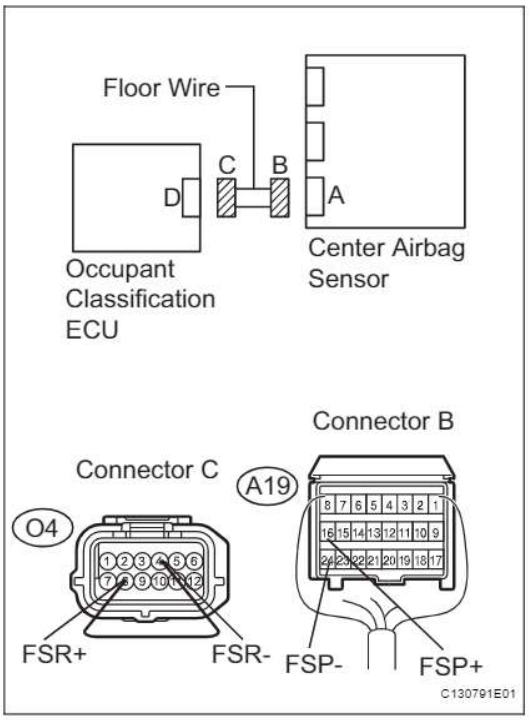
Connectors are connected.

NG → CONNECT CONNECTOR

OK

RS

4	CHECK FLOOR WIRE (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.

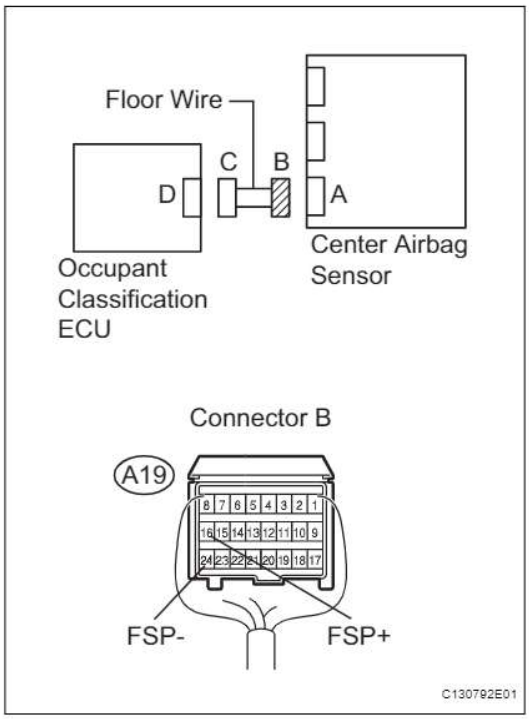
Standard resistance

Terminal Connection	Specified Condition
A19-16 (FSP+) - A19-24 (FSP-)	Below 1 Ω

NG → REPAIR OR REPLACE FLOOR WIRE

OK

5 CHECK FLOOR WIRE (SHORT)



(a) Disconnect the service wire from connector C.
(b) Measure the resistance of the wire harness side connector.

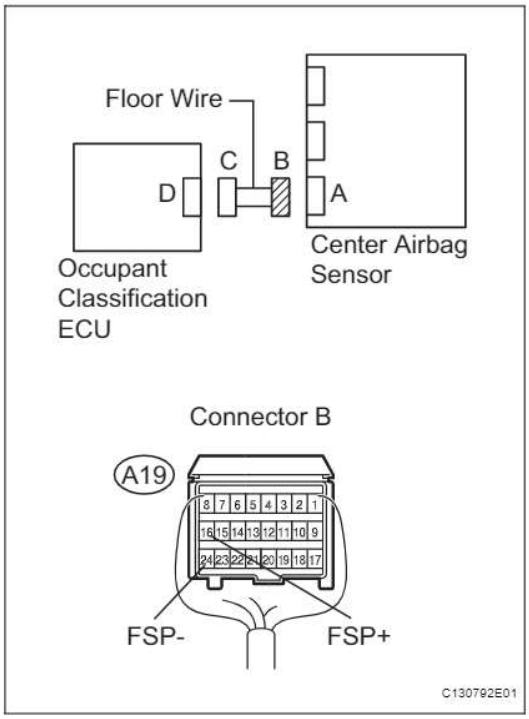
Standard resistance

Terminal Connection	Specified Condition
A19-16 (FSP+) - A19-24 (FSP-)	1 MΩ or higher

NG → REPAIR OR REPLACE FLOOR WIRE

OK

6 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

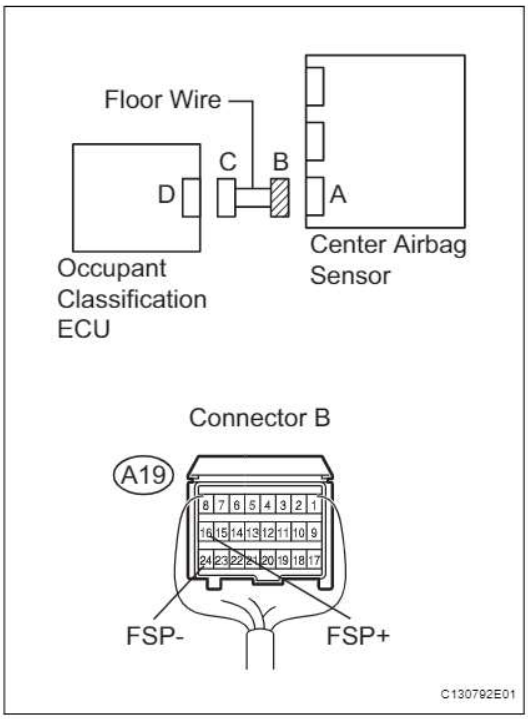
Terminal Connection	Specified Condition
A19-16 (FSP+) - Body ground	Below 1 V
A19-24 (FSP-) - Body ground	Below 1 V

NG → REPAIR OR REPLACE FLOOR WIRE

OK

RS

7 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.

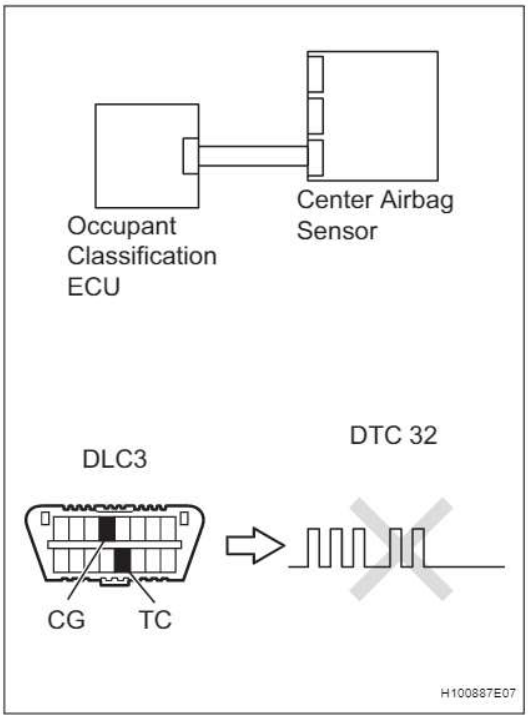
Standard resistance

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**

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 (see page RS-306).
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.
(f) Turn the power switch ON (IG), and wait for at least 60 seconds.
(g) Clear the DTCs (see page RS-38).
(h) Turn the power switch OFF.
(i) Turn the power switch ON (IG), and wait for at least 60 seconds.
(j) Check for DTCs (see page RS-38).

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 (see page SE-4).

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 intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed on the tester.

NEXT

11	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

DTC	B1653/35	Seat Position Airbag Sensor Circuit Malfunction

DESCRIPTION

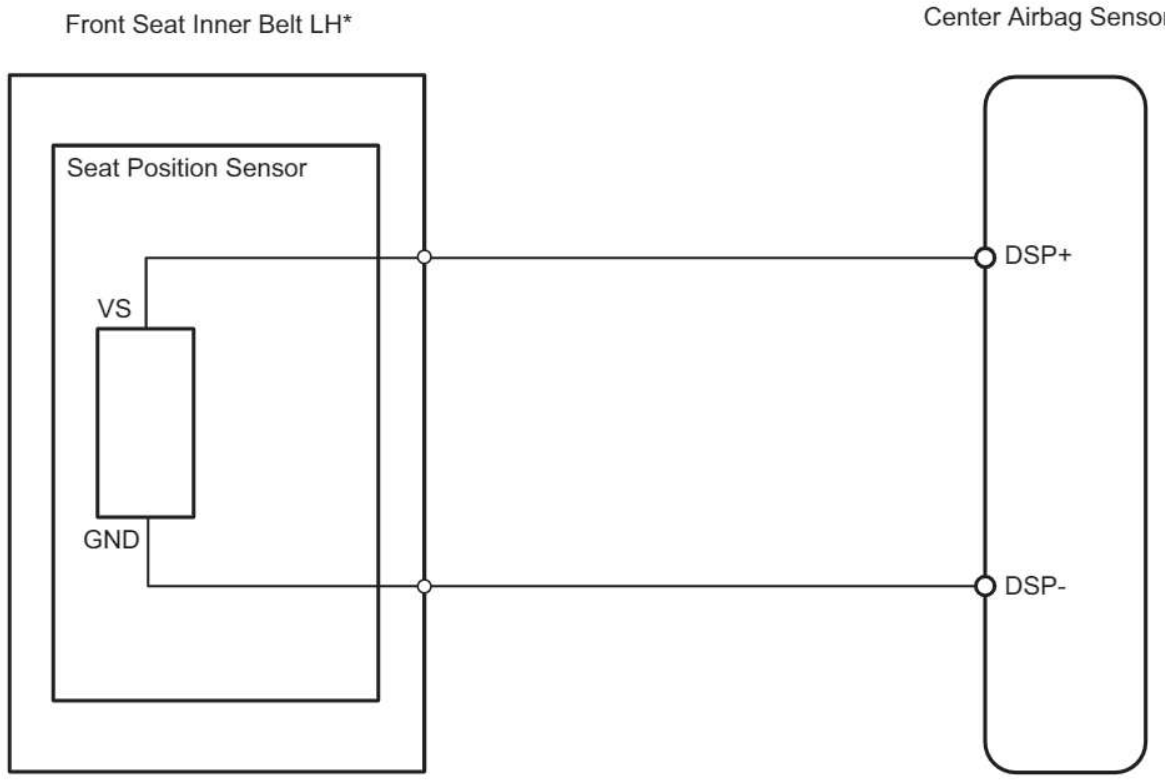
RS

The seat position airbag sensor circuit consists of the center airbag sensor 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 Detection Condition	Trouble Area
B1653/35	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 seat position airbag sensor for 2 seconds. • Seat position airbag sensor malfunction • Center airbag sensor malfunction	• Floor wire • Seat position airbag sensor • Center airbag sensor

WIRING DIAGRAM

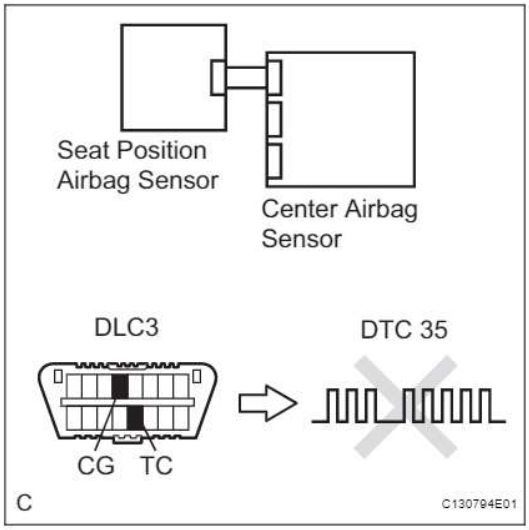


*: A wire harness and connectors that are connected to the seat position sensor are component parts of the seat inner belt LH.

P C123584E05

INSPECTION PROCEDURE

1	CHECK FOR DTC



(a) Turn the power switch ON (IG), and wait for at least 60 seconds.
(b) Clear the DTCs (see page RS-38).
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG), and wait for at least 60 seconds.
(e) Check the DTCs (see page RS-38).

OK:

DTC B1653/35 is not output.

HINT:

DTCs other than DTC B1653/35 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 seat position airbag sensor.

OK:

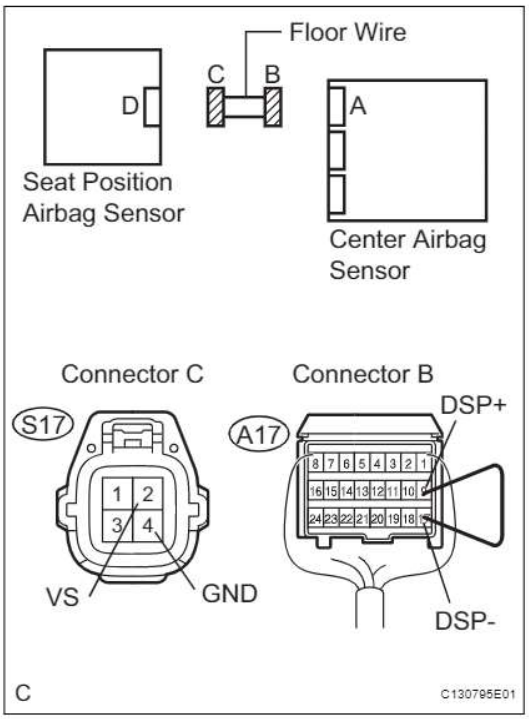
Connectors are connected.

NG → **CONNECT CONNECTOR**

OK

RS

3 CHECK FLOOR WIRE (OPEN)



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

(b) Using a service wire, connect terminals A17-9 (DSP+) and A17-17 (DSP-) 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.

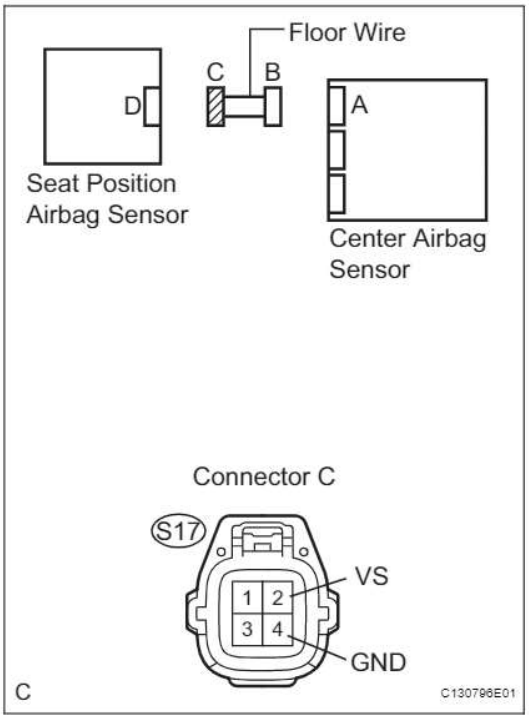
Standard resistance

Tester Connection	Specified Condition
S17-2 (VS) - S17-4 (GND)	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.

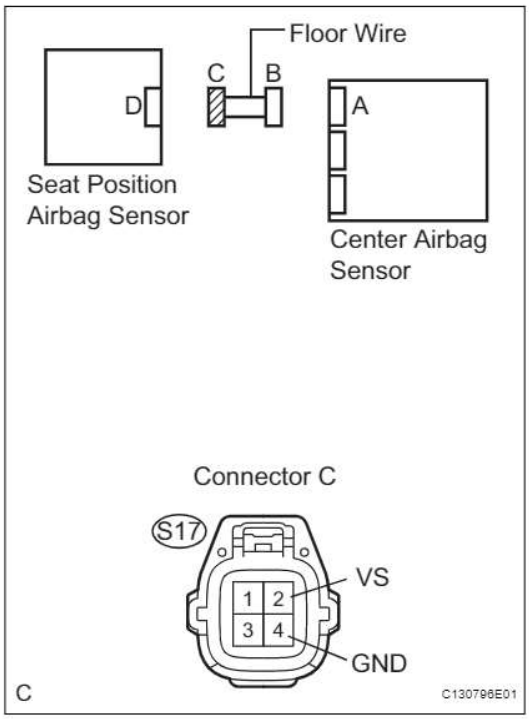
Standard resistance

Tester Connection	Specified Condition
S17-2 (VS) - S17-4 (GND)	1 MΩ or higher

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

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.

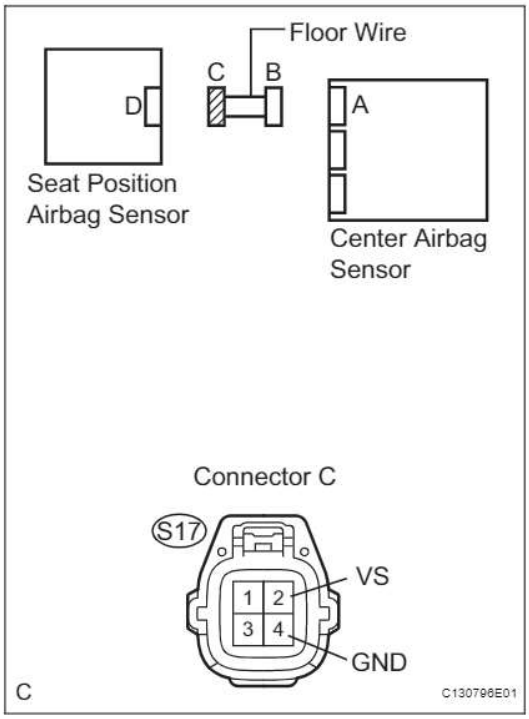
Standard voltage

Tester Connection	Specified Condition
S17-2 (VS) - Body ground	Below 1 V
S17-4 (GND) - 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

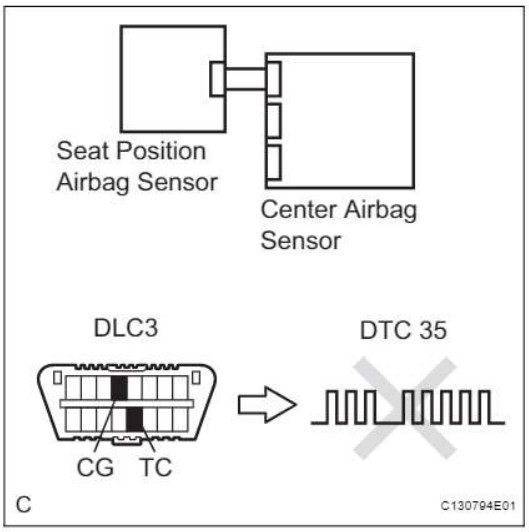
Tester Connection	Specified Condition
S17-2 (VS) - Body ground	1 MΩ or higher
S17-4 (GND) - Body ground	1 MΩ or higher

NG → REPAIR OR REPLACE FLOOR WIRE

OK

RS

7	CHECK SEAT POSITION AIRBAG SENSOR



(a) Connect the connectors to the center airbag sensor and the seat position 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), and wait for at least 60 seconds.
(d) Clear the DTCs (see page RS-38).
(e) Turn the power switch OFF.
(f) Turn the power switch ON (IG), and wait for at least 60 seconds.
(g) Check the DTCs (see page RS-38).
OK:
DTC B1653/35 is not output.
HINT:
DTCs other than DTC B1653/35 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

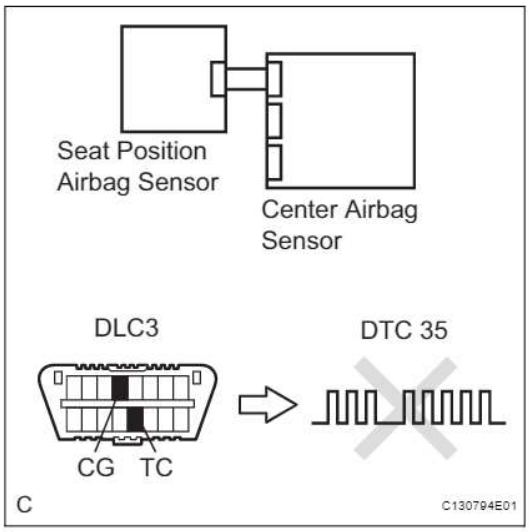
NG

8	REPLACE SEAT POSITION AIRBAG SENSOR

(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 seat position airbag sensor (see page RS-319).
HINT:
Perform inspection using parts from a normal vehicle if possible.

NEXT

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 (see page RS-38).
(d) Turn the power switch OFF.
(e) Turn the power switch ON (IG), and wait for at least 60 seconds.
(f) Check the DTCs (see page RS-38).

OK:

DTC B1653/35 is not output.

HINT:

DTCs 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 →

USE SIMULATION METHOD TO CHECK

RS

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

DESCRIPTION

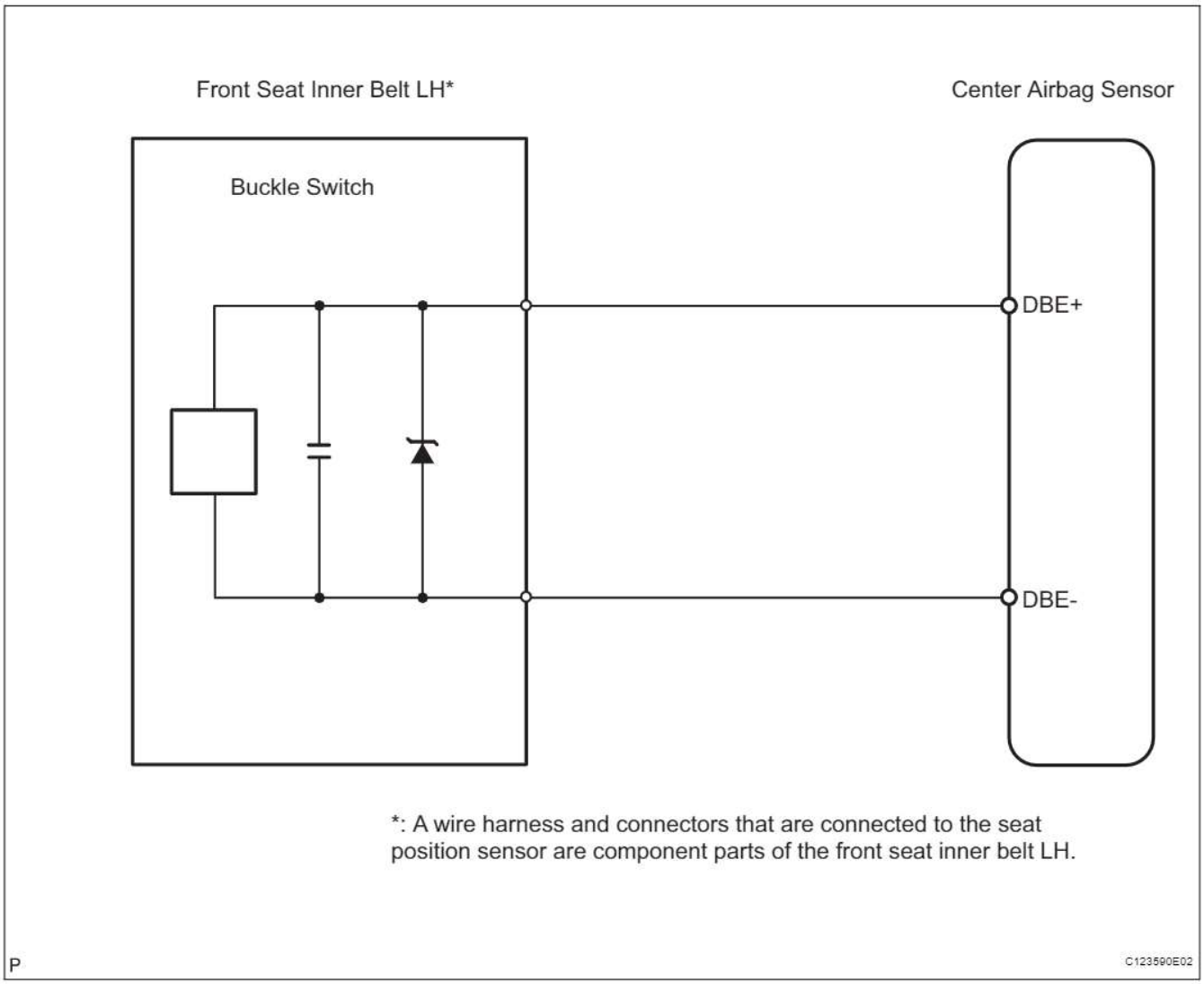
RS

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.

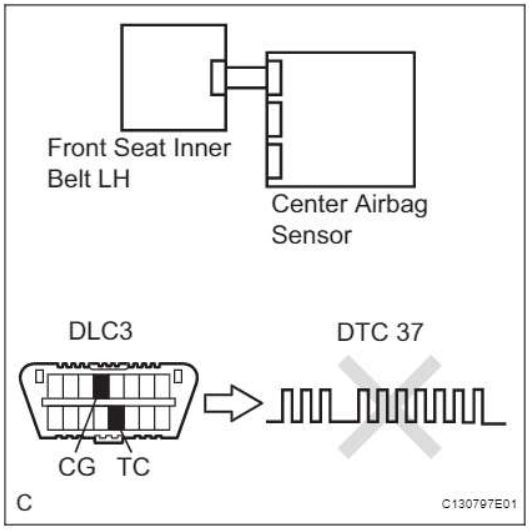
DTC No.	DTC Detection Condition	Trouble Area
B1655/37	When one of following conditions is met: • Center airbag sensor receives a line short signal, an open signal, a short to ground signal or a short to B+ signal from the driver side seat belt buckle switch sensor for 2 seconds. • Front seat inner belt 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

1	CHECK FOR DTC



(a) Turn the power switch ON (IG), and wait for at least 60 seconds.
(b) Clear the DTCs (see page RS-38).
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG), and wait for at least 60 seconds.
(e) Check the DTCs (see page RS-38).

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:

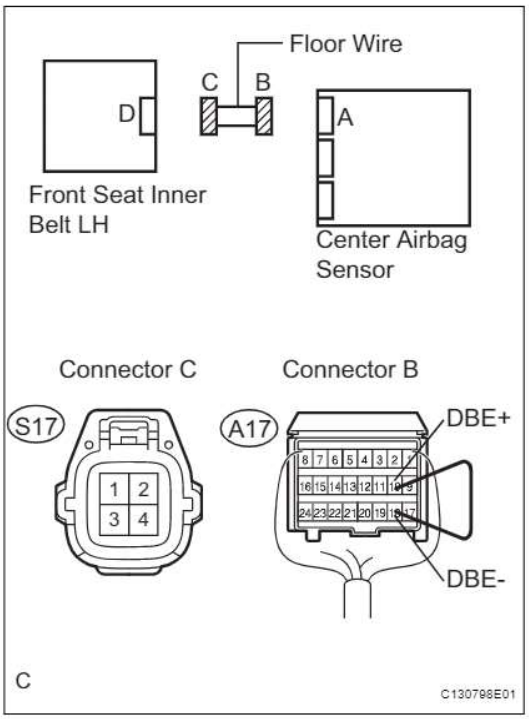
Connectors are connected.

NG → **CONNECT CONNECTOR**

OK

RS

3 CHECK FLOOR WIRE (OPEN)



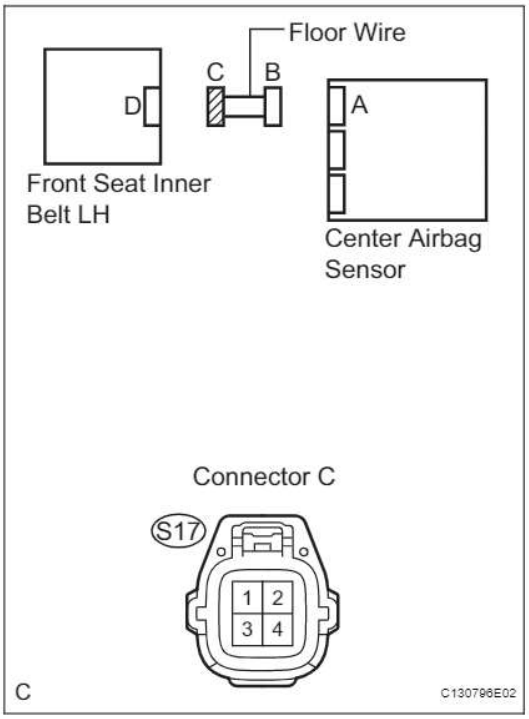
(a) Disconnect the connectors from the center airbag sensor and the front seat inner belt LH.
(b) Using a service wire, connect terminals A17-10 (DBE+) and A17-18 (DBE-) of connector B.
NOTICE:
Do not forcibly insert a service wire into the terminals of the connector.
(c) Measure the resistance of the 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)



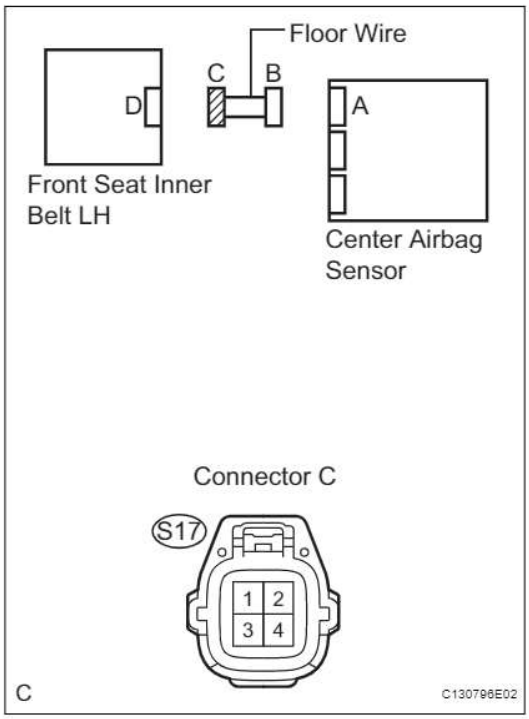
(a) Disconnect the service wire from connector B.
(b) Measure the resistance of the wire harness side connector.
Standard resistance

Tester Connection	Specified Condition
S17-1 - S17-3	1 MΩ or higher

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

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.

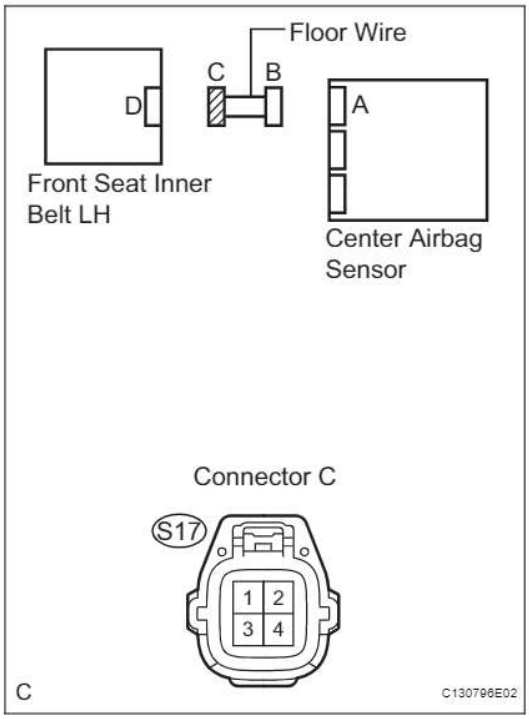
Standard voltage

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

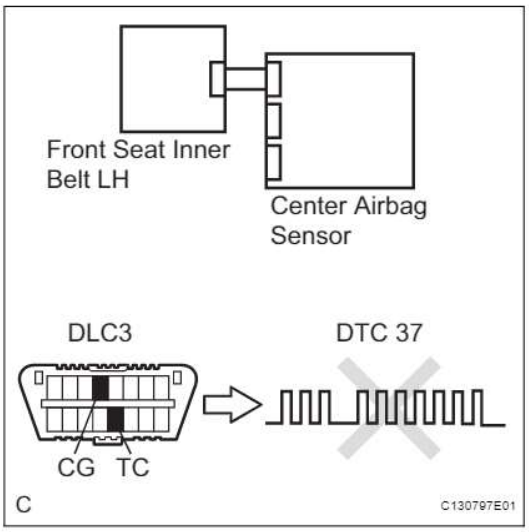
Tester connection	Specified condition
S17-1 - Body ground	1 MΩ or higher
S17-3 - Body ground	1 MΩ or higher

NG → REPAIR OR REPLACE FLOOR WIRE

OK

RS

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 (see page RS-38).
(e) Turn the power switch OFF.
(f) Turn the power switch ON (IG), and wait for at least 60 seconds.
(g) Check the DTCs (see page RS-38).
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**

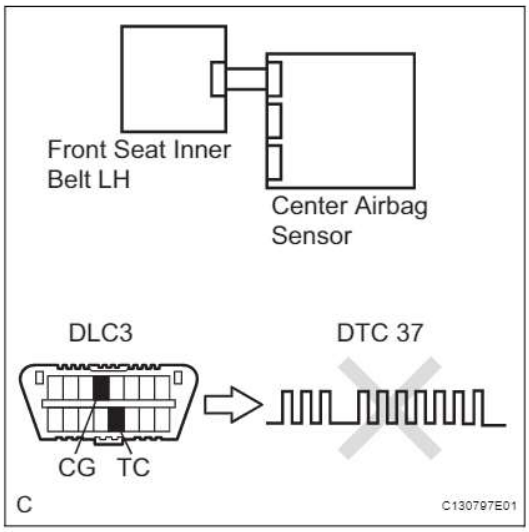
NG

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 (see page SB-5).
HINT:
Perform inspection using parts from a normal vehicle if possible.

NEXT

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 (see page RS-38).
(d) Turn the power switch OFF.
(e) Turn the power switch ON (IG), and wait for at least 60 seconds.
(f) Check the DTCs (see page RS-38).

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

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

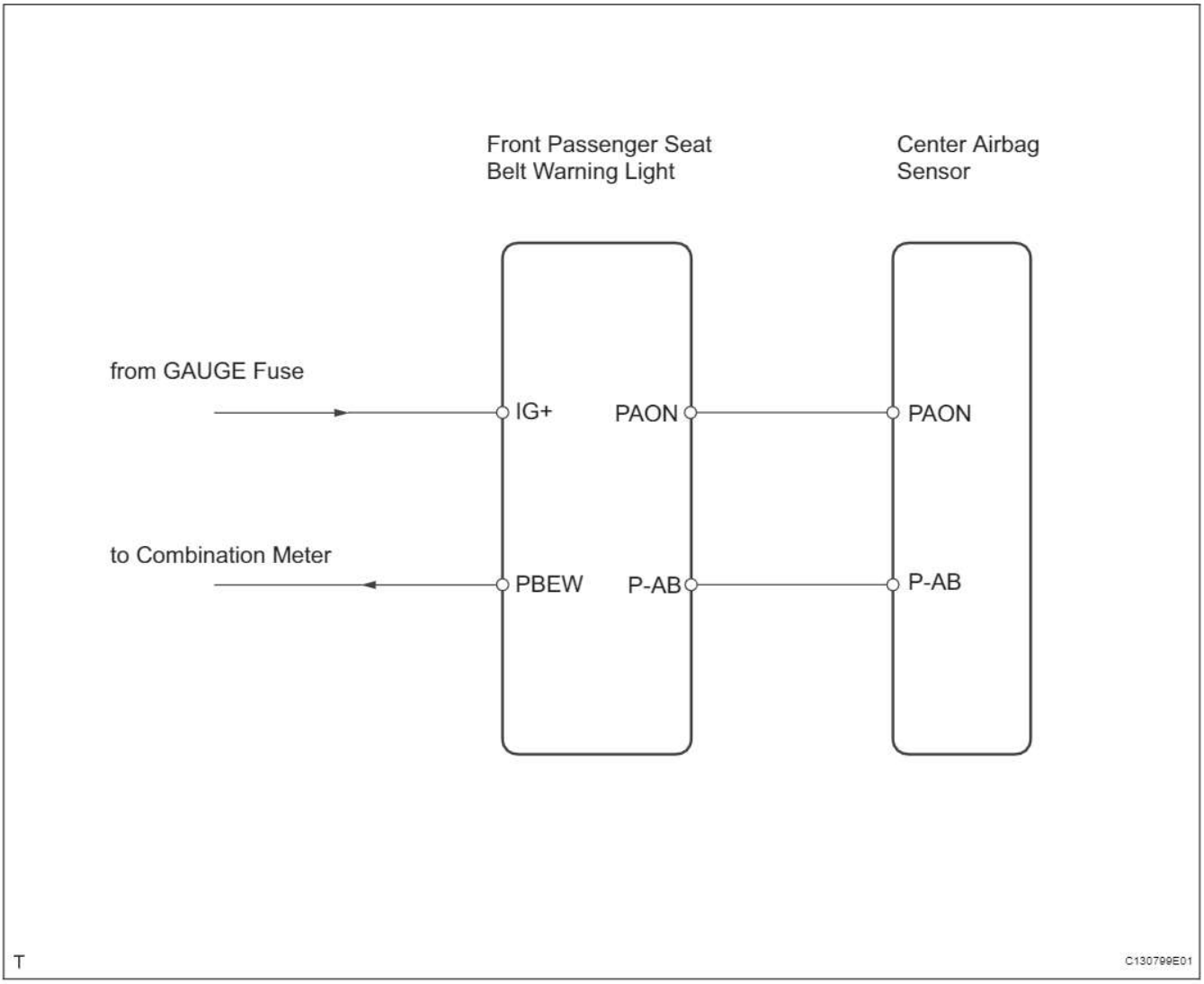
DESCRIPTION

RS

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

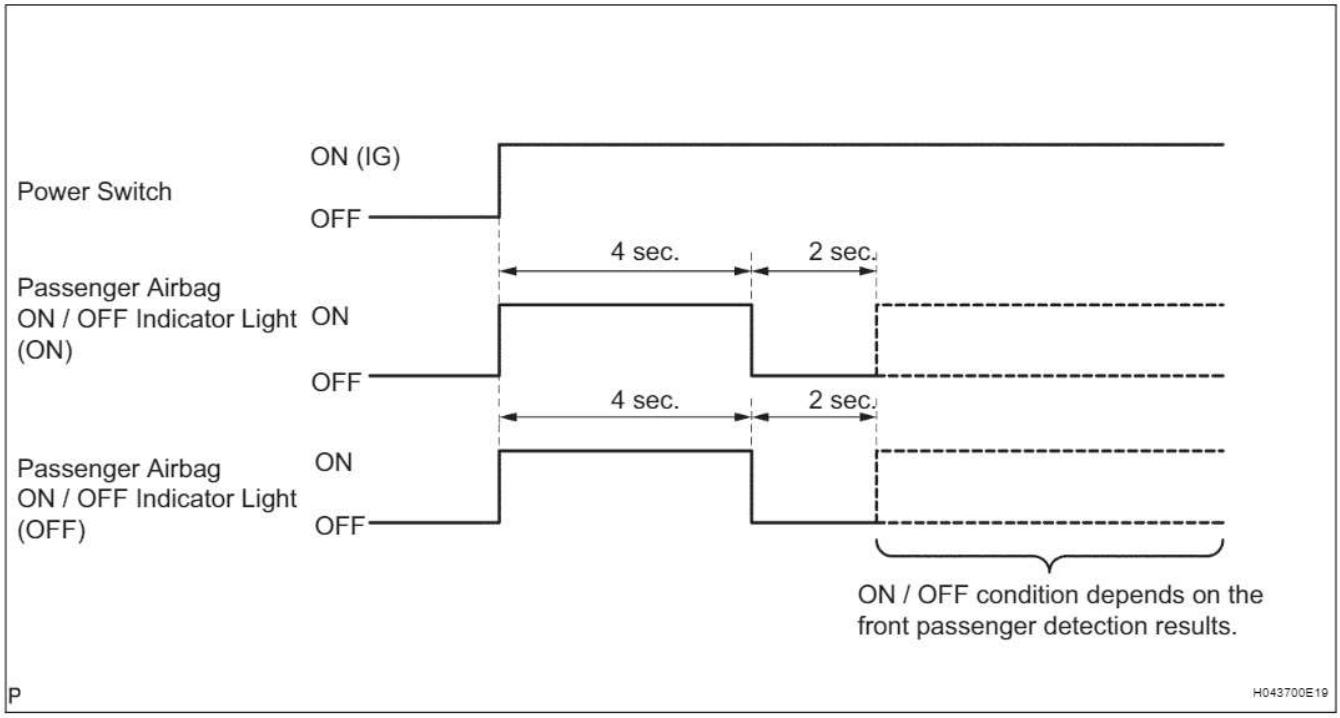
WIRING DIAGRAM



INSPECTION 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 → Go to step 8

A

2	CHECK CONNECTION OF CONNECTOR

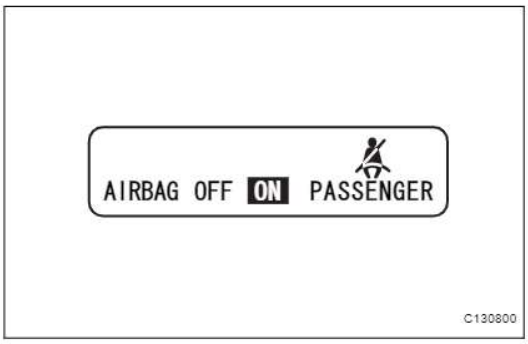
(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Check that the connectors are properly connected to the center airbag sensor and the front passenger seat belt warning light.
OK:
Connectors are connected.

NG → CONNECT CONNECTOR

OK

RS

3	CHECK FRONT PASSENGER AIRBAG ON/OFF INDICATOR LIGHT

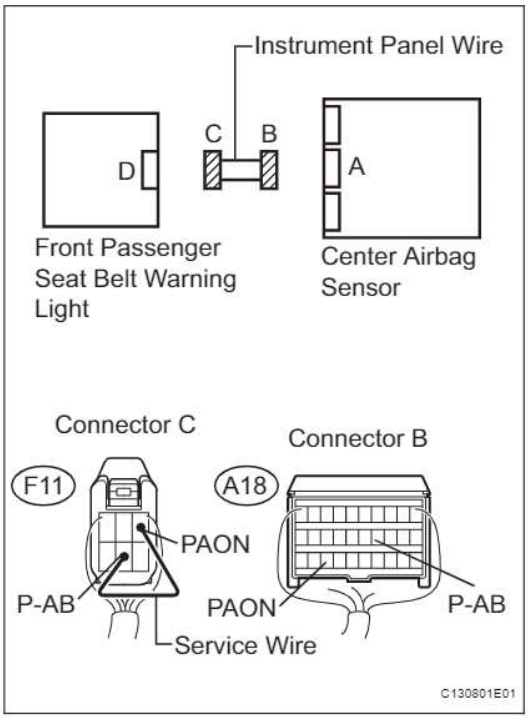


(a) Disconnect the connector from the center airbag sensor.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the power switch ON (IG).
(d) Check the passenger airbag ON / OFF indicator operation.
OK:
Neither ON nor OFF passenger airbag ON / OFF indicator comes on.

OK → **Go to step 14**

NG

4	CHECK INSTRUMENT PANEL WIRE (OPEN)



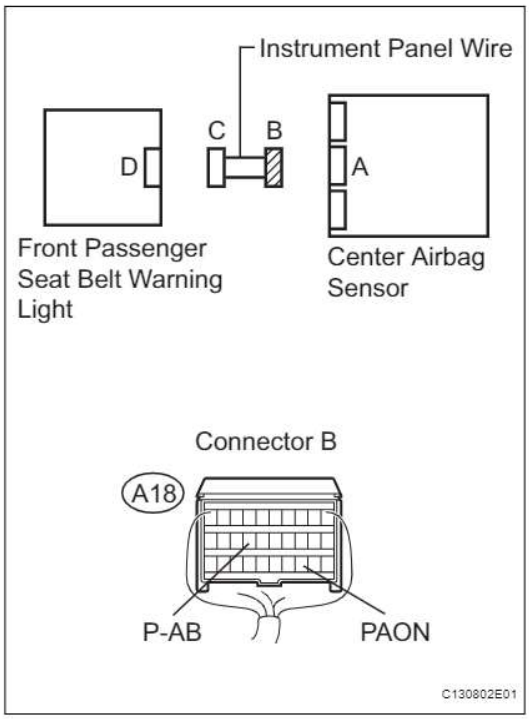
(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect the connector from the front passenger seat belt warning light.
(d) Using a service wire, connect terminals F11-1 (PAON) and F11-5 (P-AB) of connector C.
NOTICE:
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.

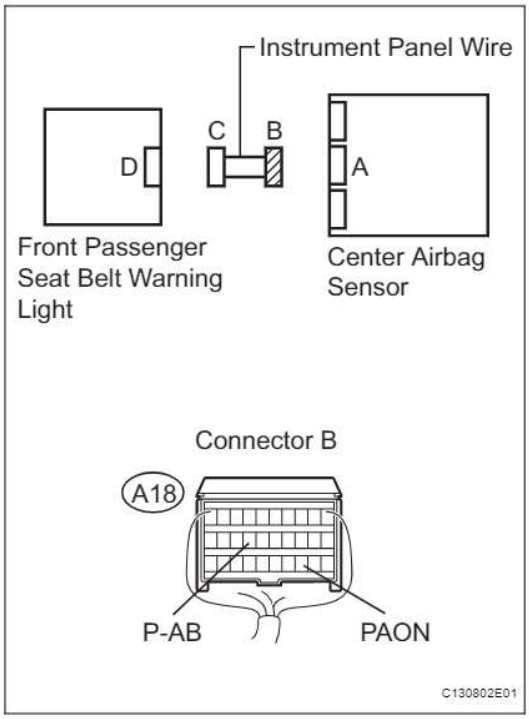
Standard resistance

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.
(b) Turn the power switch ON (IG).
(c) Measure the voltage of the wire harness side connector.

Standard voltage

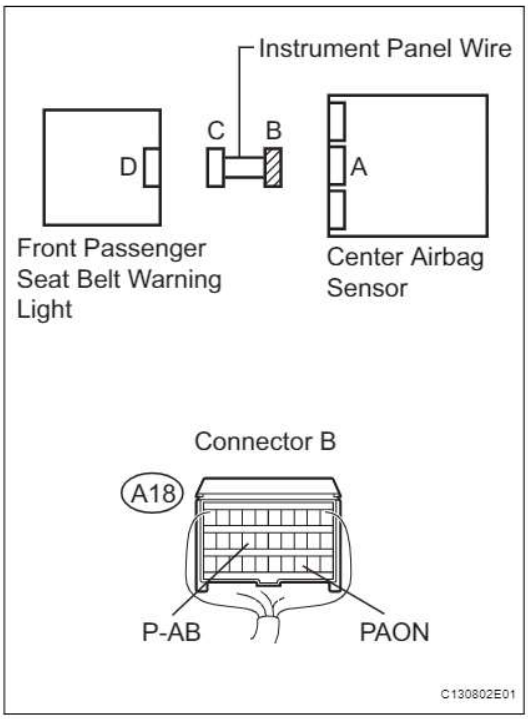
Terminal Connection	Specified Condition
A18-23 (PAON) - Body ground	Below 1 V
A18-17 (P-AB) - Body ground	Below 1 V

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

OK

RS

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

(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:

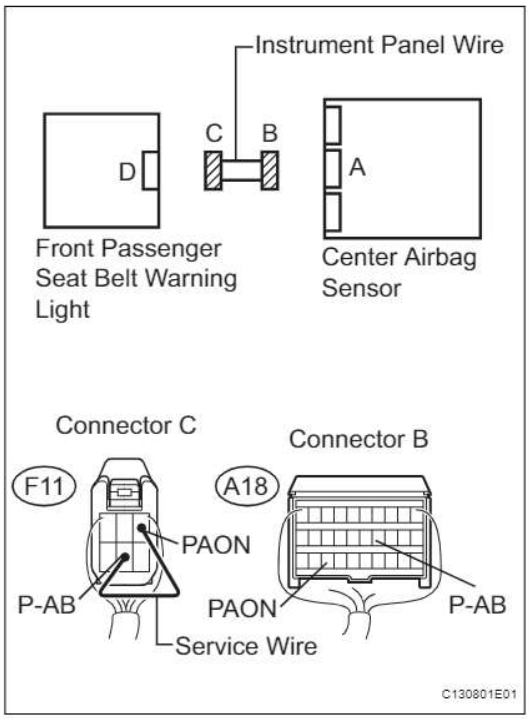
Connectors are connected.

NG → **CONNECT CONNECTOR**

OK

RS

9 CHECK INSTRUMENT PANEL WIRE (OPEN)



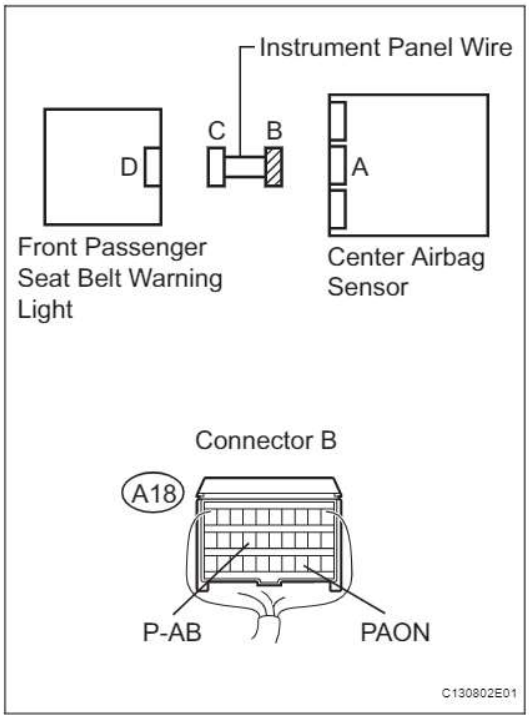
(a) Disconnect the connector from the center airbag sensor and the front passenger seat belt warning light.
(b) Using a service wire, connect terminals F11-1 (PAON) and F11-5 (P-AB) of connector C.
NOTICE:
Do not forcibly insert a service wire into the terminals of the connector.
(c) Measure the resistance 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.
(b) Measure the resistance of the wire harness side connector.
Standard resistance

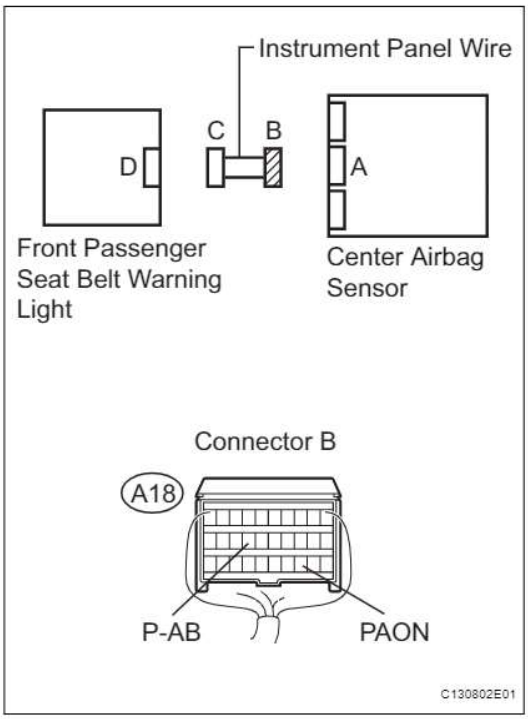
Terminal Connection	Specified Condition
A18-17 (P-AB) - A18-23 (PAON)	1 MΩ or higher

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

OK

RS

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.

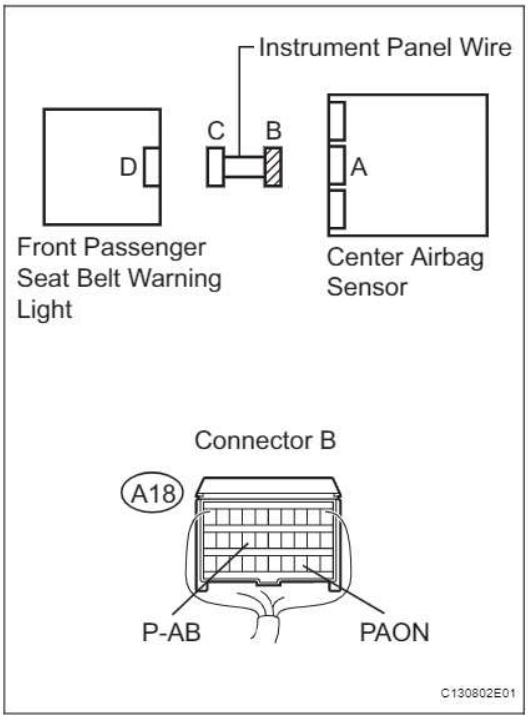
Standard voltage

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.
(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.

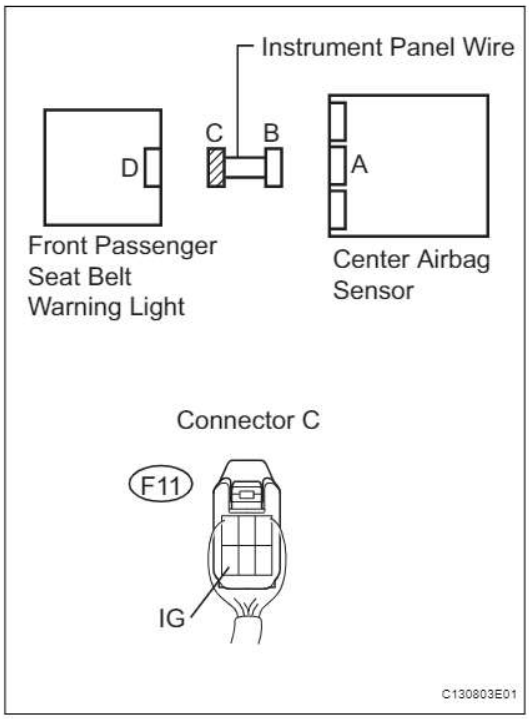
Standard resistance

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.

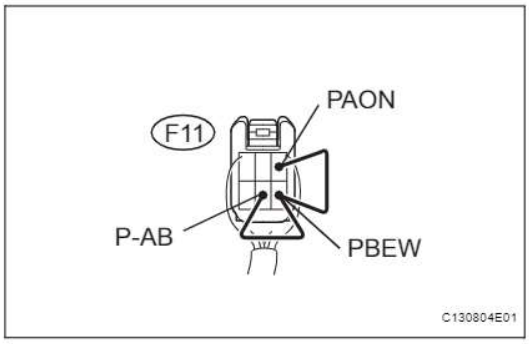
Standard voltage

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.
(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:

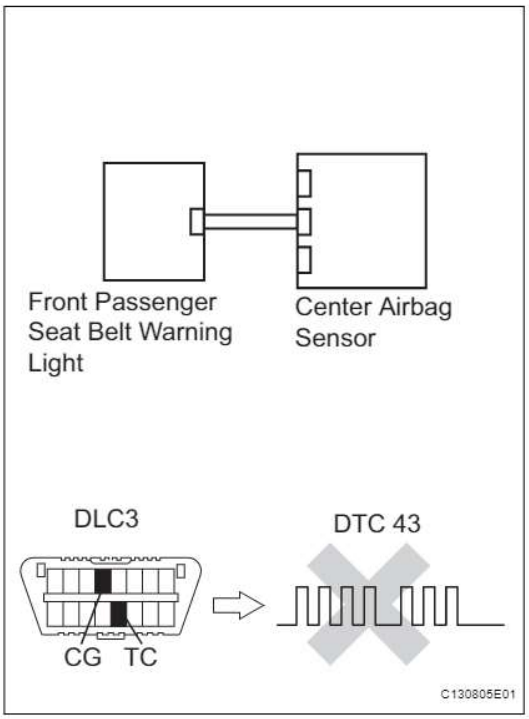
Front passenger airbag ON / OFF indicator comes on

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

OK

RS

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 (see page RS-38).
(g) Turn the power switch OFF.
(h) Turn the power switch ON (IG), and wait for at least 60 seconds.
(i) Check for DTCs (see page RS-38).

OK:

DTC B1660/43 is not output.

HINT:

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

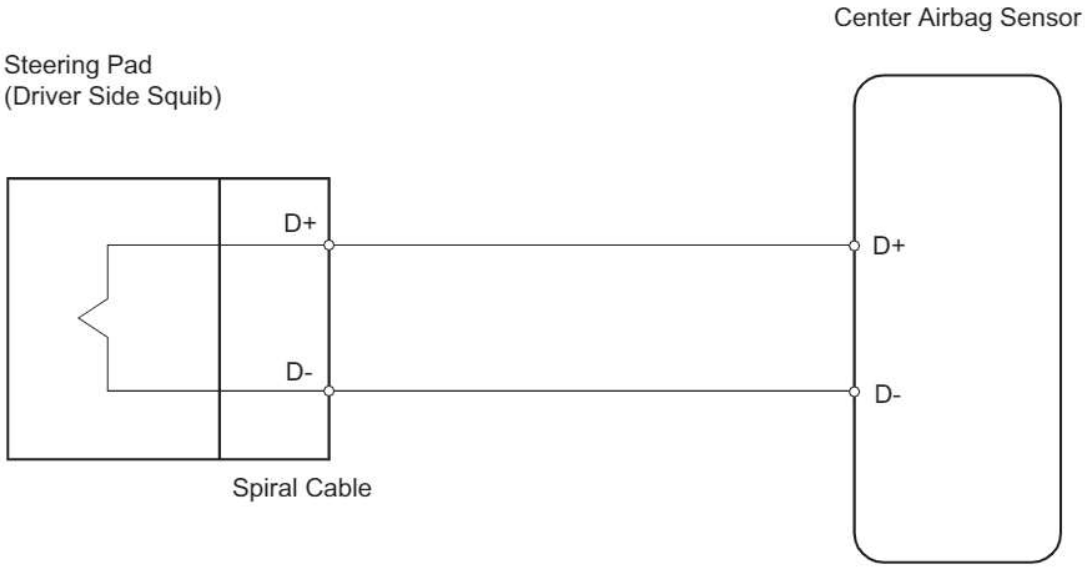
DTC	B1800/51	Short in Driver Side Squib Circuit
DTC	B1801/51	Open in Driver Side Squib Circuit
DTC	B1802/51	Short to GND in Driver Side Squib Circuit
DTC	B1803/51	Short to B+ in Driver Side Squib Circuit

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



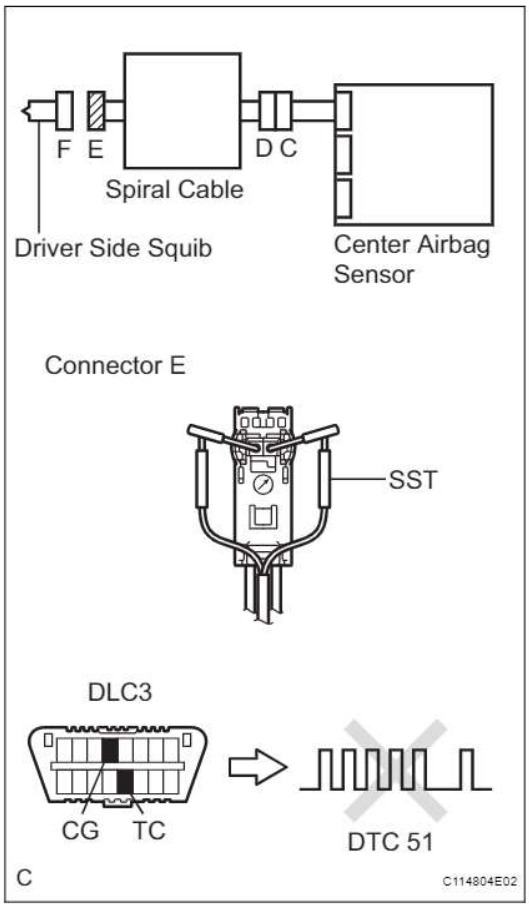
T H101253E04

INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the intelligent tester (see page RS-41).
- 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 (see page RS-41).

1	CHECK STEERING PAD (DRIVER SIDE 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 steering pad.
(d) Connect the white wire side of SST to connector E.

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 09843-18060

(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 (see page RS-38).
(h) Turn the power switch OFF.
(i) Turn the power switch ON (IG), and wait for at least 60 seconds.
(j) Check the DTCs (see page RS-38).

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

(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.

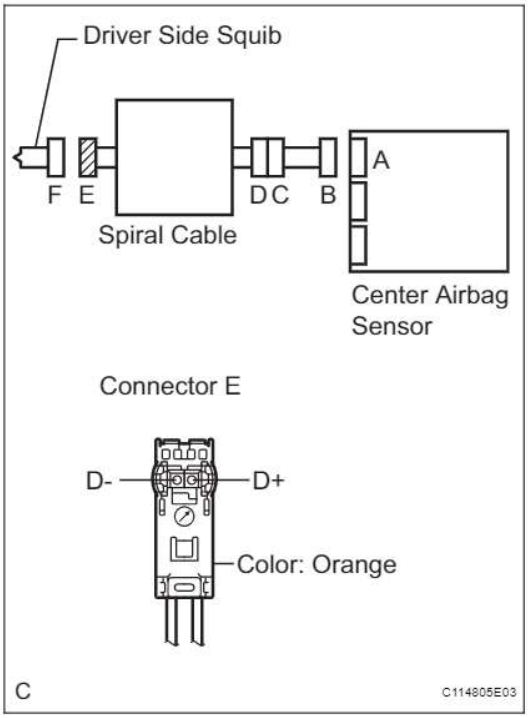
OK:
Lock button is not disengaged, and claw of lock is not deformed or damaged.

NG → **REPLACE SPIRAL CABLE**

OK

3	CHECK DRIVER SIDE SQUIB CIRCUIT

RS



(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

(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 (see page RS-31).
(i) Measure the resistance of the wire harness side connector.

Standard resistance

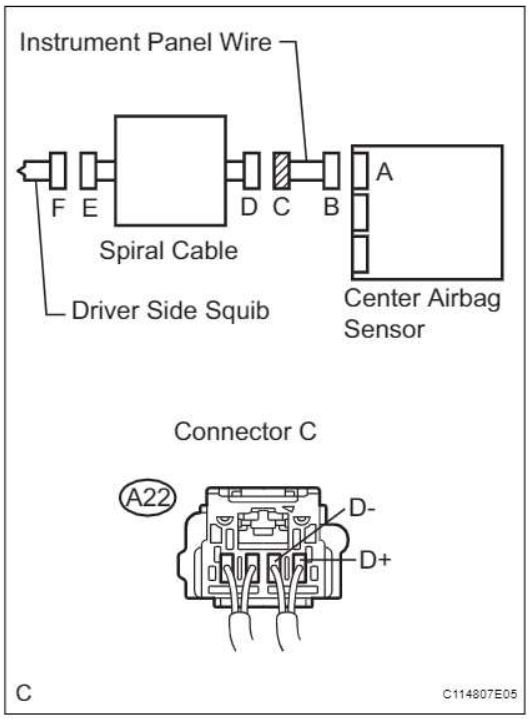
Tester Connection	Specified Condition
D+ - D-	1 MΩ or higher

OK → REPLACE CENTER AIRBAG SENSOR ASSEMBLY

NG

RS

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
A22-1 (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 (see page RS-31).
(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

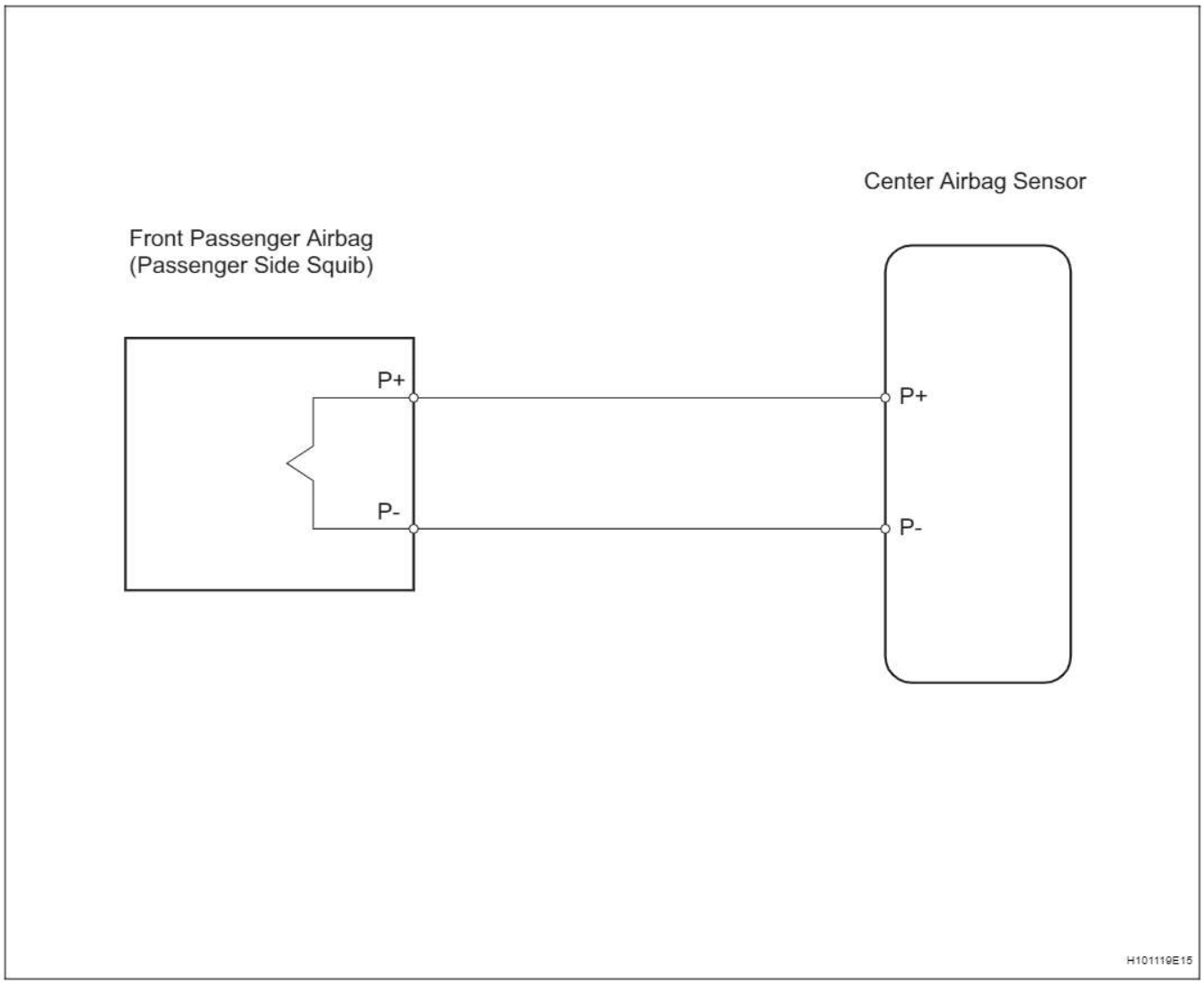
DTC	B1805/52	Short in Front Passenger Side Squib Circuit
DTC	B1806/52	Open in Front Passenger Side Squib Circuit
DTC	B1807/52	Short to GND in Front Passenger Side Squib Circuit
DTC	B1808/52	Short to B+ in Front Passenger Side Squib Circuit

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 • No. 2 instrument panel wire • 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 • No. 2 instrument panel wire • 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 • No. 2 instrument panel wire • 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 • No. 2 instrument panel wire • Front passenger airbag (Front passenger side squib) • Center airbag sensor

WIRING DIAGRAM



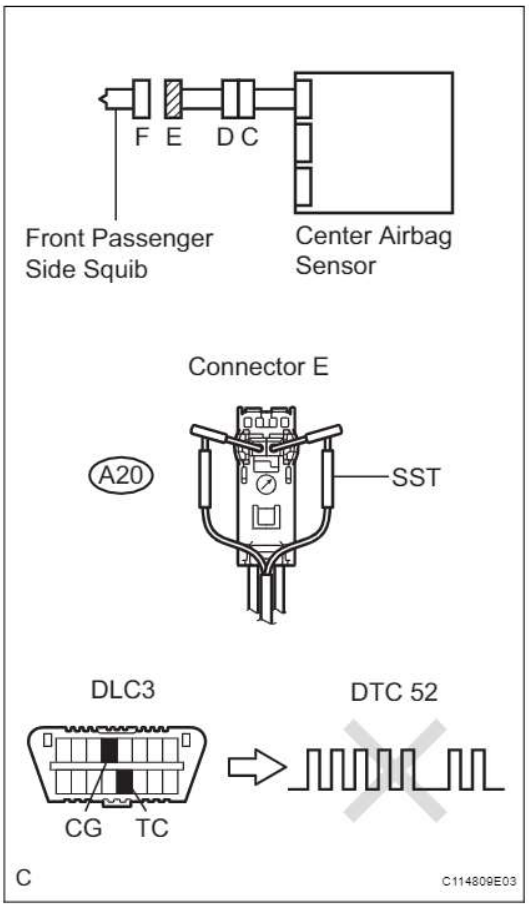
INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the intelligent tester (see page RS-41).
- 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 (see page RS-41).

RS

1	CHECK FRONT PASSENGER AIRBAG ASSEMBLY (FRONT PASSENGER SIDE 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 passenger airbag.
(d) Connect the white wire side of SST (resistance 2.1 Ω) to the instrument panel wire connector E.

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 09843-18060

(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 (see page RS-38).
(h) Turn the power switch OFF.
(i) Turn the power switch ON (IG), and wait for at least 60 seconds.
(j) Check the DTCs (see page RS-38).

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

2	CHECK CONNECTOR

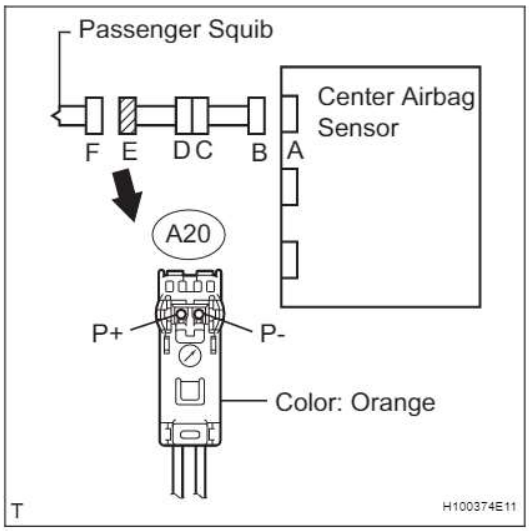
(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect SST from the instrument panel wire.
(d) Check that the instrument panel wire connectors (on the front passenger side airbag) are not damaged.

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

NG → REPLACE INSTRUMENT PANEL WIRE

OK

3 CHECK INSTRUMENT PANEL WIRE (FRONT PASSENGER SIDE SQUIB)



(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
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 (see page RS-31).
(i) Measure the resistance of the wire harness side connector.

Standard resistance

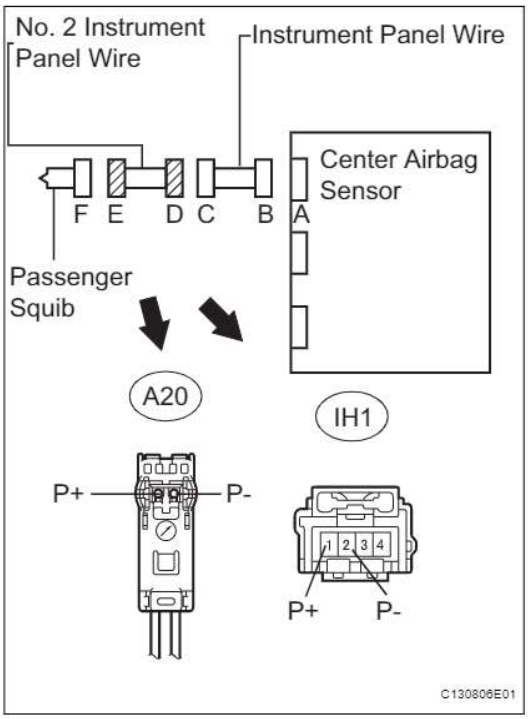
Tester Connection	Specified Condition
A20-1 (P+) - A20-2 (P-)	1 MΩ or higher

OK → REPLACE CENTER AIRBAG SENSOR ASSEMBLY

NG

RS

4	CHECK NO. 2 INSTRUMENT PANEL WIRE



(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
A20-1 (P+) - Body ground	Below 1 V
A20-2 (P-) - 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
A20-2 (P-) - IH1-2	Below 1 Ω
A20-1 (P+) - IH1-1	Below 1 Ω
A20-2 (P-) - A20-1 (P+)	1 MΩ or higher
A20-2 (P-) - Body ground	1 MΩ or higher
A20-1 (P+) - Body ground	1 MΩ or higher

NG → REPAIR OR REPLACE NO. 2 INSTRUMENT PANEL WIRE

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

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

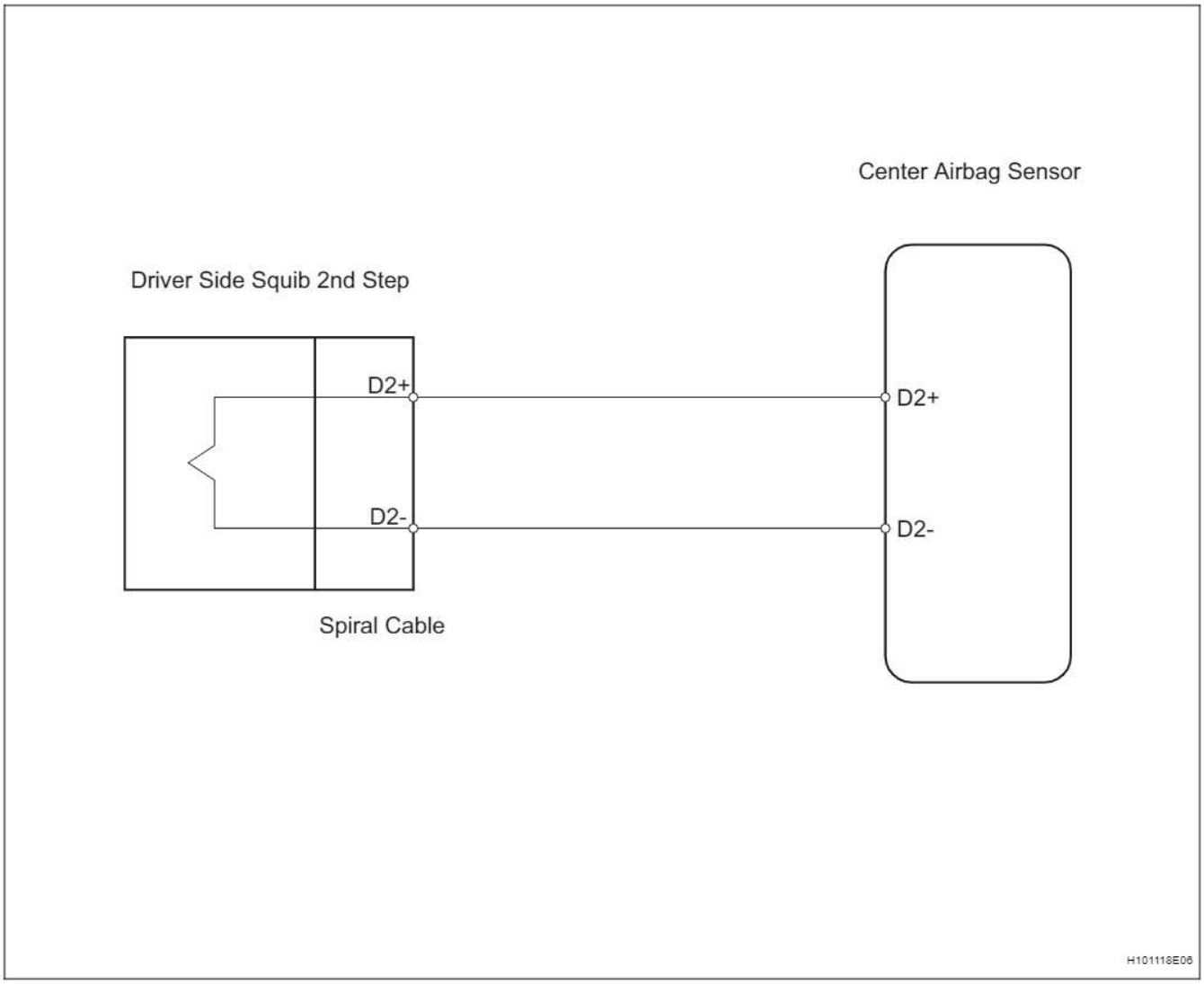
DESCRIPTION

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

RS

WIRING DIAGRAM

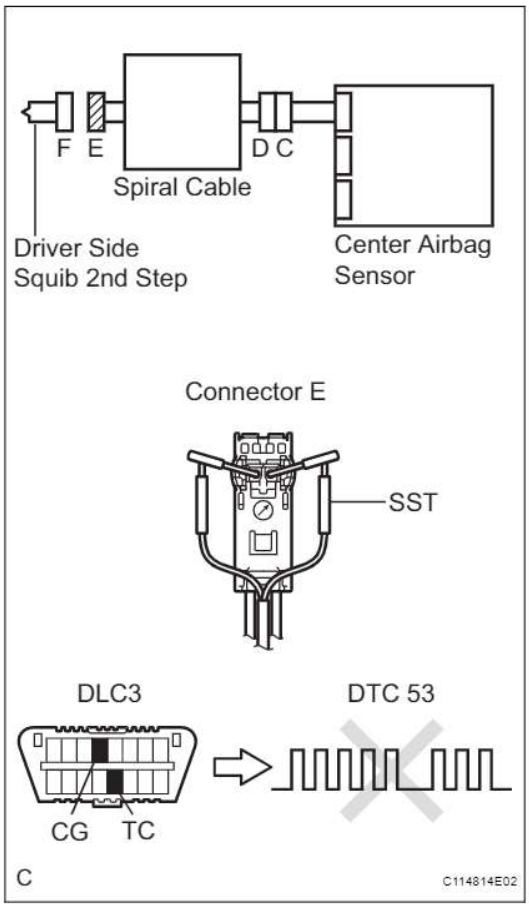


INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the intelligent tester (see page RS-41).
- 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 (see page RS-41).

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 the white wire side of SST to the spiral cable connector E.

CAUTION:
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 09843-18060

(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 (see page RS-38).
(h) Turn the power switch OFF.
(i) Turn the power switch ON (IG), and wait for at least 60 seconds.
(j) Check the DTCs (see page RS-38).

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.

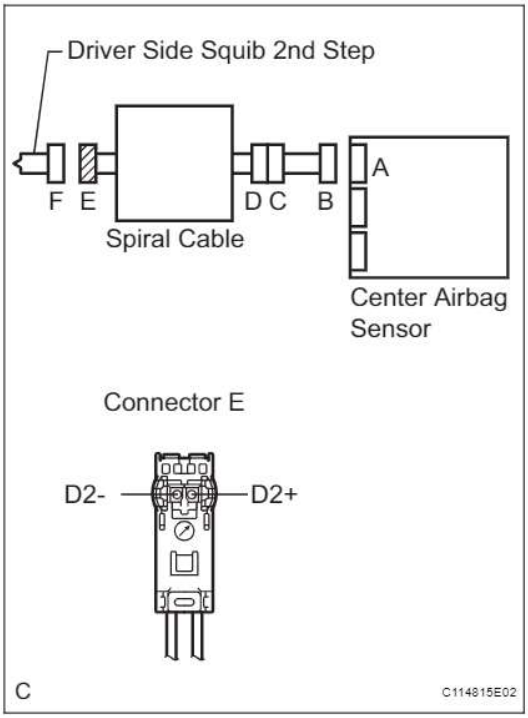
OK:
Lock button is not disengaged, and claw of lock is not deformed or damaged.

NG → **REPLACE SPIRAL CABLE**

OK

3	CHECK DRIVER SIDE SQUIB 2ND STEP CIRCUIT

RS



(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 (see page RS-31).
(i) Measure the resistance of the wire harness side connector.

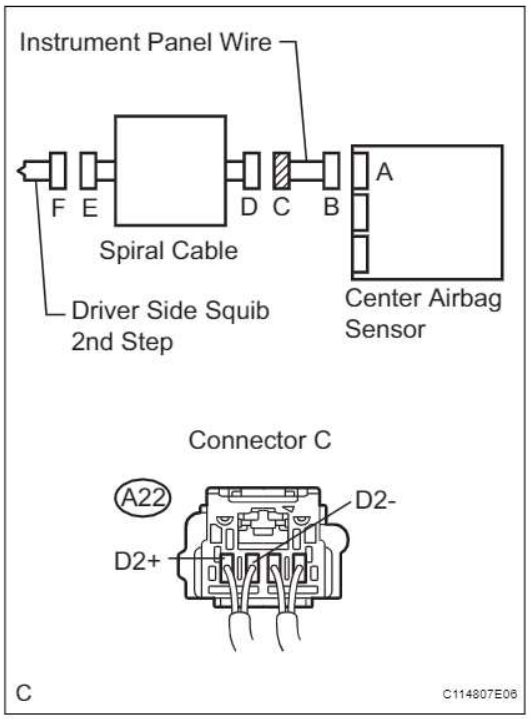
Standard resistance

Tester Connection	Specified Condition
D2+ - D2-	1 MΩ or higher

OK → REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK

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 (see page RS-31).
(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 PANEL WIRE ASSEMBLY**

OK

REPLACE SPIRAL CABLE

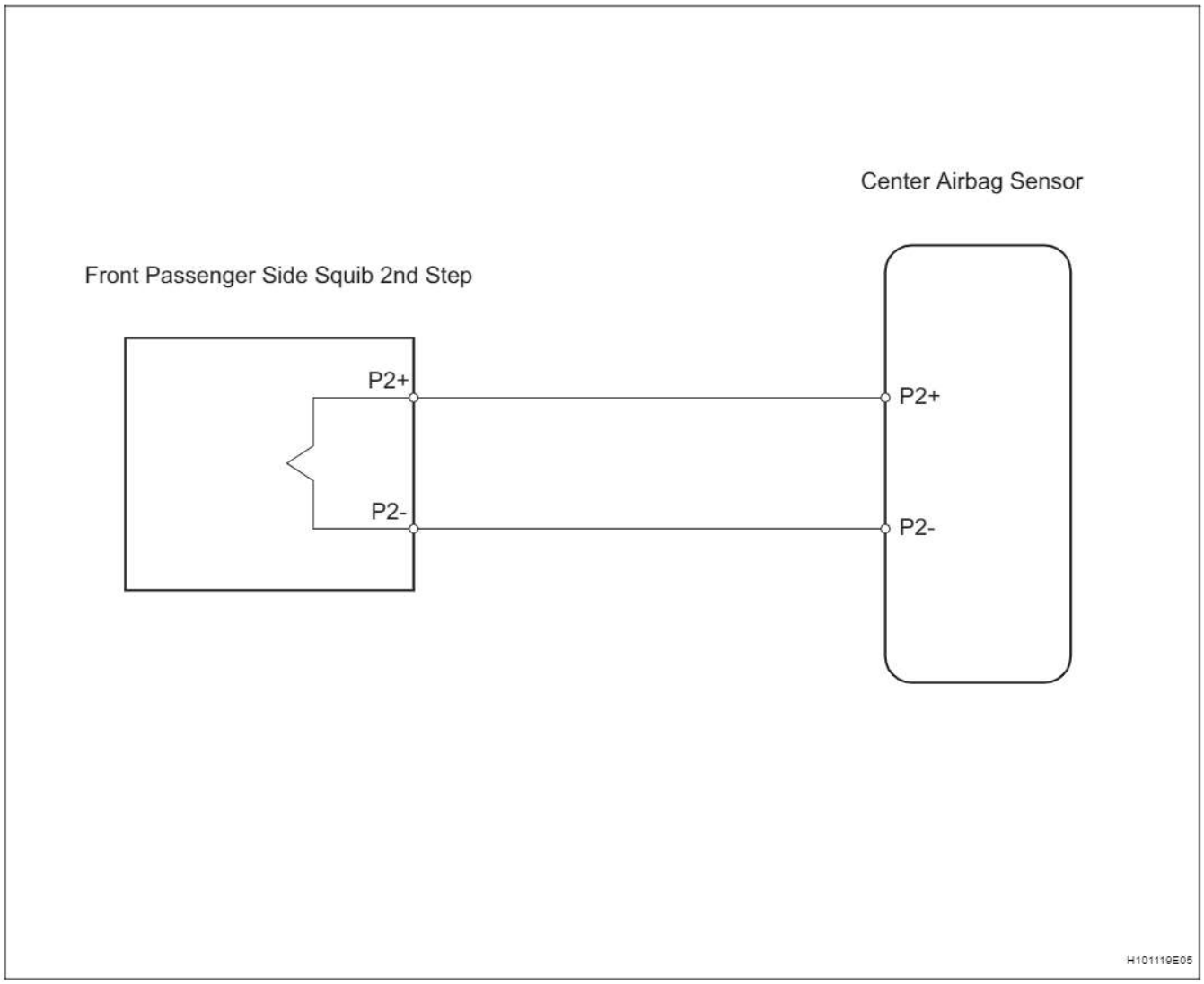
DTC	B1815/54	Short in Front Passenger Side Squib 2nd Step Circuit
DTC	B1816/54	Open in Front Passenger Side Squib 2nd Step Circuit
DTC	B1817/54	Short to GND in Front Passenger Side Squib 2nd Step Circuit
DTC	B1818/54	Short to B+ in Front Passenger Side Squib 2nd Step Circuit

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 • No. 2 instrument panel wire • 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 • No. 2 instrument panel wire • 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 • No. 2 instrument panel wire • 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 • No. 2 instrument panel wire • Front passenger airbag (Front passenger side squib 2nd step) • Center airbag sensor

WIRING DIAGRAM



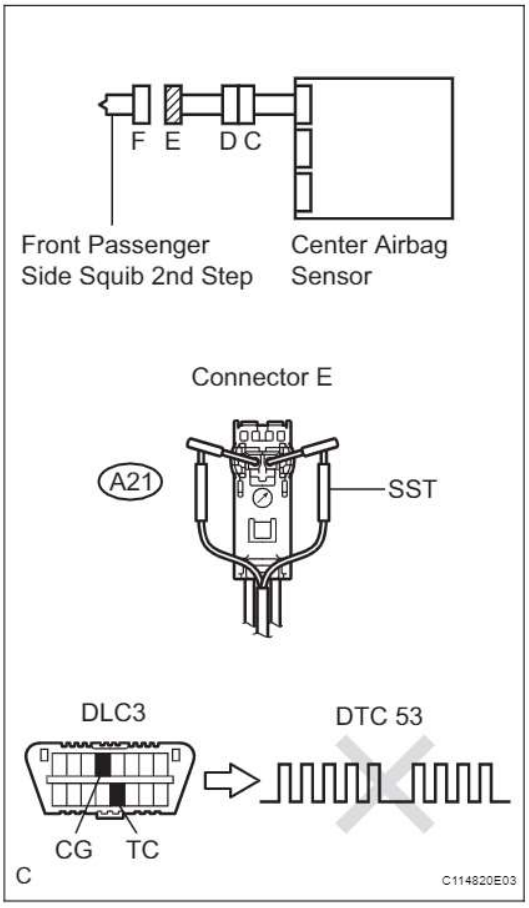
INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the intelligent tester (see page RS-41).
- 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 (see page RS-41).

RS

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 the white wire side of SST (resistance 2.1 Ω) to the instrument panel wire connector E.

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 09843-18060

(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 (see page RS-38).
(h) Turn the power switch OFF.
(i) Turn the power switch ON (IG), and wait for at least 60 seconds.
(j) Check the DTCs (see page RS-38).

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 the instrument panel wire.
(d) Check that the No. 2 instrument panel wire connector (on the front passenger side airbag) are not damaged.

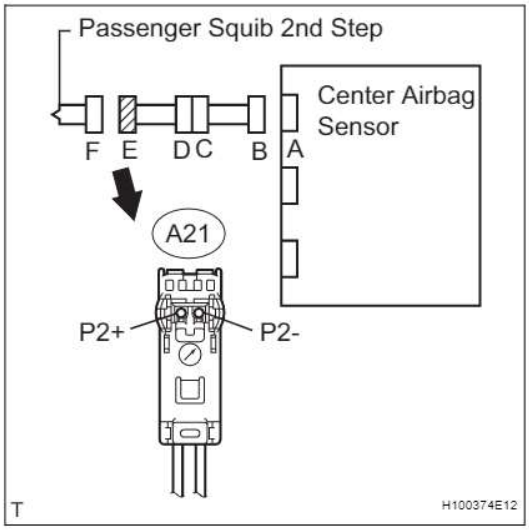
OK:
Lock button is not disengaged, and claw of lock is not deformed or damaged.

NG → REPAIR OR REPLACE NO. 2 INSTRUMENT PANEL WIRE

OK

RS

3 CHECK INSTRUMENT PANEL WIRE (FRONT PASSENGER SIDE SQUIB 2ND STEP)



(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 (see page RS-31).
(i) Measure the resistance of the wire harness side connector.

Standard resistance

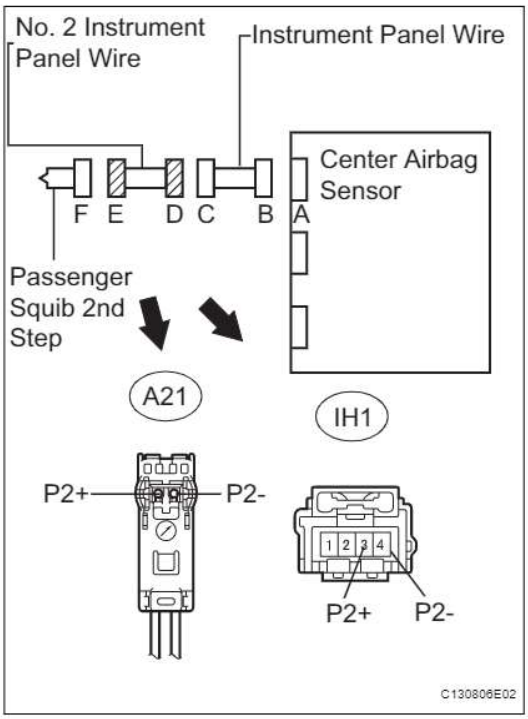
Tester Connection	Specified Condition
A21-1 (P2+) - A21-2 (P2-)	1 MΩ or higher

OK → REPLACE CENTER AIRBAG SENSOR ASSEMBLY

NG

RS

4	CHECK NO. 2 INSTRUMENT PANEL WIRE



(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
A21-1 (P2+) - Body ground	Below 1 V
A21-2 (P2-) - 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
A21-1 (P2+) - IH1-3	Below 1 Ω
A21-2 (P2-) - IH1-4	Below 1 Ω
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

NG → REPAIR OR REPLACE NO. 2 INSTRUMENT PANEL WIRE

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

DTC	B1820/55	Short in Driver Side - Side Squib Circuit
DTC	B1821/55	Open in Driver Side - Side Squib Circuit
DTC	B1822/55	Short to GND in Driver Side - Side Squib Circuit
DTC	B1823/55	Short to B+ in Driver Side - Side Squib Circuit

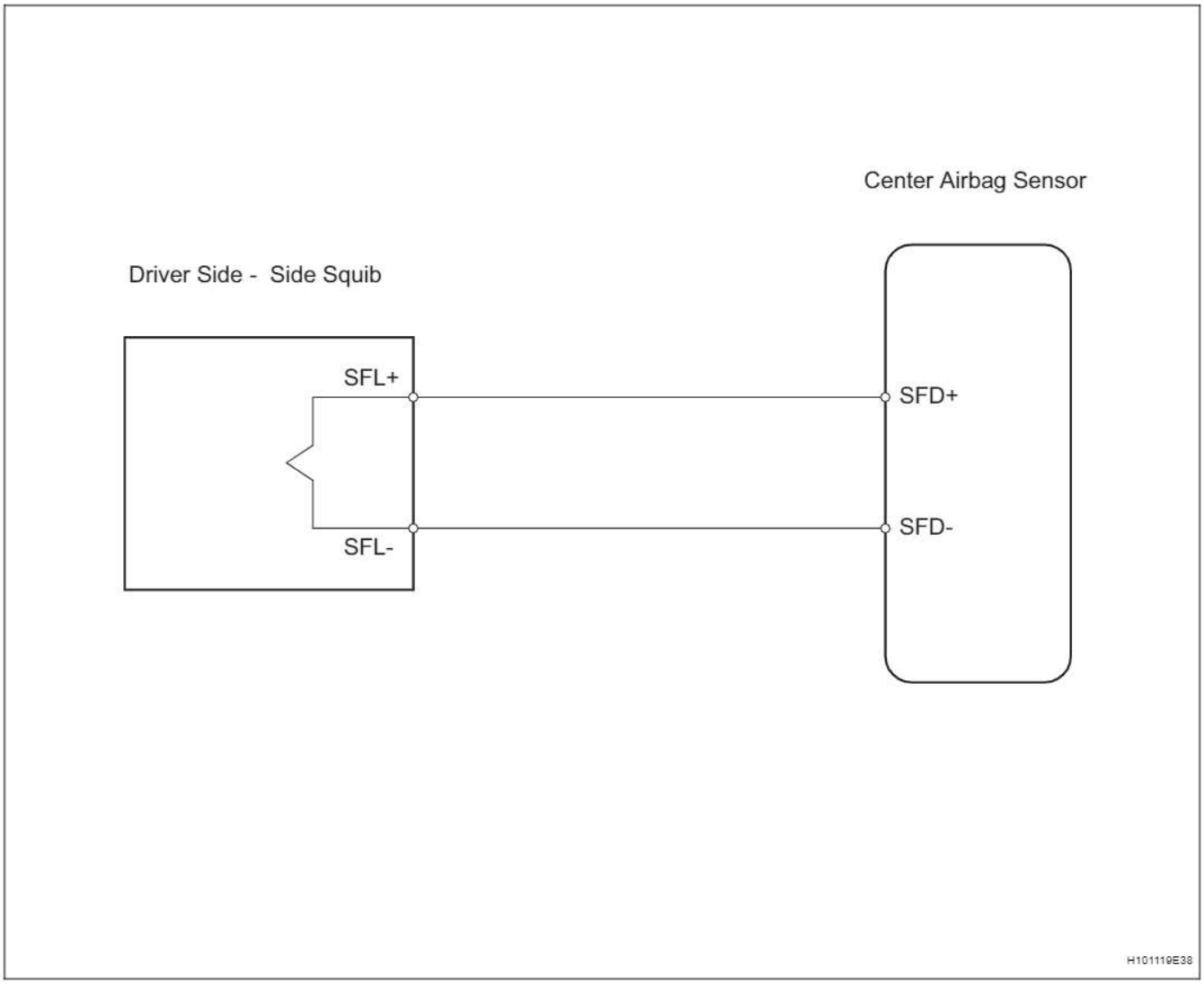
DESCRIPTION

The driver side - side squib circuit consists of the center airbag sensor and the front seat side airbag LH. This circuit instructs the SRS to deploy when deployment conditions are met.
These DTCs are recorded when a malfunction is detected in the driver side - side squib circuit.

DTC No.	DTC Detection Condition	Trouble Area
B1820/55	Center airbag sensor receives a line short signal 5 times from the driver side - side squib circuit during primary check.	• Floor wire • No. 1 seat airbag wire • Front seat side airbag LH (Driver side - side squib) • Center airbag sensor
B1821/55	Center airbag sensor receives an open signal from the driver side - side squib circuit for 2 seconds.	• Floor wire • No. 1 seat airbag wire • Front seat side airbag LH (Driver side - side squib) • Center airbag sensor
B1822/55	Center airbag sensor receives a short to ground signal from the driver side - side squib circuit for 0.5 seconds.	• Floor wire • No. 1 seat airbag wire • Front seat side airbag LH (Driver side - side squib) • Center airbag sensor
B1823/55	Center airbag sensor receives a short to B+ signal from the driver side - side squib circuit for 0.5 seconds.	• Floor wire • No. 1 seat airbag wire • Front seat side airbag LH (Driver side - side squib) • Center airbag sensor

RS

WIRING DIAGRAM

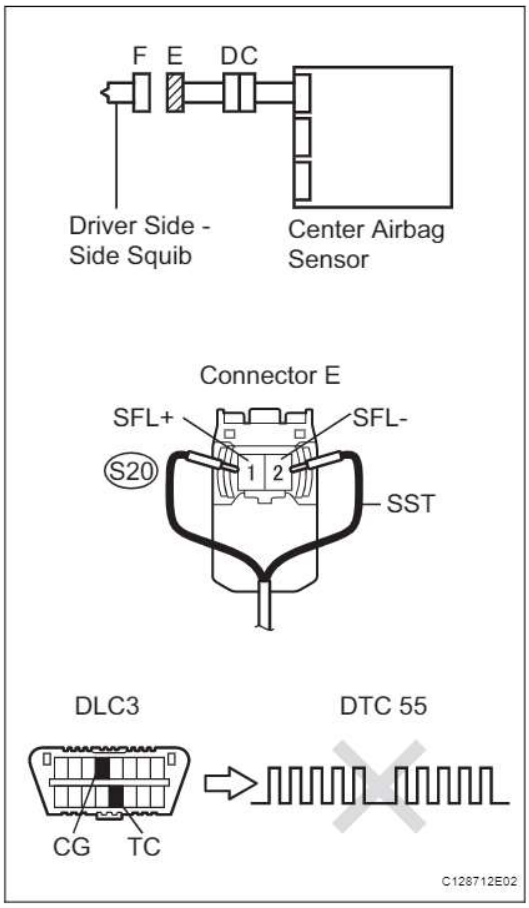


INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the intelligent tester (see page RS-41).
- 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 (see page RS-41).

1	CHECK FRONT SEAT SIDE AIRBAG ASSEMBLY LH (DRIVER SIDE - SIDE 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 front seat side airbag LH.
(d) Connect the black wire side of SST to connector E.
CAUTION:
Never connect SST to the front seat side airbag LH (driver side - 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 09843-18060

(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 (see page RS-38).
(h) Turn the power switch OFF.
(i) Turn the power switch ON (IG), and wait for at least 60 seconds.
(j) Check the DTCs (see page RS-38).
OK:
DTC B1820, B1821, B1822, B1823 or 55 is not output.
HINT:
DTCs other than DTC B1820, B1821, B1822, B1823 or 55 may be output at this time, but they are not related to this check.

OK → **REPLACE FRONT SEAT ASSEMBLY LH**

NG

2	CHECK CONNECTOR

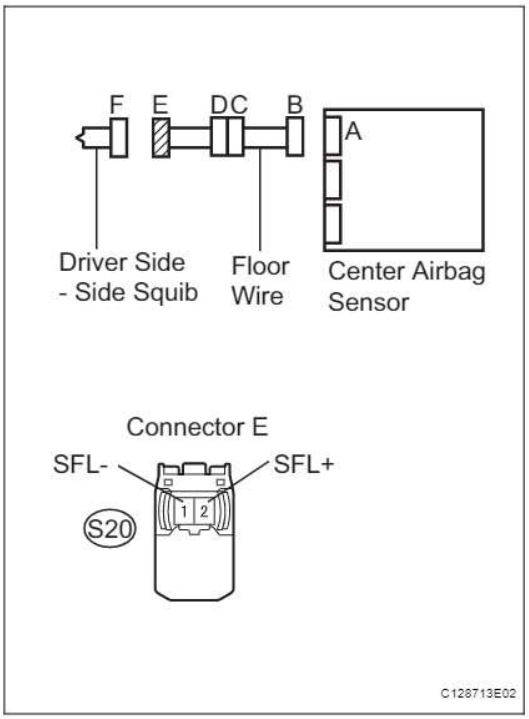
(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect SST from the No. 1 seat airbag wire.
(d) Check that the No. 1 seat airbag wire connector (on the driver side - side squib) are not damaged.
OK:
Lock button is not disengaged, and claw of lock is not deformed or damaged.

NG → REPAIR OR REPLACE NO. 1 SEAT AIRBAG WIRE

OK

RS

3	CHECK FLOOR WIRE (DRIVER SIDE - 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

Tester Condition	Specified Condition
S20-1 (SFL-) - Body ground	Below 1 V
S20-2 (SFL+) - 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 Condition	Specified Condition
S20-1 (SFL-) - S20-2 (SFL+)	Below 1 Ω
S20-1 (SFL-) - Body ground	1 MΩ or higher
S20-2 (SFL+) - Body ground	1 MΩ or higher

(h) Release the activation prevention mechanism built into connector B (see page RS-31).
(i) Measure the resistance of the wire harness side connector.

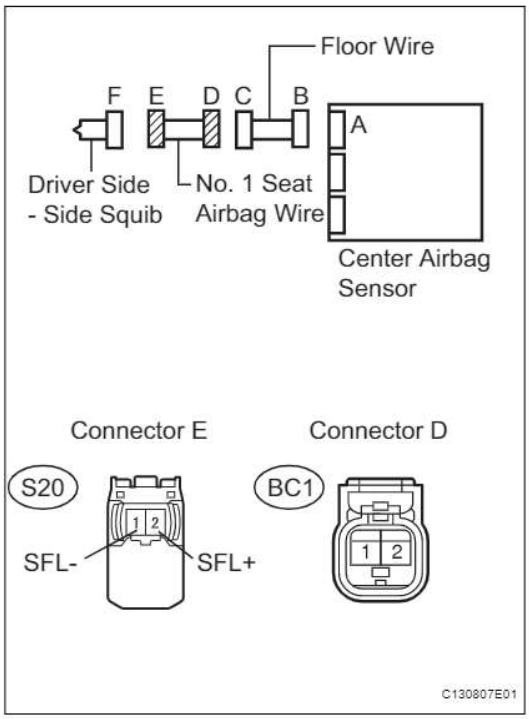
Standard resistance

Tester Condition	Specified Condition
S20-1 (SFL-) - S20-2 (SFL+)	1 MΩ or higher

OK → REPLACE CENTER AIRBAG SENSOR ASSEMBLY

NG

4 CHECK NO. 1 SEAT AIRBAG WIRE



(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
S20-1 (SFL-) - Body ground	Below 1 V
S20-2 (SFL+) - 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
S20-2 (SFL+) - BC1-1	Below 1 Ω
S20-1 (SFL-) - BC1-2	Below 1 Ω
S20-2 (SFL+) - S20-1 (SFL-)	1 MΩ or higher
S20-2 (SFL+) - Body ground	1 MΩ or higher
S20-1 (SFL-) - Body ground	1 MΩ or higher

NG → REPAIR OR REPLACE NO. 1 SEAT AIRBAG WIRE

OK

REPAIR OR REPLACE FLOOR WIRE

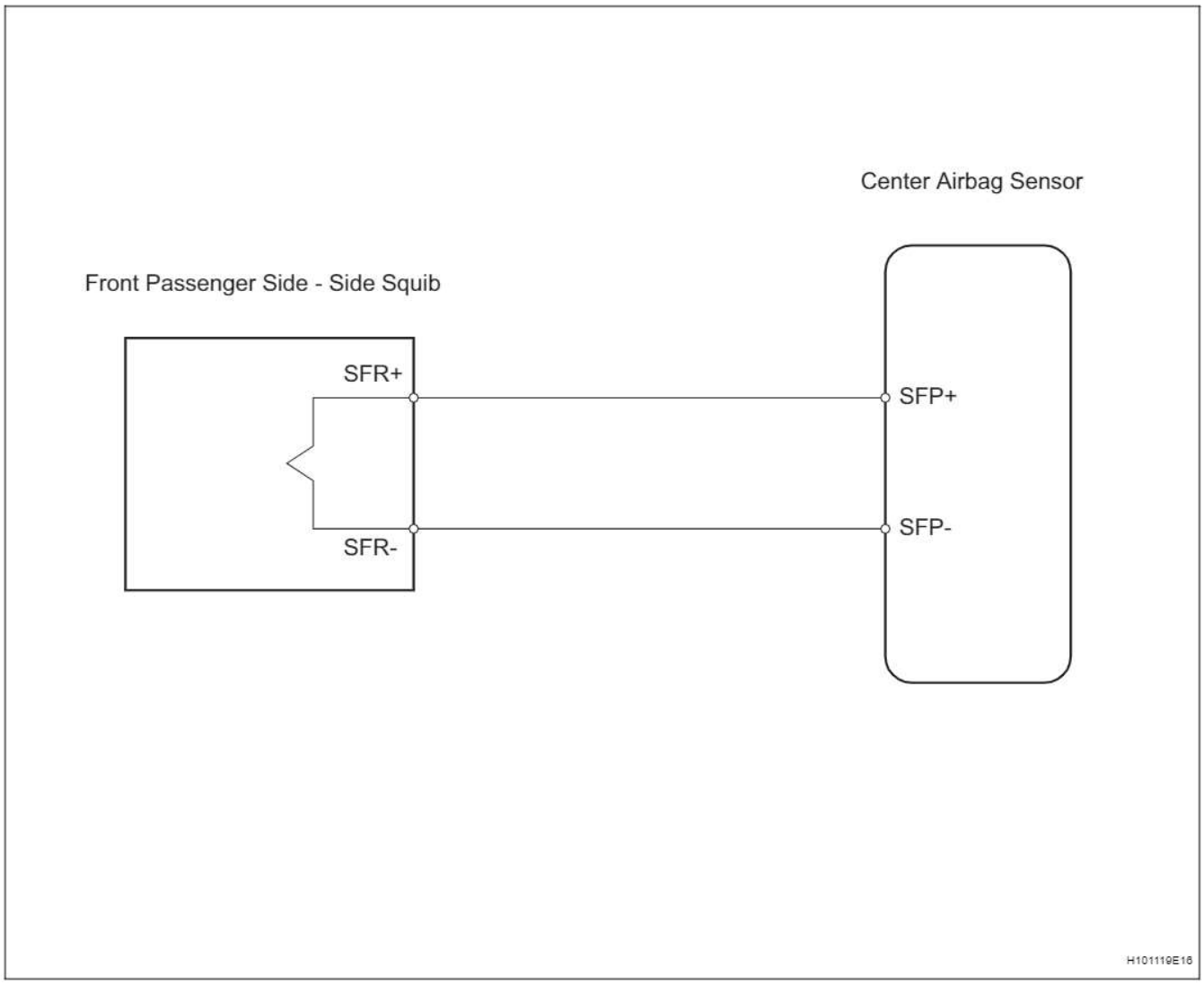
DTC	B1825/56	Short in Front Passenger Side - Side Squib Circuit
DTC	B1826/56	Open in Front Passenger Side - Side Squib Circuit
DTC	B1827/56	Short to GND in Front Passenger Side - Side Squib Circuit
DTC	B1828/56	Short to B+ in Front Passenger Side - Side Squib Circuit

DESCRIPTION

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

DTC No.	DTC Detection Condition	Trouble Area
B1825/56	The center airbag sensor receives a line short signal 5 times from the front passenger side - side squib circuit during primary check.	• No. 2 floor wire • No. 2 seat airbag wire • Front seat side airbag RH (Front passenger side - side squib) • Center airbag sensor
B1826/56	Center airbag sensor receives an open signal from the front passenger side - side squib circuit for 2 seconds.	• No. 2 floor wire • No. 2 seat airbag wire • Front seat side airbag RH (Front passenger side - side squib) • Center airbag sensor
B1827/56	Center airbag sensor receives a short to ground signal from the front passenger side - side squib circuit for 0.5 seconds.	• No. 2 floor wire • No. 2 seat airbag wire • Front seat side airbag RH (Front passenger side - side squib) • Center airbag sensor
B1828/56	Center airbag sensor receives a short to B+ signal from the front passenger side - side squib circuit for 0.5 seconds.	• No. 2 floor wire • No. 2 seat airbag wire • Front seat side airbag RH (Front passenger side - side squib) • Center airbag sensor

WIRING DIAGRAM

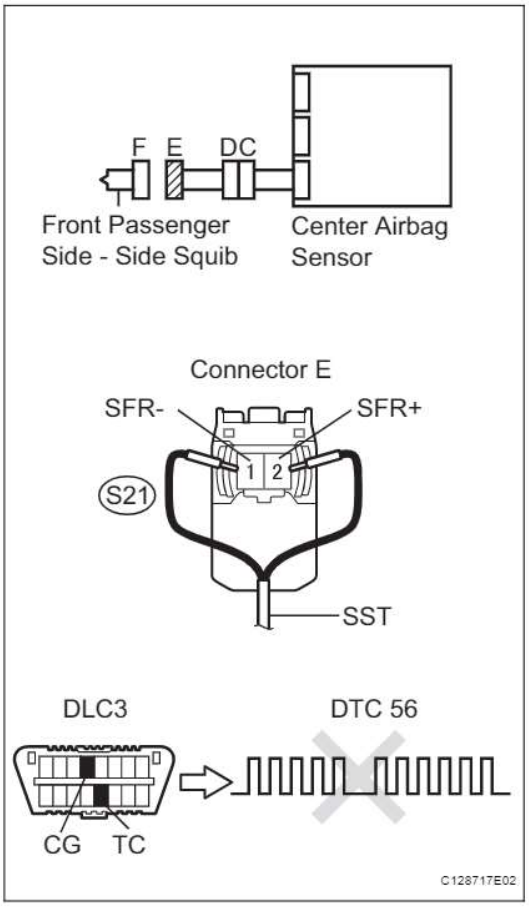


INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the intelligent tester (see page RS-41).
- 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 (see page RS-41).

1	CHECK FRONT SEAT SIDE AIRBAG ASSEMBLY RH (FRONT PASSENGER SIDE - SIDE 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 front seat side airbag RH.
(d) Connect the black wire side of SST to connector E.

CAUTION:
Never connect SST to the front seat side airbag 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 SST into the terminals of the connector when connecting.**
- **Insert SST straight into the terminals of the connector.**

SST 09843-18060

(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 (see page RS-38).
(h) Turn the power switch OFF.
(i) Turn the power switch ON (IG), and wait for at least 60 seconds.
(j) Check the DTCs (see page RS-38).

OK:
DTC B1825, B1826, B1827, B1828 or 56 is not output.

HINT:
DTCs other than DTC B1825, B1826, B1827, B1828 or 56 may be output at this time, but they are not related to this check.

OK → **REPLACE FRONT SEAT 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 E.
(d) Check that the No. 2 seat airbag wire connector (on the front passenger side - side squib) are not damaged.

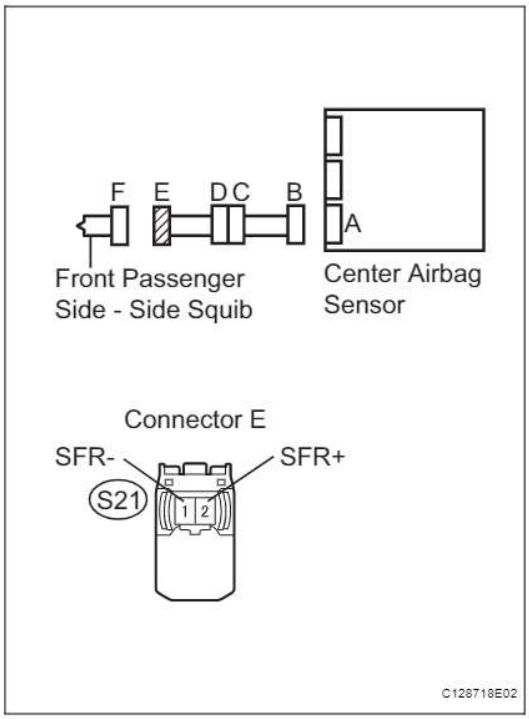
OK:
Lock button is not disengaged, and claw of lock is not deformed or damaged.

NG → REPAIR OR REPLACE NO. 2 SEAT AIRBAG WIRE

OK

RS

3 CHECK NO. 2 FLOOR WIRE (FRONT PASSENGER SIDE - 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

Tester Connection	Specified Condition
S21-1 (SFR-) - Body ground	Below 1 V
S21-2 (SFR+) - 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
S21-1 (SFR-) - S21-2 (SFR+)	Below 1 Ω
S21-1 (SFR-) - Body ground	1 MΩ or higher
S21-2 (SFR+) - Body ground	1 MΩ or higher

(h) Release the activation prevention mechanism built into connector B (see page RS-31).
(i) Measure the resistance of the wire harness side connector.

Standard resistance

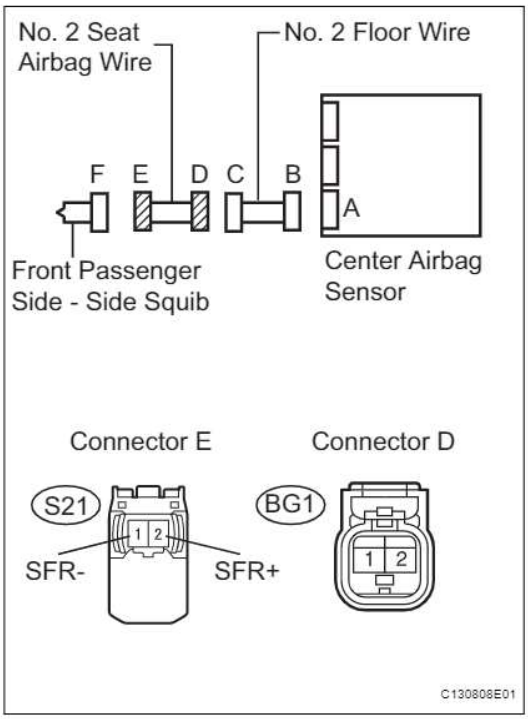
Tester connection	Specified condition
S21-1 (SFR-) - S21-2 (SFR+)	1 MΩ or higher

OK → REPLACE CENTER AIRBAG SENSOR ASSEMBLY

NG

RS

4	CHECK NO. 2 SEAT AIRBAG WIRE



(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Turn the power switch OFF.
(c) Measure the voltage of the wire harness side connector.

Standard voltage

Tester Connection	Specified Condition
S21-1 (SFR-) - Body ground	Below 1 V
S21-2 (SFR+) - 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
S21-1 (SFR-) - BG1-2	Below 1 Ω
S21-2 (SFR+) - BG1-1	Below 1 Ω
S21-1 (SFR-) - S21-2 (SFR+)	1 MΩ or higher
S21-1 (SFR-) - Body ground	1 MΩ or higher
S21-2 (SFR+) - Body ground	1 MΩ or higher

NG → REPAIR OR REPLACE NO. 2 SEAT AIRBAG WIRE

OK

REPAIR OR REPLACE NO. 2 FLOOR WIRE

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

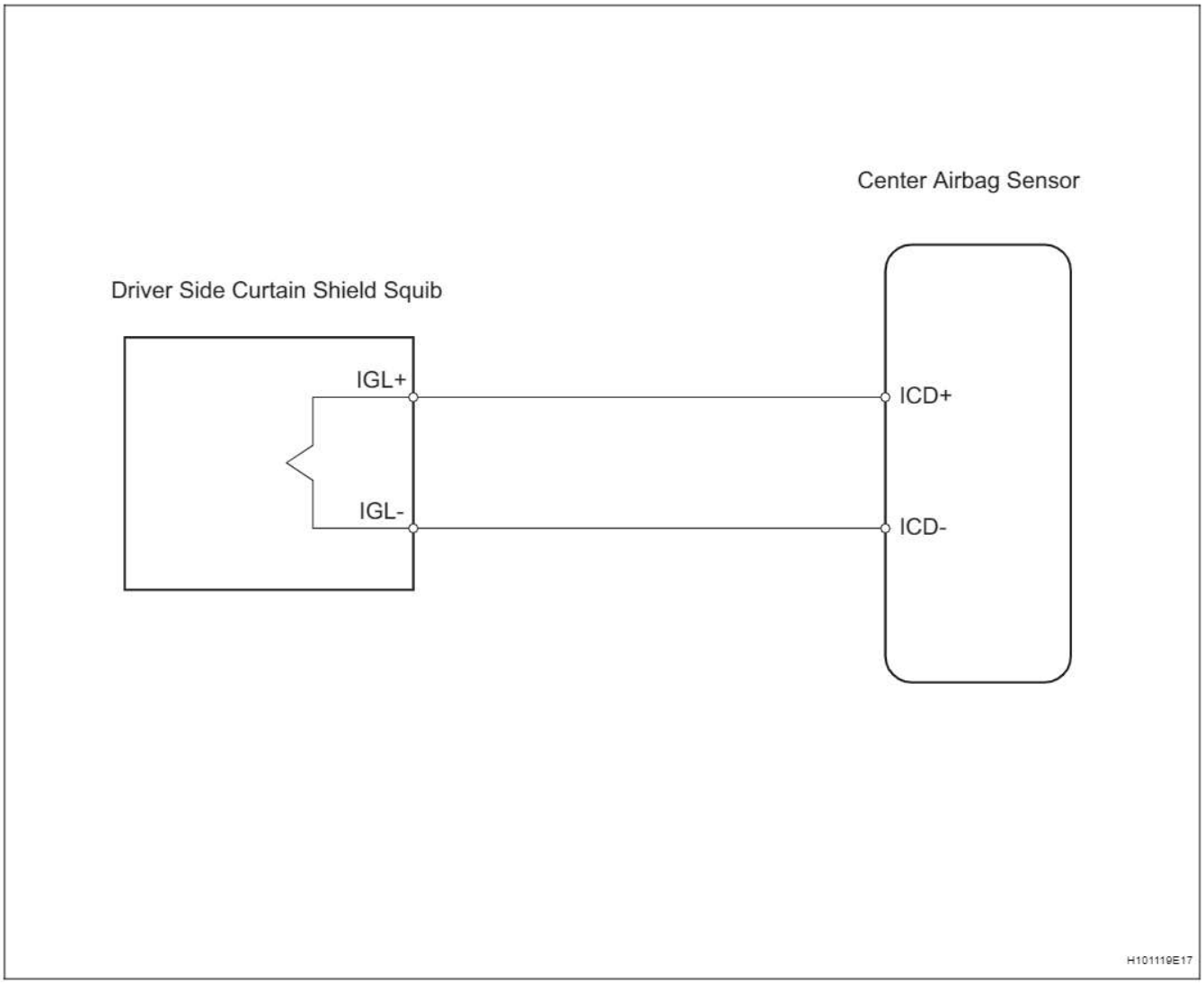
DESCRIPTION

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

RS

WIRING DIAGRAM

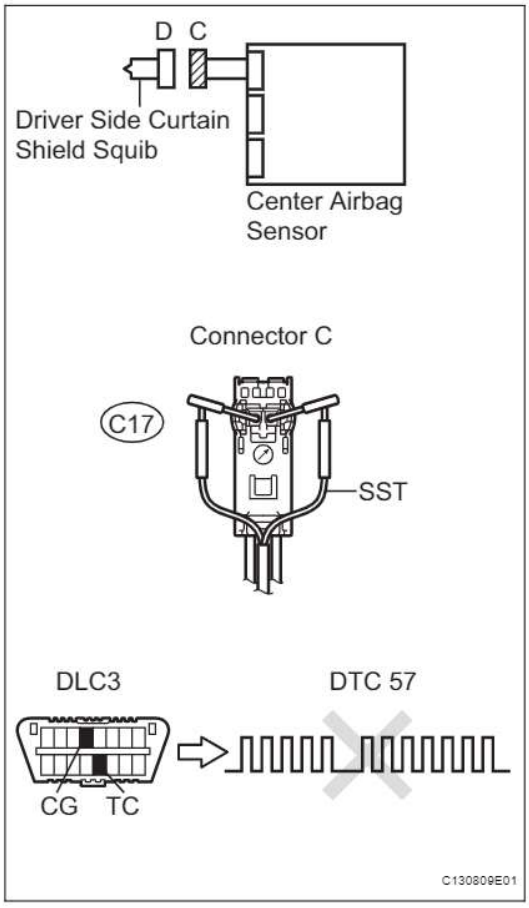


INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the intelligent tester (see page RS-41).
- 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 (see page RS-41).

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 the white wire side of SST to connector C.
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 09843-18060

(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 (see page RS-38).
(h) Turn the power switch OFF.
(i) Turn the power switch ON (IG), and wait for at least 60 seconds.
(j) Check the DTCs (see page RS-38).
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

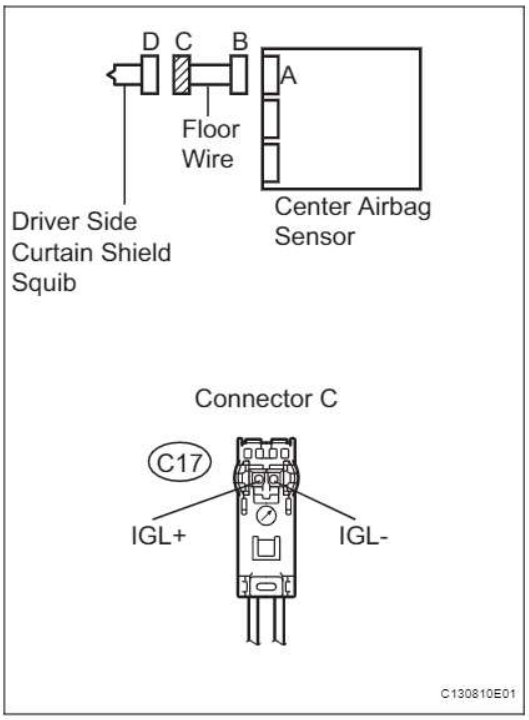
(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect the SST from connector C.
(d) Check that the floor wire connector (on the curtain shield LH side) is not damaged.
OK:
Lock button is not disengaged, and claw of lock is not deformed or damaged.

NG → REPAIR OR REPLACE FLOOR WIRE

OK

RS

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 (see page RS-31).
(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

OK

REPLACE CENTER AIRBAG SENSOR ASSEMBLY

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

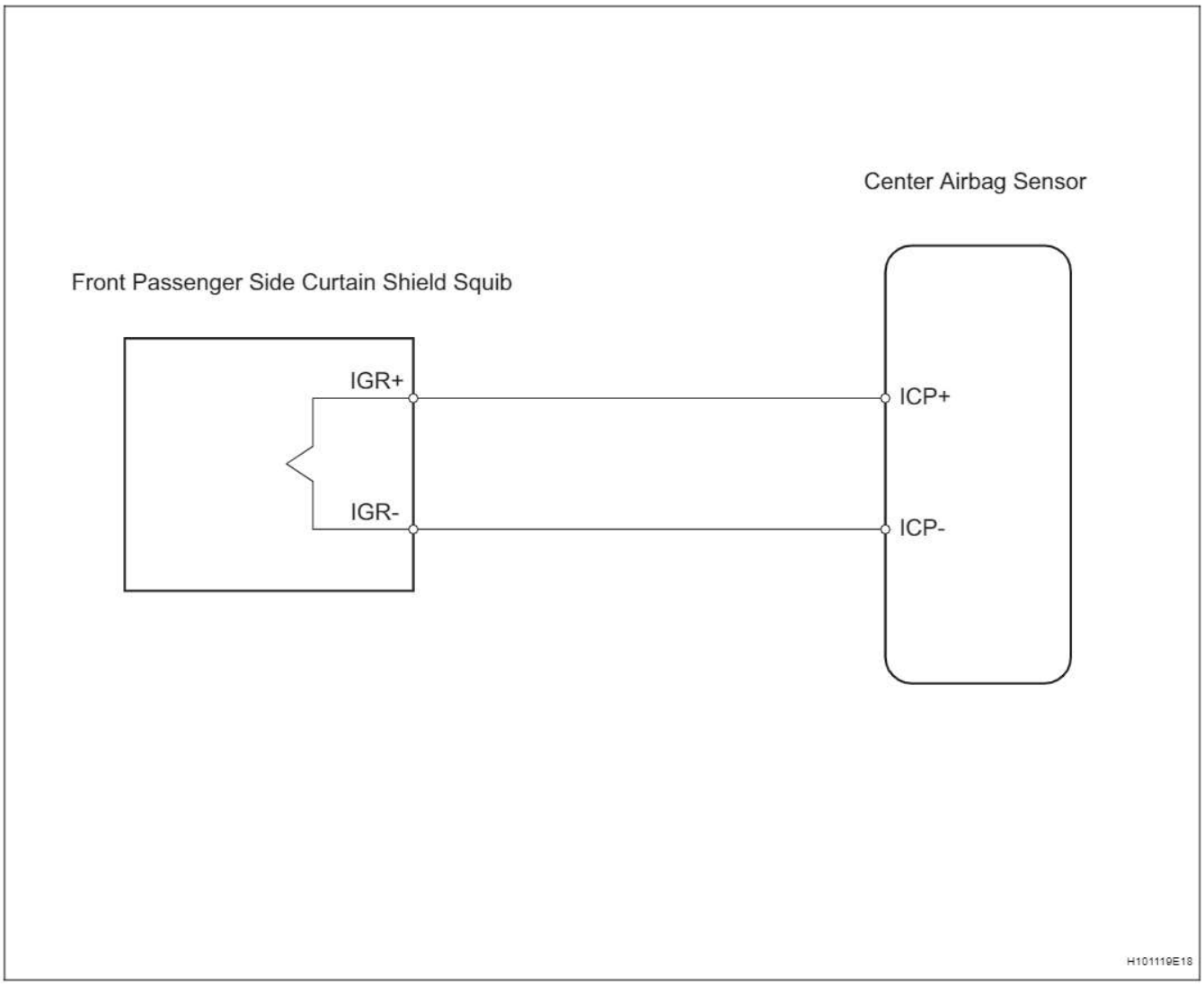
DTC	B1838/58	Short to B+ in Front Passenger Side Curtain Shield Squib Circuit

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.	• No. 2 floor wire • 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.	• No. 2 floor wire • 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.	• No. 2 floor wire • 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.	• No. 2 floor wire • Curtain shield airbag RH (Front passenger side curtain shield squib) • Center airbag sensor

WIRING DIAGRAM

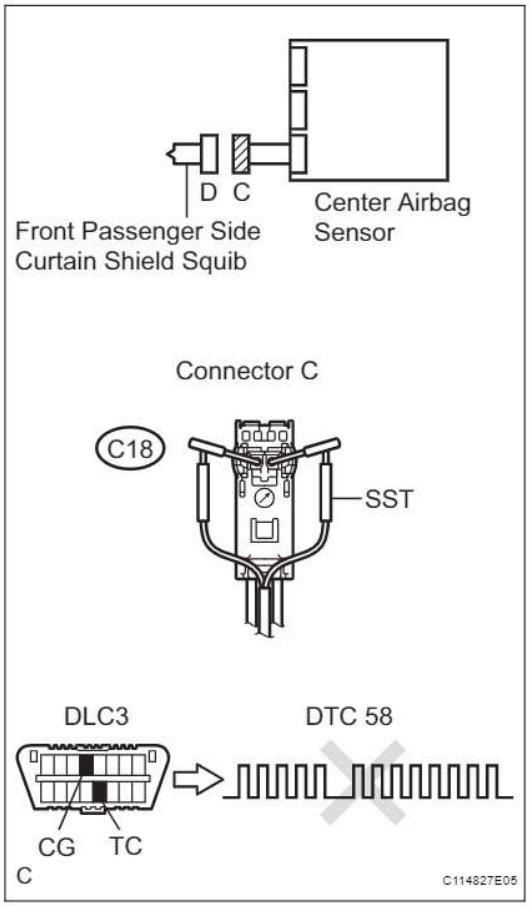


INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the intelligent tester (see page RS-41).
- 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 (see page RS-41).

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 the white wire side of SST (resistance 2.1 Ω) to connector C.

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 09843-18060

(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 (see page RS-38).
(h) Turn the power switch OFF.
(i) Turn the power switch ON (IG), and wait for at least 60 seconds.
(j) Check the DTCs (see page RS-38).

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 connector (on the curtain shield airbag RH side) are not damaged.

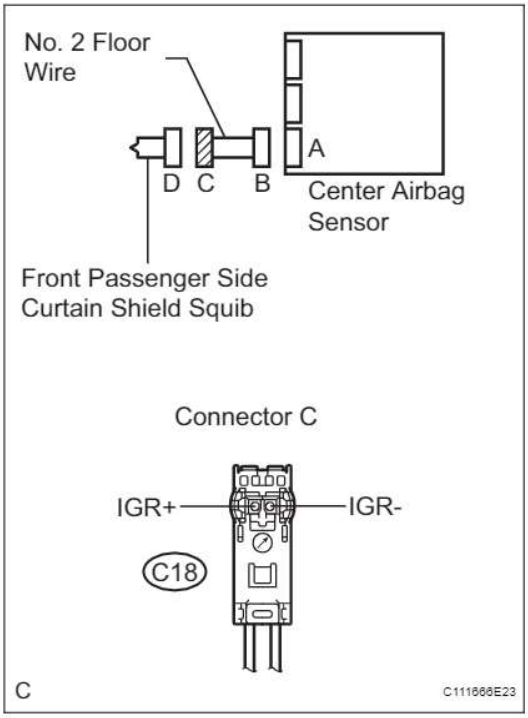
OK:
Lock button is not disengaged, and claw of lock is not deformed or damaged.

NG → **REPAIR OR REPLACE FLOOR WIRE**

RS

OK

3 CHECK FLOOR WIRE (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 (see page RS-31).
(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**

OK

REPLACE CENTER AIRBAG SENSOR ASSEMBLY

DTC	B1900/73	Short in Driver Side Front Pretensioner Squib Circuit

DTC	B1901/73	Open in Driver Side Front Pretensioner Squib Circuit

DTC	B1902/73	Short to GND in Driver Side Front Pretensioner Squib Circuit

DTC	B1903/73	Short to B+ in Driver Side Front Pretensioner Squib Circuit

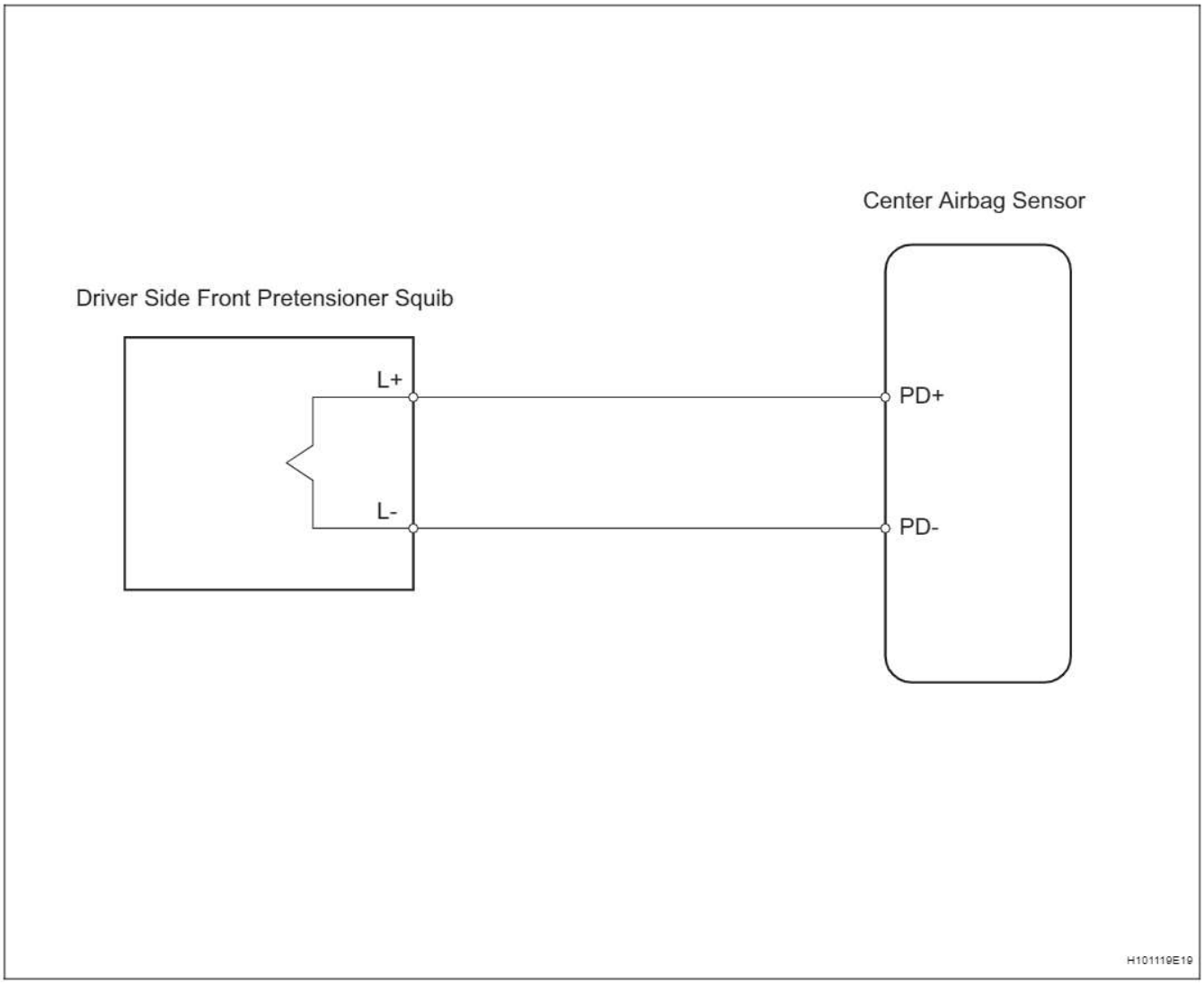
DESCRIPTION

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

RS

WIRING DIAGRAM

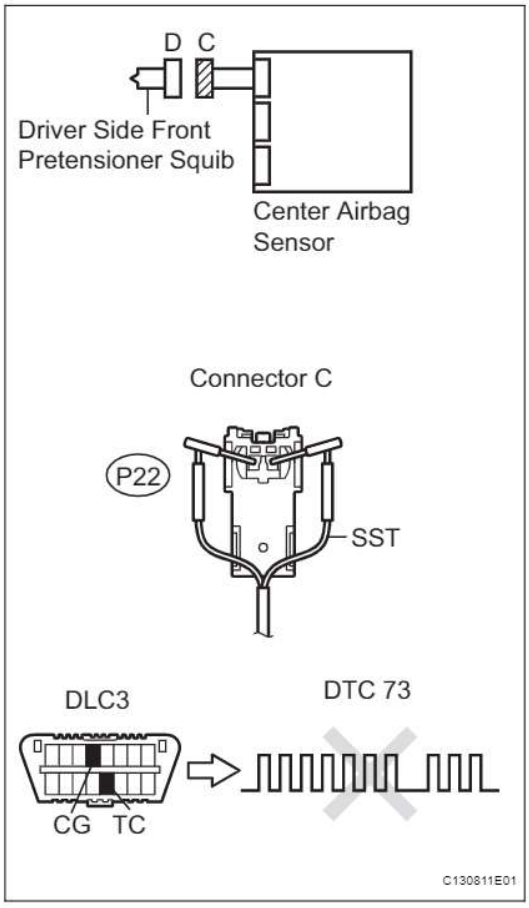


INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the intelligent tester (see page RS-41).
- 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 (see page RS-41).

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 the white wire side of SST 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:
- **Do not forcibly insert SST into the terminals of the connector when connecting.**
- **Insert SST straight into the terminals of the connector.**

SST 09843-18060

(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 (see page RS-38).
(h) Turn the power switch OFF.
(i) Turn the power switch ON (IG), and wait for at least 60 seconds.
(j) Check the DTCs (see page RS-38).
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

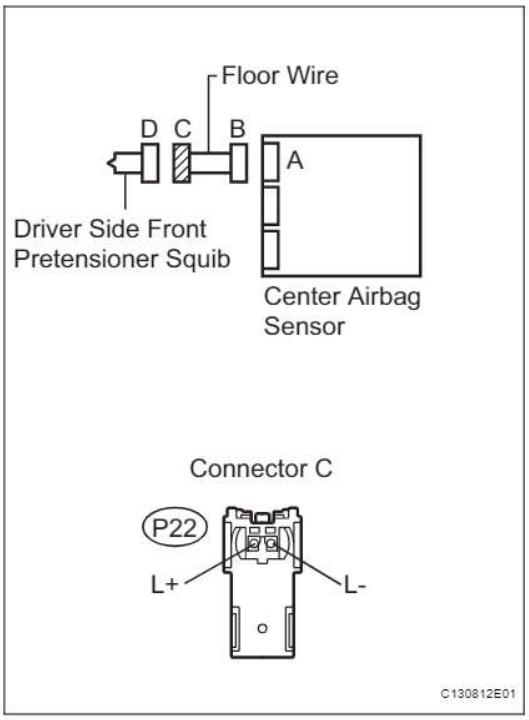
(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect the SST from connector C.
(d) Check that the floor wire connector (on the driver side front seat outer belt) is not damaged.
OK:
The lock button is not disengaged, or the claw of the lock is not deformed or damaged.

NG → REPAIR OR REPLACE FLOOR WIRE

OK

RS

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 (see page RS-31).
(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

DTC	B1905/74	Short in Front Passenger Side Front Pretensioner Squib Circuit

DTC	B1906/74	Open in Front Passenger Side Front Pretensioner Squib Circuit

DTC	B1907/74	Short to GND in Front Passenger Side Front Pretensioner Squib Circuit

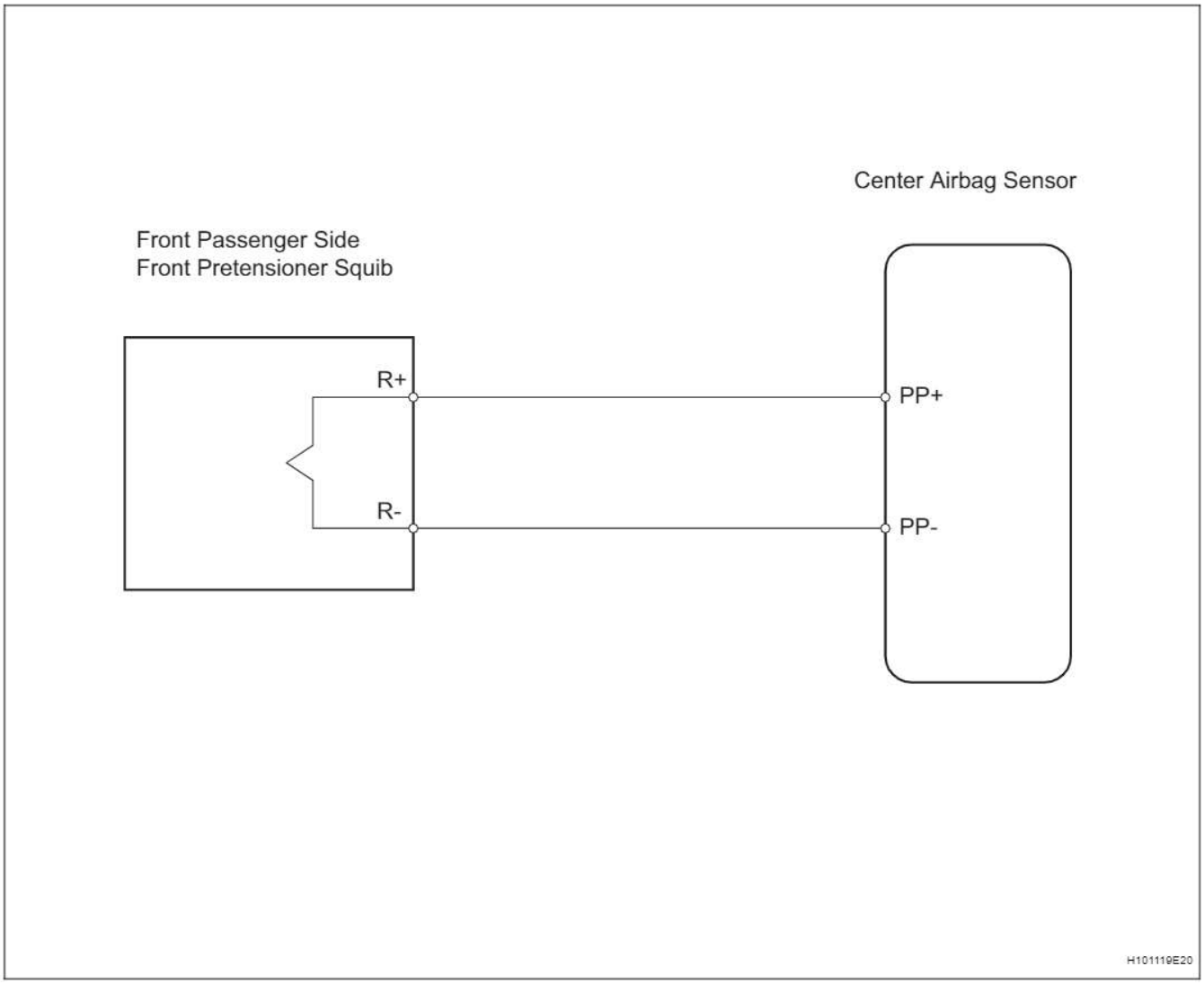
DTC	B1908/74	Short to B+ in Front Passenger Side Front Pretensioner Squib Circuit

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.	• No. 2 floor wire • 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.	• No. 2 floor wire • 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.	• No. 2 floor wire • 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.	• No. 2 floor wire • Front seat outer belt RH (Front passenger side front pretensioner squib) • Center airbag sensor

WIRING DIAGRAM

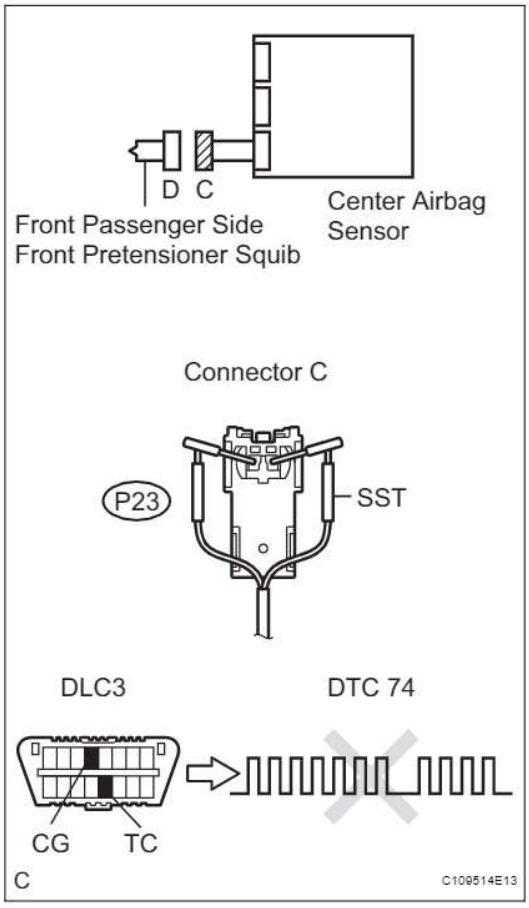


INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "CHECK MODE" (signal check) with the intelligent tester (see page RS-41).
- 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 (see page RS-41).

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 the white wire side of SST to connector C.
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 09843-18060

(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 (see page RS-38).
(h) Turn the power switch OFF.
(i) Turn the power switch ON (IG), and wait for at least 60 seconds.
(j) Check the DTCs (see page RS-38).
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

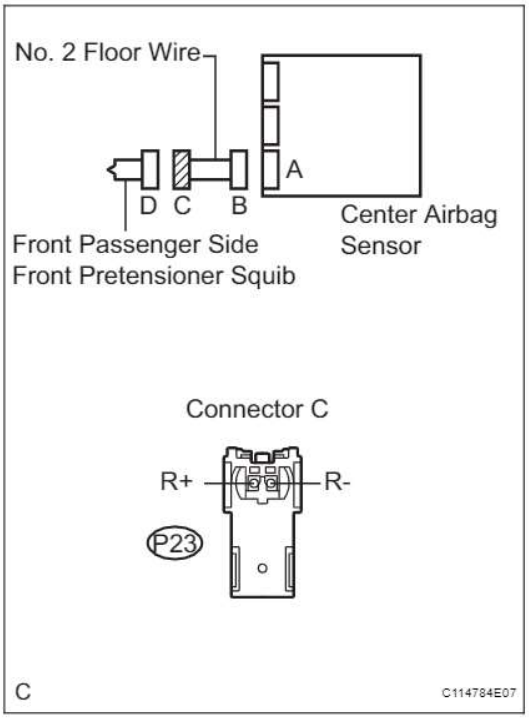
(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect the SST from connector C.
(d) Check that the floor wire connector (on the front seat outer belt RH side) is not damaged.
OK:
Lock button is not disengaged, or the claw of the lock is not deformed or damaged.

NG → REPAIR OR REPLACE NO. 2 FLOOR WIRE

OK

RS

3	CHECK NO. 2 FLOOR WIRE (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 (see page RS-31).
(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 NO. 2 FLOOR WIRE

OK

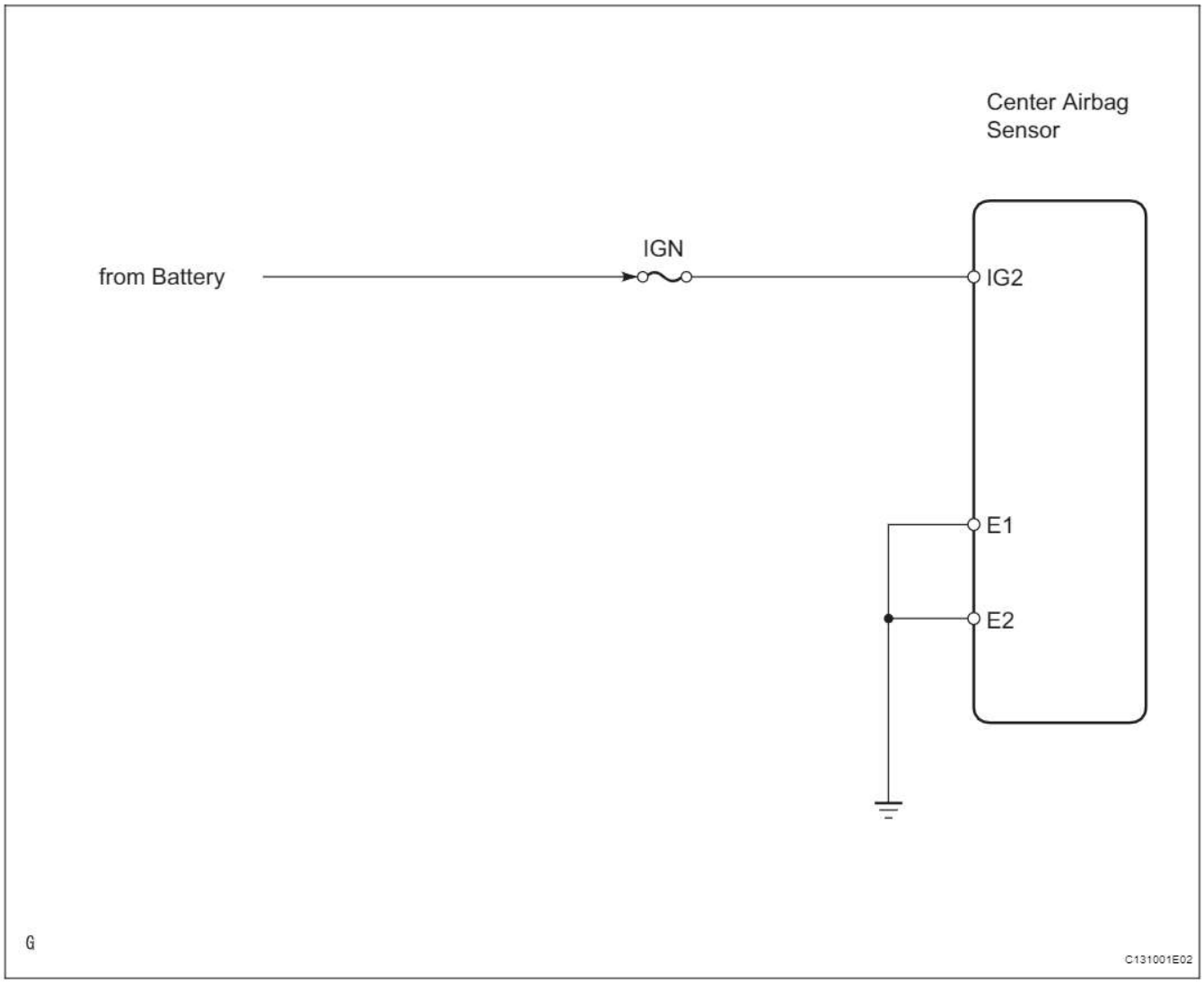
REPLACE CENTER AIRBAG SENSOR ASSEMBLY

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.

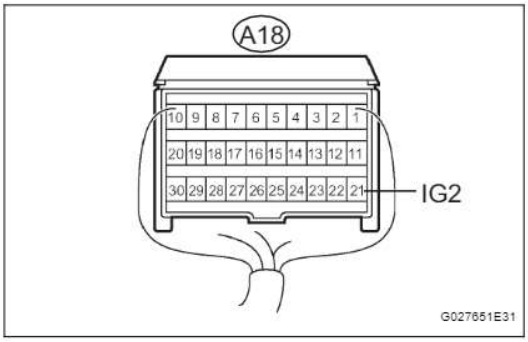
WIRING DIAGRAM



RS

INSPECTION PROCEDURE

1 CHECK WIRE HARNESS (CENTER AIRBAG SENSOR - BATTERY)



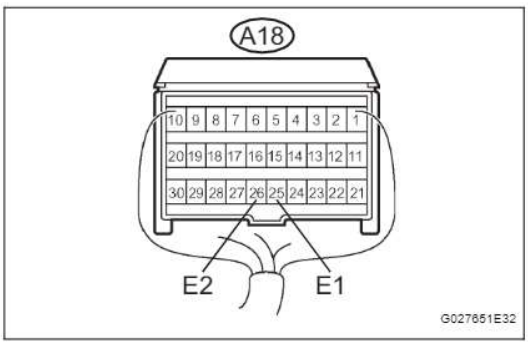
(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect the connectors from the center airbag sensor.
(d) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(e) Measure the voltage 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

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

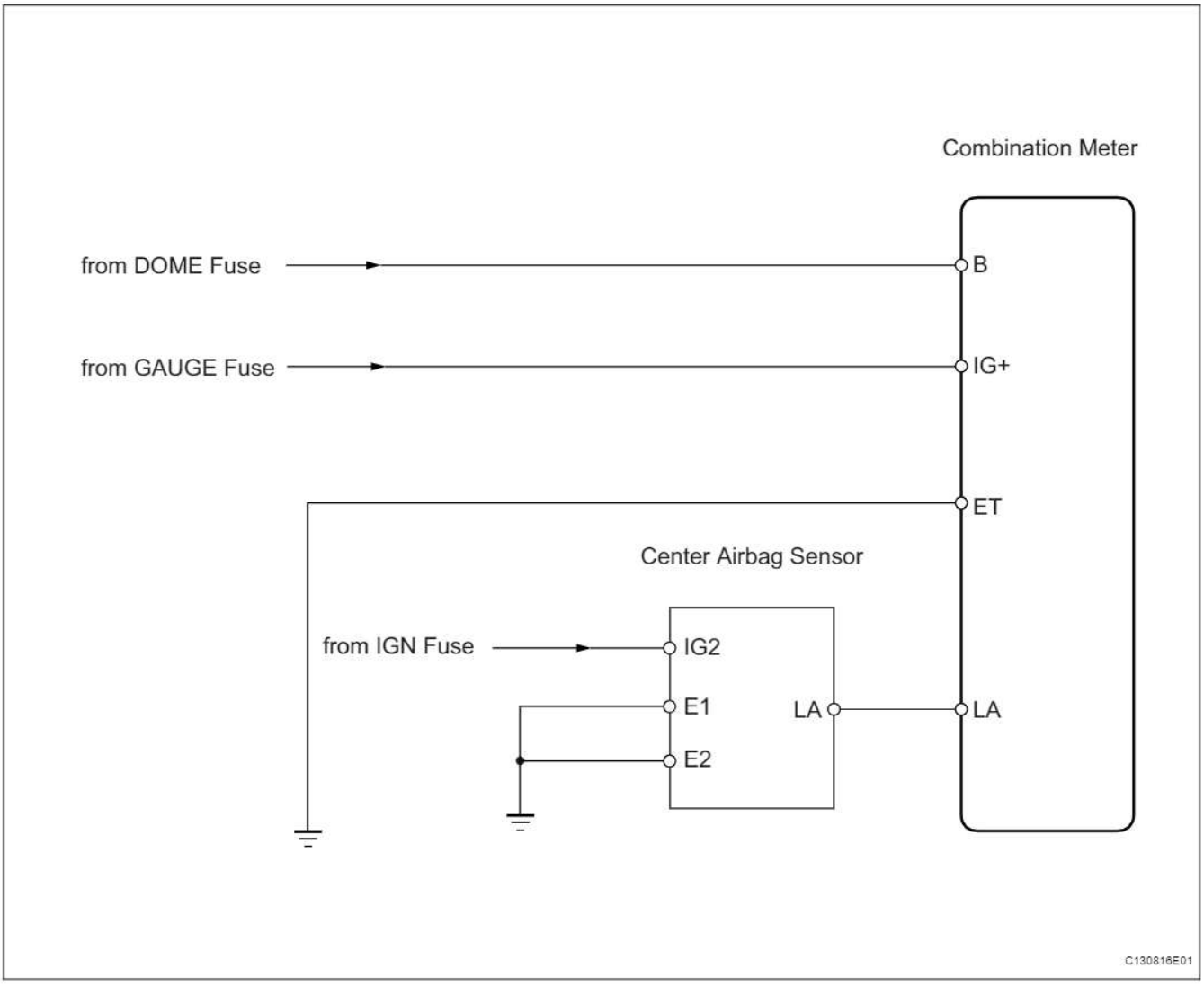
SRS Warning Light Remains ON

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.

RS

WIRING DIAGRAM



INSPECTION PROCEDURE

1	INSPECT BATTERY

(a) Measure the voltage of the battery.
Standard voltage:
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

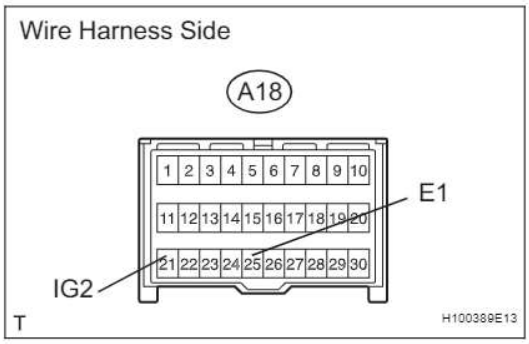
OK

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.
(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

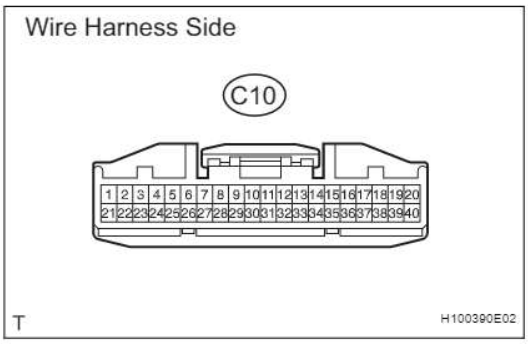
Tester Connection	Specified Condition
A18-25 (E1) - Body ground	Below 1 Ω

NG → REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

RS

5 CHECK COMBINATION METER ASSEMBLY (POWER SOURCE)



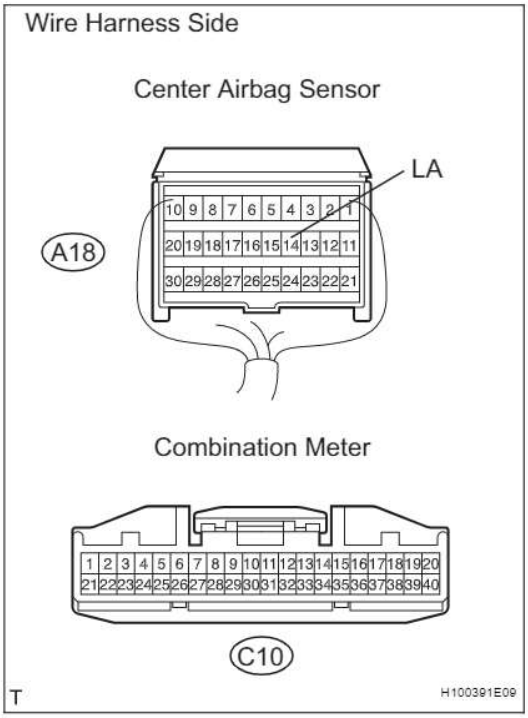
(a) Disconnect the C10 meter connector.
(b) Turn the power switch ON (IG).
(c) Measure the voltage of the wire harness side connector.
Standard voltage

Tester Connection	Specified Condition
C10-21 - Body ground	8 to 14 V

NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK

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

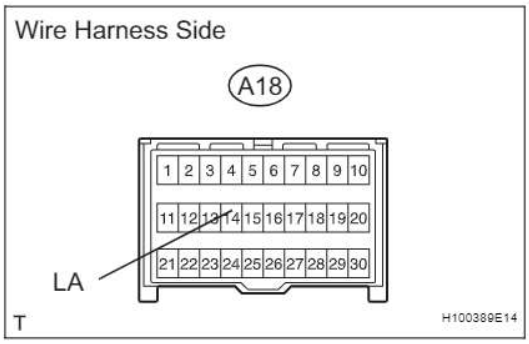
7 CHECK SRS WARNING LIGHT (OPERATION)

(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:
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

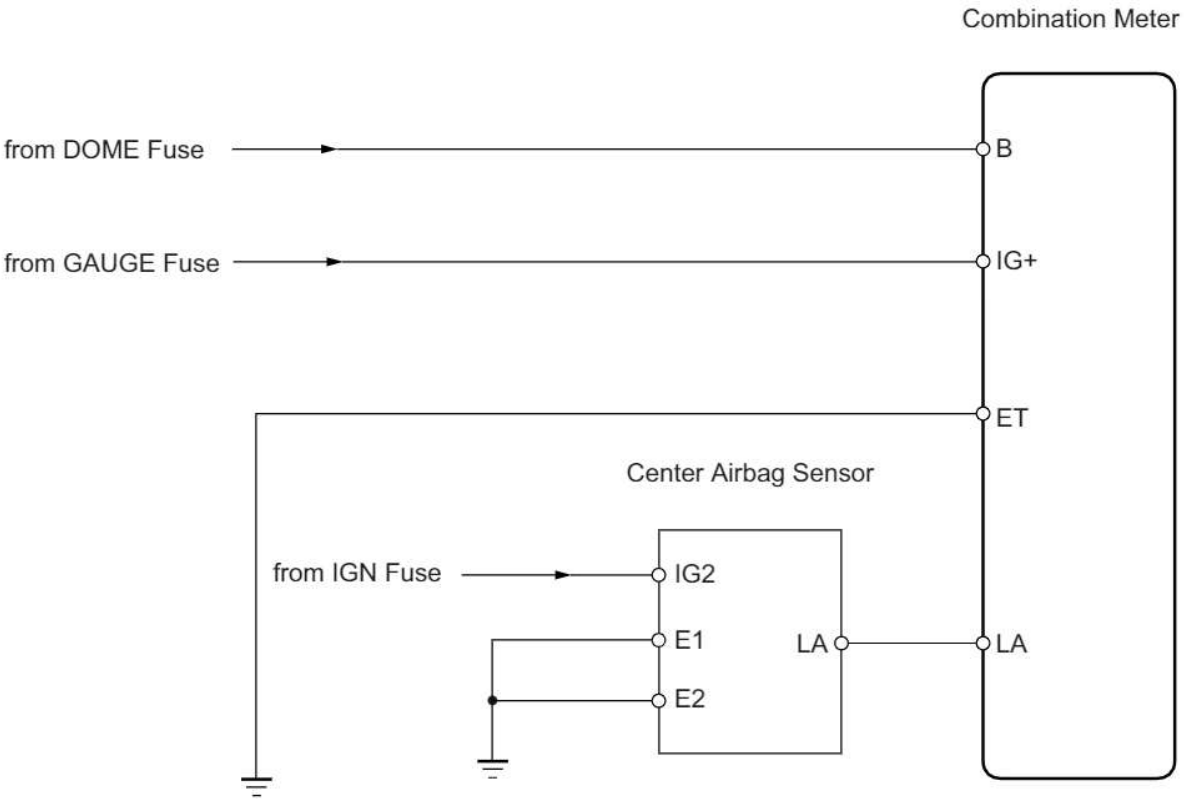
SRS Warning Light does not Come ON

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.

RS

WIRING DIAGRAM



INSPECTION 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.

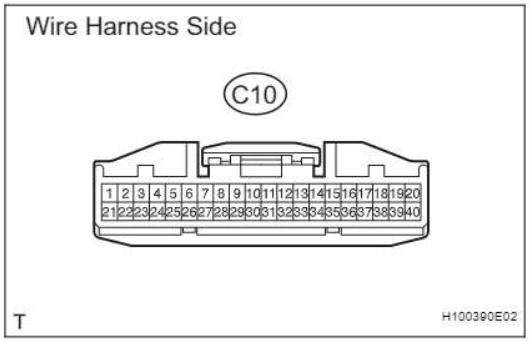
OK:
Connectors are connected.

NG → **CONNECT CONNECTORS**

OK

RS

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

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

TC and CG Terminal Circuit

DESCRIPTION

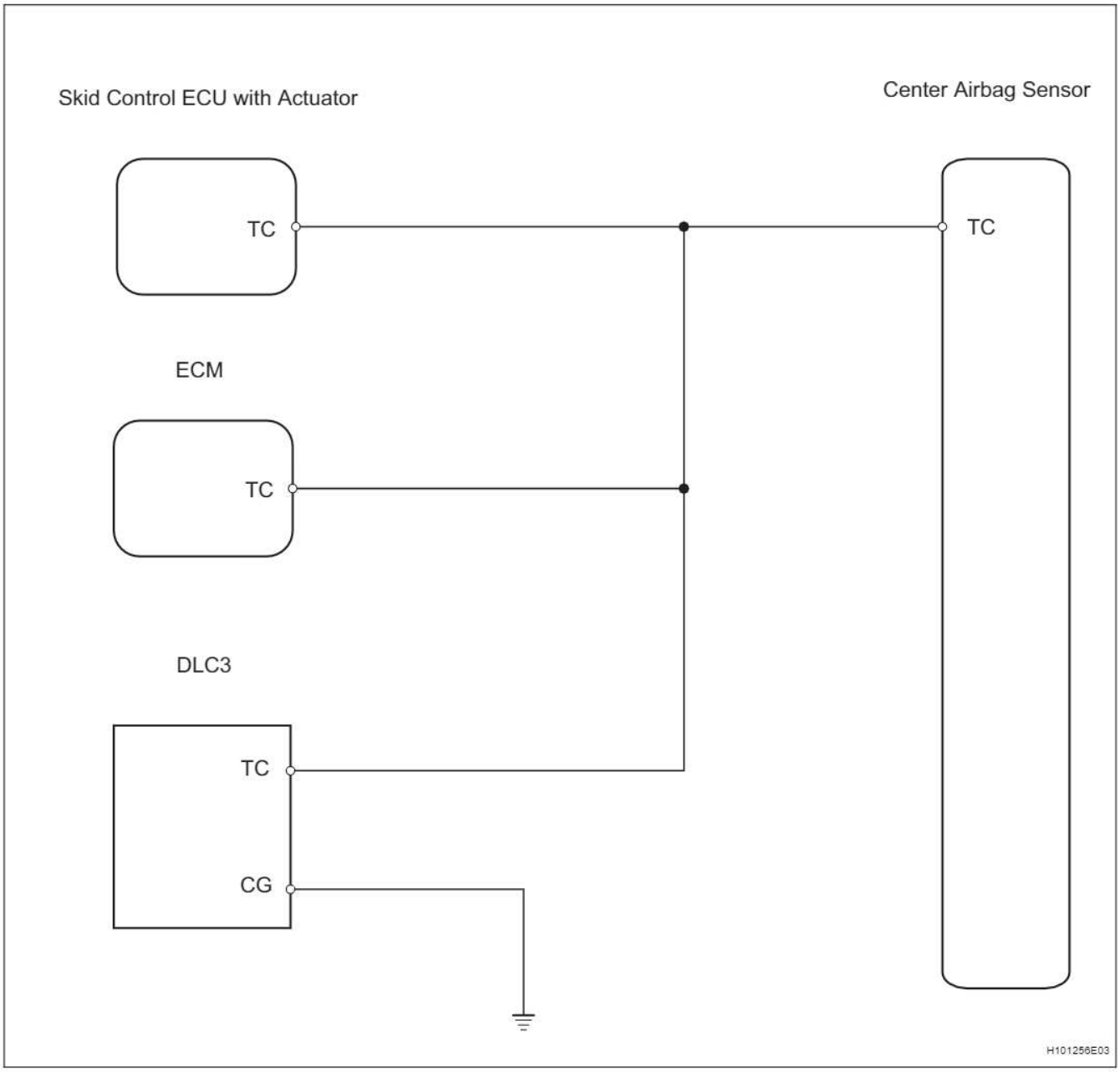
DTC output mode is set by connecting terminals TC and CG of the DLC3. The DTCs are communicated through SRS warning light blinking patterns.

RS

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

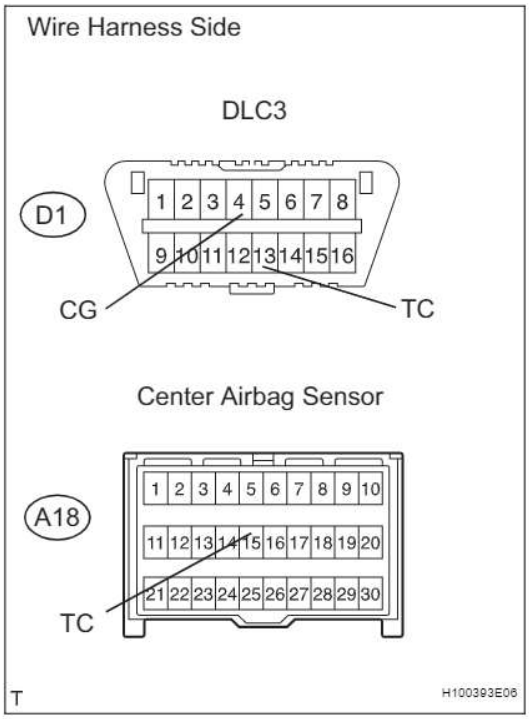
CAUTION:

Be sure to perform the following procedures before troubleshooting to avoid unexpected airbag deployment.

1. Turn the power switch OFF.
2. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.

RS

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

OCCUPANT CLASSIFICATION SYSTEM

PRECAUTION

1. **INSPECTION PROCEDURE FOR VEHICLE INVOLVED IN ACCIDENT**
   (a) Perform the zero point calibration and sensitivity check if any of the following conditions apply.
   - 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.

   NOTICE:
   When a vehicle involved in an accident is brought into the workshop for repair, check the flatness of the floor where the front passenger seat is mounted. If the flatness is not within +-3.0 mm (+-0.118 in.), adjust it to the specified range.

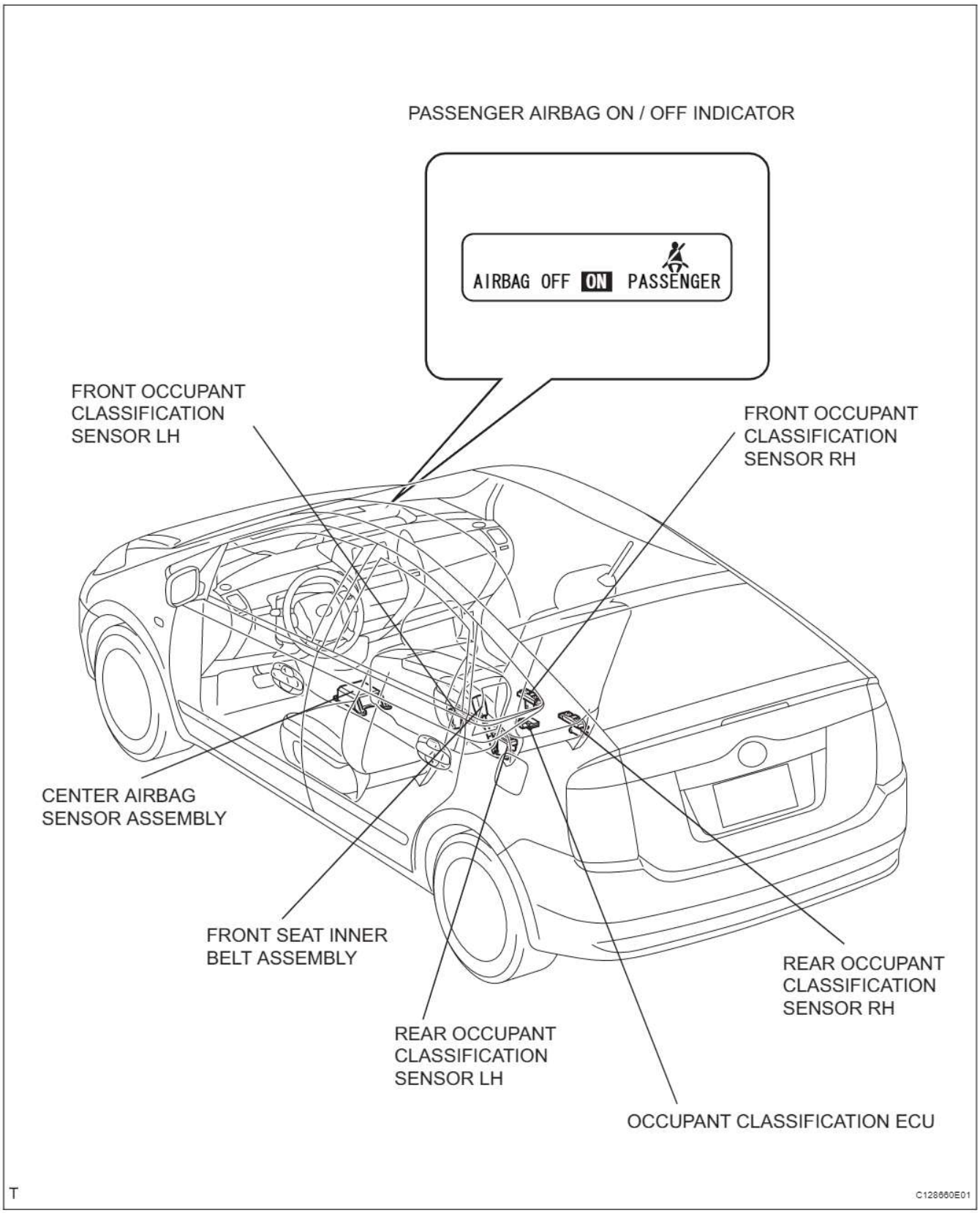
2. **NOTICE FOR INITIALIZATION**
   When disconnecting the negative (-) battery terminal, initialize the following system after the terminal is reconnected.

System Name	See page
Power Window Control System	IN-32

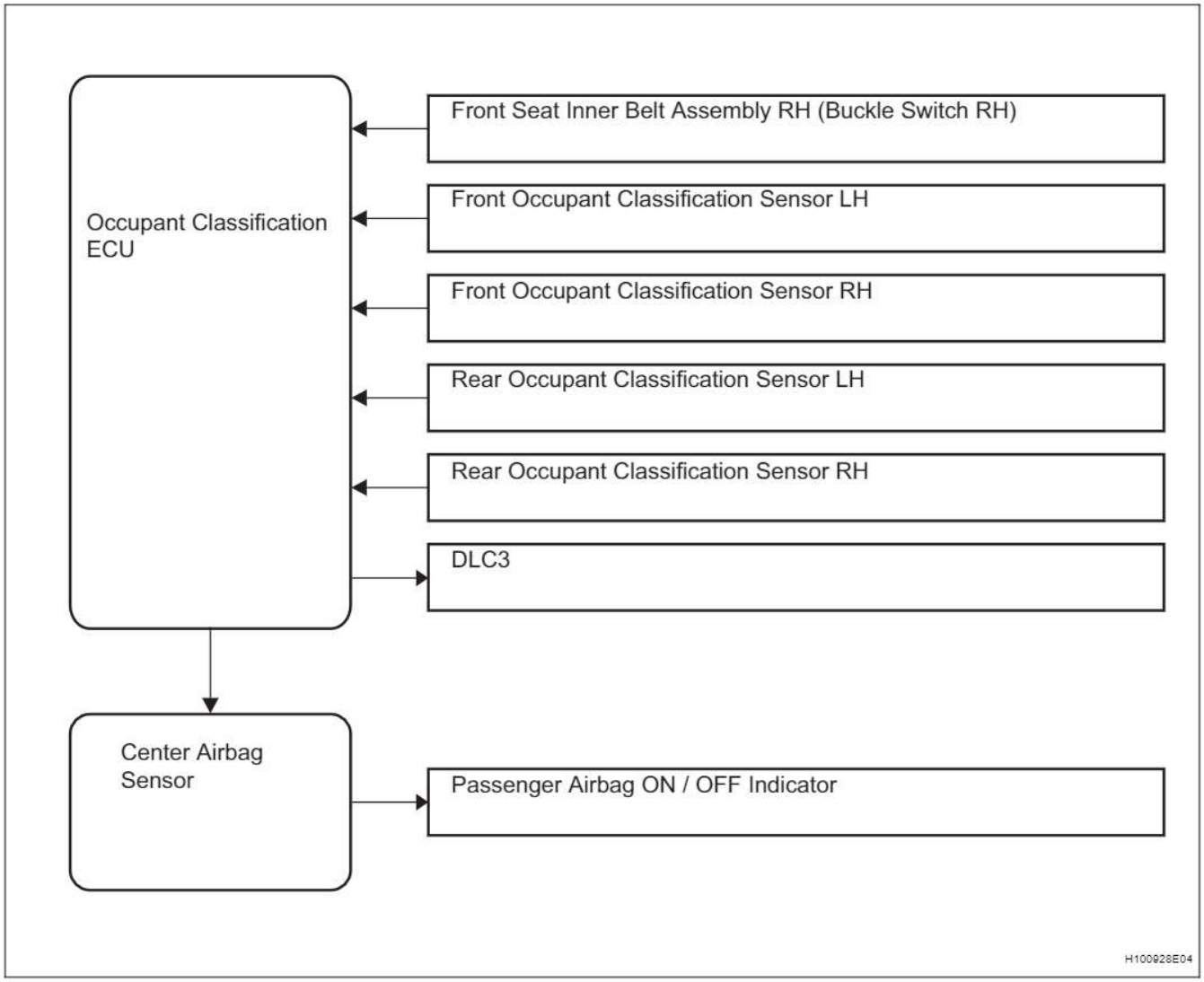
3. **NOTICE FOR HYBRID SYSTEM ACTIVATION**
   - When the warning light is illuminated or the battery has been disconnected and reconnected, pressing the power switch may not start the system on the first try. If so, press the power switch again.
   - With the power switch's power mode changed to ON (IG), disconnect the battery. If the key not in the key slot during reconnection, DTC B2799 may be output.

PARTS LOCATION

RS



SYSTEM DIAGRAM



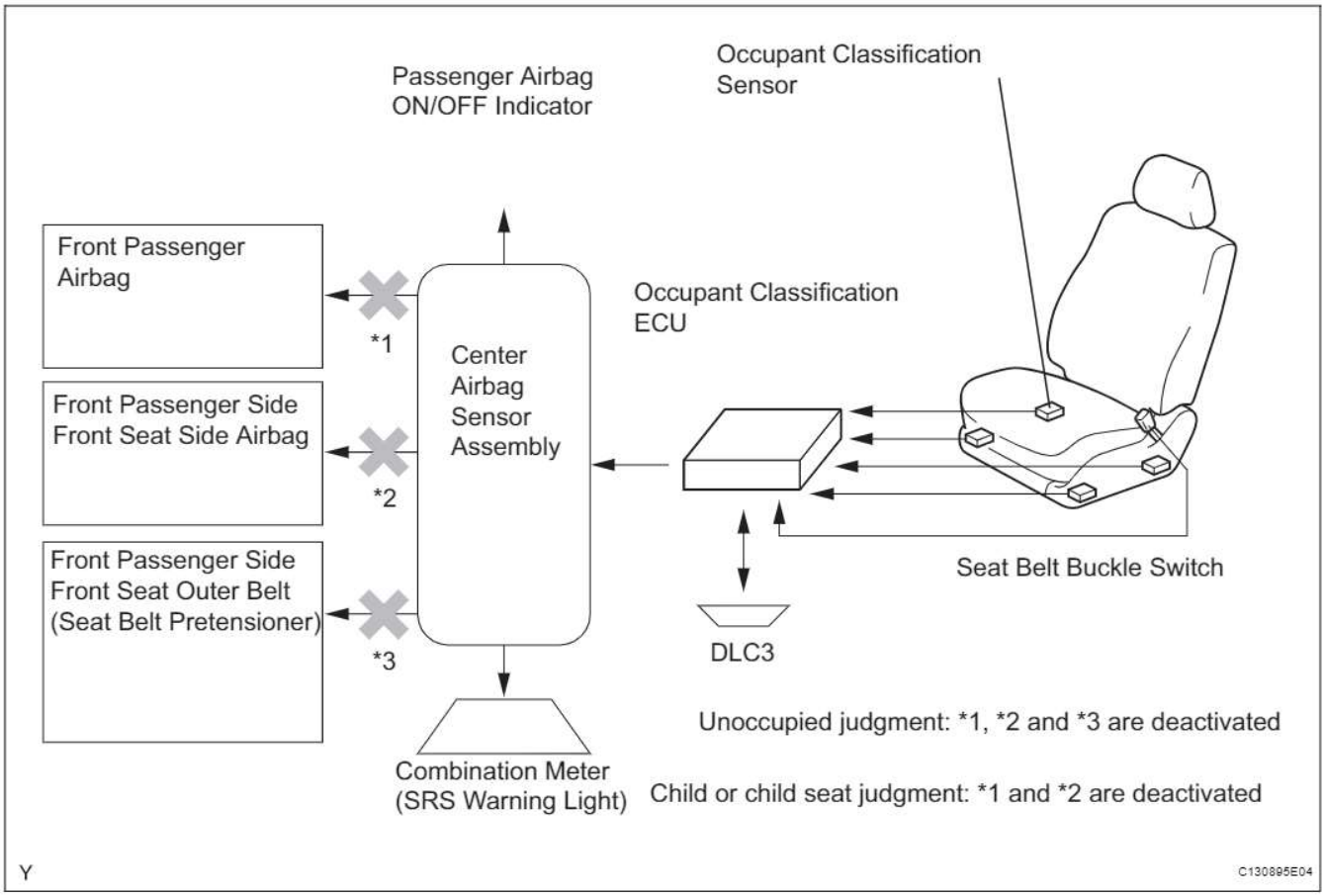
RS

RS

SYSTEM DESCRIPTION

1. GENERAL

(a) The front passenger occupant classification system judges whether the front passenger seat is occupied or not in accordance with the seat belt buckle status; and whether the seat is occupied by an adult or child (with child seat) in accordance with the load that is applied to the front passenger seat. Thus, when appropriate, it restricts the deployment of the front passenger airbag, front passenger side airbag, and the front passenger seat belt pretensioner. In addition, the system informs the driver of the result of the judgment through the use of the airbag ON/OFF indicator.



2. MAIN COMPONENTS

Component	Description
Occupant Classification Sensor	Outputs voltages to occupant classification ECU in accordance with load applied to sensor
Occupant Classification ECU	Constantly monitors weight of front passenger seat load, and judges occupancy condition in accordance with signals from occupant classification sensors and seat belt buckle switch
Passenger Airbag ON / OFF Indicator	Passenger airbag ON indicator illuminates when front passenger and front passenger side airbags activated. Airbag OFF indicator illuminates when front passenger and front passenger side airbags deactivated.
Seat Belt Buckle Switch	Detects whether seat belt is fastened and outputs appropriate signals to occupant classification ECU

HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

- Use the following procedures to troubleshoot the occupant classification system.
- *: Use the intelligent tester.

RS

1	VEHICLE BROUGHT TO WORKSHOP

NEXT

2	PASSENGER AIRBAG ON/OFF INDICATOR CHECK

NEXT

3	DTC CHECK (Present and Past DTC)*

(a) Check for DTCs (see page RS-182).

Result

Result	Proceed to
DTC is output.	A
DTC is not output.	B

B → GO TO PROBLEM SYMPTOMS TABLE

A

4	DTC CHART

NEXT

5	REPAIR OR REPLACEMENT

NEXT

6	DTC CLEARANCE (Present and Past DTCs)*

(a) Clear the DTCs (see page RS-182).

NEXT

7	DTC CHECK (Present and Past DTCs)*

(a) Check for DTCs (see page RS-182).

Result

Result	Proceed to
DTC is not output.	A
DTC is output.	B

RS

B → Go to step 5

A

8	PROBLEM SYMPTOMS SIMULATION

(a) Check the passenger airbag ON/OFF indicator condition (see page RS-179).

Result

Result	Proceed to
Passenger airbag ON/OFF indicator is operating normally.	A
Passenger airbag ON/OFF indicator (OFF) is not operating normally.	B

B → Go to step 5

A

9	CONFIRMATION TEST

NEXT

END

INITIALIZATION

1. ZERO POINT CALIBRATION

NOTICE:

Make sure that the front passenger seat is not occupied before performing the operation.

HINT:

Perform the zero point calibration and sensitivity check if any of the following conditions apply.

- The occupant classification ECU is replaced.
- Accessories (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.

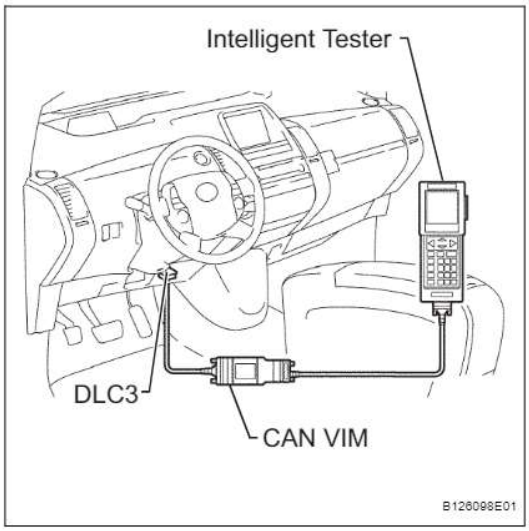
(a) Zero point calibration and sensitivity check procedures:

HINT:

Make sure that the zero point calibration has finished normally, and then perform the sensitivity check.

(1) Adjust the seat position in accordance with the table below.

Adjustment Item	Position
Slide Direction	Rearmost position
Reclining Angle	Upright position
Headrest Height	Lowest position
Lifter Height	Lowest position



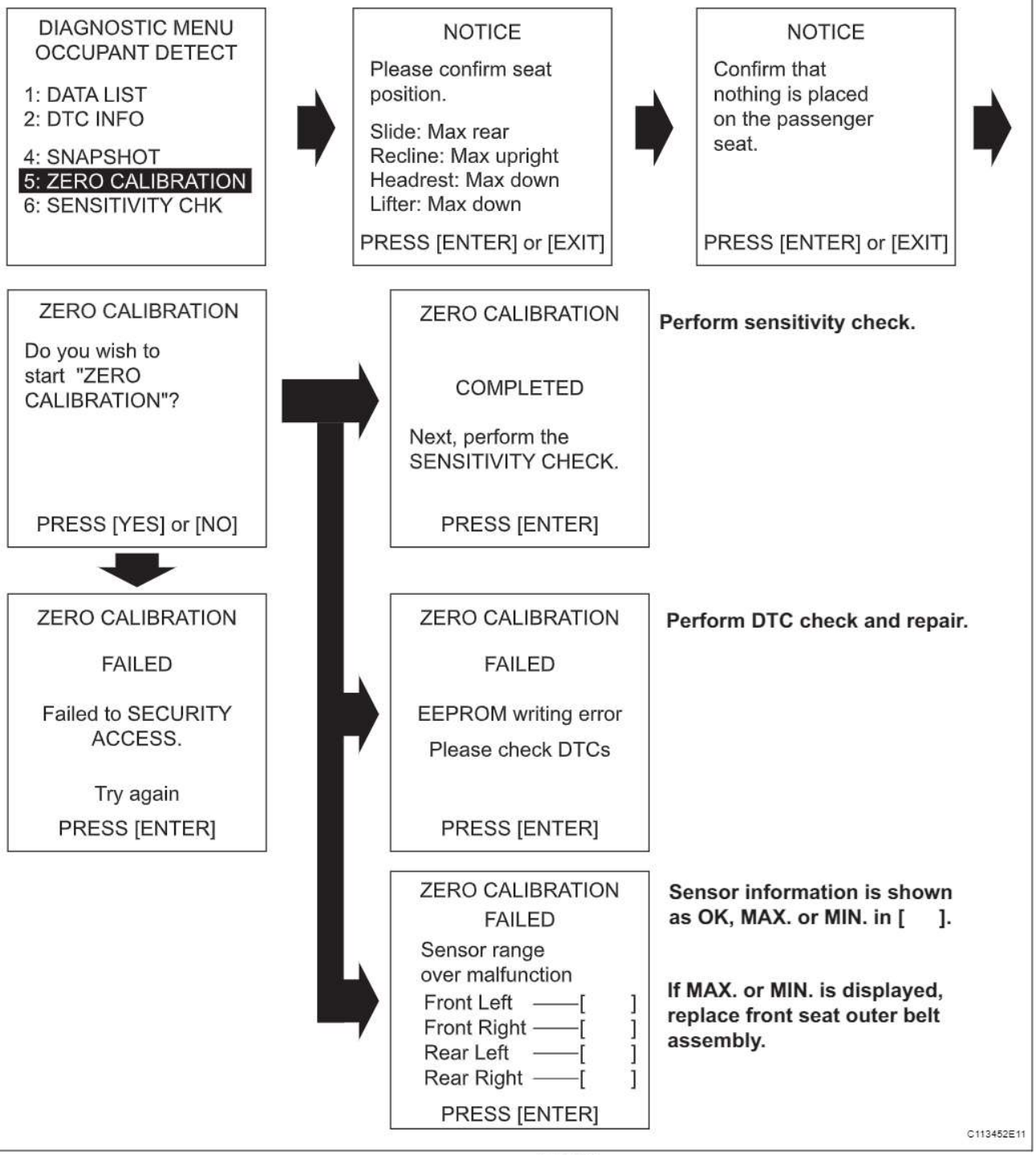
(2) Connect the intelligent tester (with CAN VIM) to the DLC3.

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

(4) Perform the zero point calibration by following the prompts on the tester screen.

ZERO POINT CALIBRATION PROCEDURE

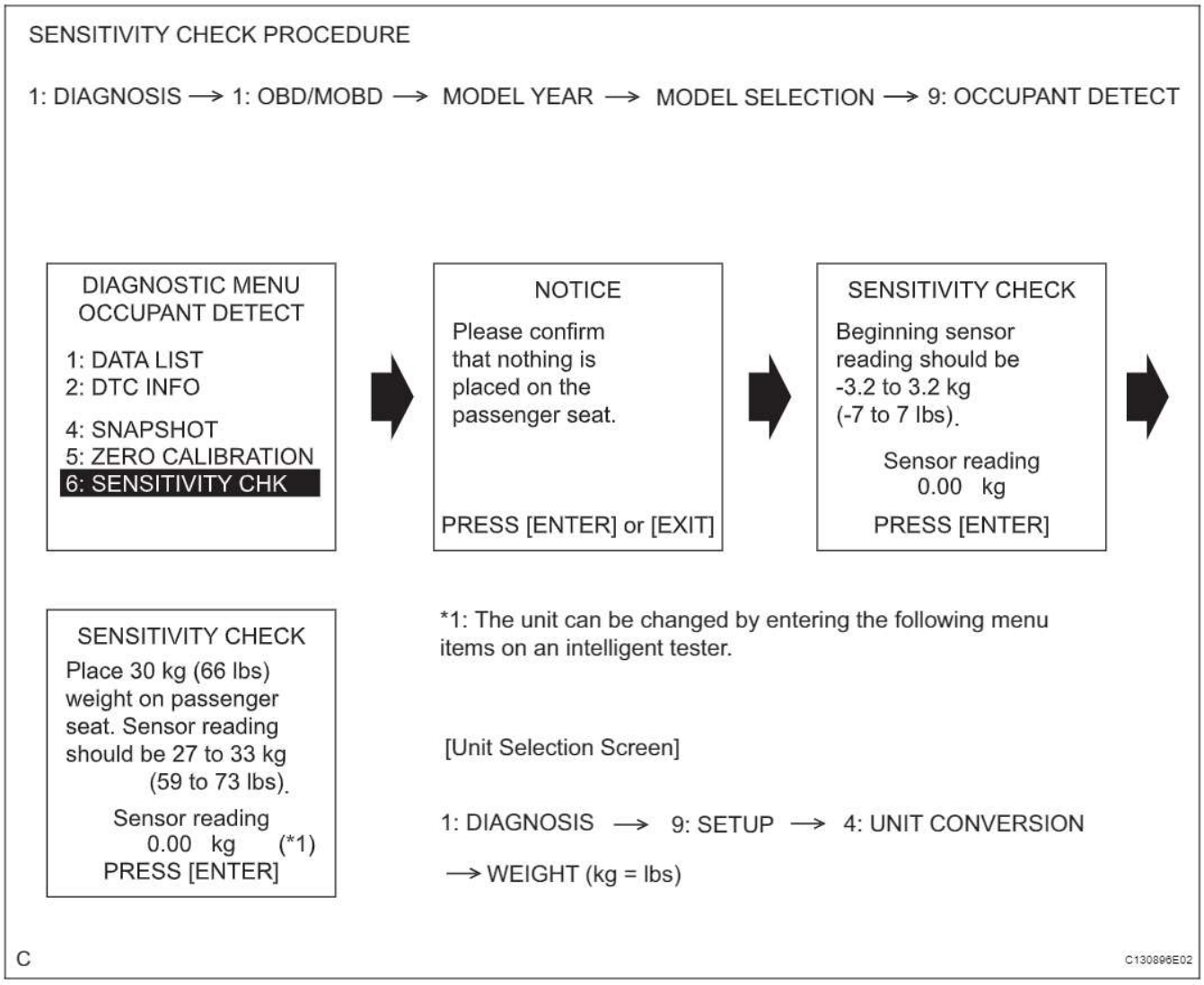
1: DIAGNOSIS - 1: OBD/MOBD - MODEL YEAR - MODEL SELECTION - 9: OCCUPANT DETECT
Refer to the following screen flowchart.



HINT:
Refer to the intelligent tester operator's manual for further details.

OK:
COMPLETED is displayed.

(5) Perform the sensitivity check by following the prompts on the tester screen.
(6) Confirm that the beginning sensor reading is within the standard range.
Standard range:
-3.2 to 3.2 kg (-7 to 7 lb)
(7) Place a 30 kg (66.14 lb) weight (e.g. a lead mass) onto the front passenger seat.
(8) Confirm that the sensitivity is within the standard range.



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

HINT:

- When performing the sensitivity check, use a solid metal weight (the check result may not be accurate if a liquid weight is used).

- If the sensitivity deviates from the standard range, retighten the bolts of the front passenger seat taking care not to deform the seat rail. After performing this procedure, if the sensitivity is not within the standard range, replace the front seat RH.
- If the zero point calibration has not finished normally, replace the front seat RH.

PROBLEM SYMPTOMS TABLE

HINT:

- Use the table below to help determine the cause of the problem symptom. The potential cases 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.
- Proceed to the troubleshooting procedures for each circuit in the table below.

Occupant classification ECU

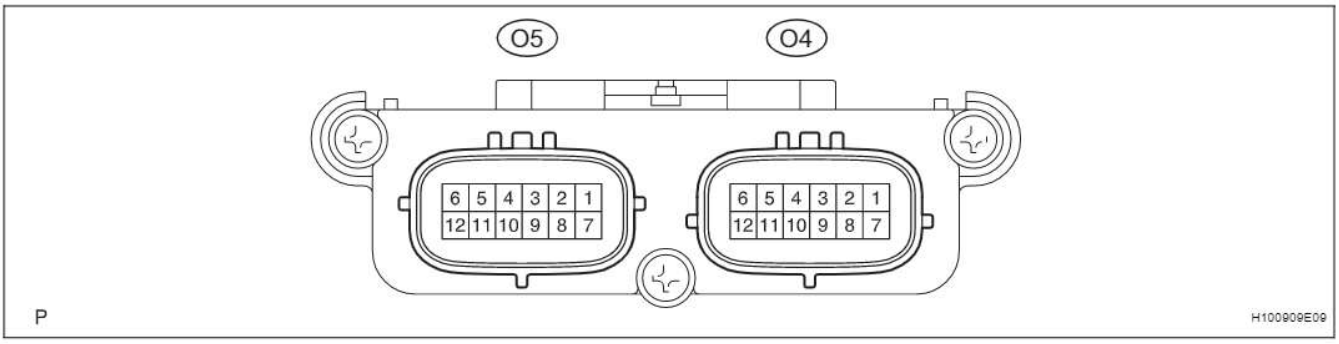
Symptom	Suspected area	See page
The front passenger seat condition differs from the indication of the passenger airbag ON / OFF indicator (DTC is not output).	Trouble in Passenger Airbag ON / OFF Indicator	RS-260

RS

TERMINALS OF ECU

1. CHECK OCCUPANT CLASSIFICATION ECU

(a) Measure the voltage of the connector.



Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
+B (O4-1) - GND (O4-3)	L - W-B	+B power source	Always	10 to 14 V
DIA (O4-2) - GND (O4-3)	W - W-B	Diagnosis (DLC3)	Power switch ON (IG)	Pulse generation
GND (O4-3) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω
FSR- (O4-4) - GND (O4-3)	Y-B - W-B	Center airbag sensor communication line	Always	Below 1 Ω
BGND (O4-5) - GND (O4-3)	R - W-B	Passenger side buckle switch ground line	Always	Below 1 Ω
IG (O4-7) - GND (O4-3)	B - W-B	IG power source	Power switch ON (IG)	10 to 14 V
FSR+ (O4-8) - FSR- (O4-4)	Y - Y-B	Center airbag sensor communication line	Power switch ON (IG)	Pulse generation
BSW (O4-9) - BGND (O4-5)	G - R	Passenger side buckle switch line	Buckle switch ON Buckle switch OFF	Pulse generation
SGD1 (O5-1) - GND (O4-3)	G - W-B	Front occupant classification sensor LH ground line	Always	Below 1 Ω
SGD2 (O5-2) - GND (O4-3)	O - W-B	Front occupant classification sensor RH ground line	Always	Below 1 Ω
SGD3 (O5-3) - GND (O4-3)	W - W-B	Rear occupant classification sensor LH ground line	Always	Below 1 Ω
SGD4 (O5-4) - GND (O4-3)	BR - W-B	Rear occupant classification sensor RH ground line	Always	Below 1 Ω
SVC1 (O5-11) - SGD1 (O5-1)	R - G	Front occupant classification sensor LH power supply line	Power switch ON (IG), a load is applied to front occupant classification sensor LH	4.5 to 5.1 V
SVC2 (O5-12) - SGD2 (O5-2)	W - O	Front occupant classification sensor RH power supply line	Power switch ON (IG), a load is applied to front occupant classification sensor RH	4.5 to 5.1 V
SVC3 (O5-5) - SGD3 (O5-3)	GR - W	Rear occupant classification sensor LH power supply line	Power switch ON (IG), a load is applied to rear occupant classification sensor LH	4.5 to 5.1 V
SVC4 (O5-6) - SGD4 (O5-4)	V - BR	Rear occupant classification sensor RH power supply line	Power switch ON (IG), a load is applied to rear occupant classification sensor RH	4.5 to 5.1 V

Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
SIG1 (O5-7) - SGD1 (O5-1)	SB - G	Front occupant classification sensor LH signal line	Power switch ON (IG), a load is applied to front occupant classification sensor LH	0.2 to 4.7 V
SIG2 (O5-8) - SGD2 (O5-2)	L - O	Front occupant classification sensor RH signal line	Power switch ON (IG), a load is applied to front occupant classification sensor RH	0.2 to 4.7 V
SIG3 (O5-9) - SGD3 (O5-3)	Y - W	Rear occupant classification sensor LH signal line	Power switch ON (IG), a load is applied to rear occupant classification sensor LH	0.2 to 4.7 V
SIG4 (O5-10) - SGD4 (O5-4)	R - BR	Rear occupant classification sensor RH signal line	Power switch ON (IG), a load is applied to rear occupant classification sensor RH	0.2 to 4.7 V

RS

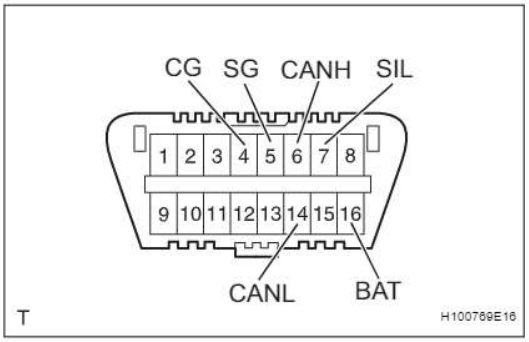
DIAGNOSIS SYSTEM

1. DESCRIPTION

The occupant classification ECU controls the functions of the occupant classification System on the vehicle. Data of the occupant classification system can be read in the Data Link Connector 3 (DLC3) of the vehicle. When the system seems to be malfunctioning, use the intelligent tester to check for a malfunction and perform repairs.

2. CHECK DLC3

The ECU uses the ISO 15765-4 for communication. The terminal arrangement of the DLC3 complies with ISO 15031-3 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)	HIGH-Level 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:

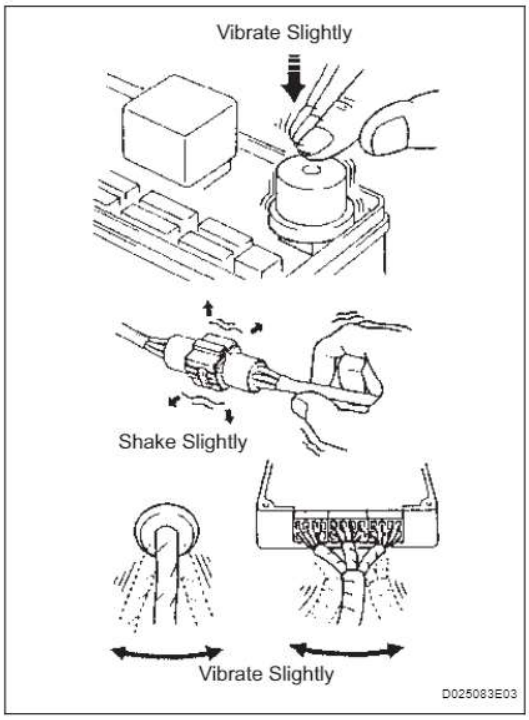
***: Before measuring the resistance, leave the vehicle as is for at least 1 minute and do not operate the power switch, any switches or doors.**

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 intelligent tester (with CAN VIM) to the DLC3, turn the power switch ON 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 tester.

- 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 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 symptoms occur. In such cases, a thorough customer 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.

This leads to a standstill in troubleshooting.

(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 is turned ON (IG)).

(1) Slightly vibrate the part of the sensor considered to be the cause of the problem 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.

(b) Simulation method for DTC B1795:

Turn the power switch from the OFF to the ON (IG) position, hold the position for 10 seconds, and then turn it back to the OFF position again 50 times in a row.

HINT:

DTC B1795 is output if the occupant classification ECU receives the power switch OFF - ON (IG) - OFF signal 50 times in a row when a malfunction occurs in the power circuit for the occupant classification system.

4. FUNCTION OF PASSENGER AIRBAG ON/OFF INDICATOR

(a) Initial check

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

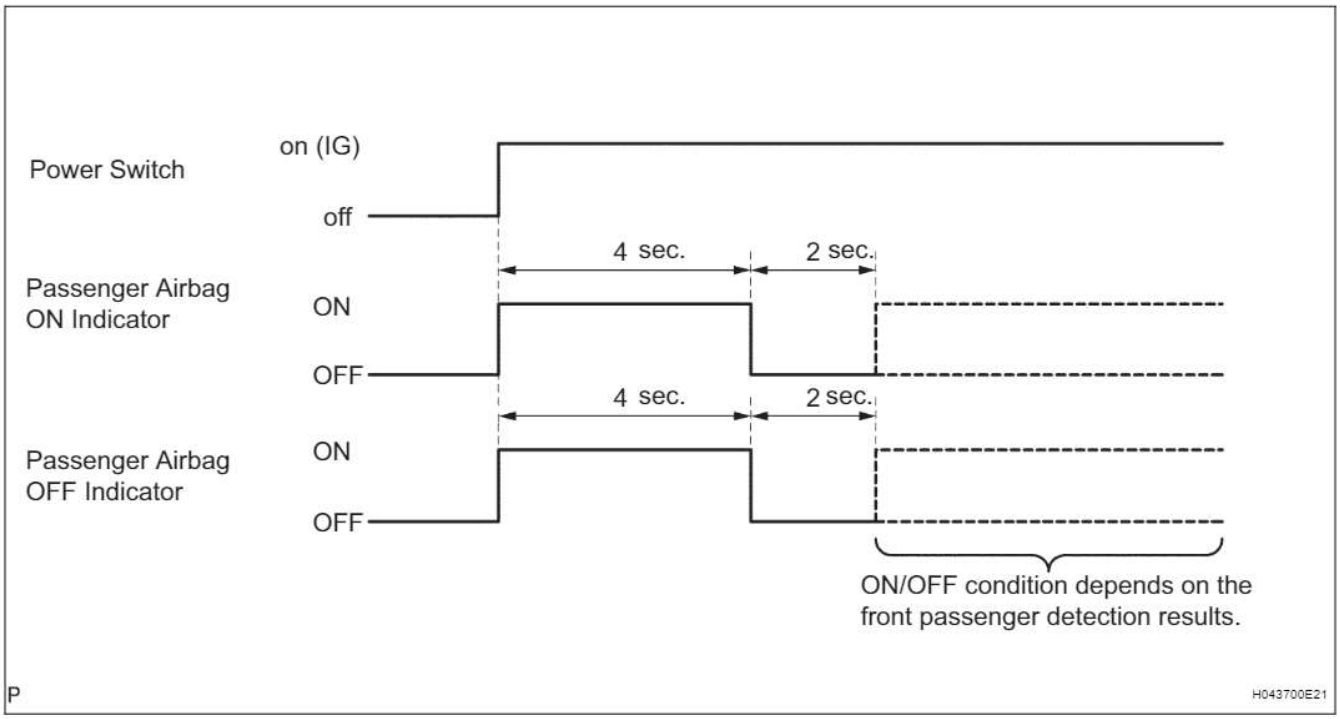
(2) The passenger airbag ON /OFF indicator (ON and OFF) comes on for approximately 4 seconds, then goes off for approximately 2 seconds.

(3) Approximately 6 seconds after the power switch is turned to the ON (IG) position, the passenger airbag ON/OFF indicator will be ON/OFF depending on the conditions listed below.

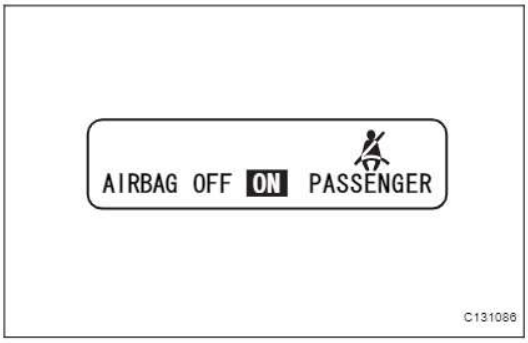
Condition	ON Indicator	OFF Indicator
Vacant	OFF	OFF
Adult is seated	ON	OFF
Child is seated	OFF	ON
Child restraint system is set	OFF	ON
Front passenger occupant classification system failure	OFF	ON

HINT:

- The passenger airbag ON / OFF indicator operates 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 the passenger airbag OFF indicator (OFF) come on. In this case, check the DTCs in the airbag system first.



5. CHECK PASSENGER AIRBAG ON/OFF INDICATOR

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

(b) Check that the passenger airbag ON/OFF indicators come on for approximately 4 seconds, then go off for approximately 2 seconds.

HINT:

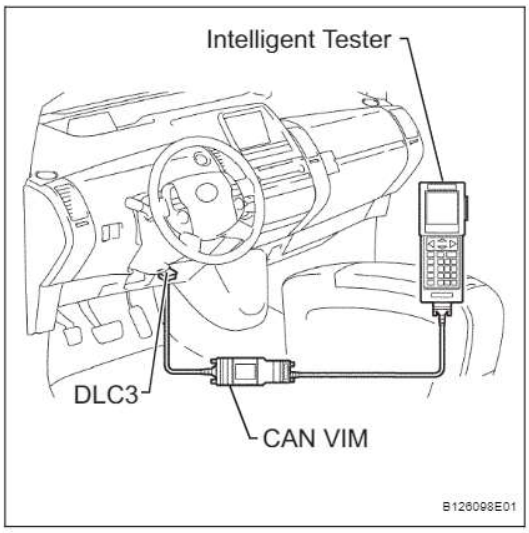
Refer to the table in the previous step regarding the passenger airbag ON/OFF indicator when approximately 6 seconds have elapsed after the power switch is turned ON (IG).

DTC CHECK / CLEAR

1. CHECK DTC

HINT:

- When DTC B1650/23 is detected as a result of troubleshooting for the airbag system, troubleshoot the occupant classification system.
- Use the intelligent tester (with CAN VIM) to read and clear DTCs, otherwise the DTCs cannot be read and cleared.



(a) Connect the intelligent tester (with CAN VIM) to the DLC3.
(b) Turn the power switch ON (IG).
(c) Check for DTCs by following the prompts on the tester screen.
HINT:
Refer to the intelligent tester operator's manual for further details.

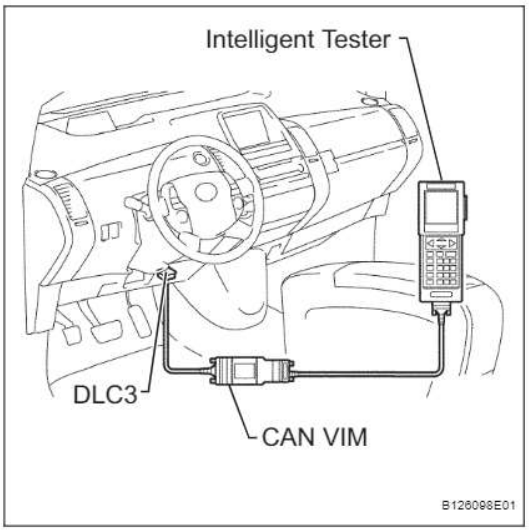
2. Clear DTC

(a) Connect the intelligent tester (with CAN VIM) to the DLC3.
(b) Turn the power switch ON (IG).
(c) Clear the DTCs by following the prompts on the tester screen.
HINT:
Refer to the intelligent tester operator's manual for further details.

RS

DATA LIST / ACTIVE TEST

HINT:
Using the intelligent tester'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.



1. DATA LIST FOR OCCUPANT CLASSIFICATION ECU

(a) Connect the intelligent tester (with CAN VIM) to the DLC3.
(b) Turn the power switch ON (IG).
(c) Read the DATA LIST on the tester's screen.

Occupant classification ECU

Item	Measurement Item/ Range (Display)	Normal Condition	Diagnostic Note
IG SW	Power switch condition/ ON: Power switch ON (IG) OFF: Power switch OFF	ON/OFF	-
P BUCKLE SW	Buckle switch (Front passenger side)/ UNSET: Front passenger side seat belt is unfastened SET: Front passenger side seat belt is fastened NG: Front passenger side seat belt is malfunctioning	UNSET/SET	-
Front passenger CLASS	Front passenger classification/ AF05: Adult (36 to 54 kg (79.37 to 119.05 lb)) is seated AM50: Adult (more than 54 kg (119.05 lb)) is seated CHILD: Child (less than 36 kg (79.37 lb)) is seated CRS: Child restraint system and front passenger side buckle switch ON, then 7 to 36 kg (15.43 to 79.37 lb) is set OFF: Vacant	AF05/AM50/CHILD/CRS/OFF	-
SENS RANGE INF	Sensor range information/ OK: The sensor value is within the range NG: The sensor value is outside the range	OK	-
FL SENS RANGE	Front left sensor range information/ OK: Sensor range is -17 to 27 kg (-37.48 to 59.52 lb) Min.: Less than -17 kg (-37.48 lb) Max.: More than 27 kg (59.52 lb)	OK	-

Item	Measurement Item/ Range (Display)	Normal Condition	Diagnostic Note
FR SENS RANGE	Front right sensor range information/ OK: Sensor range is -17 to 27 kg (-37.48 to 59.52 lb) Min.: Less than -17 kg (-37.48 lb) Max.: More than 27 kg (59.52 lb)	OK	-
RL SENS RANGE	Rear left sensor range information/ OK: Sensor range is -17 to 37 kg (-37.48 to 81.57 lb) Min.: Less than -17 kg (-37.48 lb) Max.: More than 37 kg (81.57 lb)	OK	-
RR SENS RANGE	Rear right sensor range information/ OK: Sensor range is -17 to 37 kg (-37.48 to 81.57 lb) Min.: Less than -17 kg (-37.48 lb) Max.: More than 37 kg (81.57 lb)	OK	-
FL SENS VOL	Front left sensor voltage/ Min.: 0 V Max.: 19.8 V	0 to 4.7 V	-
FR SENS VOL	Front right sensor voltage/ Min.: 0 V Max.: 19.8 V	0 to 4.7 V	-
RL SENS VOL	Rear left sensor voltage/ Min.: 0 V Max.: 19.8 V	0 to 4.7 V	-
RR SENS VOL	Rear right sensor voltage/ Min.: 0 V Max.: 19.8 V	0 to 4.7 V	-
FL SENS WEIGHT	Front left sensor weight information/ Min.: -17 kg (-37.48 lb) Max.: 27 kg (59.52 lb)	-17 to 27 kg (-37.48 to 59.52 lb)	-
FR SENS WEIGHT	Front right sensor weight information/ Min.: -17 kg (-37.48 lb) Max.: 27 kg (59.52 lb)	-17 to 27 kg (-37.48 to 59.52 lb)	-
RL SENS WEIGHT	Rear left sensor weight information/ Min.: -17 kg (-37.48 lb) Max.: 37 kg (81.57 lb)	-17 to 37 kg (-37.48 to 81.57 lb)	-
RR SENS WEIGHT	Rear right sensor weight information/ Min.: -17 kg (-37.48 lb) Max.: 37 kg (81.57 lb)	-17 to 37 kg (-37.48 to 81.57 lb)	-
TOTAL WEIGHT	Total weight information/ Min.: -68 kg (-149.91 lb) Max.: 128 kg (282.19 lb)	-68 to 128 kg (-149.91 to 282.19 lb)	-
#PRESENT CODES	Number of present DTCs Min.: 0, Max.: 255	0	-
#PAST CODES	Number of past DTCs Min.: 0, Max.: 255	0	-

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).

Occupant classification system

RS

DTC No.	Detection Item	Trouble Area	See page
B1771	Passenger Side Buckle Switch Circuit Malfunction	1. Floor wire 2. Front seat inner belt assembly (Buckle switch RH) 3. Occupant classification ECU	RS-187
B1780	Front Occupant Classification Sensor LH Circuit Malfunction	1. Front seat wire RH 2. Front seat assembly RH (Front occupant classification sensor RH) 3. Occupant classification ECU	RS-193
B1781	Front Occupant Classification Sensor RH Circuit Malfunction	1. Front seat wire RH 2. Front seat assembly RH (Front occupant classification sensor RH) 3. Occupant classification ECU	RS-200
B1782	Rear Occupant Classification Sensor LH Circuit Malfunction	1. Front seat wire RH 2. Front seat assembly RH (Rear occupant classification sensor LH) 3. Occupant classification ECU	RS-207
B1783	Rear Occupant Classification Sensor RH Circuit Malfunction	1. Front seat wire RH 2. Front seat assembly RH (Rear occupant classification sensor RH) 3. Occupant classification ECU	RS-214
B1785	Front Occupant Classification Sensor LH Collision Detection	1. Front seat assembly RH (Front occupant classification sensor LH) 2. Occupant classification ECU	RS-221
B1786	Front Occupant Classification Sensor RH Collision Detection	1. Front seat assembly RH (Front occupant classification sensor RH) 2. Occupant classification ECU	RS-225
B1787	Rear Occupant Classification Sensor LH Collision Detection	1. Front seat assembly RH (Rear occupant classification sensor LH) 2. Occupant classification ECU	RS-229
B1788	Rear Occupant Classification Sensor RH Collision Detection	1. Front seat assembly RH (Rear occupant classification sensor RH) 2. Occupant classification ECU	RS-233
B1790	Center Airbag Sensor Assembly Communication Circuit Malfunction	1. Floor wire 2. Occupant classification ECU 3. Center airbag sensor assembly	RS-237
B1793	Occupant Classification Sensor Power Supply Circuit Malfunction	1. Front seat wire RH 2. Front seat assembly RH (Occupant classification sensors) 3. Occupant classification ECU	RS-243
B1794	Open in Occupant Classification ECU Battery Positive Line	1. Wire harness 2. Occupant classification ECU	RS-251
B1795	Occupant Classification ECU Malfunction	1. Battery 2. ECU-B Fuse 3. No. 2 floor wire 4. Front seat inner belt RH 5. Occupant classification ECU	RS-255

DTC No.	Detection Item	Trouble Area	See page
B1796	Sleep Operation Failure of Occupant Classification ECU	Occupant classification ECU	RS-258

DTC	B1771	Passenger Side Buckle Switch Circuit Malfunction

DESCRIPTION

RS

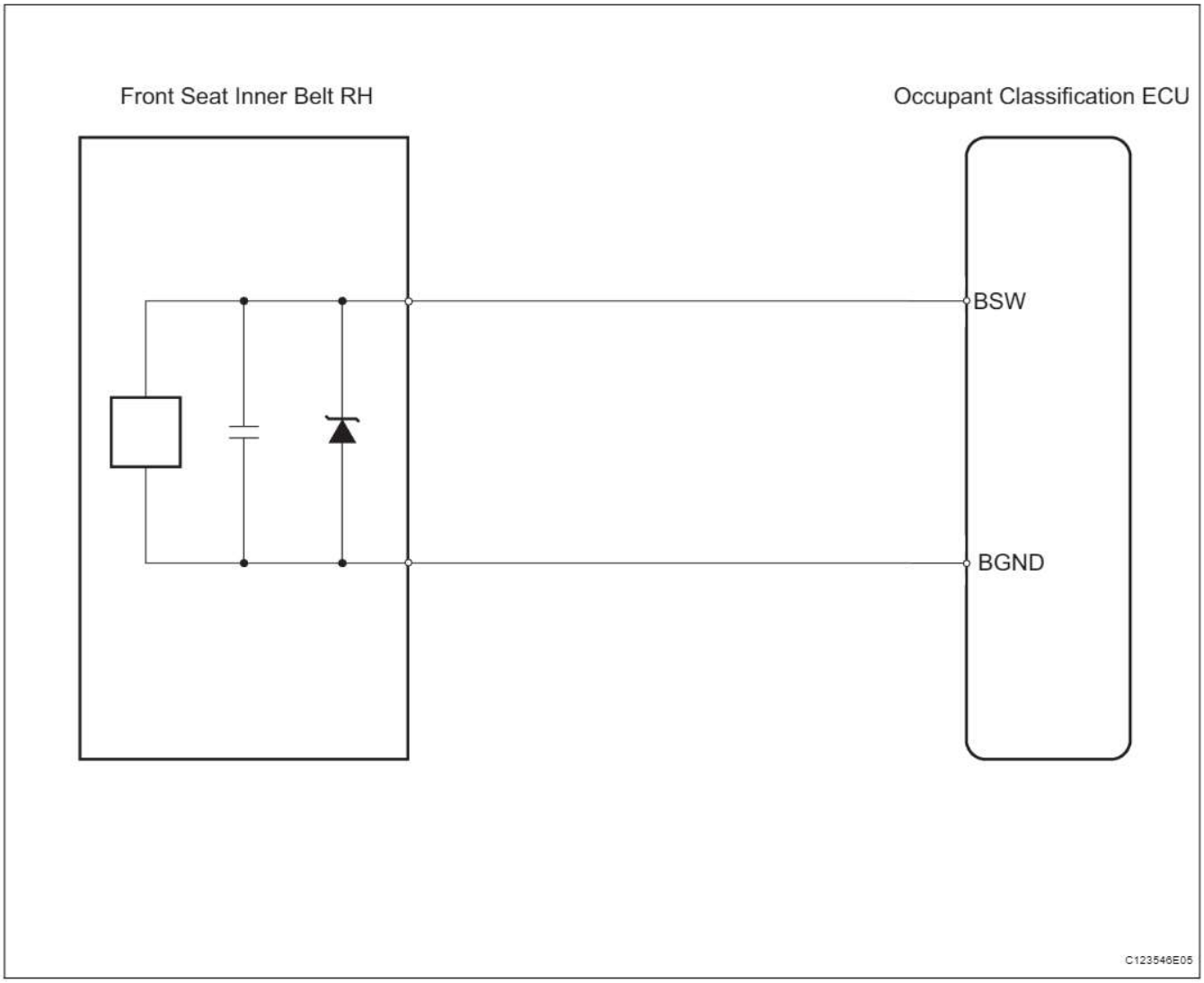
The passenger side buckle switch circuit consists of the occupant classification ECU and the front seat inner belt RH.

DTC B1771 is recorded when a malfunction is detected in the passenger side buckle switch circuit.

Troubleshoot DTC B1771 first when DTCs B1771 and B1795 are output simultaneously.

DTC No.	DTC Detection Condition	Trouble Area
B1771	When one of following conditions is met: • Occupant classification ECU detects line short signal, open signal, short to ground signal or short to B+ signal in the passenger side buckle switch circuit for 2 seconds • Passenger side buckle switch malfunction • Occupant classification ECU malfunction	• Floor wire • Front seat inner belt RH (Buckle switch RH) • Occupant classification ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not tip over. Holding the seat for a long period of time may cause a problem, such as seat rail deformation. Hold the seat up only for as long as necessary.

RS

1	CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1771 is not output.
HINT:
DTCs other than DTC B1771 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

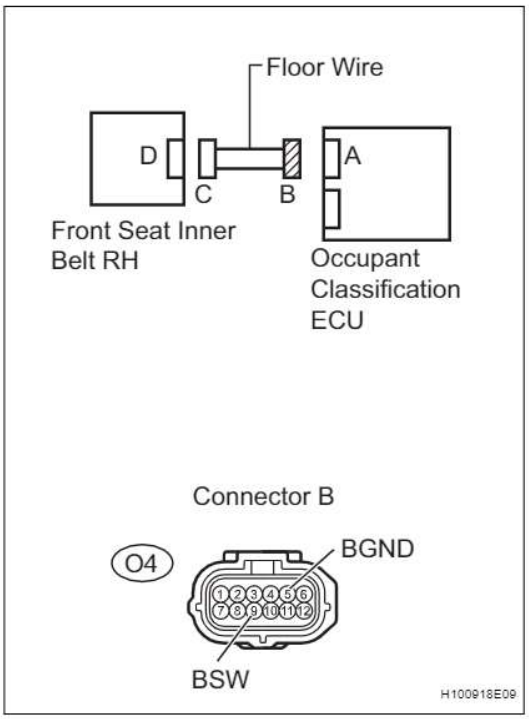
(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Check that the connectors are properly connected to the occupant classification ECU and the front seat inner belt RH.
OK:
The connectors are properly connected.

NG → CONNECT CONNECTOR

OK

RS

3 CHECK FLOOR WIRE (TO B+)



(a) Disconnect the connectors from the occupant classification ECU and the front seat inner belt RH.
(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.

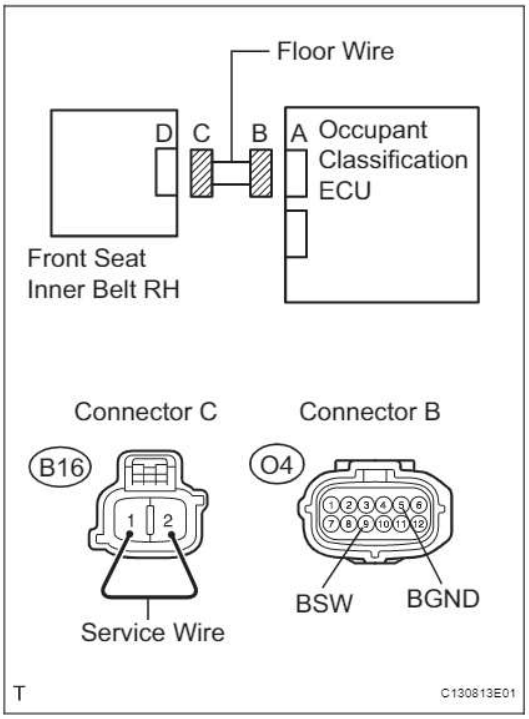
Standard voltage

Tester Connection	Specified Condition
O4-9 (BSW) - Body ground	Below 1 V
O4-5 (BGND) - Body ground	Below 1 V

NG → REPAIR OR REPLACE FLOOR WIRE

OK

4 CHECK FLOOR WIRE (FOR OPEN)



(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Using a service wire, connect terminals B16-2 and B16-1 of connector C.

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

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

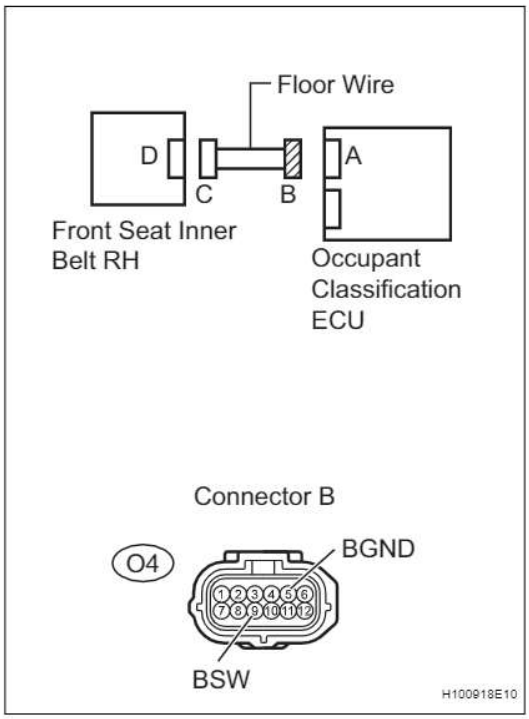
Standard resistance

Tester Connection	Specified Condition
O4-9 (BSW) - O4-5 (BGND)	Below 1 Ω

NG → REPAIR OR REPLACE FLOOR WIRE

OK

5 CHECK FLOOR WIRE (FOR SHORT)



(a) Disconnect the service wire from connector C.
(b) Measure the resistance of the wire harness side connector.

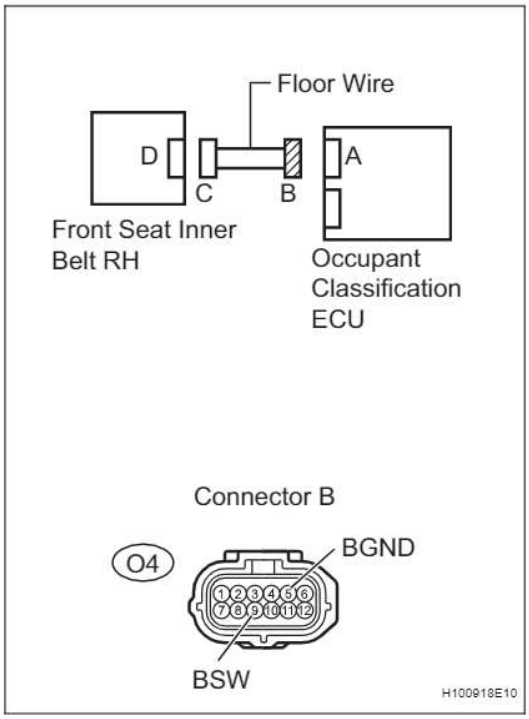
Standard resistance

Tester Connection	Specified Condition
O4-9 (BSW) - O4-5 (BGND)	1 MΩ or higher

NG → REPAIR OR REPLACE FLOOR WIRE

OK

6 CHECK FLOOR WIRE (TO GROUND)



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

Standard resistance

Tester Connection	Specified Condition
O4-9 (BSW) - Body ground	1 MΩ or higher
O4-5 (BGND) - Body ground	1 MΩ or higher

NG → REPAIR OR REPLACE FLOOR WIRE

OK

RS

7	CHECK FOR DTC

(a) Connect the connectors to the occupant classification ECU and the front seat inner belt RH.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the power switch ON (IG).
(d) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(e) Turn the power switch OFF.
(f) Turn the power switch ON (IG).
(g) Check the DTCs (see page RS-182).
OK:
DTC B1771 is not output.
HINT:
DTCs other than DTC B1771 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 RH

(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 RH (see page SB-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.
(d) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(e) Turn the power switch ON (IG).
(f) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(g) Turn the power switch OFF.
(h) Turn the power switch ON (IG).
(i) Check the DTCs (see page RS-182).
OK:
DTC B1771 is not output.
HINT:
DTCs other than DTC B1771 may be output at this time, but they are not related to this check.

OK → **END**

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.

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 intelligent tester (with CAN VIM) to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NEXT

11	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

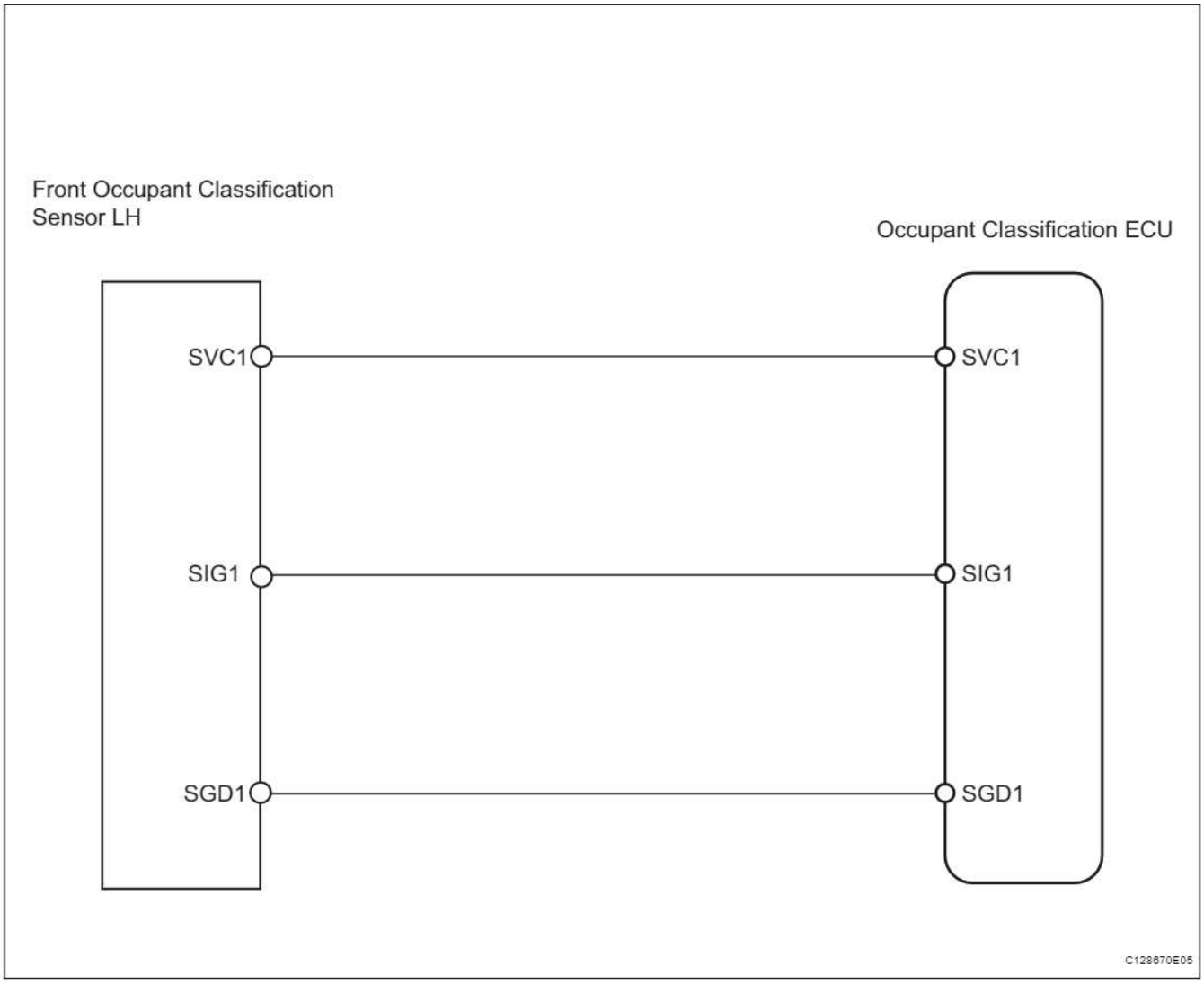
DTC	B1780	Front Occupant Classification Sensor LH Circuit Malfunction

DESCRIPTION

The front occupant classification sensor LH circuit consists of the occupant classification ECU and the front occupant classification sensor LH.
DTC B1780 is recorded when a malfunction is detected in the front occupant classification sensor LH circuit.

DTC No.	DTC Detection Condition	Trouble Area
B1780	When one of following conditions is met: • Occupant classification ECU detects line short signal, open signal, short to ground signal or short to B+ signal in the front occupant classification sensor LH circuit for 2 seconds • Front occupant classification sensor LH malfunction • Occupant classification ECU malfunction	• Front seat wire RH • Front seat RH (Front occupant classification sensor LH) • Occupant classification ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not tip over. Holding the seat for a long period of time may cause a problem, such as seat rail deformation. Hold the seat up only for as long as necessary.

RS

1	CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1780 is not output.
HINT:
DTCs other than DTC B1780 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

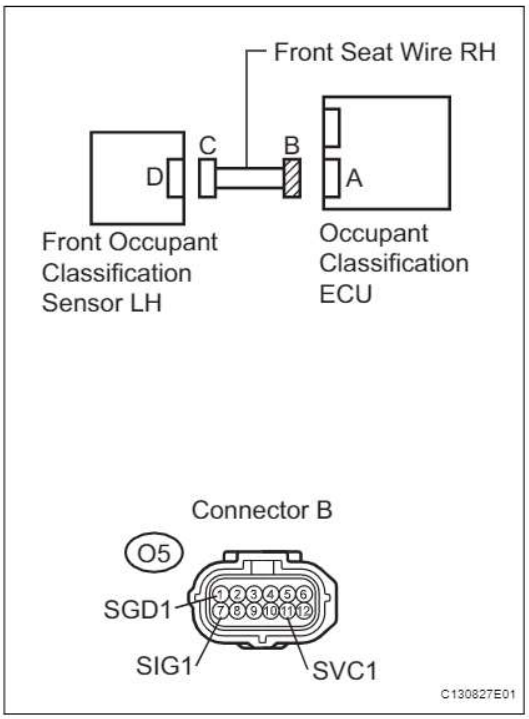
(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Check that the connectors are properly connected to the occupant classification ECU and the front occupant classification sensor LH.
OK:
The connectors are properly connected.

NG → **CONNECT CONNECTOR**

OK

RS

3	CHECK FRONT SEAT WIRE RH (TO B+)



(a) Disconnect the connectors from the occupant classification ECU and the front occupant classification sensor LH.
(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.

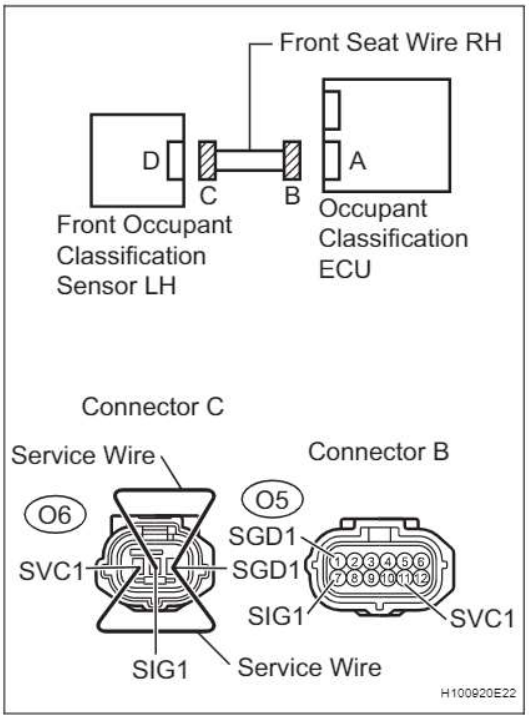
Standard voltage

Tester Connection	Specified Condition
O5-1 (SGD1) - Body ground	Below 1 V
O5-7 (SIG1) - Body ground	Below 1 V
O5-11 (SVC1) - Body ground	Below 1 V

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

4	CHECK FRONT SEAT WIRE RH (FOR OPEN)



(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Using a service wire, connect terminals O6-1 (SVC1) and O6-3 (SGD1), and connect terminals O6-2 (SIG1) and O6-3 (SGD1) of connector C.

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

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

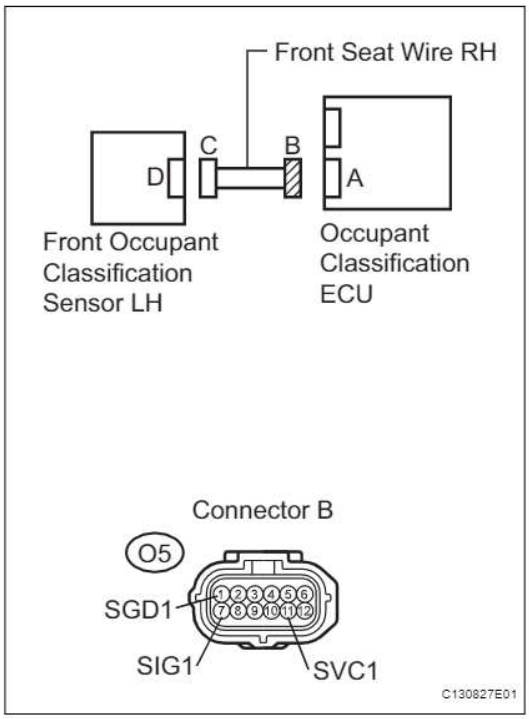
Standard resistance

Tester Connection	Specified Condition
O5-7 (SIG1) - O5-1 (SGD1)	Below 1 Ω
O5-11 (SVC1) - O5-1 (SGD1)	Below 1 Ω

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

5 CHECK FRONT SEAT WIRE RH (FOR SHORT)



(a) Disconnect the service wire from connector C.
(b) Measure the resistance of the wire harness side connector.

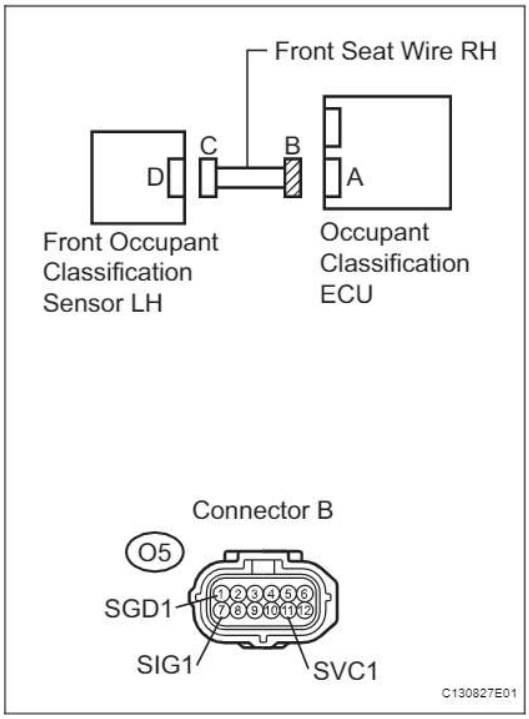
Standard resistance

Tester Connection	Specified Condition
O5-7 (SIG1) - O5-1 (SGD1)	1 MΩ or higher
O5-11 (SVC1) - O5-1 (SGD1)	1 MΩ or higher
O5-7 (SIG1) - O5-11 (SVC1)	1 MΩ or higher

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

6 CHECK FRONT SEAT WIRE RH (TO GROUND)



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

Standard resistance

Tester Connection	Specified Condition
O5-1 (SGD1) - Body ground	1 MΩ or higher
O5-7 (SIG1) - Body ground	1 MΩ or higher
O5-11 (SVC1) - Body ground	1 MΩ or higher

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

RS

7	CHECK FOR DTC

(a) Connect the connectors to the occupant classification ECU and the front occupant classification sensor LH.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the power switch ON (IG).
(d) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(e) Turn the power switch OFF.
(f) Turn the power switch ON (IG).
(g) Check the DTCs (see page RS-182).
OK:
DTC B1780 is not output.
HINT:
DTCs other than DTC B1780 may be output at this time, but they are not related to this check.

OK	USE SIMULATION METHOD TO CHECK

NG

8	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.
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

9	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester (with CAN VIM) to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NG	Go to step 12

OK

10	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NG → **Go to step 12**

OK

11	CHECK FOR DTC

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Turn the power switch ON (IG).
(c) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(d) Turn the power switch OFF.
(e) Turn the power switch ON (IG).
(f) Check the DTCs (see page RS-182).
OK:
DTC B1780 is not output.
HINT:
DTCs other than DTC B1780 may be output at this time, but they are not related to this check.

OK → **END**

NG

12	REPLACE FRONT SEAT ASSEMBLY RH

(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 RH (see page SE-1).

NEXT

13	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NEXT

14	PERFORM SENSITIVITY CHECK

RS

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard values:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

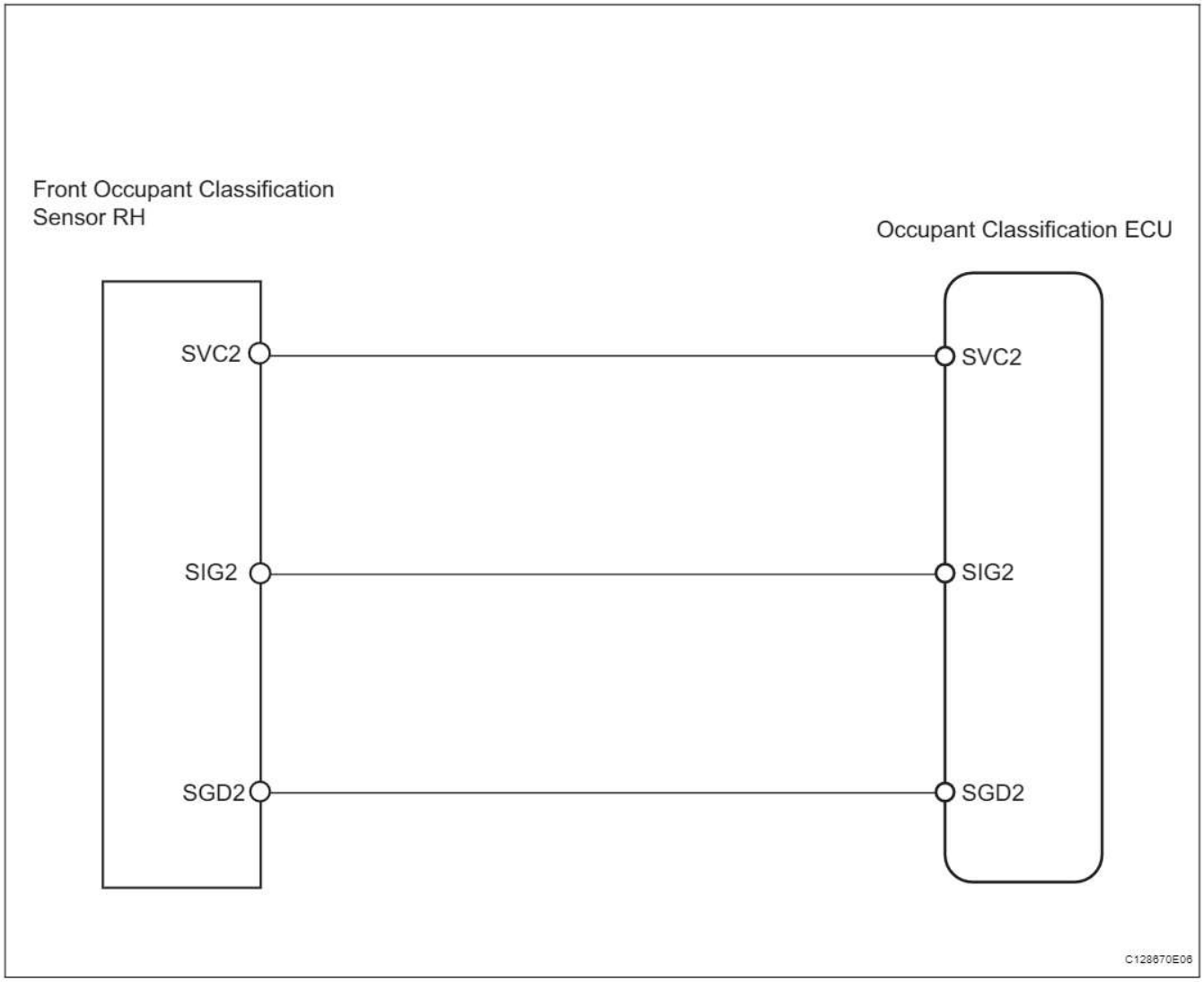
DTC	B1781	Front Occupant Classification Sensor RH Circuit Malfunction

DESCRIPTION

The front occupant classification sensor RH circuit consists of the occupant classification ECU and the front occupant classification sensor RH.
DTC B1781 is recorded when a malfunction is detected in the front occupant classification sensor RH circuit.

DTC No.	DTC Detection Condition	Trouble Area
B1781	When one of following conditions is met: • Occupant classification ECU detects line short signal, open signal, short to ground signal or short to B+ signal in the front occupant classification sensor RH circuit for 2 seconds • Front occupant classification sensor RH malfunction • Occupant classification ECU malfunction	• Front seat wire RH • Front seat RH (Front occupant classification sensor RH) • Occupant classification ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not tip over. Holding the seat for a long period of time may cause a problem, such as seat rail deformation. Hold the seat up only for as long as necessary.

RS

1	CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1781 is not output.
HINT:
DTCs other than DTC B1781 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG

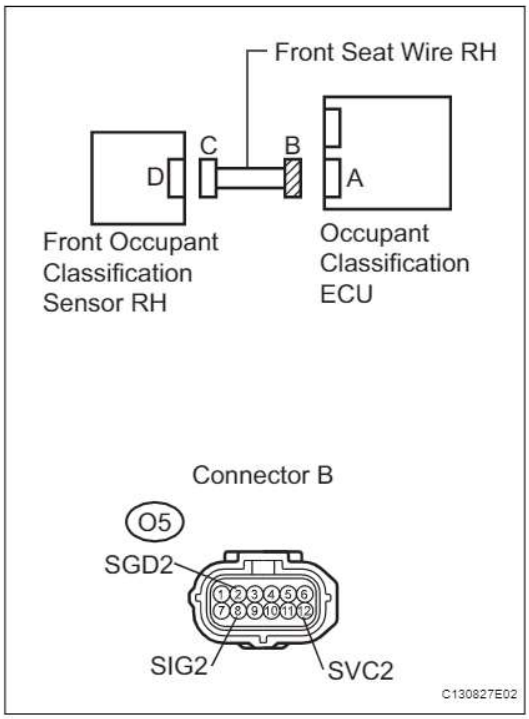
2	CHECK CONNECTION OF CONNECTOR

(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 occupant classification ECU and the front occupant classification sensor RH.
OK:
The connectors are properly connected.

NG → **CONNECT CONNECTOR**

OK

3 CHECK FRONT SEAT WIRE RH (TO B+)



(a) Disconnect the connectors from the occupant classification ECU and the front occupant classification sensor RH.
(b) Connect the cable to the negative (-) terminal battery, and wait for at least 2 seconds.
(c) Turn the power switch ON (IG).
(d) Measure the voltage of the wire harness side connector.

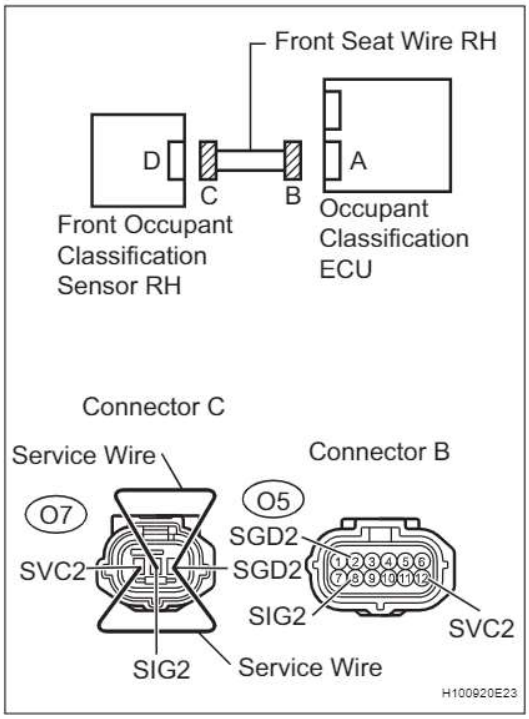
Standard voltage

Tester Connection	Specified Condition
O5-2 (SGD2) - Body ground	Below 1 V
O5-8 (SIG2) - Body ground	Below 1 V
O5-12 (SVC2) - Body ground	Below 1 V

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

4 CHECK FRONT SEAT WIRE RH (OPEN)



(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Using a service wire, connect terminals O7-1 (SVC2) and O7-3 (SGD2), and connect terminals O7-2 (SIG2) and O7-3 (SGD2) of connector C.

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

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

Standard resistance

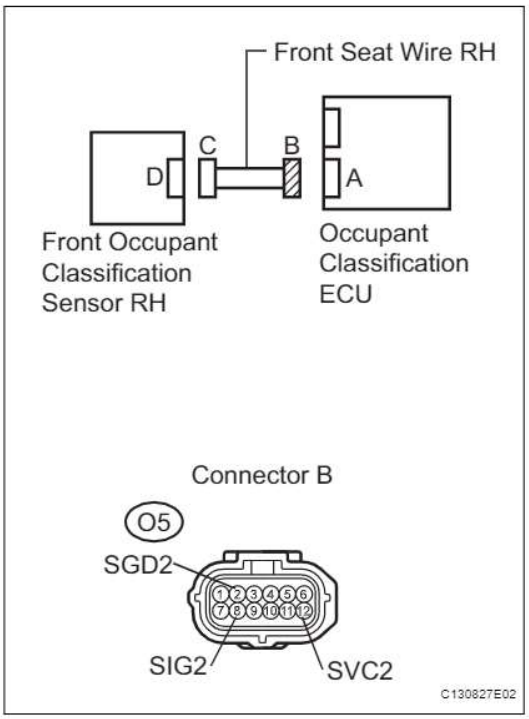
Tester Connection	Specified Condition
O5-8 (SIG2) - O5-2 (SGD2)	Below 1 Ω
O5-12 (SVC2) - O5-2 (SGD2)	Below 1 Ω

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

RS

5 CHECK FRONT SEAT WIRE RH (SHORT)



(a) Disconnect the service wire from connector C.
(b) Measure the resistance of the wire harness side connector.

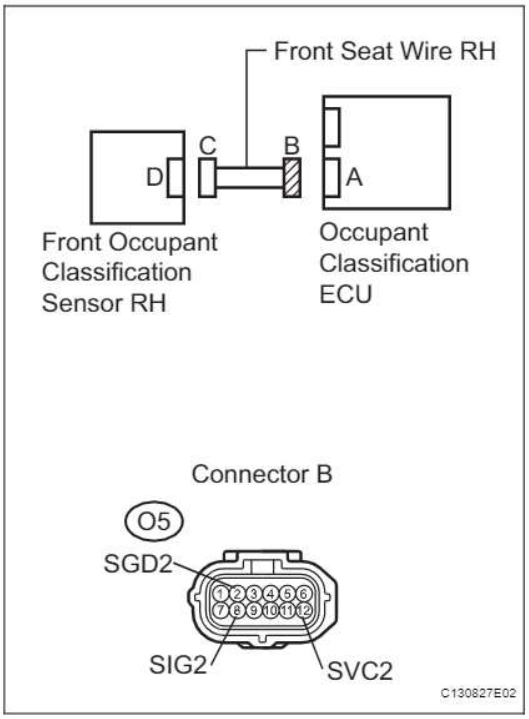
Standard resistance

Tester Connection	Specified Condition
O5-8 (SIG2) - O5-2 (SGD2)	1 MΩ or higher
O5-12 (SVC2) - O5-2 (SGD2)	1 MΩ or higher
O5-8 (SIG2) - O5-12 (SVC2)	1 MΩ or higher

NG → REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

6 CHECK FRONT SEAT WIRE RH (TO GROUND)



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

Standard resistance

Tester Connection	Specified Condition
O5-2 (SGD2) - Body ground	1 MΩ or higher
O5-8 (SIG2) - Body ground	1 MΩ or higher
O5-12 (SVC2) - Body ground	1 MΩ or higher

NG → REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

7	CHECK FOR DTC

(a) Connect the connectors to the occupant classification ECU and the front occupant classification sensor RH.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the power switch ON (IG).
(d) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(e) Turn the power switch OFF.
(f) Turn the power switch ON (IG).
(g) Check the DTCs (see page RS-182).
OK:
DTC B1781 is not output.
HINT:
DTCs other than DTC B1781 may be output at this time, but they are not related to this check.

OK	USE SIMULATION METHOD TO CHECK

NG

8	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.
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

9	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NG	Go to step 12

OK

10	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NG → **Go to step 12**

OK

11	CHECK FOR DTC

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Turn the power switch ON (IG).
(c) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(d) Turn the power switch OFF.
(e) Turn the power switch ON (IG).
(f) Check the DTCs (see page RS-182).
OK:
DTC B1781 is not output.
HINT:
DTCs other than DTC B1781 may be output at this time, but they are not related to this check.

OK → **END**

NG

12	REPLACE FRONT SEAT ASSEMBLY RH

(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 RH (see page SE-1).

NEXT

13	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NEXT

14	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

DTC	B1782	Rear Occupant Classification Sensor LH Circuit Malfunction

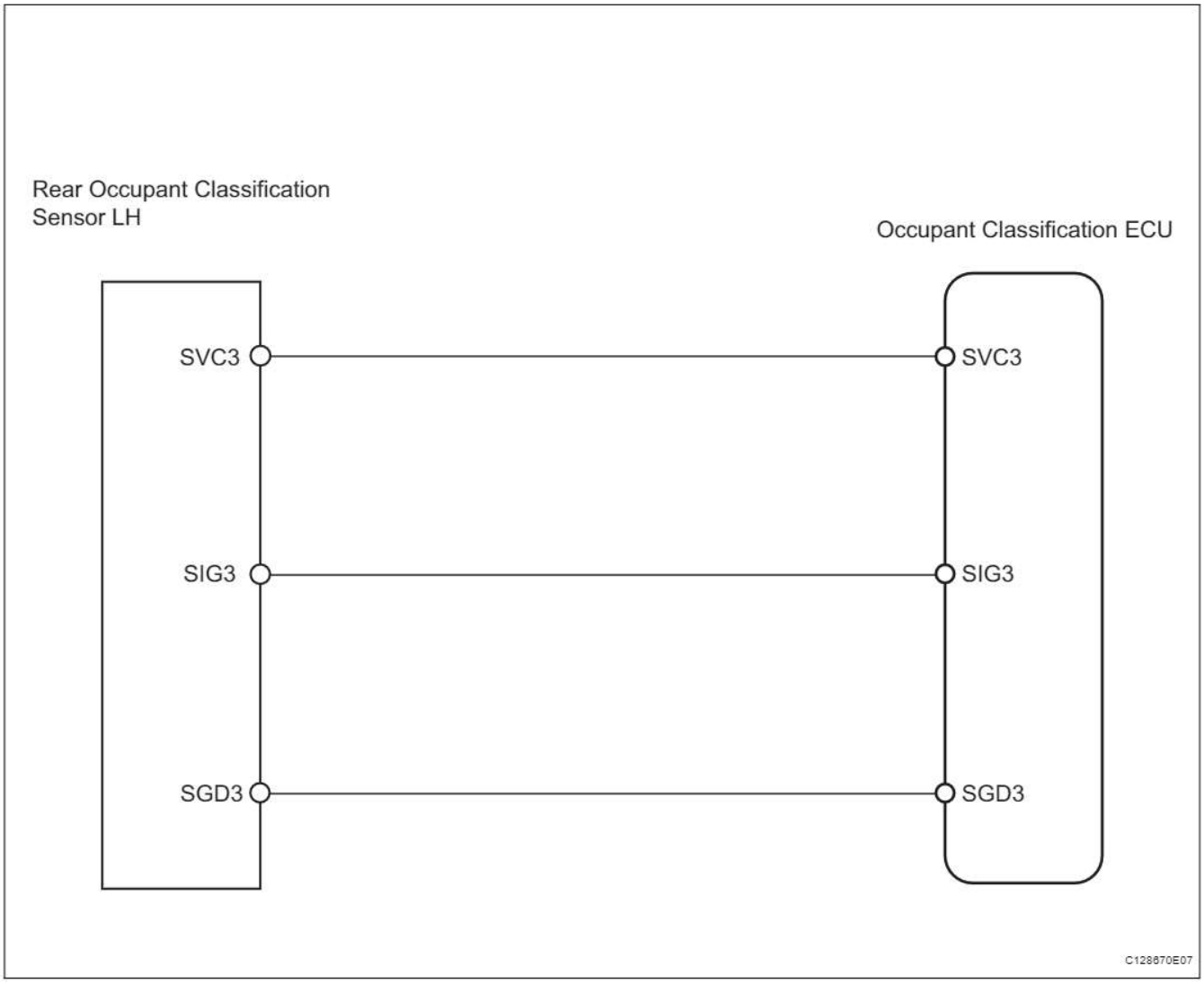
DESCRIPTION

RS

The rear occupant classification sensor LH circuit consists of the occupant classification ECU and the rear occupant classification sensor LH.
DTC B1782 is recorded when a malfunction is detected in the rear occupant classification sensor LH circuit.

DTC No.	DTC Detection Condition	Trouble Area
B1782	When one of following conditions is met: • Occupant classification ECU detects line short signal, open signal, short to ground signal or short to B+ signal in the rear occupant classification sensor LH circuit for 2 seconds • Rear occupant classification sensor LH malfunction • Occupant classification ECU malfunction	• Front seat wire RH • Front seat RH (Rear occupant classification sensor LH) • Occupant classification ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not tip over. Holding the seat for a long period of time may cause a problem, such as seat rail deformation. Hold the seat up only for as long as necessary.

RS

1	CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1782 is not output.
HINT:
DTCs other than DTC B1782 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

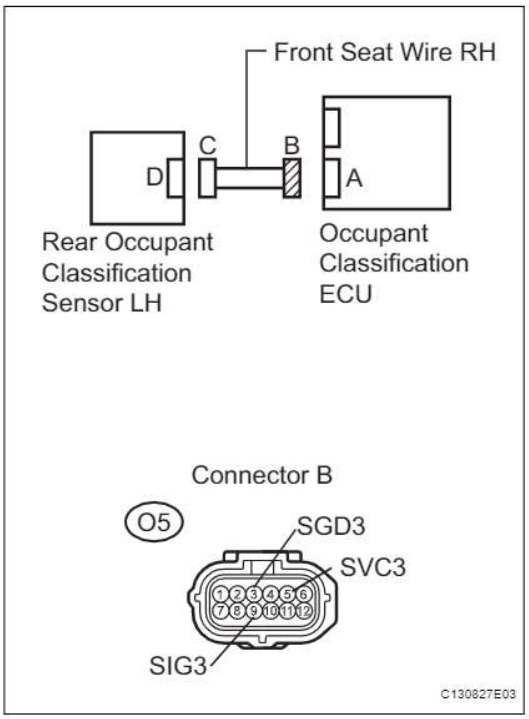
(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Check that the connectors are properly connected to the occupant classification ECU and the rear occupant classification sensor LH.
OK:
The connectors are properly connected.

NG → CONNECT CONNECTOR

OK

RS

3	CHECK FRONT SEAT WIRE RH (TO B+)



(a) Disconnect the connectors from the occupant classification ECU and the rear occupant classification sensor LH.
(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.

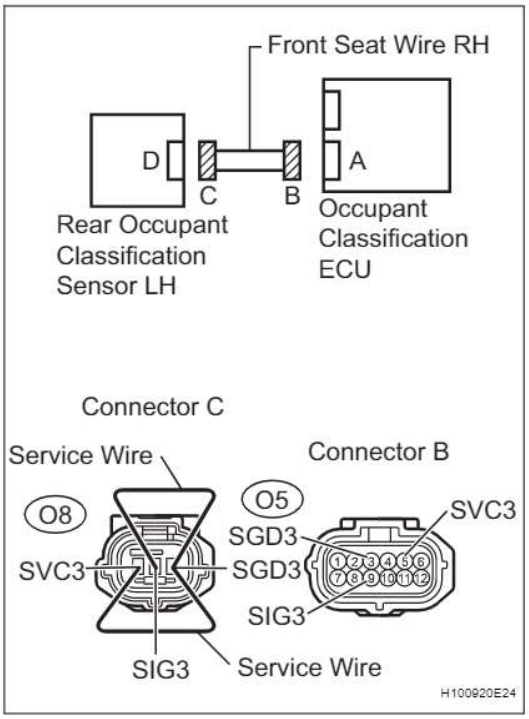
Standard voltage

Tester Connection	Specified Condition
O5-3 (SGD3) - Body ground	Below 1 V
O5-5 (SVC3) - Body ground	Below 1 V
O5-9 (SIG3) - Body ground	Below 1 V

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

4	CHECK FRONT SEAT WIRE RH (OPEN)



(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Using a service wire, connect terminals O8-1 (SVC3) and O8-3 (SGD3), and connect terminals O8-2 (SIG3) and O8-3 (SGD3) of connector C.

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

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

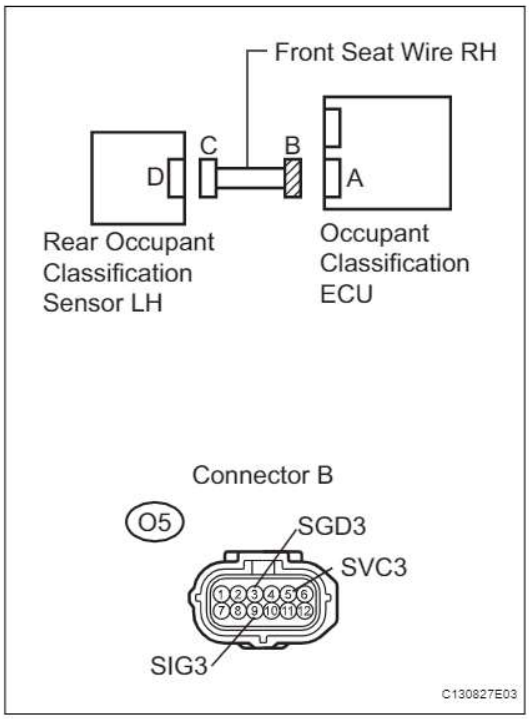
Standard resistance

Tester Connection	Specified Condition
O5-5 (SVC3) - O5-3 (SGD3)	Below 1 Ω
O5-9 (SIG3) - O5-3 (SGD3)	Below 1 Ω

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

5 CHECK FRONT SEAT WIRE RH (SHORT)



(a) Disconnect the service wire from connector C.
(b) Measure the resistance of the wire harness side connector.

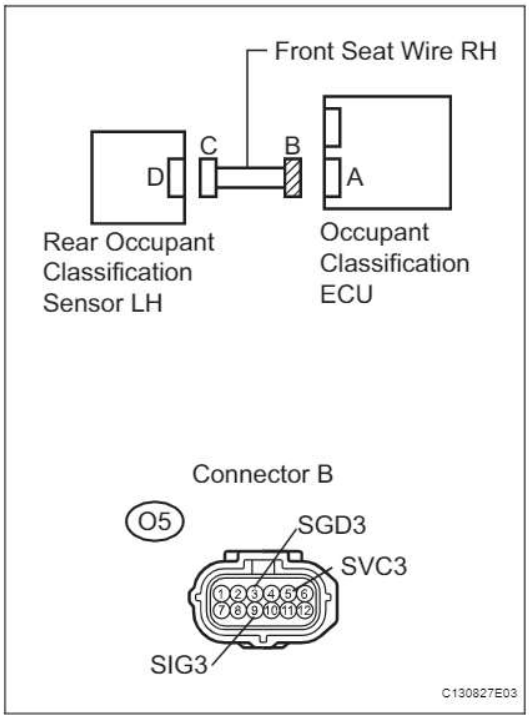
Standard resistance

Tester Connection	Specified Condition
O5-5 (SVC3) - O5-3 (SGD3)	1 MΩ or higher
O5-9 (SIG3) - O5-3 (SGD3)	1 MΩ or higher
O5-5 (SVC3) - O5-9 (SIG3)	1 MΩ or higher

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

6 CHECK FRONT SEAT WIRE RH (TO GROUND)



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

Standard resistance

Tester Connection	Specified Condition
O5-3 (SGD3) - Body ground	1 MΩ or higher
O5-5 (SVC3) - Body ground	1 MΩ or higher
O5-9 (SIG3) - Body ground	1 MΩ or higher

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

7	CHECK FOR DTC

(a) Connect the connectors to the occupant classification ECU and the rear occupant classification sensor LH.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the power switch ON (IG).
(d) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(e) Turn the power switch OFF.
(f) Turn the power switch ON (IG).
(g) Check the DTCs (see page RS-182).
OK:
DTC B1782 is not output.
HINT:
DTCs other than DTC B1782 may be output at this time, but they are not related to this check.

OK	USE SIMULATION METHOD TO CHECK

NG

8	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.
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

9	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NG	Go to step 12

OK

10	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NG → **Go to step 12**

OK

11	CHECK FOR DTC

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Turn the power switch ON (IG).
(c) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(d) Turn the power switch OFF.
(e) Turn the power switch ON (IG).
(f) Check the DTCs (see page RS-182).
OK:
DTC B1782 is not output.
HINT:
DTCs other than DTC B1782 may be output at this time, but they are not related to this check.

OK → **END**

NG

12	REPLACE FRONT SEAT ASSEMBLY RH

(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 RH (see page SE-1).

NEXT

13	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) terminal battery, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NEXT

14	PERFORM SENSITIVITY CHECK

RS

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

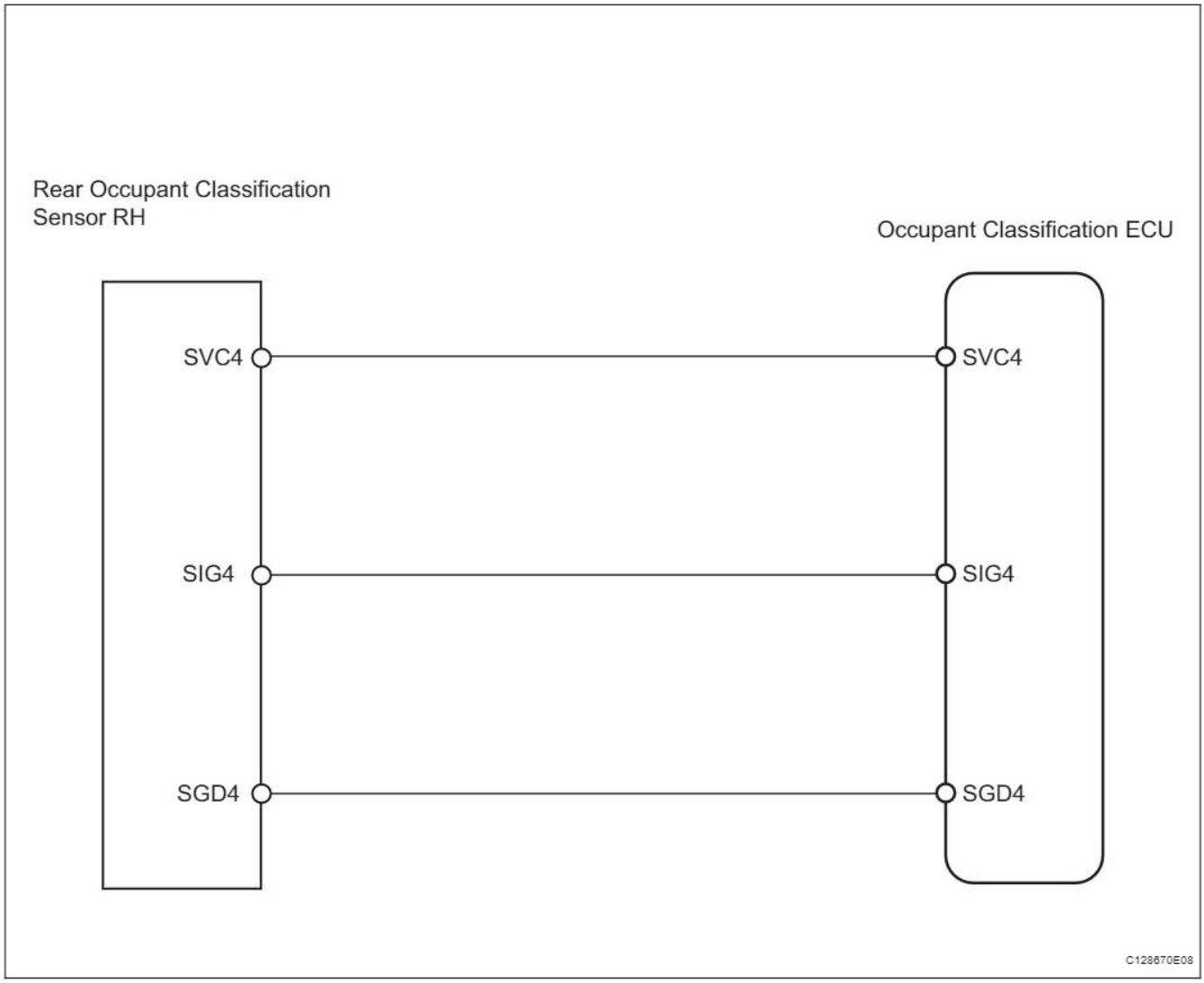
DTC	B1783	Rear Occupant Classification Sensor RH Circuit Malfunction

DESCRIPTION

The rear occupant classification sensor RH circuit consists of the occupant classification ECU and the rear occupant classification sensor RH.
DTC B1783 is recorded when a malfunction is detected in the rear occupant classification sensor RH circuit.

DTC No.	DTC Detection Condition	Trouble Area
B1783	When one of following conditions is met: • Occupant classification ECU detects line short signal, open signal, short to ground signal or short to B+ signal in the rear occupant classification sensor RH circuit for 2 seconds • Rear occupant classification sensor RH malfunction • Occupant classification ECU malfunction	• Front seat wire RH • Front seat RH (Rear occupant classification sensor RH) • Occupant classification ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not tip over. Holding the seat for a long period of time may cause a problem, such as seat rail deformation. Hold the seat up only for as long as necessary.

RS

1	CHECK DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1783 is not output.
HINT:
DTCs other than DTC B1783 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG

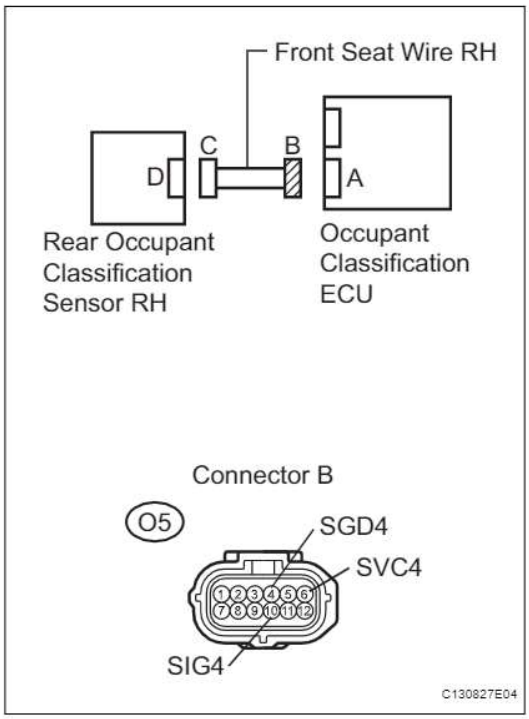
2	CHECK CONNECTION OF CONNECTOR

(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 occupant classification ECU and the rear occupant classification sensor RH.
OK:
The connectors are properly connected.

NG → **CONNECT CONNECTOR**

OK

3 CHECK FRONT SEAT WIRE RH (TO B+)



(a) Disconnect the connectors from the occupant classification ECU and the rear occupant classification sensor RH.
(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.

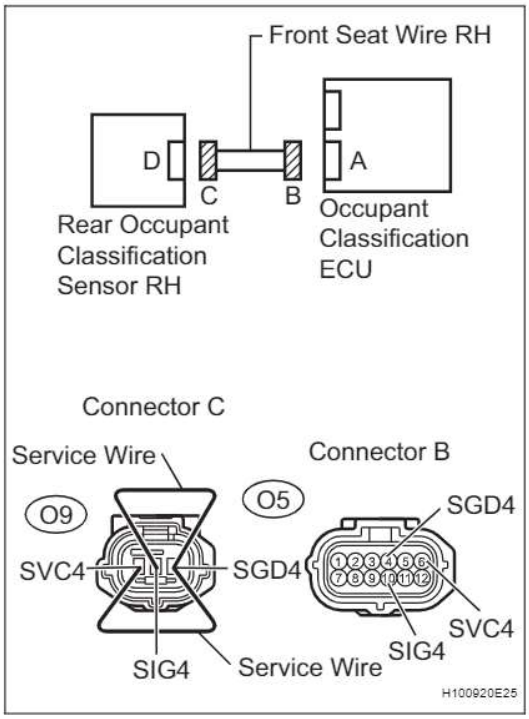
Standard voltage

Tester Connection	Specified Condition
O5-4 (SGD4) - Body ground	Below 1 V
O5-6 (SVC4) - Body ground	Below 1 V
O5-10 (SIG4) - Body ground	Below 1 V

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

4 CHECK FRONT SEAT WIRE RH (OPEN)



(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Using a service wire, connect terminals O9-1 (SVC4) and O9-3 (SGD4), and connect terminals O9-2 (SIG4) and O9-3 (SGD4) of connector C.

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

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

Standard resistance

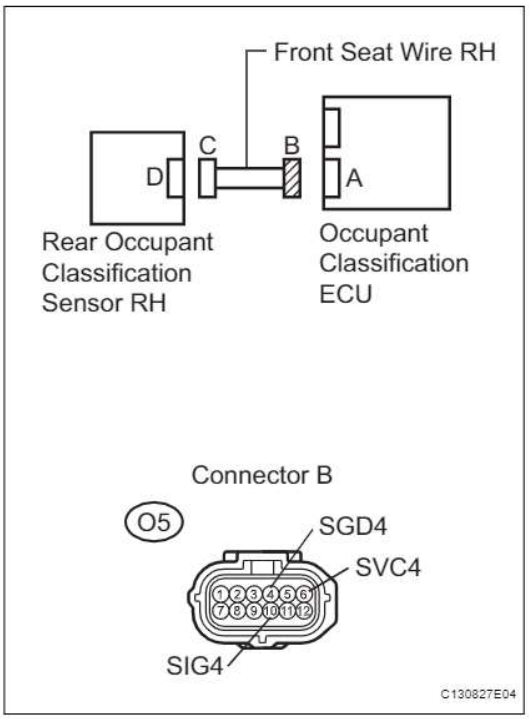
Tester Connection	Specified Condition
O5-6 (SVC4) - O5-4 (SGD4)	Below 1 Ω
O5-10 (SIG4) - O5-4 (SGD4)	Below 1 Ω

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

RS

5 CHECK FRONT SEAT WIRE RH (SHORT)



(a) Disconnect the service wire from connector C.
(b) Measure the resistance of the wire harness side connector.

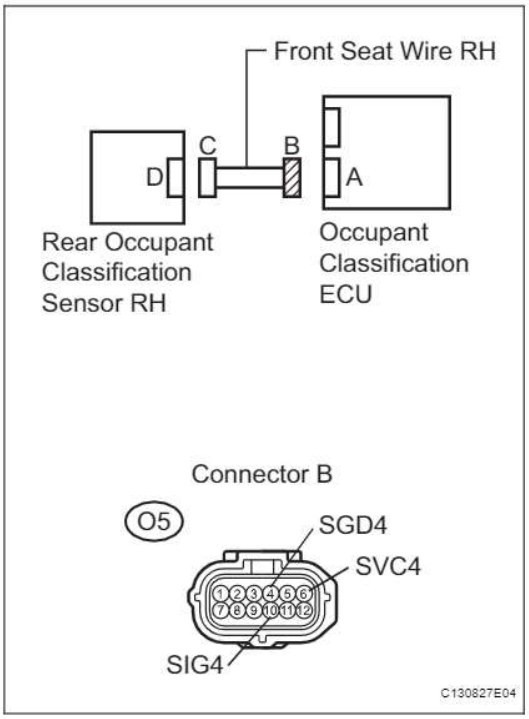
Standard resistance

Tester Connection	Specified Condition
O5-6 (SVC4) - O5-4 (SGD4)	1 MΩ or higher
O5-10 (SIG4) - O5-4 (SGD4)	1 MΩ or higher
O5-6 (SVC4) - O5-10 (SIG4)	1 MΩ or higher

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

6 CHECK FRONT SEAT WIRE RH (TO GROUND)



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

Standard resistance

Tester Connection	Specified Condition
O5-4 (SGD4) - Body ground	1 MΩ or higher
O5-6 (SVC4) - Body ground	1 MΩ or higher
O5-10 (SIG4) - Body ground	1 MΩ or higher

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

7	CHECK FOR DTC

(a) Connect the connectors to the occupant classification ECU and the rear occupant classification sensor RH.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the power switch ON (IG).
(d) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(e) Turn the power switch OFF.
(f) Turn the power switch ON (IG).
(g) Check the DTCs (see page RS-182).
OK:
DTC B1783 is not output.
HINT:
DTCs other than DTC B1783 may be output at this time, but they are not related to this check.

OK	USE SIMULATION METHOD TO CHECK

NG

8	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.
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

9	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NG	Go to step 12

OK

10	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard values:
27 to 33 kg (59.52 to 72.75 lb)

NG → **Go to step 12**

OK

11	CHECK FOR DTC

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Turn the power switch ON (IG).
(c) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(d) Turn the power switch OFF.
(e) Turn the power switch ON (IG).
(f) Check the DTCs (see page RS-182).
OK:
DTC B1783 is not output.
HINT:
DTCs other than DTC B1783 may be output at this time, but they are not related to this check.

OK → **END**

NG

12	REPLACE FRONT SEAT ASSEMBLY RH

(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 RH (see page SE-1).

NEXT

13	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NEXT

14	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard values:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

DTC	B1785	Front Occupant Classification Sensor LH Collision Detection

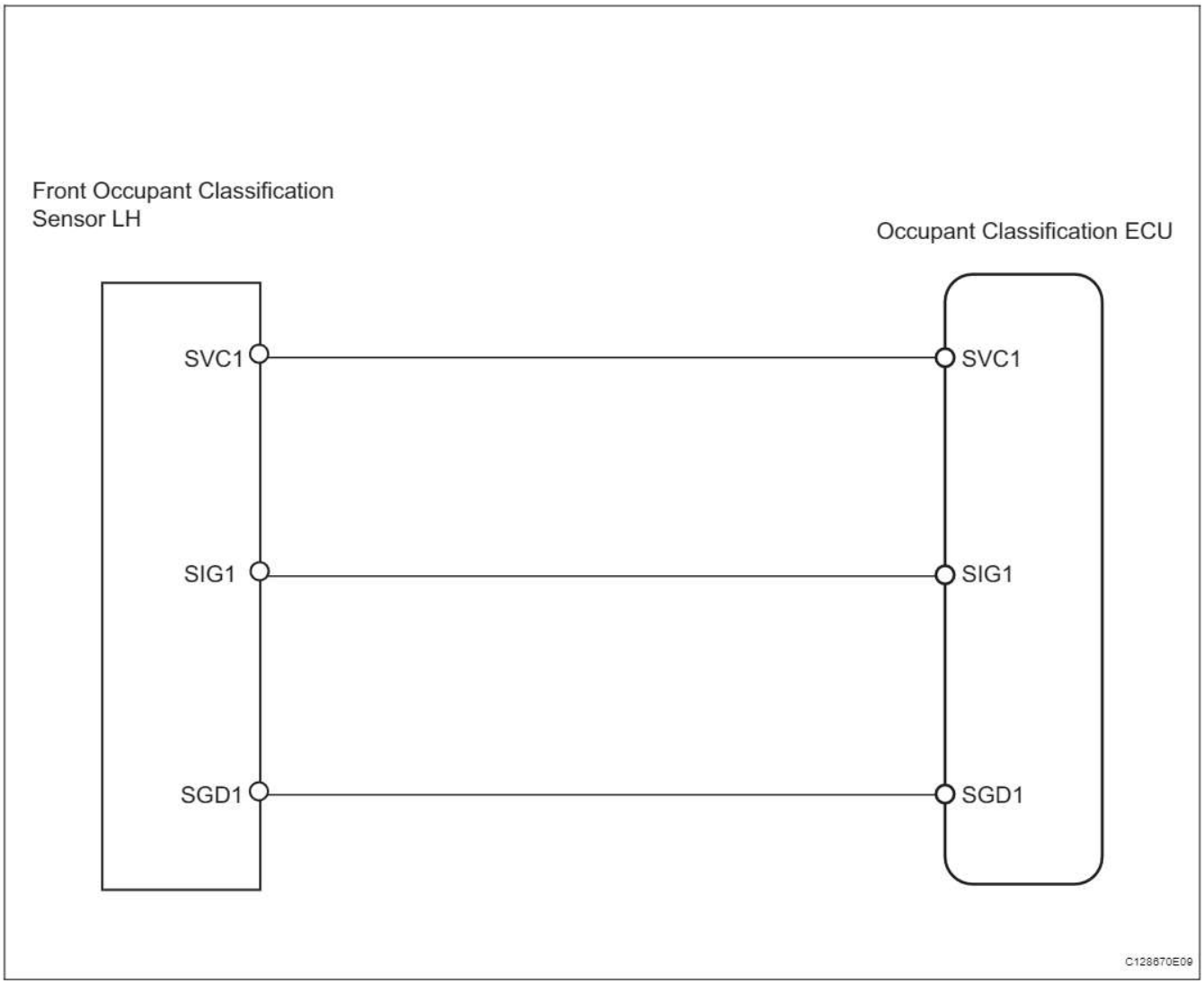
DESCRIPTION

RS

DTC B1785 is output when the occupant classification ECU receives a collision detection signal sent by the front occupant classification sensor LH when an accident occurs.
DTC B1785 is also output when the front seat RH is subjected to a strong impact, even if an actual accident does not occur.
However, when the occupant classification ECU outputs a collision detection signal, even if the vehicle is not in a collision, DTC B1785 can be cleared by performing the zero point calibration and sensitivity check.
Therefore, when DTC B1785 is output, first perform the zero point calibration and sensitivity check.

DTC No.	DTC Detection Condition	Trouble Area
B1785	When one of following conditions is met: • Front seat RH malfunction • Occupant classification ECU malfunction • Front occupant classification sensor LH detects large load	• Occupant classification ECU • Front seat RH (Front occupant classification sensor LH)

WIRING DIAGRAM



INSPECTION PROCEDURE

1 PERFORM ZERO POINT CALIBRATION

(a) Connect the intelligent tester (with CAN VIM) to the DLC3.
(b) Turn the power switch ON (IG).
(c) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NG → **Go to step 4**

OK ↓

2 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NG → **Go to step 4**

OK ↓

3 CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1785 is not output.
HINT:
DTCs other than DTC B1785 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG ↓

4 REPLACE FRONT SEAT ASSEMBLY RH

(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 RH (see page SE-1).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

RS

5 PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester (with CAN VIM) to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NG → **Go to step 8**

OK

6 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NG → **Go to step 8**

OK

7 CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1785 is not output.
HINT:
DTCs other than DTC B1785 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG

8	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.

NEXT

9	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NEXT

10	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

DTC	B1786	Front Occupant Classification Sensor RH Collision Detection

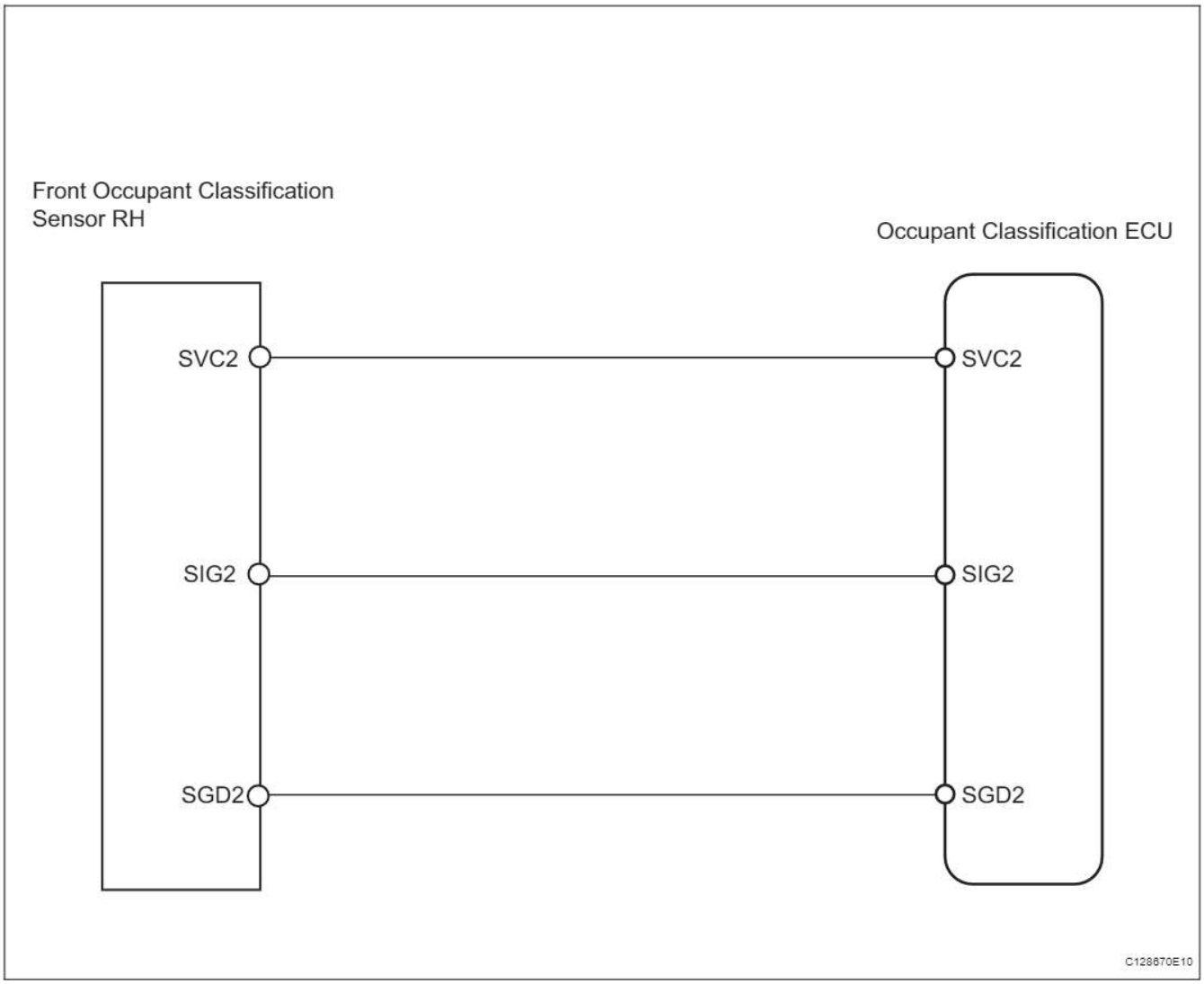
DESCRIPTION

RS

DTC B1786 is output when the occupant classification ECU receives a collision detection signal sent by the front occupant classification sensor RH when an accident occurs.
DTC B1786 is also output when the front seat RH is subjected to a strong impact, even if an actual accident does not occur.
However, when the occupant classification ECU outputs a collision detection signal, even if the vehicle is not in a collision, DTC B1786 can be cleared by performing the zero point calibration and sensitivity check.
Therefore, when DTC B1786 is output, first perform the zero point calibration and sensitivity check.

DTC No.	DTC Detection Condition	Trouble Area
B1786	When one of following conditions is met: • Front seat RH malfunction • Occupant classification ECU malfunction • Front occupant classification sensor RH detects large load	• Occupant classification ECU • Front seat RH (Front occupant classification sensor RH)

WIRING DIAGRAM



INSPECTION PROCEDURE

1	PERFORM ZERO POINT CALIBRATION

(a) Connect the intelligent tester to the DLC3.
(b) Turn the power switch ON (IG).
(c) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NG → **Go to step 4**

OK ↓

2	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NG → **Go to step 4**

OK ↓

3	CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1786 is not output.
HINT:
DTCs other than DTC B1786 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG ↓

4	REPLACE FRONT SEAT ASSEMBLY RH

(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 RH (see page SE-1).

HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

RS

5	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NG → **Go to step 8**

OK

6	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NG → **Go to step 8**

OK

7	CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1786 is not output.
HINT:
DTCs other than DTC B1786 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG

8	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.

NEXT

9	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NEXT

10	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

DTC	B1787	Rear Occupant Classification Sensor LH Collision Detection

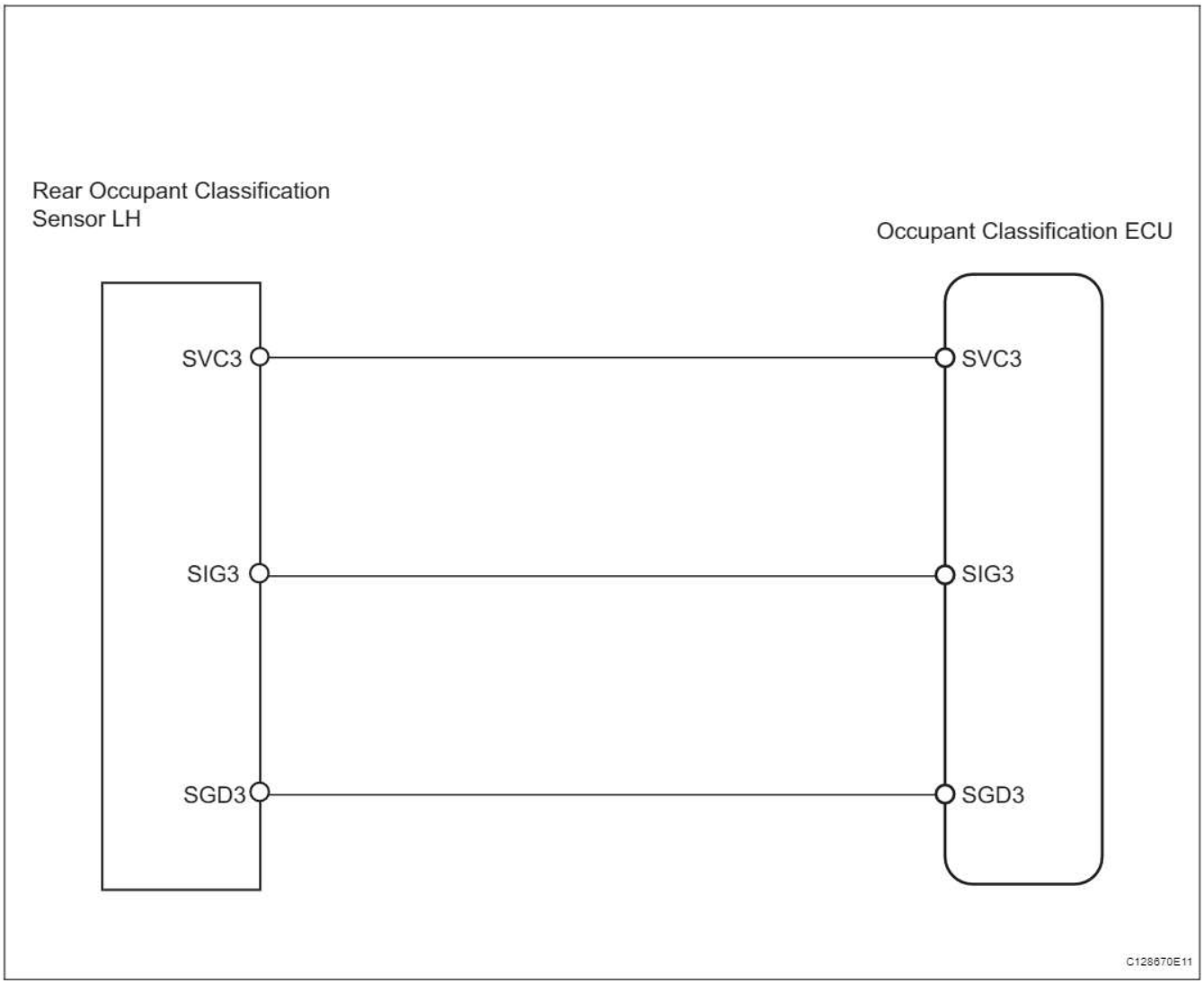
DESCRIPTION

RS

DTC B1787 is output when the occupant classification ECU receives a collision detection signal sent by the rear occupant classification sensor LH when an accident occurs.
DTC B1787 is also output when the front seat RH is subjected to a strong impact, even if an actual accident does not occur.
However, when the occupant classification ECU outputs a collision detection signal, even if the vehicle is not in a collision, DTC B1787 can be cleared by performing the zero point calibration and sensitivity check.
Therefore, when DTC B1787 is output, first perform the zero point calibration and sensitivity check.

DTC No.	DTC Detection Condition	Trouble Area
B1787	When one of following conditions is met: • Front seat RH malfunction • Occupant classification ECU malfunction • Rear occupant classification sensor LH detects large load	• Occupant classification ECU • Front seat RH (Rear occupant classification sensor LH)

WIRING DIAGRAM



INSPECTION PROCEDURE

1	PERFORM ZERO POINT CALIBRATION

(a) Connect the intelligent tester to the DLC3.
(b) Turn the power switch ON (IG).
(c) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NG → **Go to step 4**

OK ↓

2	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NG → **Go to step 4**

OK ↓

3	CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1787 is not output.
HINT:
DTCs other than DTC B1787 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG ↓

4	REPLACE FRONT SEAT ASSEMBLY RH

(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 RH (see page SE-1).

HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

RS

5	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NG → **Go to step 8**

OK

6	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NG → **Go to step 8**

OK

7	CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1787 is not output.
HINT:
DTCs other than DTC B1787 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG

8	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 (see page).

NEXT

9	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NEXT

10	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

DTC	B1788	Rear Occupant Classification Sensor RH Collision Detection

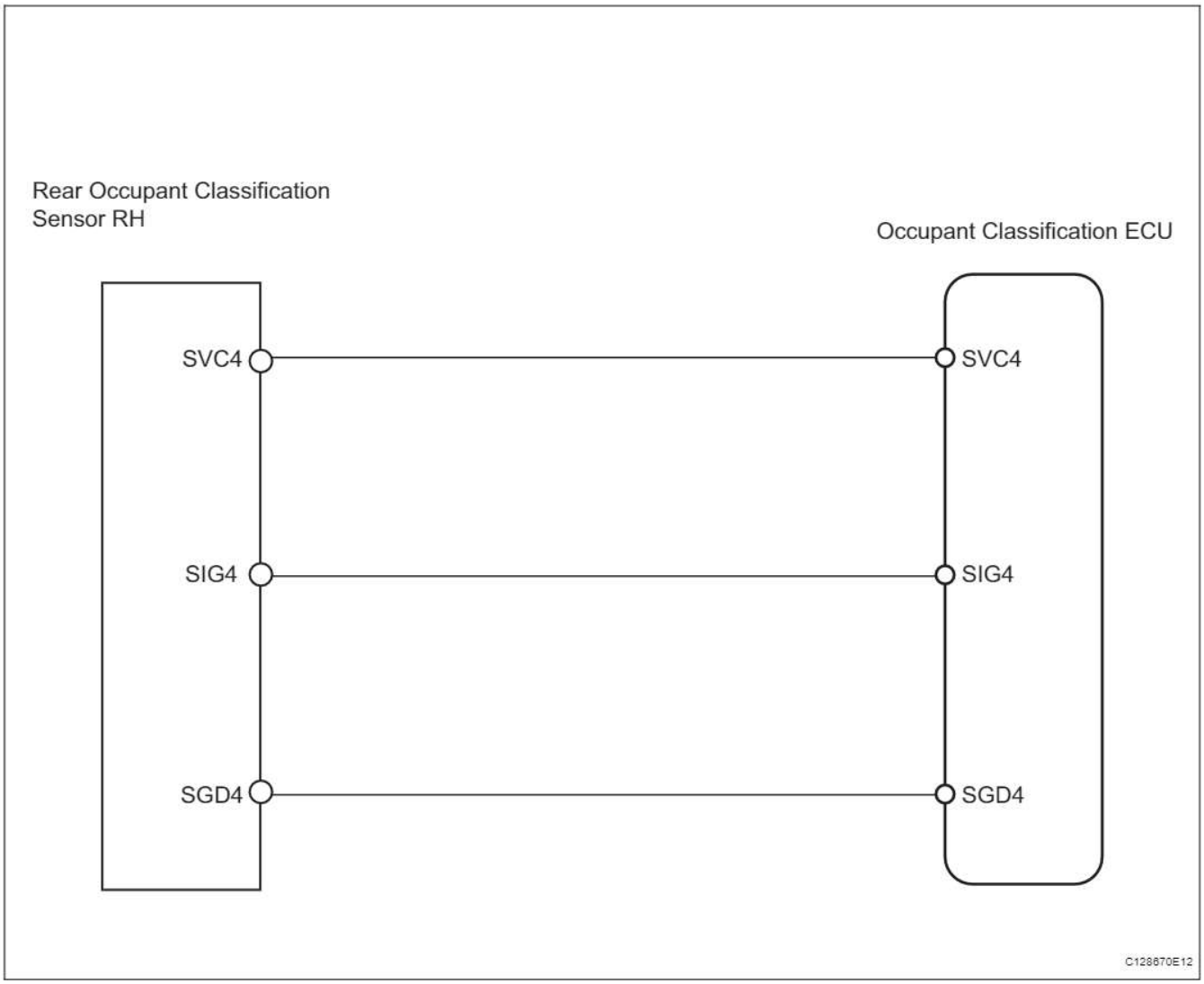
DESCRIPTION

RS

DTC B1788 is output when the occupant classification ECU receives a collision detection signal sent by the rear occupant classification sensor RH when an accident occurs.
DTC B1788 is also output when the front seat RH is subjected to a strong impact, even if an actual accident does not occur.
However, when the occupant classification ECU outputs a collision detection signal, even if the vehicle is not in a collision, DTC B1788 can be cleared by performing the zero point calibration and sensitivity check.
Therefore, when DTC B1788 is output, first perform the zero point calibration and sensitivity check.

DTC No.	DTC Detection Condition	Trouble Area
B1788	When one of following conditions is met: • Front seat RH malfunction • Occupant classification ECU malfunction • Rear occupant classification sensor RH detects large load	• Occupant classification ECU • Front seat RH (Rear occupant classification sensor RH)

WIRING DIAGRAM



INSPECTION PROCEDURE

1 PERFORM ZERO POINT CALIBRATION

(a) Connect the intelligent tester to the DLC3.
(b) Turn the power switch ON (IG).
(c) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NG → **Go to step 4**

OK

2 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NG → **Go to step 4**

OK

3 CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1788 is not output.
HINT:
DTCs other than DTC B1788 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG

4 REPLACE FRONT SEAT ASSEMBLY RH

(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 RH (see page SE-1).

HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

RS

5	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NG → **Go to step 8**

OK

6	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NG → **Go to step 8**

OK

7	CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1788 is not output.
HINT:
DTCs other than DTC B1788 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG

8	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.

NEXT

9	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NEXT

10	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

DTC	B1790	Center Airbag Sensor Assembly Communication Circuit Malfunction

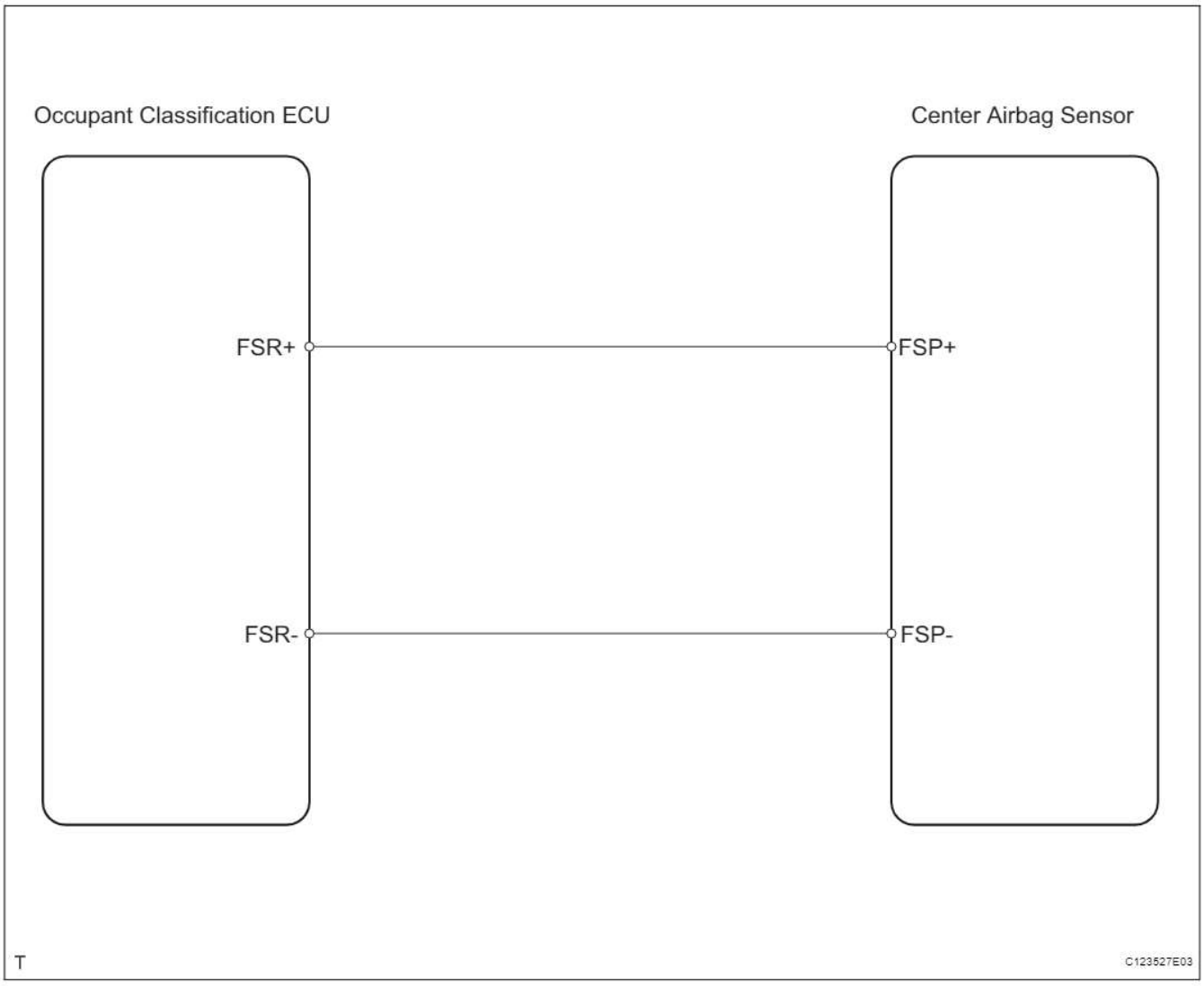
DESCRIPTION

RS

The center airbag sensor communication circuit consists of the occupant classification ECU and the center airbag sensor.
DTC B1790 is recorded when a malfunction is detected in the center airbag sensor communication circuit.

DTC No.	DTC Detection Condition	Trouble Area
B1790	When one of following conditions is met: • Occupant classification ECU detects line short signal, open signal, short to ground signal or short circuit to B+ signal in the center airbag sensor communication circuit for 2 seconds • Center airbag sensor malfunction • Occupant classification ECU malfunction	• Floor wire • Occupant classification ECU • Center airbag sensor

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not tip over. Holding the seat for a long period of time may cause a problem, such as seat rail deformation. Hold the seat up only for as long as necessary.

RS

1	CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1790 is not output.
HINT:
DTCs other than DTC B1790 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

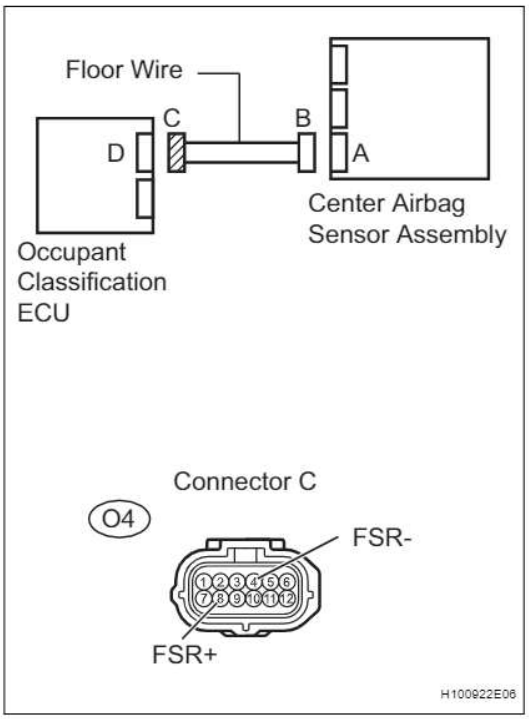
(a) Turn the power switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Check that the connectors are properly connected to the occupant classification ECU and the center airbag sensor.
OK:
The connectors are properly connected.

NG → CONNECT CONNECTOR

OK

RS

3 CHECK FLOOR WIRE (TO B+)



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

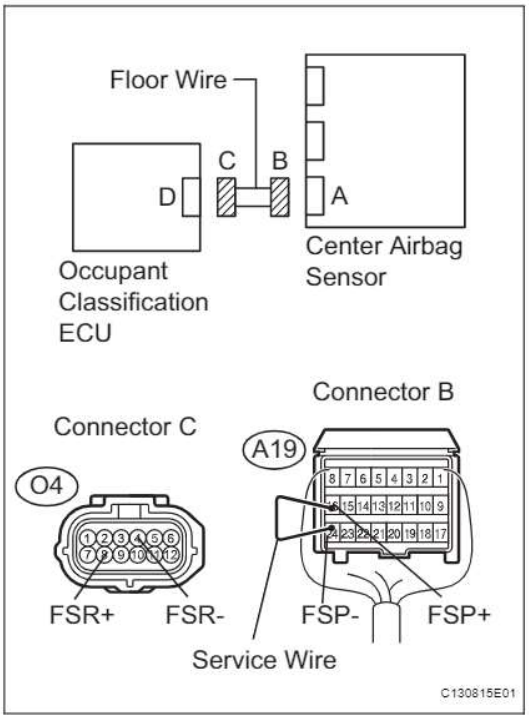
Standard voltage

Tester Connection	Specified Condition
O4-8 (FSR+) - Body ground	Below 1 V
O4-4 (FSR-) - Body ground	Below 1 V

NG → REPAIR OR REPLACE FLOOR WIRE

OK

4 CHECK FLOOR 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) Using a service wire, connect terminals A19-16 (FSP+) and A19-24 (FSP-) of connector B.

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

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

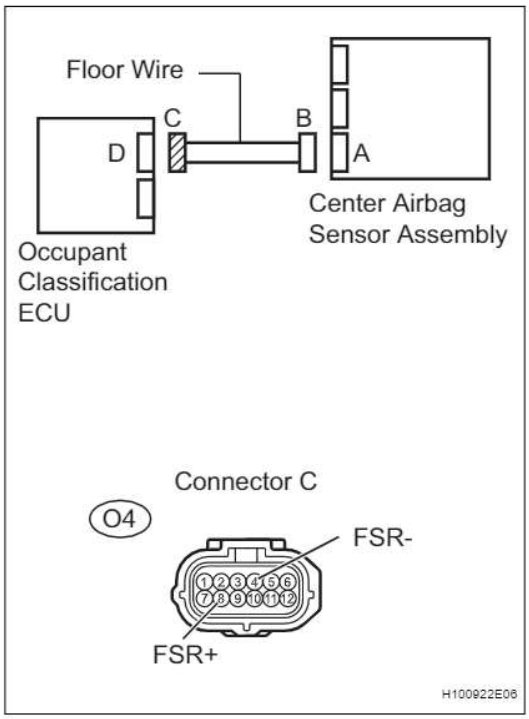
Standard resistance

Tester Connection	Specified Condition
O4-8 (FSR+) - O4-4 (FSR-)	Below 1 Ω

NG → REPAIR OR REPLACE FLOOR WIRE

OK

5 CHECK FLOOR WIRE (SHORT)



(a) Disconnect the service wire from connector B.
(b) Measure the resistance of the wire harness side connector.

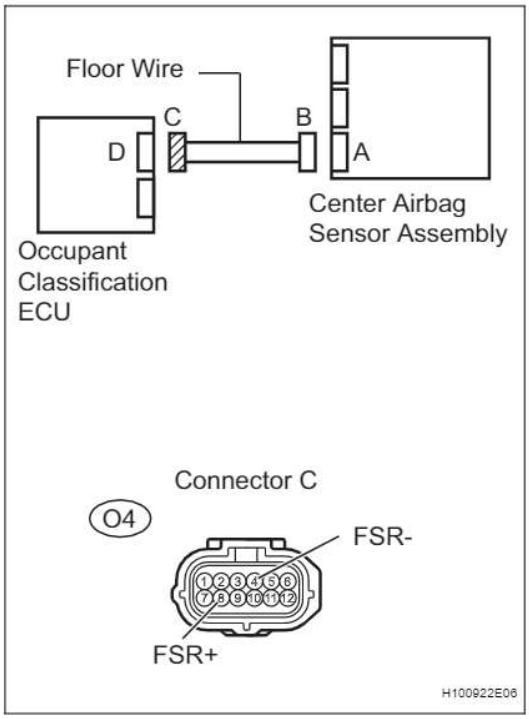
Standard resistance

Tester Connection	Specified Condition
O4-8 (FSR+) - O4-4 (FSR-)	1 MΩ or higher

NG → REPAIR OR REPLACE FLOOR WIRE

OK

6 CHECK FLOOR WIRE (TO GROUND)



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

Standard resistance

Tester Connection	Specified Condition
O4-8 (FSR+) - Body ground	1 MΩ or higher
O4-4 (FSR-) - Body ground	1 MΩ or higher

NG → REPAIR OR REPLACE FLOOR WIRE

OK

RS

7	CHECK FOR DTC

(a) Connect the connectors to the occupant classification ECU and 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) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(e) Turn the power switch OFF.
(f) Turn the power switch ON (IG).
(g) Check the DTCs (see page RS-182).
OK:
DTC B1790 is not output.
HINT:
DTCs other than DTC B1790 may be output at this time, but they are not related to this check.

OK → USE SIMULATION METHOD TO CHECK

NG

8	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.
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

9	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) terminal battery, and wait for at least 2 seconds.
(b) Connect the intelligent tester (with CAN VIM) to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NEXT

10	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard values:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

11	CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1790 is not output.
HINT:
DTCs 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

END

DTC	B1793	Occupant Classification Sensor Power Supply Circuit Malfunction

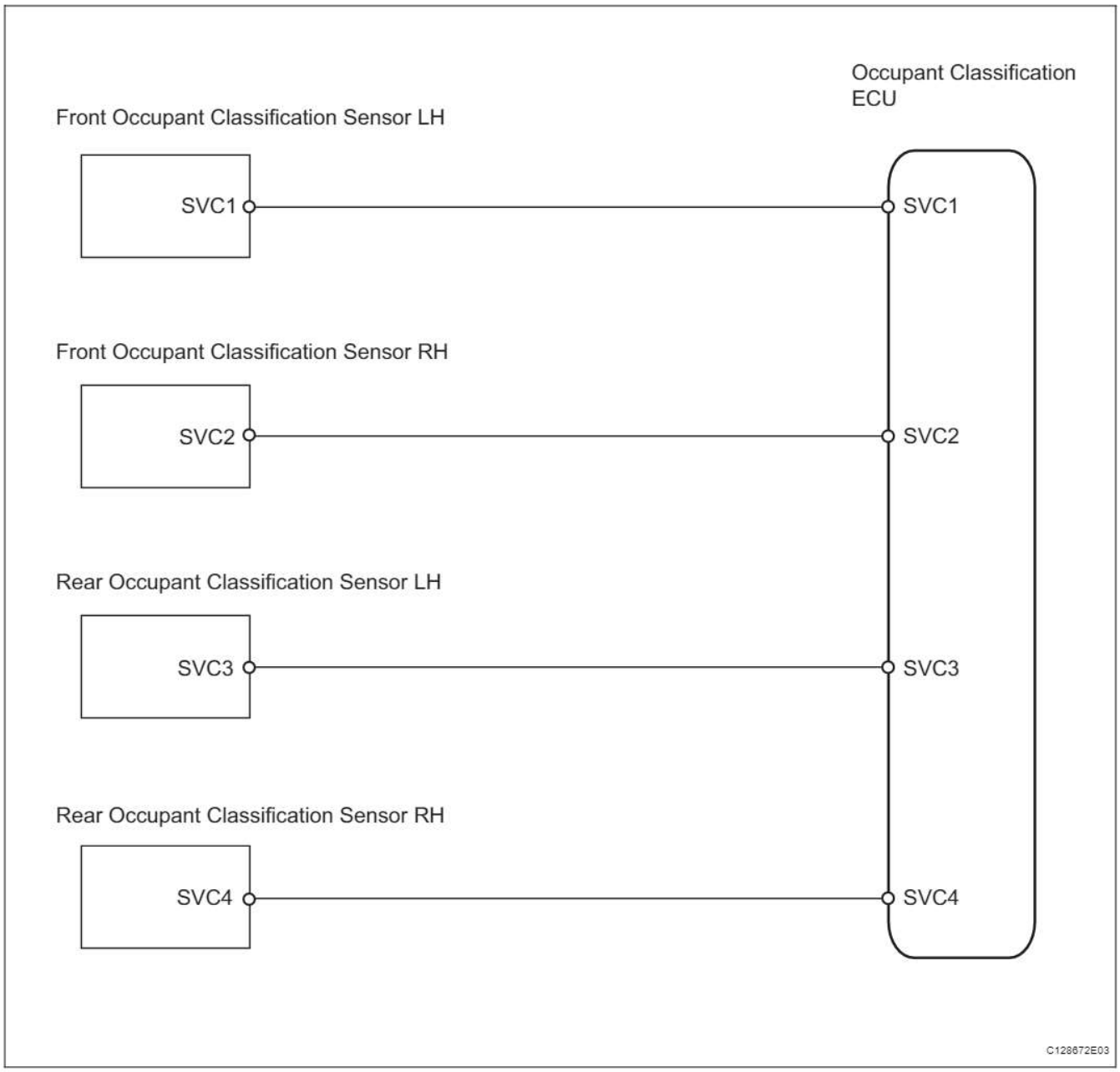
DESCRIPTION

RS

The occupant classification sensor power supply circuit consists of the occupant classification ECU and the occupant classification sensors.
DTC B1793 is recorded when a malfunction is detected in the occupant classification sensor power supply circuit.

DTC No.	DTC Detection Condition	Trouble Area
B1793	When one of following conditions is met: • Occupant classification ECU detects line short signal, open signal, short to ground signal or short to B+ signal in the occupant classification sensor power supply circuit for 2 seconds • Occupant classification ECU malfunction	• Front seat wire RH • Front seat RH (Occupant classification sensors) • Occupant classification ECU

WIRING DIAGRAM



RS

INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not tip over. Holding the seat for a long period of time may cause a problem, such as seat rail deformation. Hold the seat up only for as long as necessary.

1	CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).

HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.

(c) Turn the power switch OFF.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).

OK:

DTC B1793 is not output.

HINT:
DTCs other than DTC B1793 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 occupant classification ECU and the occupant classification sensors.

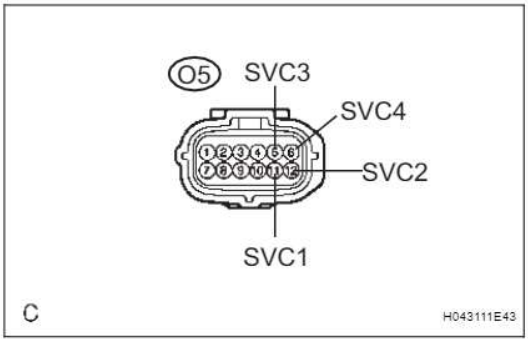
OK:

The connectors are properly connected.

NG → **CONNECT CONNECTOR**

OK

3 CHECK FRONT SEAT WIRE RH (TO B+)



(a) Disconnect the connectors from the occupant classification ECU and the 4 occupant classification sensors.
(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.

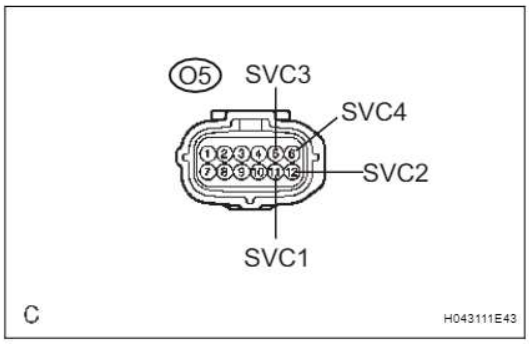
Standard voltage

Tester Connection	Specified Condition
O5-11 (SVC1) - Body ground	Below 1 V
O5-12 (SVC2) - Body ground	Below 1 V
O5-5 (SVC3) - Body ground	Below 1 V
O5-6 (SVC4) - Body ground	Below 1 V

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

4	CHECK FRONT SEAT WIRE RH (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

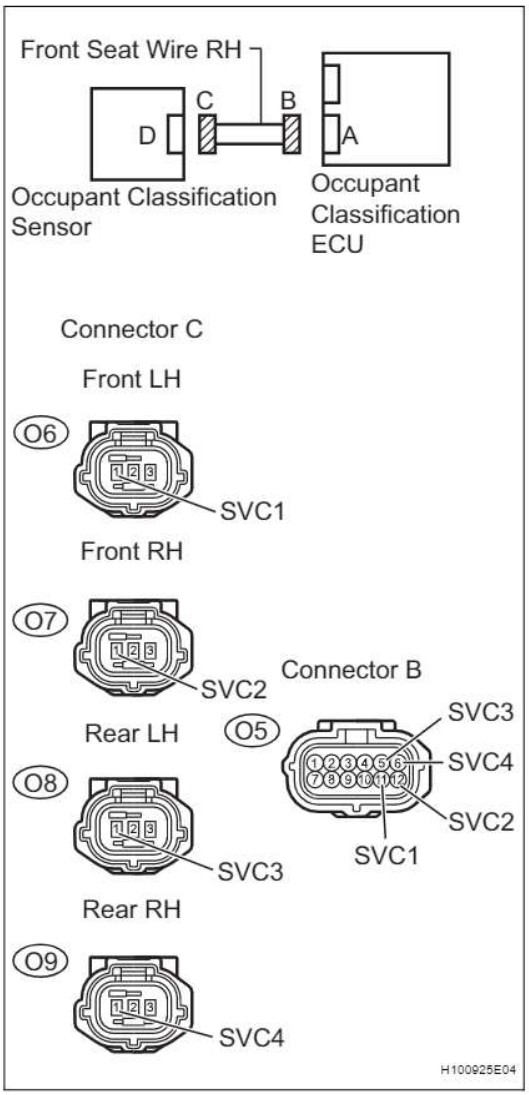
Tester Connection	Specified Condition
O5-11 (SVC1) - Body ground	1 MΩ or higher
O5-12 (SVC2) - Body ground	1 MΩ or higher
O5-5 (SVC3) - Body ground	1 MΩ or higher
O5-6 (SVC4) - Body ground	1 MΩ or higher

NG → REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

RS

5 CHECK FRONT SEAT WIRE RH (OPEN)



(a) Measure the resistance of the wire harness side connectors.

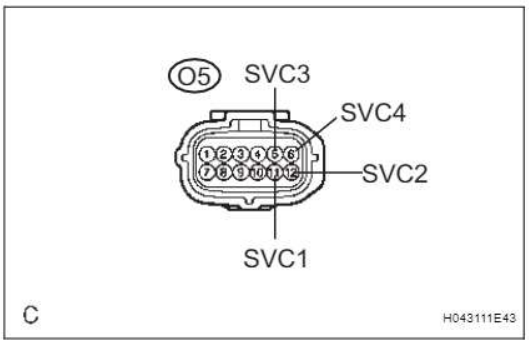
Standard resistance

Tester Connection	Specified Condition
O5-11 (SVC1) - O6-1 (SVC1)	Below 1 Ω
O5-12 (SVC2) - O7-1 (SVC2)	Below 1 Ω
O5-5 (SVC3) - O8-1 (SVC3)	Below 1 Ω
O5-6 (SVC4) - O9-1 (SVC4)	Below 1 Ω

NG → **REPAIR OR REPLACE FRONT SEAT WIRE RH**

OK

6 CHECK FRONT SEAT WIRE RH (SHORT)



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

Standard resistance

Tester Connection	Specified Condition
O5-5 (SVC3) - O5-6 (SVC4)	1 MΩ or higher
O5-6 (SVC4) - O5-11 (SVC1)	1 MΩ or higher
O5-11 (SVC1) - O5-12 (SVC2)	1 MΩ or higher
O5-12 (SVC2) - O5-5 (SVC3)	1 MΩ or higher
O5-12 (SVC2) - O5-6 (SVC4)	1 MΩ or higher
O5-11 (SVC1) - O5-5 (SVC3)	1 MΩ or higher

NG → REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

7 CHECK FOR DTC

(a) Connect the connectors to the occupant classification ECU and the 4 occupant classification sensors.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the power switch ON (IG).
(d) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(e) Turn the power switch OFF.
(f) Turn the power switch ON (IG).
(g) Check the DTCs (see page RS-182).
OK:
DTC B1793 is not output.
HINT:
DTCs other than DTC B1793 may be output at this time, but they are not related to this check.

OK → USE SIMULATION METHOD TO CHECK

NG

8 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.
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

9 PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NG → Go to step 12

OK

10	PERFORM SENSITIVITY CHECK

RS

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NG → **Go to step 12**

OK

11	CHECK FOR DTC

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Turn the power switch ON (IG).
(c) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(d) Turn the power switch OFF.
(e) Turn the power switch ON (IG).
(f) Check the DTCs (see page RS-182).
OK:
DTC B1793 is not output.
HINT:
DTCs other than DTC B1793 may be output at this time, but they are related to this check.

OK → **END**

NG

12	REPLACE FRONT SEAT ASSEMBLY RH

(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 RH (see page SE-1).

NEXT

13	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).

OK:
COMPLETED is displayed.

NEXT

14	PERFORM SENSITIVITY CHECK

RS

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

DTC	B1794	Open in Occupant Classification ECU Battery Positive Line

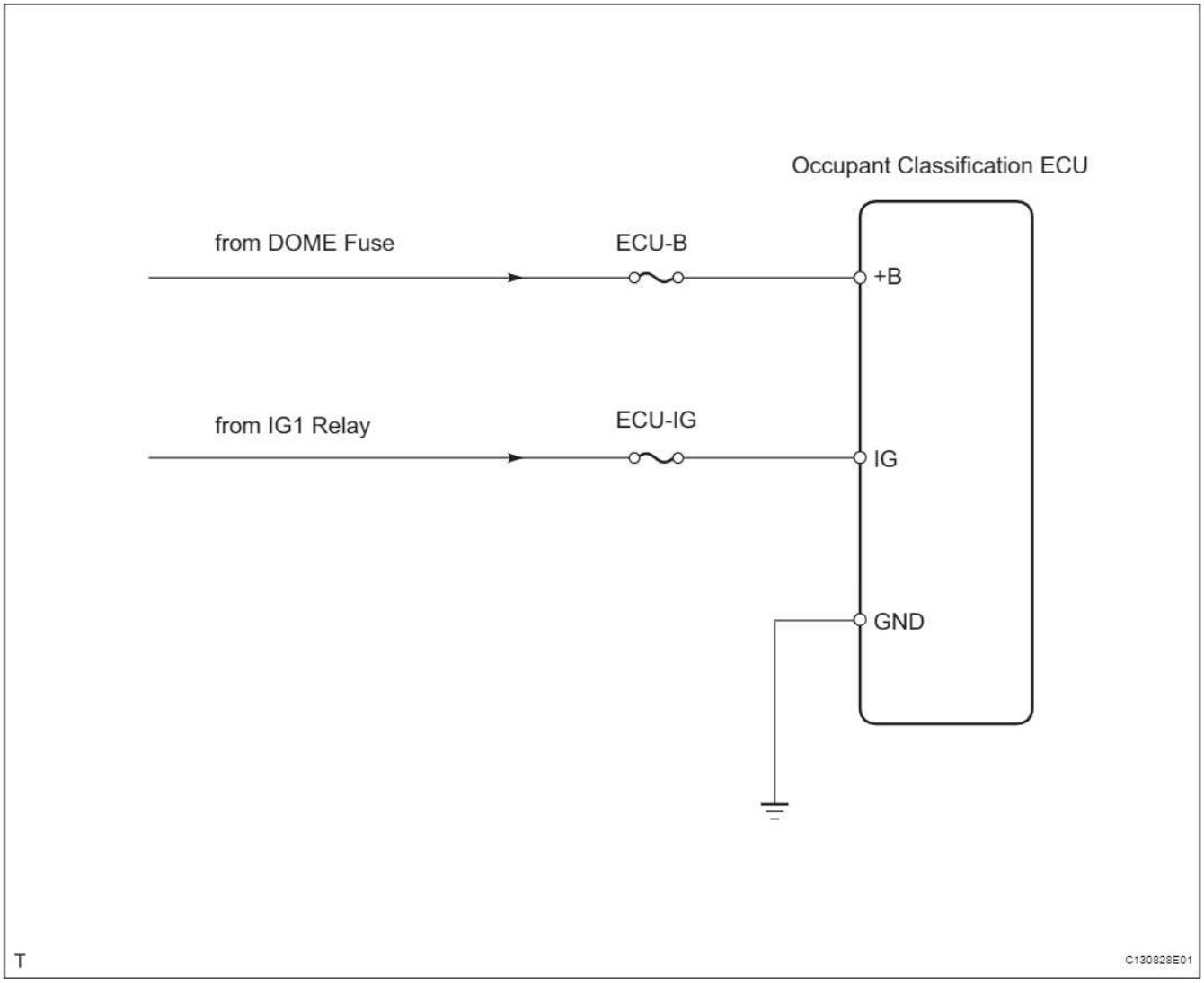
DESCRIPTION

RS

DTC B1794 is set when a malfunction is detected in the occupant classification ECU battery positive line.

DTC No.	DTC Detection Condition	Trouble Area
B1794	When one of following conditions is met: • Occupant classification ECU circuit malfunction • Occupant classification ECU malfunction • Occupant classification ECU detects short to ground signal in passenger side buckle switch circuit for 2 seconds	• Wire harness • Occupant classification ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

1	CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF, and wait for at least 10 seconds.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1794 is not output.
HINT:
DTCs other than B1794 may be output at this time, but they are not related to this check.

OK → USE SIMULATION METHOD TO CHECK

NG

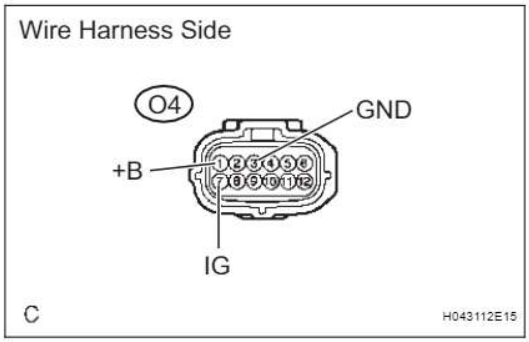
2	CHECK CONNECTION OF CONNECTOR

(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 occupant classification ECU.
OK:
The connectors are properly connected.

NG → CONNECT CONNECTOR

OK

3	CHECK WIRE HARNESS (SOURCE VOLTAGE)



(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 O4 connector from the occupant classification ECU.
(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
O4-1 (+B) - Body ground	Always	10 to 14 V
O4-7 (IG) - Body ground	Power switch ON (IG)	10 to 14 V

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

Standard resistance

Tester Connection	Specified Condition
O4-3 (GND) - Body ground	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR (BATTERY - OCCUPANT CLASSIFICATION ECU)**

OK

4 CHECK FOR DTC

(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 occupant classification ECU.
(d) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(e) Turn the power switch ON (IG).
(f) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(g) Turn the power switch OFF, and wait for at least 10 seconds.
(h) Turn the power switch ON (IG).
(i) Using the intelligent tester, check for DTCs of the occupant classification ECU (see page RS-182).
OK:
DTC B1794 is not output.
HINT:
DTCs other than B1794 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG

5 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.
HINT:
Perform the inspection using parts from a normal vehicle when possible.

NEXT

6	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester (with CAN VIM) to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed

NEXT

7	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

DTC	B1795	Occupant Classification ECU Malfunction

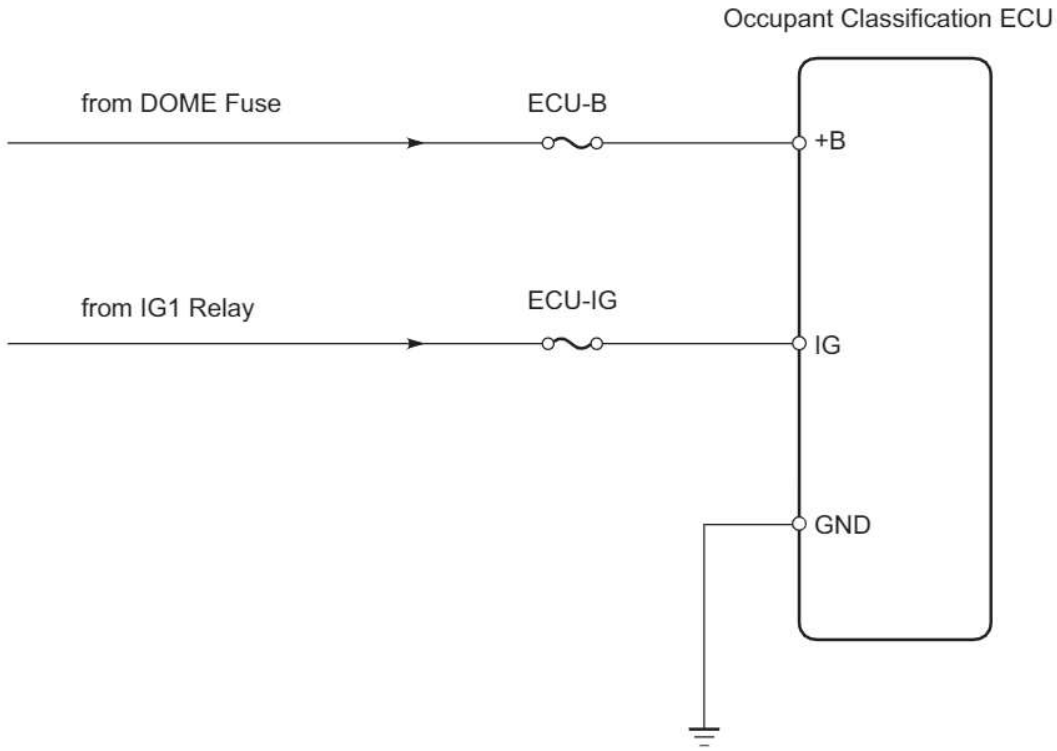
DESCRIPTION

DTC B1795 is recorded when a malfunction is detected in the occupant classification ECU.
Troubleshoot DTC B1771 first when DTC B1771 and B1795 are output simultaneously.

RS

DTC No.	DTC Detection Condition	Trouble Area
B1795	When one of following conditions is met: • The occupant classification ECU receives the power switch OFF to ON (IG) signal 50 times in a row when a malfunction occurs in the power circuit for the occupant classification ECU (OFF to ON (IG) to OFF should be counted as 1 time). • Occupant classification ECU circuit malfunction • The occupant classification ECU receives a short to ground signal in the passenger side buckle switch circuit for 2 seconds. • Occupant classification ECU malfunction	• Battery • ECU-B fuse • No. 2 floor wire • Front seat inner belt RH • Occupant classification ECU

WIRING DIAGRAM



T

C130828E01

INSPECTION PROCEDURE

1	CHECK FOR DTC

(a) Turn the power switch ON (IG), and wait for at least 10 seconds.
(b) Check the DTCs (see page RS-182).
Result

Result	Proceed to
DTC B1795 is output.	A
DTC B1771 and B1795 are output.	B

HINT:
DTCs other than DTC B1771 and B1795 may be output at this time, but they are not related to this check.

B → GO TO DTC B1771

A

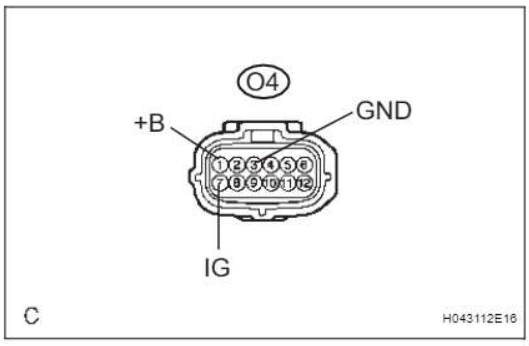
2	CHECK FUSE (ECU-B)

(a) Check the ECU-B fuse from the instrument panel junction block.
(b) Measure the resistance of the fuse.
Standard resistance:
Below 1 Ω

NG → REPLACE FUSE

OK

3	CHECK WIRE HARNESS (SOURCE VOLTAGE)



(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 No. 2 floor wire connector from the occupant classification ECU.
(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
O4-1 (+B) - Body ground	Always	10 to 14 V
O4-7 (IG) - Body ground	Power switch ON (IG)	10 to 14 V

(f) Turn the power switch OFF.
(g) Measure the resistance of the wire harness side connector.

Standard resistance

Tester Connection	Specified Condition
O4-3 (GND) - Body ground	Below 1 Ω

NG → **REPAIR OR REPLACE WIRE HARNESS**

RS

OK

4	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.
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

5	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NEXT

6	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

DTC	B1796	Sleep Operation Failure of Occupant Classification ECU

DESCRIPTION

During sleep mode, the occupant classification ECU reads the condition of each sensor while the power switch is OFF.
In this mode, if the occupant classification ECU detects an internal malfunction, DTC B1796 is output.

DTC No.	DTC Detection Condition	Trouble Area
B1796	Occupant classification ECU malfunction	Occupant classification ECU

INSPECTION PROCEDURE

1	CHECK FOR DTC

(a) Turn the power switch ON (IG).
(b) Clear the DTCs (see page RS-182).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the power switch OFF, and wait for at least 2 seconds.
(d) Turn the power switch ON (IG).
(e) Check the DTCs (see page RS-182).
OK:
DTC B1796 is not output.
HINT:
DTCs other than DTC B1796 may be output at this time, but they are not related to this check.

OK → USE SIMULATION METHOD TO CHECK

NG

2	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.
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

3	PERFORM ZERO POINT CALIBRATION

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the power switch ON (IG).

(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NEXT

RS

4	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

Trouble in Passenger Airbag ON / OFF Indicator

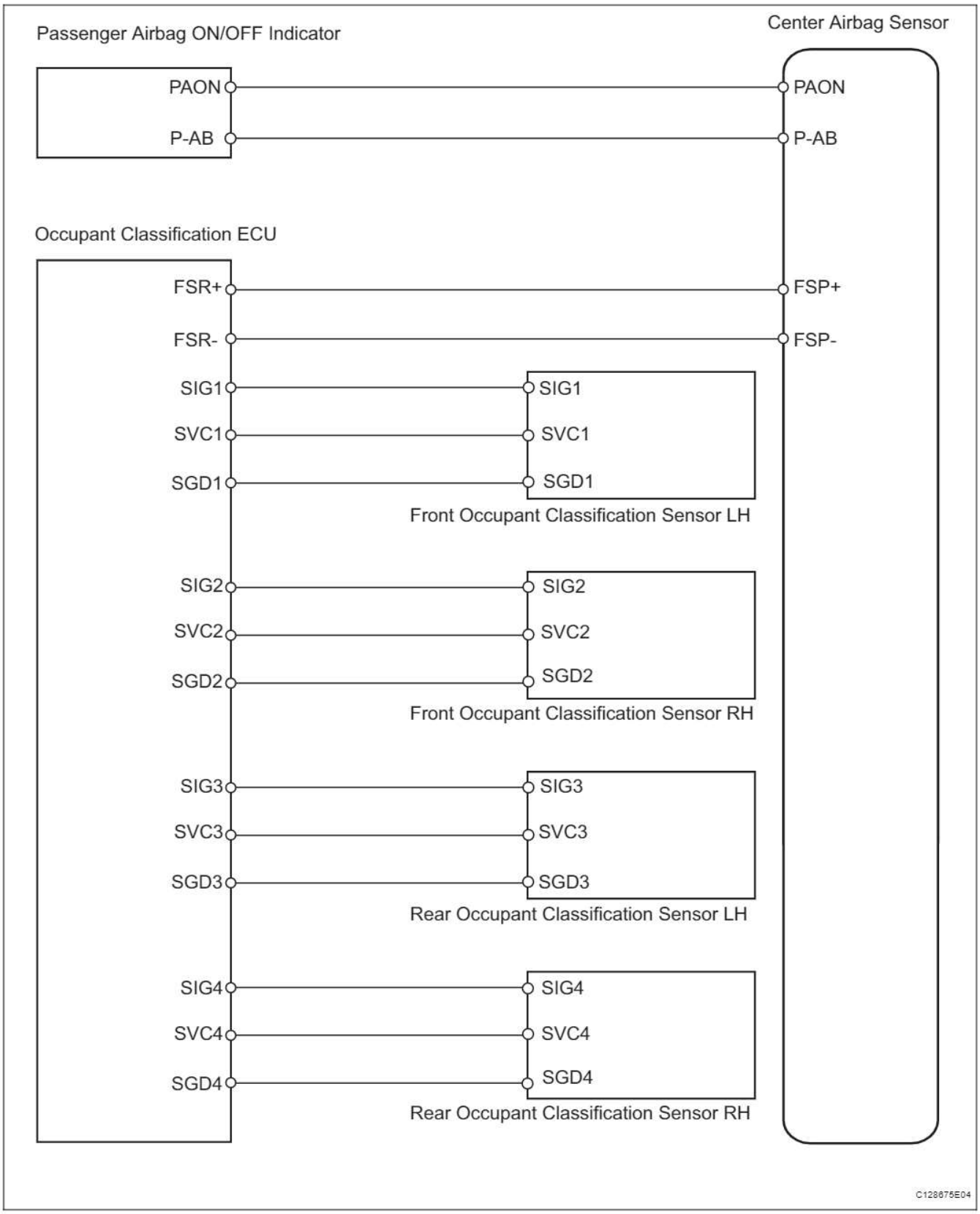
DESCRIPTION

The occupant classification system detects the front passenger seat condition and then indicates whether the front passenger airbag is activated or not through the passenger airbag ON / OFF indicator illumination.

The passenger airbag ON / OFF indicator illumination changes depending on the front passenger seat condition as shown in the table below.

Front Passenger Seat Condition	ON Indicator	OFF Indicator
Adult is seated	ON	OFF
Child is seated	OFF	ON
Vacant	OFF	OFF
Occupant classification system failure	OFF	ON

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK SRS WARNING LIGHT

(a) Turn the power switch ON (IG), and check the SRS warning light condition.
OK:
The SRS warning light does not come on.

NG → **Go to step 9**

OK

2 CHECK PASSENGER AIRBAG ON/OFF INDICATOR CONDITION

(a) Turn the power switch ON (IG).
(b) Check if the passenger airbag ON/OFF indicator correctly indicates the front passenger seat condition.

OK

Front Passenger Seat Condition	ON Indicator	OFF Indicator
Adult is seated	ON	OFF
Child is seated	OFF	ON
Vacant	OFF	OFF
Occupant classification system failure	OFF	ON

OK → **END**

NG

3 PERFORM ZERO POINT CALIBRATION

(a) Turn the power switch OFF.
(b) Connect the intelligent tester (with CAN VIM) to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NG → **Go to step 5**

OK

4 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NG → **Go to step 5**

OK

END

RS

5	RETIGHTEN FRONT SEAT ASSEMBLY RH BOLT

(a) Turn the power switch OFF.
(b) Loosen the 4 installation bolts of the front seat RH.
(c) Tighten the 4 installation bolts of the front seat RH to the specified torque (see page SE-1).
Torque:
37 N*m{ 380 kgf*cm , 27 ft.*lbf }

NG → **Go to step 8**

OK

6	PERFORM ZERO POINT CALIBRATION

(a) Connect the intelligent tester (with CAN VIM) to the DLC3.
(b) Turn the power switch ON (IG).
(c) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

NG → **Go to step 8**

OK

7	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

NG → **Go to step 8**

OK

8	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) Check that the connectors are properly connected to the occupant classification ECU and the 4 occupant classification sensors.

OK:

The connectors are connected.

(d) Disconnect the connectors from the occupant classification ECU and the 4 occupant classification sensors.

(e) Check that the connectors are not damaged or deformed.

OK:

The connectors are normal.

NG → **REPAIR OR REPLACE WIRE HARNESS AND CONNECTOR**

OK

9	CHECK FOR DTC

(a) Connect the connectors to the occupant classification ECU and the 4 occupant classification sensors.

(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) Turn the power switch OFF.

(e) Clear the DTCs (see page RS-182).

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

(g) Check the DTCs (see page RS-182).

OK:

DTC is not output.

NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

10	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 (see page RS-182).

HINT:

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

NEXT

11	PERFORM ZERO POINT CALIBRATION

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

(b) Connect the intelligent tester (with CAN VIM) to the DLC3.
(c) Turn the power switch ON (IG).
(d) Using the intelligent tester, perform the zero point calibration (see page RS-174).
OK:
COMPLETED is displayed.

RS

NEXT

12	PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the sensitivity check (see page RS-174).
Standard value:
27 to 33 kg (59.52 to 72.75 lb)

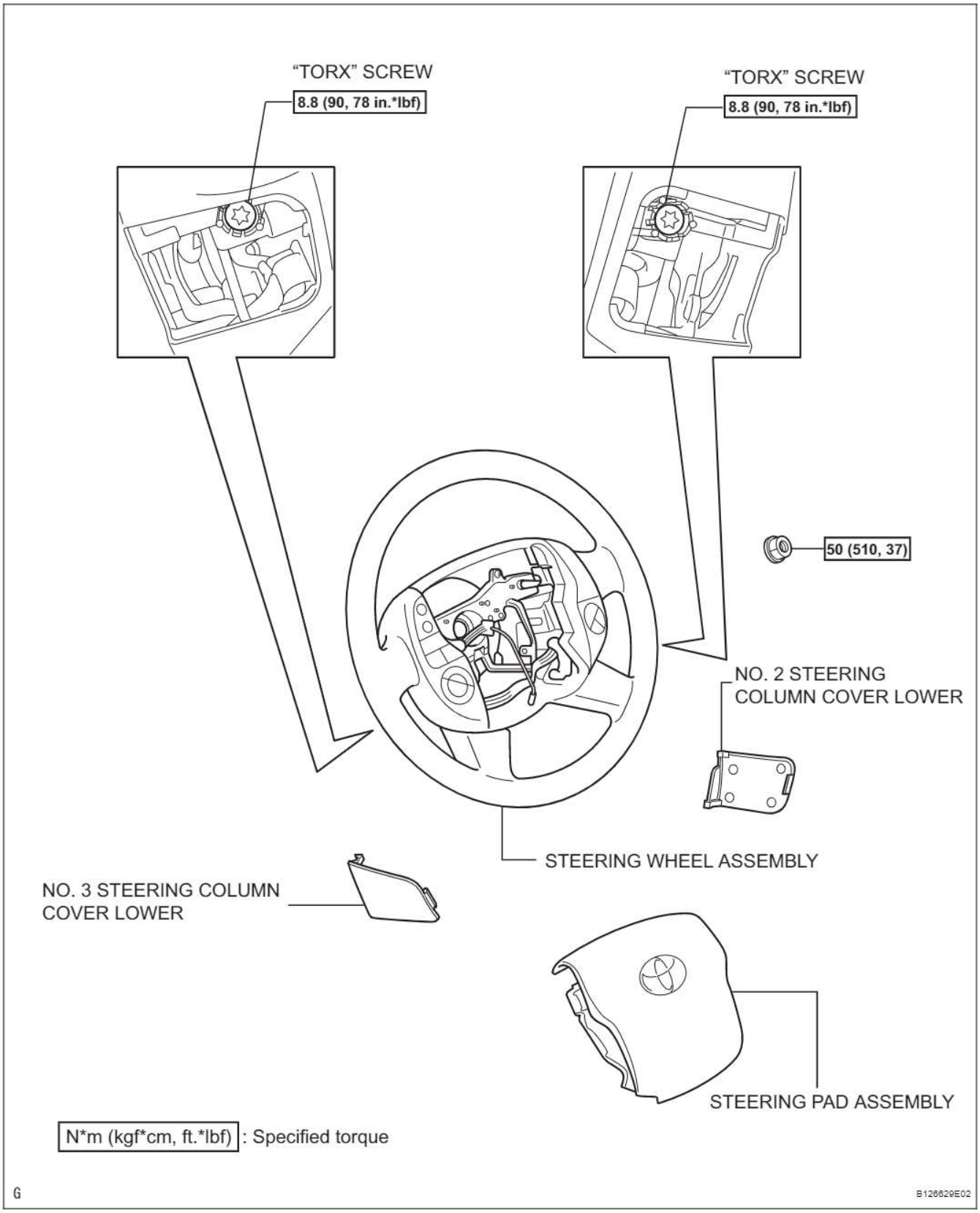
NEXT

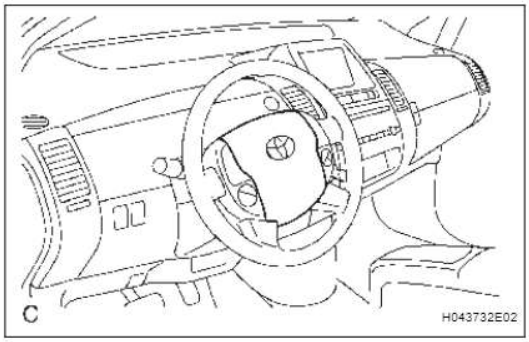
END

STEERING PAD

COMPONENTS

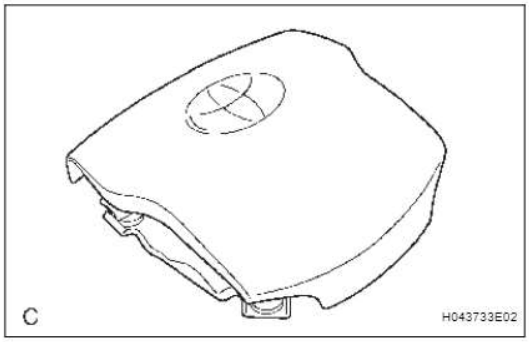
RS





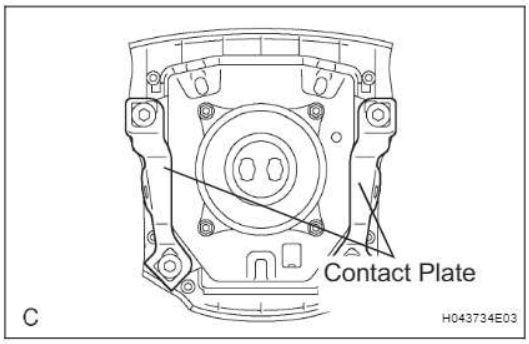
ON-VEHICLE INSPECTION

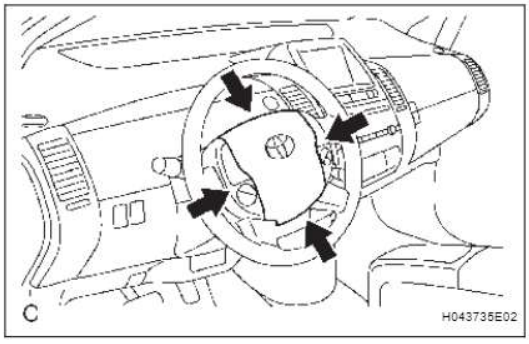
1. **CHECK STEERING PAD ASSEMBLY (VEHICLE NOT INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-41).
   (b) With the steering pad (with airbag) installed on the vehicle, perform a visual check:
   Check for cuts, cracks or discoloration on the steering pad outer surface and in the grooved portion.
   If any of the defects mentioned above are present, replace the steering pad assembly with a new one.
   CAUTION:
   For removal and installation of the steering pad assembly, be sure to follow the correct procedures.



2. **CHECK STEERING PAD ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-41).
   (b) With the steering pad (with airbag) removed from the vehicle, perform a visual check:
   - Check for cuts, cracks or discoloration on the steering pad outer surface and in the grooved portion.
   - Check for cuts and cracks in the wire harness, and chipping on the connectors.
   - Check for deformation on the steering wheel.
   - Check for deformation of the steering pad contact plates.

   If any of the defects mentioned above are present, replace the steering pad assembly with a new one.
   CAUTION:
   For removal and installation of the steering pad assembly, be sure to follow the correct procedures.
   HINT:
   - If the steering pad contact plates are deformed, never repair them. Always replace the steering pad assembly with a new one.
   - There should be no interference between the steering pad and steering wheel, and the clearance should be uniform all the way around when the new steering pad is installed on the steering wheel.



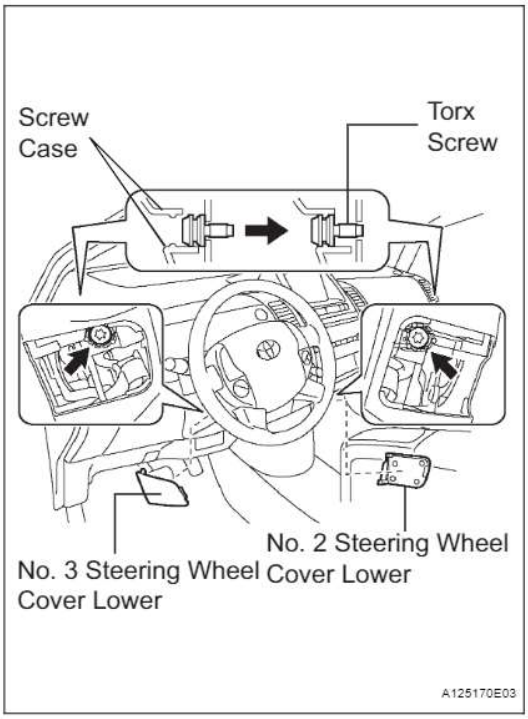


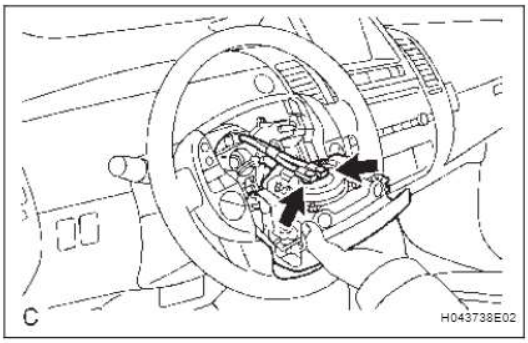
RS

REMOVAL

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
   CAUTION:
   Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.
2. **REMOVE NO. 2 STEERING WHEEL COVER LOWER**
3. **REMOVE NO. 3 STEERING WHEEL COVER LOWER**
4. **REMOVE STEERING PAD ASSEMBLY**
   (a) Straighten the front wheels.
   (b) Using a T30 "torx" socket, loosen the 2 screws until the groove along each screw circumference catches on the screw case.

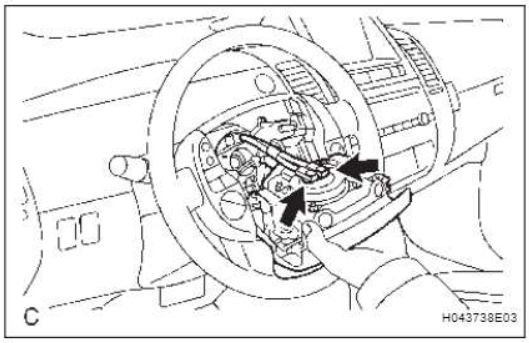




   (c) Pull out the steering pad from the steering wheel and support the steering pad with one hand as shown in the illustration.
   NOTICE:
   When removing the steering pad, do not pull the airbag wire harness.
   (d) Using a screwdriver, disconnect the 2 airbag connectors.
   CAUTION:
   When handling the airbag connector, do not damage the airbag wire harness.
   (e) Disconnect the horn connector and remove the steering pad.

INSTALLATION

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).



1. **INSTALL STEERING PAD ASSEMBLY**
   (a) Support the steering pad with one hand as shown in the illustration.
   (b) Connect the 2 airbag connectors.
   NOTICE:
   When handling the airbag connector, do not damage the airbag wire harness.
   (c) Connect the horn connector.
   (d) Install the steering pad after confirming that the circumference grooves of the screws are caught on the screw case.
   (e) Using a T30 "torx" socket, install the 2 screws.
   Torque: 8.8 N*m (90 kgf*cm, 78 in.*lbf)
2. **INSTALL NO. 2 STEERING WHEEL COVER LOWER**
3. **INSTALL NO. 3 STEERING WHEEL COVER LOWER**
4. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
5. **INSPECT STEERING PAD ASSEMBLY**
   (a) Check for cuts, cracks or discoloration on the steering pad outer surface and in the grooved portion.
   (b) Check that the horn sounds.
6. **PERFORM INITIALIZATION**
   (a) Perform initialization (see page IN-32).
   NOTICE:
   Certain systems need to be initialized after disconnecting and reconnecting the cable from the negative (-) battery terminal.
7. **CHECK SRS WARNING LIGHT**
   (a) Check the SRS warning light (see page RS-31).

RS

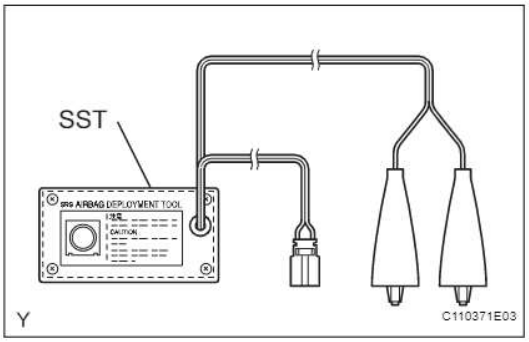
RS

DISPOSAL

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 DEPARTMENT of TOYOTA MOTOR SALES, U.S.A., INC.

CAUTION:

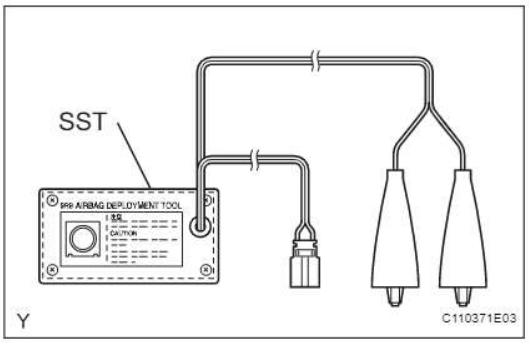
- **Never dispose of a steering pad with an unactivated airbag.**
- **The airbag produces a loud, exploding sound when it activates. Perform the operation where it will not be a nuisance to people nearby.**
- **When activating the airbag, always use the specified SST (SRS airbag deployment tool).**
- **Perform procedures in a place away from electrical interference.**
- **When activating the airbag, stand at least 10 m (33 ft.) away from the steering pad.**
- **The steering pad becomes very hot when the airbag is deployed. Do not touch it for at least 30 minutes after activation.**
- **Use gloves and safety glasses when handling a steering pad with a deployed airbag.**
- **Do not apply water to a steering pad with a deployed airbag.**
- **Always wash your hands with water after completing the operation.**

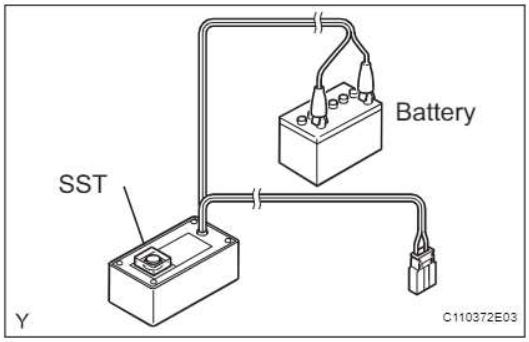


1. **DISPOSE OF STEERING PAD ASSEMBLY TOGETHER WITH VEHICLE**

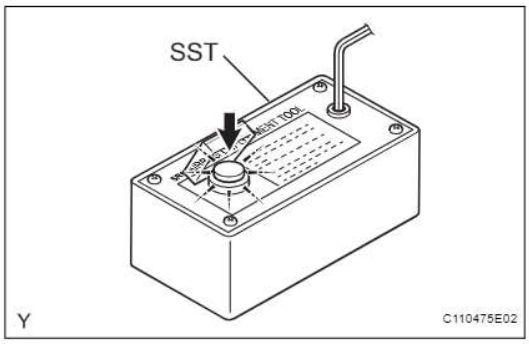
   HINT:
   Prepare a battery as the power source to deploy the airbag.

   (a) Check if SST is functioning properly.
   SST 09082-00700





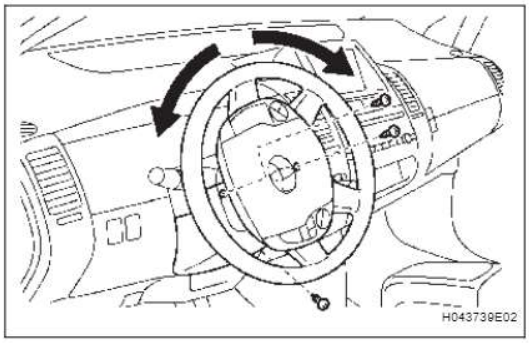
(1) Connect the SST's red clip to the positive (+) battery terminal and the black clip to the negative (-) battery terminal.
HINT:
The yellow connector will be used to connect to another SST in a later step.



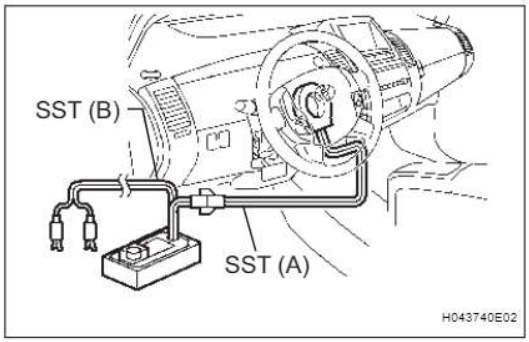
(2) Press the SST activation switch, and check that the LED of the SST activation switch illuminates.
CAUTION:
If the LED illuminates when the activation switch is not pressed, SST may have a malfunction, in which case that SST should not be used.
(3) Disconnect SST from the battery.

(b) Follow the "Precaution" (see page RS-1).

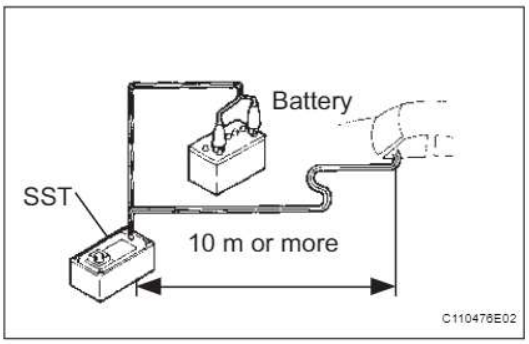
(c) Disconnect the cable from the negative (-) battery terminal.
CAUTION:
Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.



(d) Remove the steering column cover lower.
(1) Turn the steering wheel to the right and left as necessary to remove the 2 screws.
(2) Remove the screw and cover lower.



(e) Install SST.
CAUTION:
Check that there is no free play in the steering wheel and steering pad.
(1) Disconnect the yellow airbag connector from the spiral cable.
NOTICE:
When handling the airbag connector, do not damage the airbag wire harness.
(2) Connect SST (A) to SST (B). Then connect the SST (B)'s connector to the spiral cable.
SST 09082-00700, 09082-00780



NOTICE:
To avoid damaging the SST connector and wire harness, do not lock the secondary lock of the twin lock.

(3) Move SST at least 10 m (33 ft.) away from the front side window.

(4) Maintain a small opening in the front side window for the SST wire harness. Close the remaining windows of the vehicle. Close all doors.

NOTICE:
Take care not do damage the SST wire harness.

(5) Connect the SST's red clip to the positive (+) battery terminal and the black clip to the negative (-) battery terminal.

(f) Deploy the airbag.

(1) Check that no one is inside the vehicle or within a 10 m (33 ft.) radius of the vehicle.

(2) Press the SST activation switch and deploy the airbag.

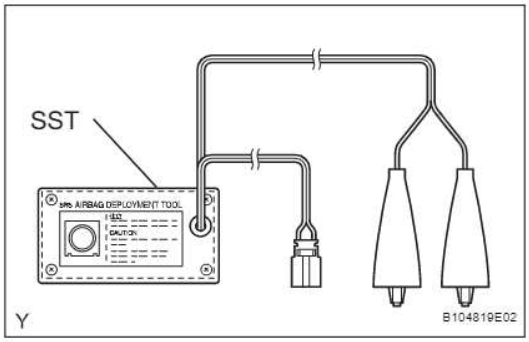
CAUTION:
- **When deploying the airbag, make sure that no one is near the vehicle.**
- **The steering pad becomes extremely hot when the airbag is deployed. Do not touch it for at least 30 minutes after deployment.**
- **Use gloves and safety glasses when handling a steering pad with a deployed airbag.**
- **Do not apply water 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 SST activation switch LED illuminates.

2. DISPOSE OF ONLY STEERING PAD ASSEMBLY

NOTICE:
- **When disposing of the steering pad, never use the customer's vehicle to deploy the airbag.**
- **Be sure to follow the procedure detailed below when deploying the airbag.**

HINT:
Prepare a battery as the power source to deploy the airbag.

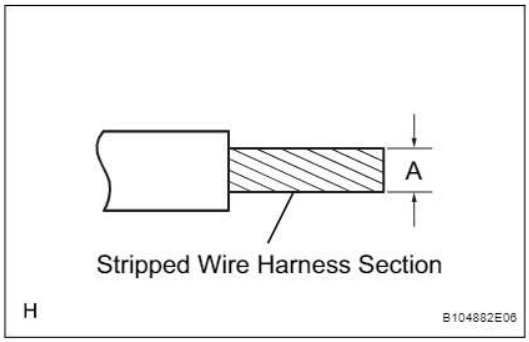


(a) Check if SST is functioning properly (see previous step).

(b) Remove the steering pad (see page RS-267).

CAUTION:

- **When removing the steering pad, work must be started at least 90 seconds after the ignition switch is turned OFF and the cable is disconnected from the negative (-) battery terminal.**
- **When storing the steering pad, keep the airbag deployment side facing upward.**



(c) Using service wire harnesses for the vehicle, tie down the steering pad to a disc wheel (with tire).

Wire harness:

Stripped wire harness section A:

1.25 mm^2 or more (0.0019 $in.^2$ or more)

NOTICE:

Use a disc wheel (with tire) that you are planning to throw away, as the airbag deployment will damage the disc wheel.

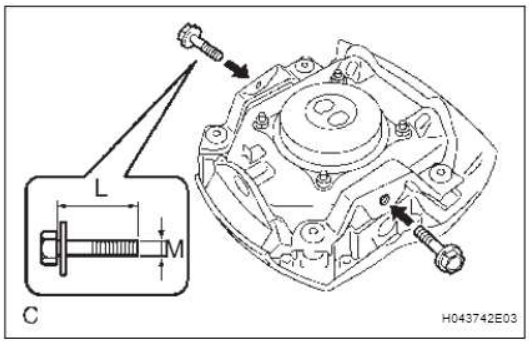
CAUTION:

Do not use wire harnesses that are too thin or any other substitute items to tie down the steering pad. They may snap when the airbag deploys. Always use vehicle wire harnesses that have an area of at least 1.25 mm^2 or more (0.0019 $in.^2$).

HINT:

To calculate the area of the stripped wire harness section:

Area = 3.14 x $Diameter^2/4$



(1) Install the 2 bolts with washers into the 2 bolt holes of the steering pad.

Bolt:

L:

35.0 mm (1.378 in.)

M:

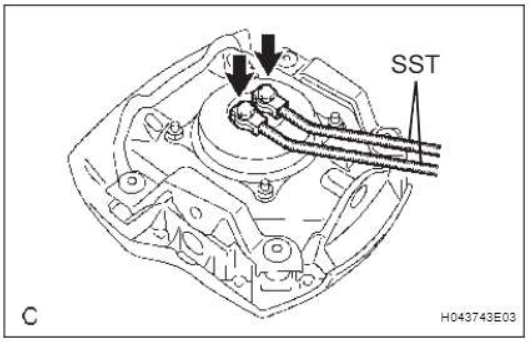
6.0 mm (0.236 in.)

Pitch:

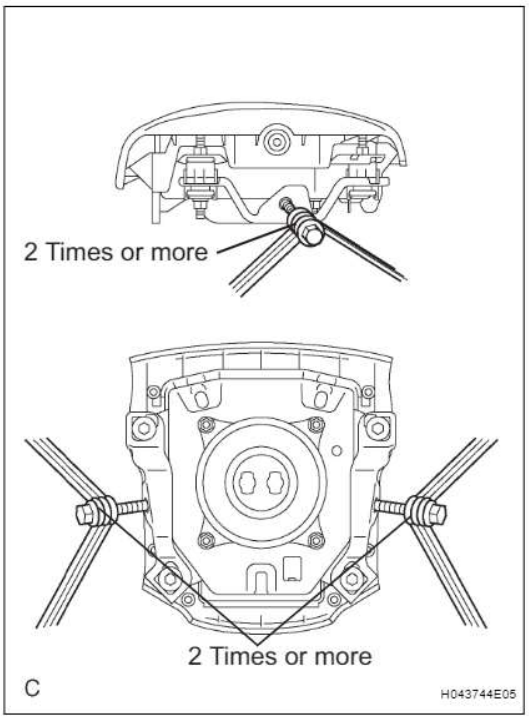
1.0 mm (0.039 in.)

NOTICE:

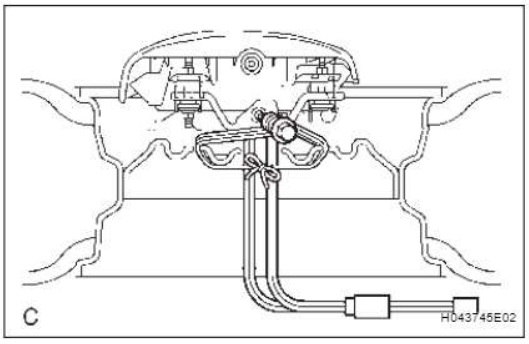
- **Tighten the bolts by hand until they become difficult to turn.**
- **Do not tighten the bolts excessively.**



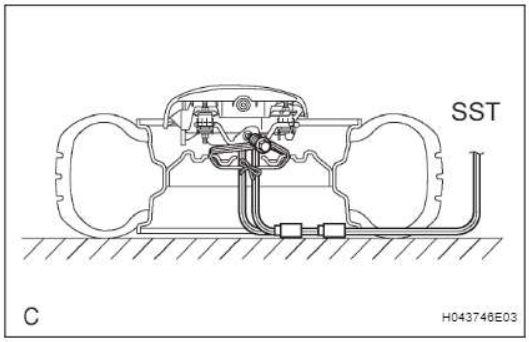
(2) After connecting SST to each other, connect them to the steering pad.
SST 09082-00802 (09082-10801, 09082-30801)



(3) Wind 3 wire harnesses at least twice around the bolts installed on the left and right sides of the steering pad.
CAUTION:
- **Tightly wind the wire harnesses around the bolts so that there is no slack.**
- **Make sure that the wire harnesses are tight. If there is slack in a wire harness, the steering pad may come loose when the airbag is deployed.**



(4) Face the airbag deployment side of the steering pad upward. Separately tie the left and right sides of the steering pad to a disc wheel through the hub nut holes. Position the SST connector so that it hangs downward through the hub hole in the disc wheel.
CAUTION:
- **Make sure that the wire harnesses are tight. If there is slack in a wire harness, the steering pad may come loose when the airbag is deployed.**
- **Always tie down the steering pad with the airbag deployment side facing upward.**



(d) Install SST.

CAUTION:

Place the tire with disc wheel and steering pad on a level surface.

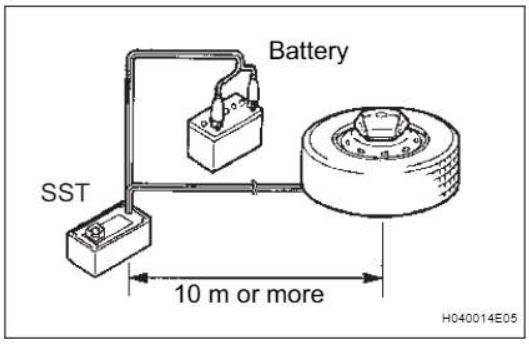
(1) Connect the connector of SST.

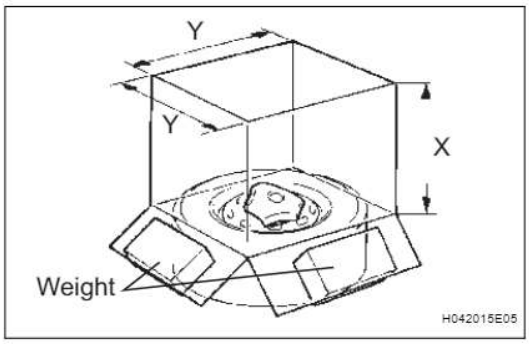
SST 09082-00700

NOTICE:

To avoid damaging the SST connector and 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.

(2) Move SST at least 10 m (33 ft.) away from the steering pad.





(e) Cover the steering pad with a cardboard box or tires.

(1) Covering method using a cardboard box:
Cover the steering pad with the cardboard box and place weights of at least 19 kg (43 lb) on the cardboard box in 4 places.

Cardboard box size:

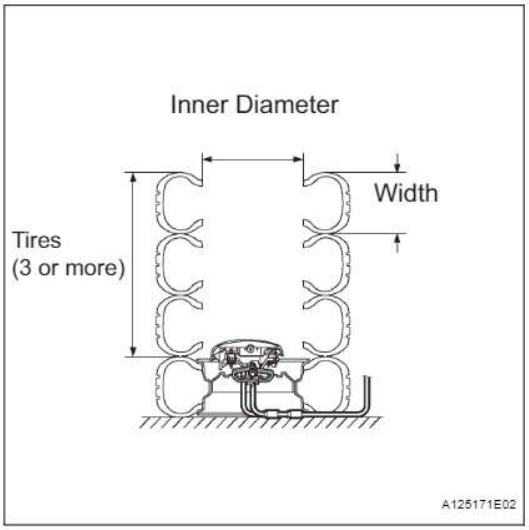
X minimum = 460 mm (18.11 in.)

Y minimum = 650 mm (25.59 in.)

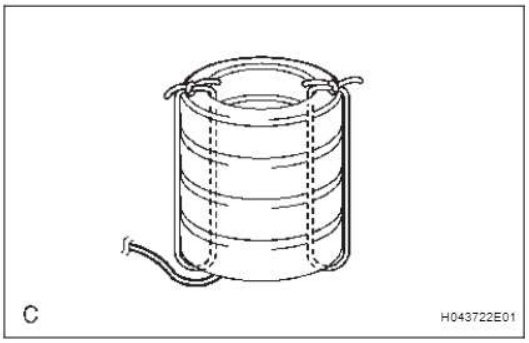
NOTICE:

- **When dimension Y of the cardboard box exceeds the tire dimension, X should be the following size.**

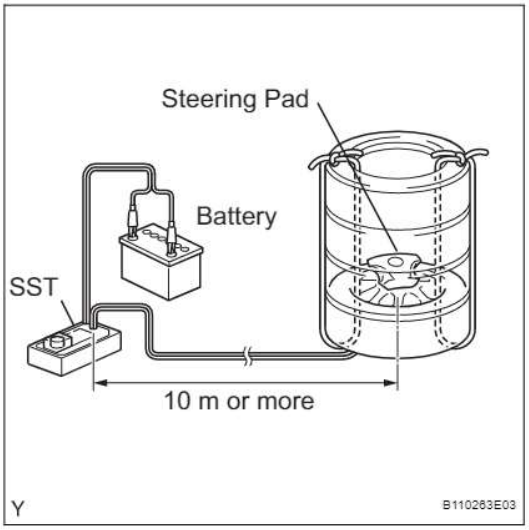
  X minimum = 460 mm (18.11 in.) + width of tire
- **If using a cardboard box that is smaller than the specified size, the cardboard box will break during airbag deployment.**



(2) Covering method using tires:
Place at least 3 tires (without disc wheels) on top of the tire (with disc wheel and steering pad).
Tire size:
Width minimum:
185 mm (7.28 in.)
Inner diameter minimum:
360 mm (14.17 in.)
CAUTION:
Do not use tires with disc wheels to cover the tire (with disc wheel and steering pad).
NOTICE:
- **Use tires that you are planning to throw away, as the airbag deployment may damage the tires.**
- **Do not place the SST connector under the tire as the connector may be damaged.**



(3) Tie the tires together with 2 wire harnesses.
CAUTION:
Make sure that the wire harnesses are tight. If there is slack in a wire harness, the tires may come loose when the airbag is deployed.



(f) Deploy the airbag.
(1) Connect the SST's red clip to the positive (+) battery terminal and the black clip to the negative (-) battery terminal.
(2) Check that no one is within a 10 m (33 ft.) radius of the steering pad.
(3) Press the SST activation switch and deploy the airbag.
CAUTION:
When deploying the airbag, make sure that no one is near the tires.
HINT:
The airbag is deployed as the SST activation switch LED illuminates.



(g) Dispose of the steering pad.

CAUTION:

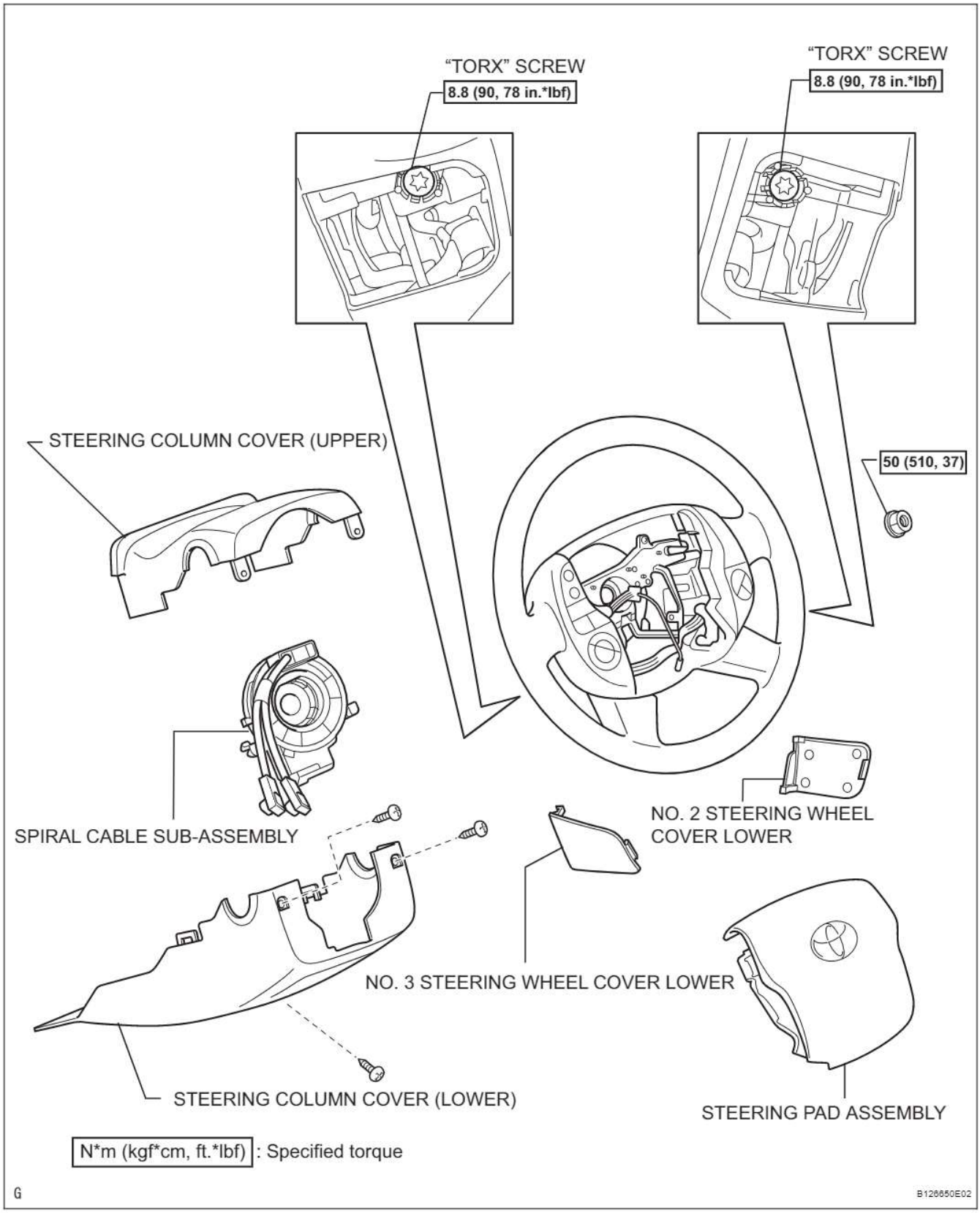
- **The steering pad becomes extremely hot when the airbag is deployed. Do not touch it for at least 30 minutes after deployment.**
- **Do not apply water to a steering pad with a deployed airbag.**
- **Always wash your hands with water after completing the operation.**

(1) Remove the steering pad from the disc wheel.

(2) Place the steering pad in a plastic bag, tie it tightly and dispose of it in the same way as other general parts.

SPIRAL CABLE

COMPONENTS

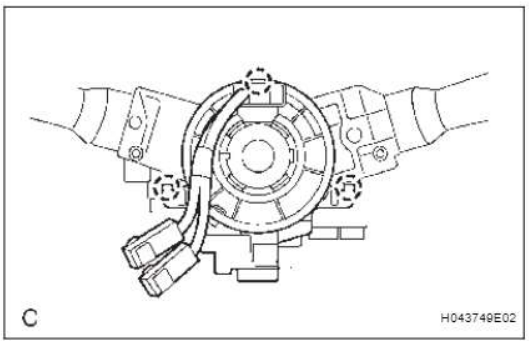


RS

REMOVAL

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
   CAUTION:
   Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.
2. **PLACE FRONT WHEELS FACING STRAIGHT AHEAD**
3. **REMOVE NO. 2 STEERING WHEEL COVER LOWER**
4. **REMOVE NO. 3 STEERING WHEEL COVER LOWER**
5. **REMOVE STEERING PAD ASSEMBLY (See page RS-268)**
6. **REMOVE STEERING WHEEL ASSEMBLY (See page SR-8)**
7. **REMOVE STEERING COLUMN COVER (See page SR-8)**
8. **REMOVE SPIRAL CABLE SUB-ASSEMBLY**
   (a) Disconnect the airbag connector.
   NOTICE:
   When handling the airbag connector, do not damage the airbag wire harness.
   (b) Detach the 3 claws and remove the spiral cable.



INSPECTION

1. INSPECT SPIRAL CABLE SUB-ASSEMBLY

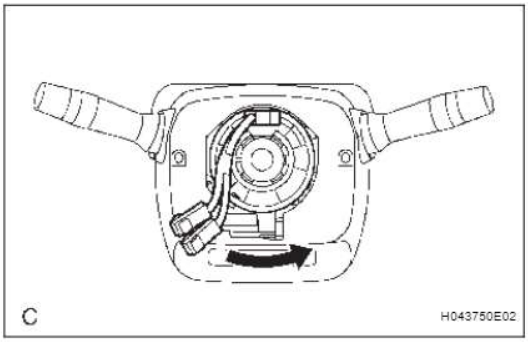
(a) Check that there are no scratches or cracks on its connector, and that the cable does not have cracks, dents or chipping.

RS

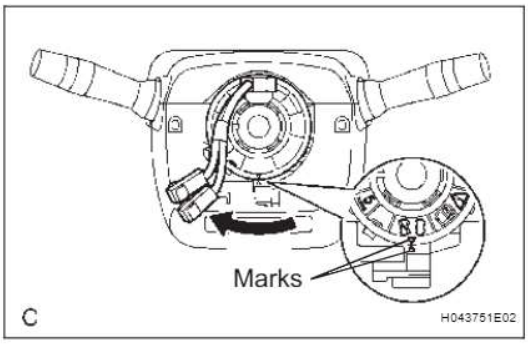
INSTALLATION

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).

1. **INSTALL SPIRAL CABLE SUB-ASSEMBLY**
   (a) Check that the front wheels are facing straight ahead.
   (b) Set the turn signal switch to the neutral position.
   NOTICE:
   Make sure that the turn signal switch is in the neutral position, as the pin of the turn signal switch may be snapped.
   (c) Install the spiral cable.
   NOTICE:
   When replacing the spiral cable with a new one, remove the lock pin before installing the steering wheel.
   (d) Connect the connector to the spiral cable.
   NOTICE:
   When handling the airbag connector, do not damage the airbag wire harness.
2. **INSTALL STEERING COLUMN COVER (See page SR-14)**
3. **POSITION SPIRAL CABLE**
   (a) Slowly rotate the spiral cable counterclockwise by hand until it feels firm.
   NOTICE:
   Do not use the airbag wire harness to turn the spiral cable.



   (b) Rotate the spiral cable clockwise approximately 2.5 turns to align the marks.
   NOTICE:
   Do not use the airbag wire harness to turn the spiral cable.
   HINT:
   The spiral cable will rotate approximately 2.5 turns to the left and right from the center.



4. **INSTALL STEERING WHEEL ASSEMBLY (See page SR-15)**
5. **INSTALL STEERING PAD ASSEMBLY (See page RS-269)**
6. **INSTALL NO. 2 STEERING WHEEL COVER LOWER**
7. **INSTALL NO. 3 STEERING WHEEL COVER LOWER**
8. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

9. **INSPECT STEERING PAD ASSEMBLY (See page RS-267)**

10. **PERFORM INITIALIZATION**
NOTICE:
Certain systems need to be initialized after disconnecting and reconnecting the cable from the negative (-) battery terminal.
(a) Perform initialization (see page IN-32).

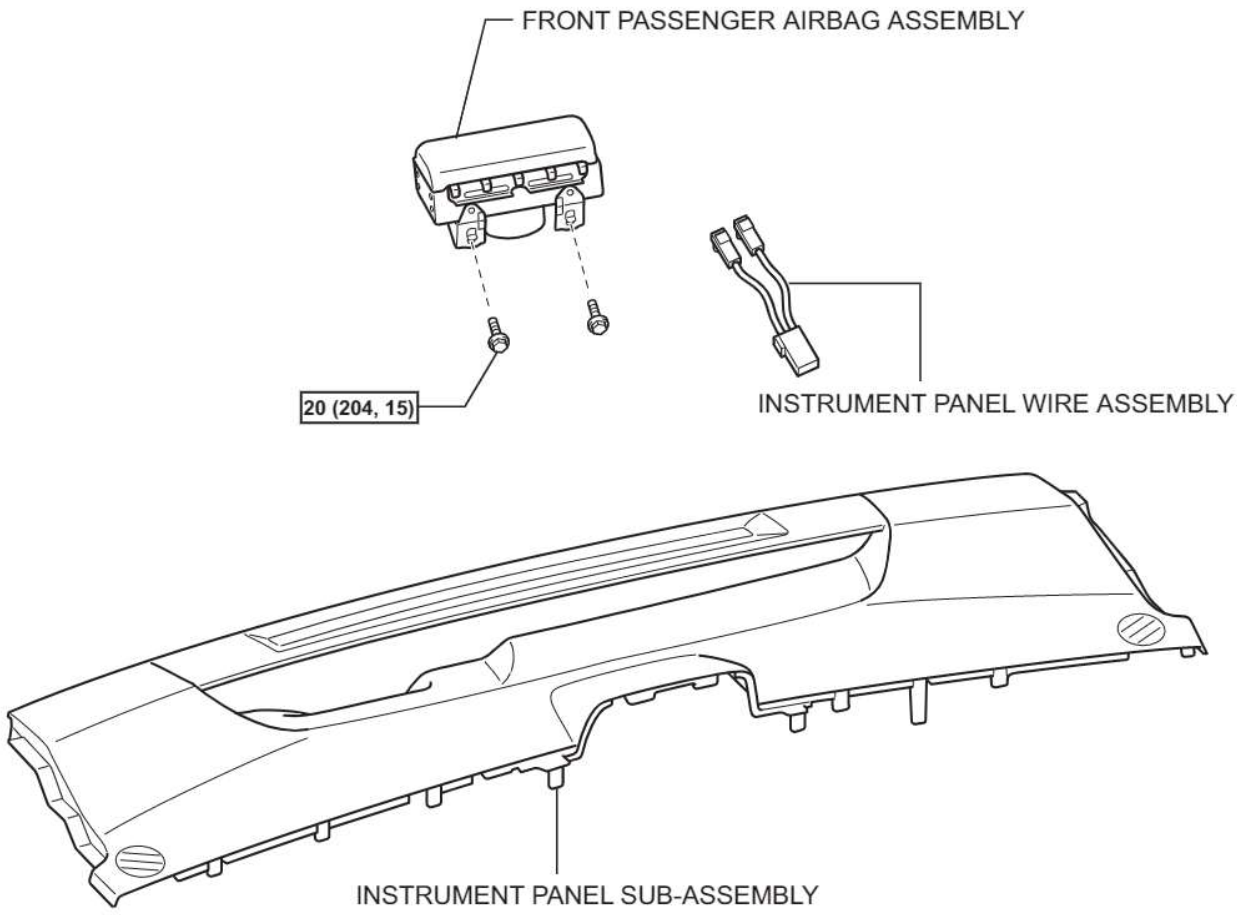
11. **CHECK SRS WARNING LIGHT**
(a) Check the SRS warning light (see page RS-31).

12. **INSPECT STEERING WHEEL POSITION**

FRONT PASSENGER AIRBAG ASSEMBLY

COMPONENTS

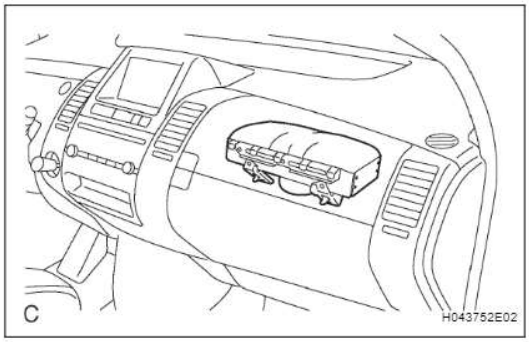
RS



N*m (kgf*cm, ft.*lbf) : Specified torque

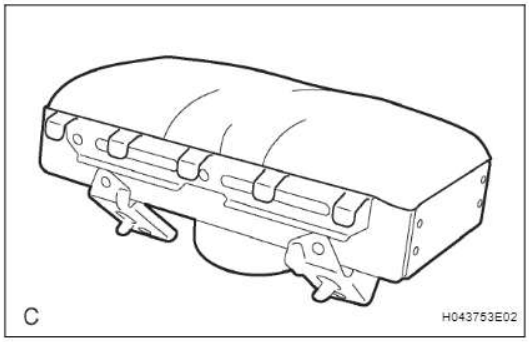
G

B126630E02



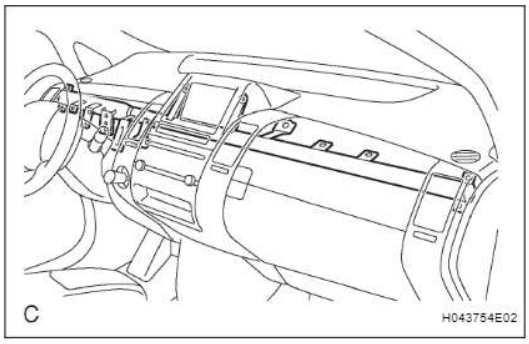
ON-VEHICLE INSPECTION

1. **CHECK FRONT PASSENGER AIRBAG ASSEMBLY (VEHICLE NOT INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-41).
   (b) With the front passenger airbag installed on the vehicle, perform a visual check:
   Check for cuts, cracks or discoloration on the front passenger airbag surface and in the grooved portion.
   If any of the defects mentioned above are present, replace the front passenger airbag with a new one.
   CAUTION:
   For removal and installation of the front passenger airbag, be sure to follow the correct procedures.



2. **CHECK FRONT PASSENGER AIRBAG ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-41).
   (b) With the front passenger airbag removed from the vehicle, perform a visual check:
   - Check for cuts, cracks or discoloration on the front passenger airbag.
   - Check for cracks or other damage on the connectors.
   - Check for deformation or cracks on the instrument panel and instrument panel reinforcement.

   If any of the defects mentioned above are present, replace the front passenger airbag with a new one.
   CAUTION:
   For removal and installation of the front passenger airbag, be sure to follow the correct procedures.



RS

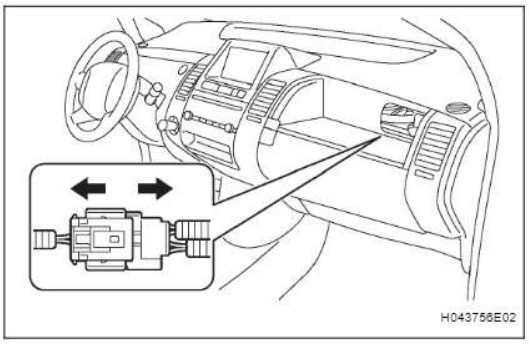
REMOVAL

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
   CAUTION:
   Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.

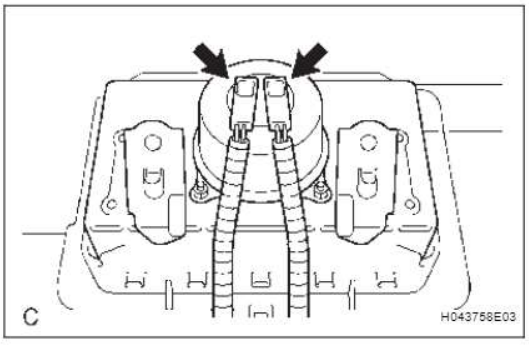
2. **REMOVE GLOVE COMPARTMENT DOOR ASSEMBLY (See page IP-7)**

3. **DISCONNECT PASSENGER AIRBAG CONNECTOR**
   (a) Disconnect the front passenger airbag connector.
   NOTICE:
   When handling the airbag connector, take care not to damage the airbag wire harness.

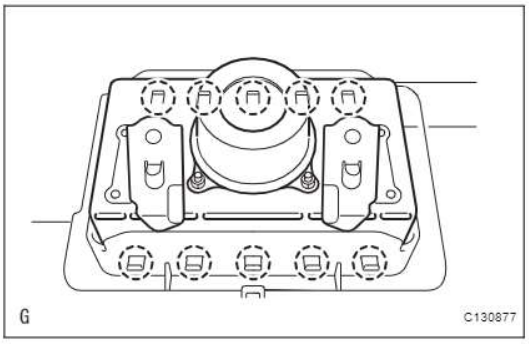


4. **REMOVE INSTRUMENT PANEL SAFETY PAD**
   (a) Remove the instrument panel (see page IP-5).

5. **DISCONNECT INSTRUMENT PANEL WIRE ASSEMBLY**
   (a) Disconnect the connectors from the front passenger airbag.
   NOTICE:
   When handling the airbag connector, take care not to damage the airbag wire harness.

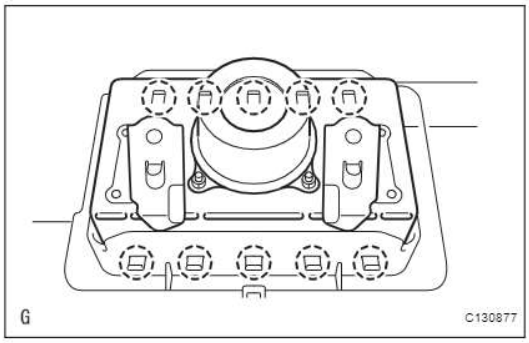


6. **REMOVE FRONT PASSENGER AIRBAG ASSEMBLY**
   (a) Detach the 10 claws and remove the front passenger airbag.

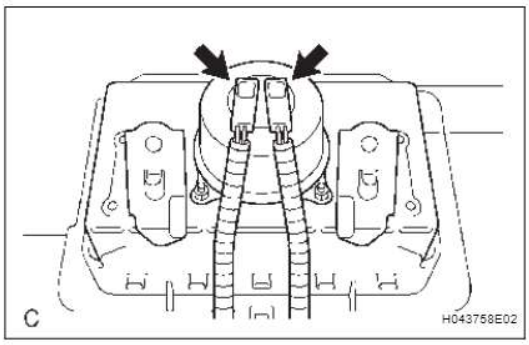


INSTALLATION

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).

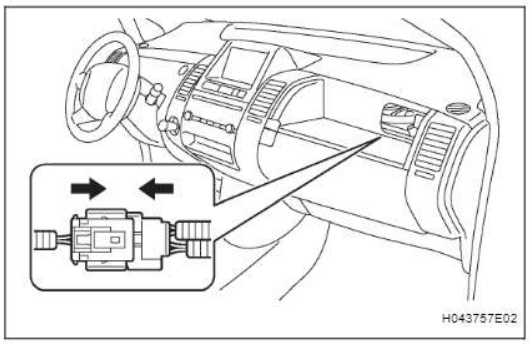


1. INSTALL FRONT PASSENGER AIRBAG ASSEMBLY
(a) Attach the 10 claws to install the front passenger airbag.



2. CONNECT INSTRUMENT PANEL WIRE ASSEMBLY
(a) Connect the connectors to the front passenger airbag.
NOTICE:
When handling the airbag connector, do not damage the airbag wire harness.

3. INSTALL INSTRUMENT PANEL SAFETY PAD
(a) Install the instrument panel (see page IP-11).
NOTICE:
When handling the airbag connector, do not damage the airbag wire harness.



4. CONNECT PASSENGER AIRBAG CONNECTOR
(a) Connect the front passenger airbag connector.
NOTICE:
When handling the airbag connector, do not damage the airbag wire harness.

5. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

6. PERFORM INITIALIZATION
(a) Perform initialization (see page IN-32).
NOTICE:
Certain systems need to be initialized after disconnecting and reconnecting the cable from the negative (-) battery terminal.

7. CHECK SRS WARNING LIGHT
(a) Check the SRS warning light (see page RS-31).

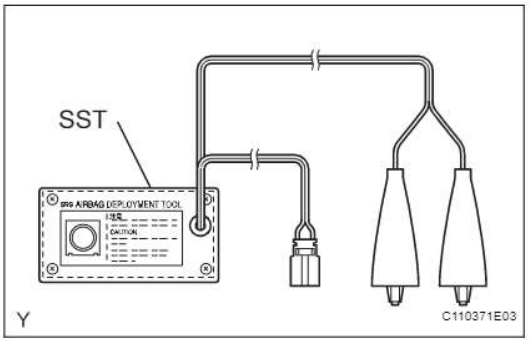
RS

DISPOSAL

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 DEPARTMENT of TOYOTA MOTOR SALES, U.S.A., INC.

CAUTION:

- **Never dispose of a front passenger airbag with an unactivated airbag.**
- **The airbag produces a loud, exploding sound when it activates. Perform the operation where it will not be a nuisance to people nearby.**
- **When activating the airbag, always use the specified SST (SRS airbag deployment tool).**
- **Perform procedures in a place away from electrical interference.**
- **When activating the airbag, stand at least 10 m (33 ft.) away from the airbag.**
- **The airbag becomes very hot when it is deployed. Do not touch it for at least 30 minutes after activation.**
- **Use gloves and safety glasses when handling a deployed airbag.**
- **Do not apply water to a deployed airbag.**
- **Always wash your hands with water after completing the operation.**

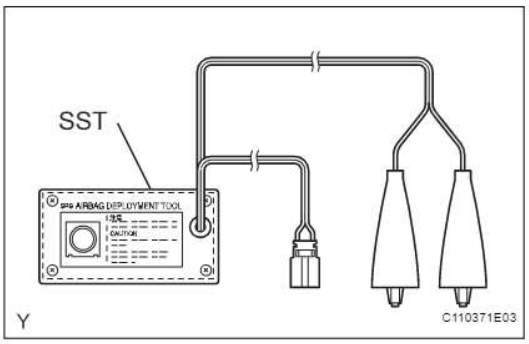


1. DISPOSE OF FRONT PASSENGER AIRBAG ASSEMBLY TOGETHER WITH VEHICLE

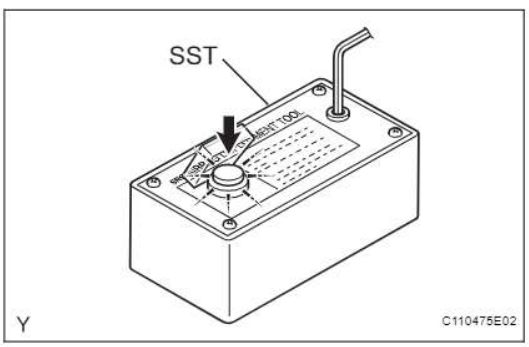
HINT:
Prepare a battery as the power source to deploy the airbag.

(a) Check if SST is functioning properly.
SST 09082-00700

(1) Connect the SST's red clip to the positive (+) battery terminal and the black clip to the negative (-) battery terminal.
HINT:
The yellow connector will be used to connect to another SST in a later step.



(2) Press the SST activation switch, and check that the LED of the SST activation switch illuminates.
CAUTION:
If the LED illuminates when the activation switch is not pressed, SST may have a malfunction, in which case that SST should not be used.

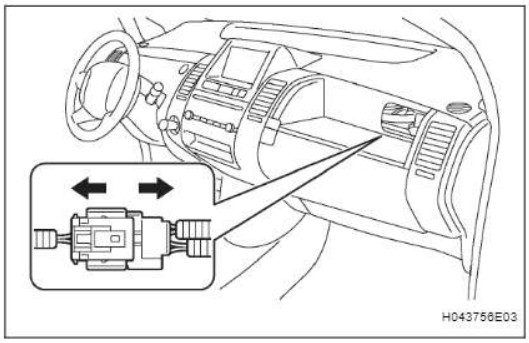


(3) Disconnect SST from the battery.

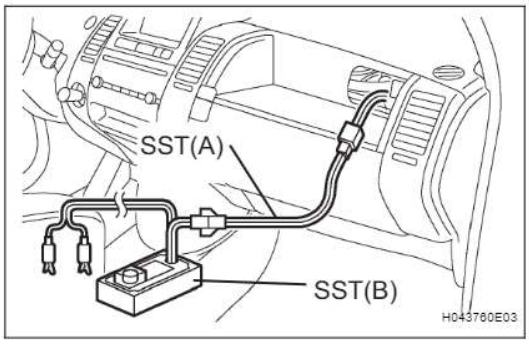
(b) Follow the "Precaution" (see page RS-1).

(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 prevent airbag and seat belt pretensioner activation.

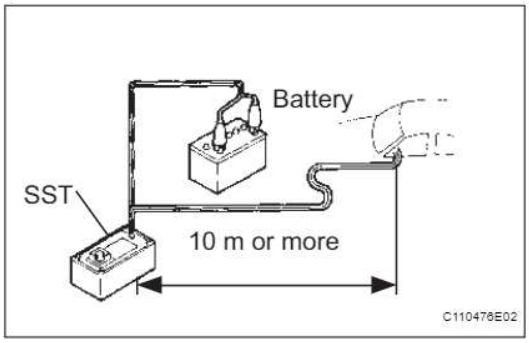
(d) Remove the glove compartment door (see page IP-7).



(e) Install SST.
(1) Disconnect the front passenger airbag connector.
NOTICE:
When handling the airbag connector, do not damage the airbag wire harness.



(2) Connect SST (A) to SST (B). Then connect the SST (B)'s connector to the cable.
SST 09082-00700, 09082-00780
NOTICE:
To avoid damaging the SST connector and wire harness, do not lock the secondary lock of the twin lock.



(3) Move SST at least 10 m (33 ft.) away from the front side window.
(4) Maintain a small opening in the front side window for the SST wire harness. Close the remaining windows of the vehicle. Close all doors.
NOTICE:
Take care not to damage the SST wire harness.
(5) Connect the SST's red clip to the positive (+) battery terminal and the black clip to the negative (-) battery terminal.

(f) Deploy the airbag.
(1) Check that no one is inside the vehicle or within a 10 m (33 ft.) radius of the vehicle.
(2) Press the SST activation switch and deploy the airbag.
CAUTION:
- **When deploying the airbag, make sure that no one is near the vehicle.**
- **The airbag becomes extremely hot when it is deployed. Do not touch it for at least 30 minutes after deployment.**

RS

- **Use gloves and safety glasses when handling a deployed airbag.**
- **Do not apply water to a deployed airbag.**
- **Always wash your hands with water after completing the operation.**

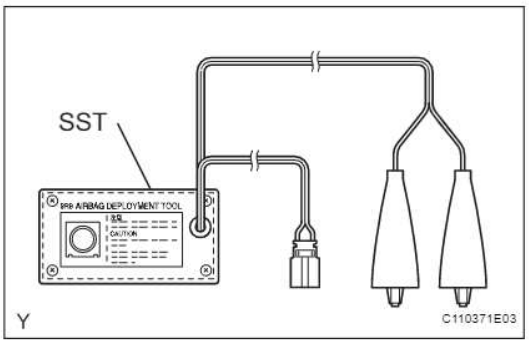
HINT:
The airbag is deployed as the SST activation switch LED illuminates.

2. DISPOSE OF ONLY FRONT PASSENGER AIRBAG ASSEMBLY

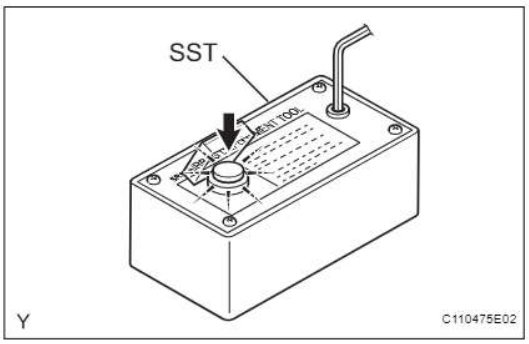
NOTICE:

- **When disposing of the airbag, never use the customer's vehicle to deploy the airbag.**
- **Be sure to follow the procedure detailed below when deploying the airbag.**

HINT:
Prepare a battery as the power source to deploy the airbag.



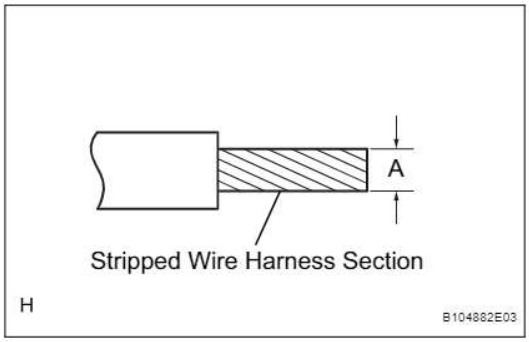
(a) Check if SST is functioning properly.
SST 09082-00700
(1) Connect the SST's red clip to the positive (+) battery terminal and the black clip to the negative (-) battery terminal.
HINT:
The yellow connector will be used to connect to another SST in a later step.



(2) Press the SST activation switch, and check that the LED of the SST activation switch illuminates.
CAUTION:
If the LED illuminates when the activation switch is not pressed, SST may have a malfunction, in which case that SST should not be used.
(3) Disconnect SST from the battery.

(b) Remove the front passenger airbag (see page RS-281).
CAUTION:

- **When removing the airbag, work must be started at least 90 seconds after the ignition switch is turned OFF and the cable is disconnected from the negative (-) battery terminal.**
- **When storing the airbag, keep the airbag deployment side facing upward.**



(c) Using service wire harnesses for the vehicle, tie down the airbag to a tire.

Wire harness:

Stripped wire harness section A:

1.25 mm^2 or more (0.0019 $in.^2$ or more)

NOTICE:

Use a tire that you are planning to throw away, as the airbag deployment may damage the tire.

CAUTION:

Do not use wire harnesses that are too thin or any other substitute items to tie down the front passenger airbag assembly. They may snap when the airbag deploys. Always use vehicle wire harnesses that have an area of at least 1.25 mm^2 (0.0019 $in.^2$).

HINT:

To calculate the area of the stripped wire harness section:

Area = 3.14 x $Diameter^2$ /4

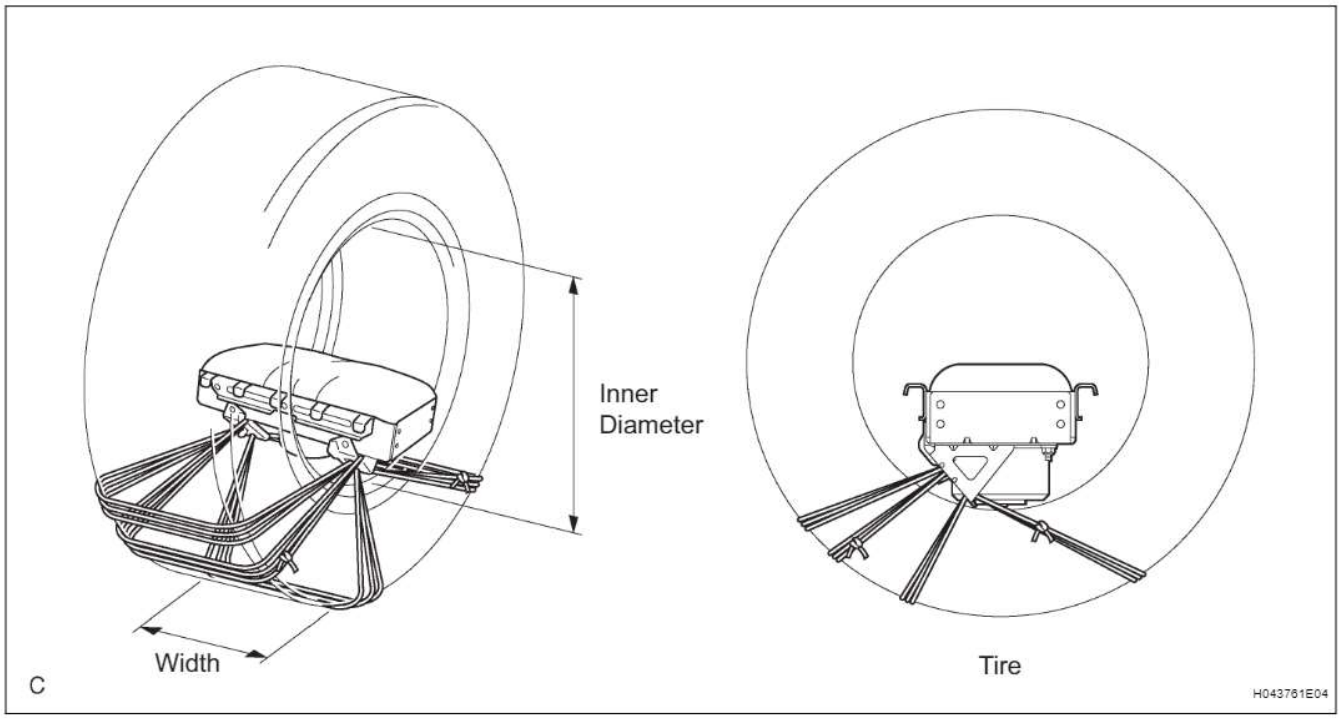
(1) Position the airbag inside the tire so that the brackets contact the tire.

Tire size:

Width minimum: 185 mm (7.28 in.)

Inner diameter minimum: 360 mm (14.17 in.)

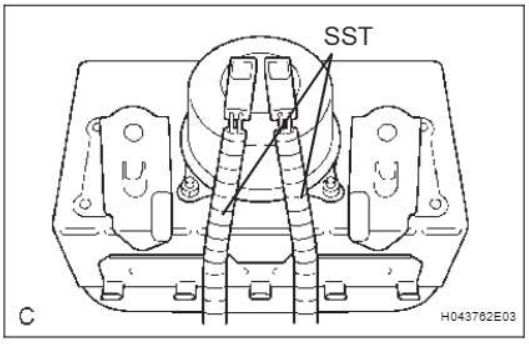
(2) Wind 3 wire harnesses at least twice around the airbag brackets and tire.



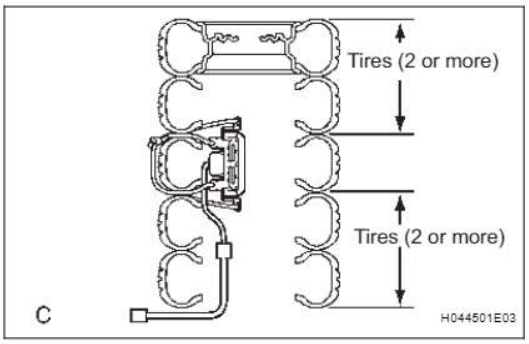
CAUTION:

- **Tightly wind the wire harnesses around the brackets so that there is no slack.**

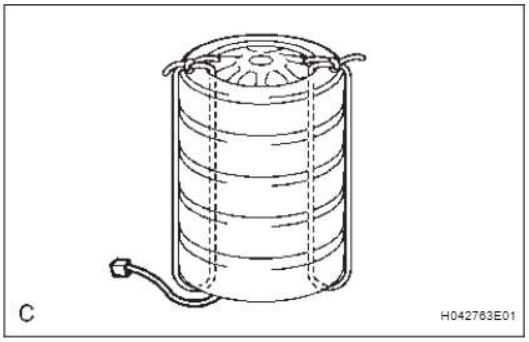
- **Make sure that the wire harnesses are tight. If there is slack in a wire harness, the airbag may come loose when it is deployed.**
- **Always tie down the airbag with the airbag deployment side facing inside the tire.**



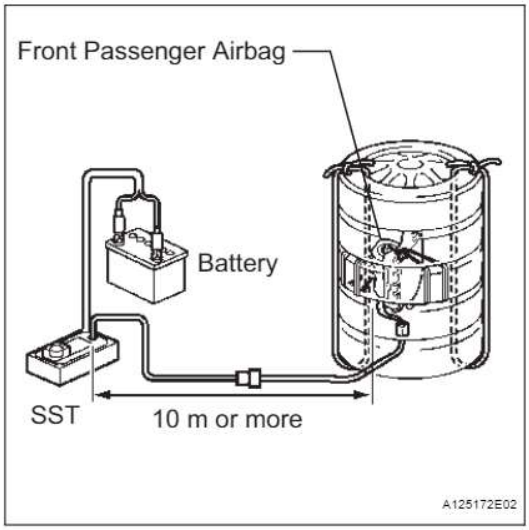
(d) Install SST.
SST 09082-00802 (09082-10801, 09082-30801)
(1) Connect the SST connectors to the airbag.



(e) Place the tires.
(1) Place at least 2 tires under the tire to which the airbag is tied.
(2) Place at least 2 tires on top of the tire to which the airbag is tied. The top tire should have a disc wheel installed.
NOTICE:
- **Do not place the SST connector under the tire as the connector may be damaged.**
- **Use a disc wheel that you are planning to throw away, as the airbag deployment will damage the disc wheel.**
- **Use tires that you are planning to throw away, as the airbag deployment may damage the tires.**

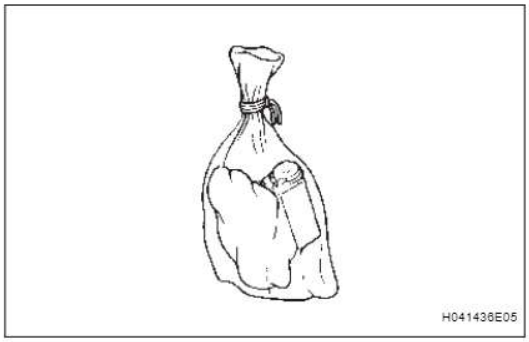


(3) Tie the tires together with 2 wire harnesses.
CAUTION:
Make sure that the wire harnesses are tight. If there is slack in a wire harness, the tires may come loose when the airbag is deployed.



(f) Install SST.
(1) Connect the SST connector.
SST 09082-00700
NOTICE:
To avoid damaging the SST connector and wire harness, do not lock the secondary lock of the twin lock. Also, secure some slack for the SST wire harness inside the tire.

(g) Deploy the airbag.
(1) Connect the SST's red clip to the positive (+) battery terminal and the black clip to the negative (-) battery terminal.
(2) Check that no one is within a 10 m (33 ft.) radius of the airbag.
(3) Press the SST activation switch and deploy the airbag.
CAUTION:
When deploying the airbag, make sure that no one is near the tires.
HINT:
The airbag is deployed as the SST activation switch LED illuminates.



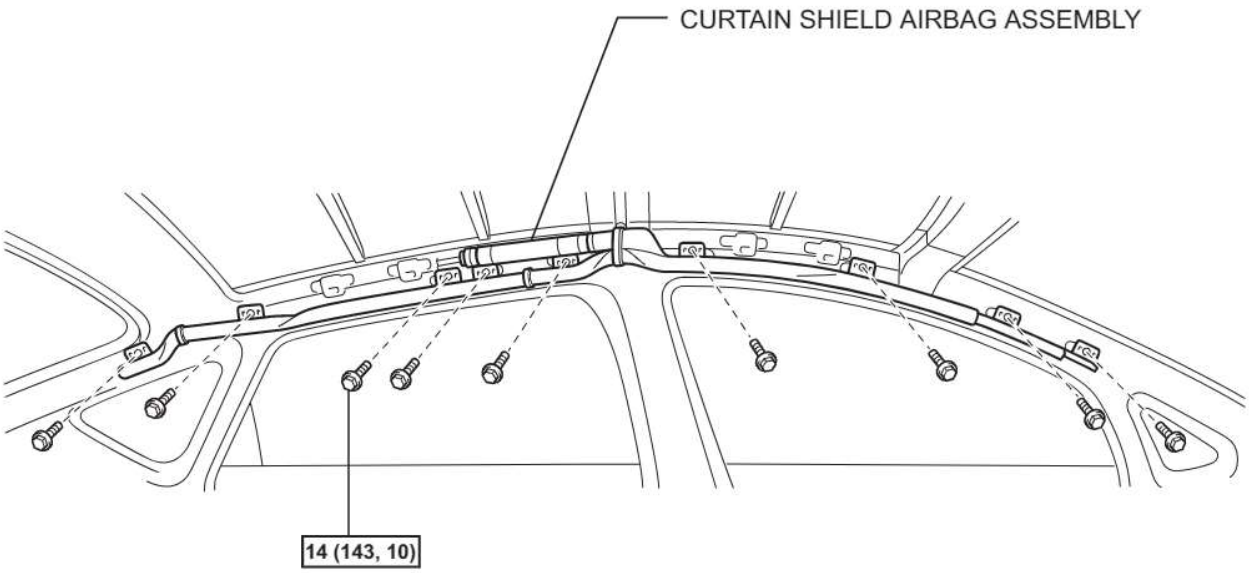
(h) Dispose of the airbag.
CAUTION:
- **The airbag becomes extremely hot when it is deployed. Do not touch it for at least 30 minutes after deployment.**
- **Use gloves and safety glasses when handling a deployed airbag.**
- **Do not apply water to a deployed airbag.**
- **Always wash your hands with water after completing the operation.**

(1) Remove the airbag from the tire.
(2) Place the airbag in a plastic bag, tie it tightly and dispose of it in the same way as other general parts.

CURTAIN SHIELD AIRBAG ASSEMBLY

COMPONENTS

RS



N*m (kgf*cm, ft.*lbf) : Specified torque

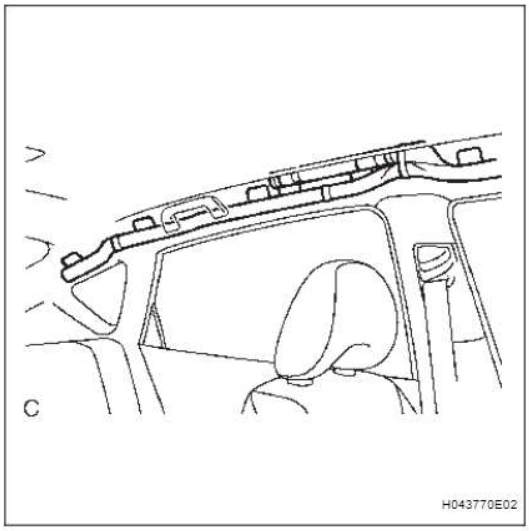
G

B126631E02

ON-VEHICLE INSPECTION

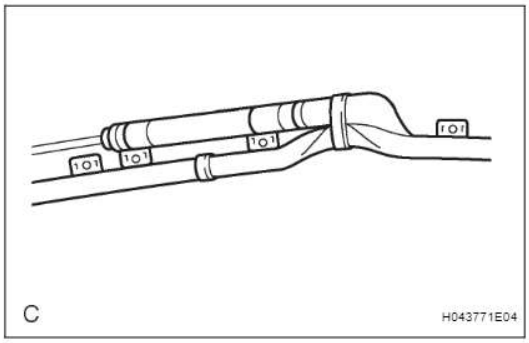
1. CHECK CURTAIN SHIELD AIRBAG ASSEMBLY (VEHICLE NOT INVOLVED IN COLLISION)

(a) Perform a diagnostic system check (see page RS-41).



(b) With the curtain shield airbag installed on the vehicle, perform a visual check. If any of the defects mentioned below are present, replace the curtain shield airbag with a new one:
Cuts, minute cracks or marked discoloration on the curtain shield airbag.

CAUTION:
For removal and installation of the curtain shield airbag assembly, be sure to follow the correct procedures.



2. CHECK CURTAIN SHIELD AIRBAG ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)

(a) Perform a diagnostic system check (see page RS-41).

(b) With the curtain shield airbag removed from the vehicle, perform a visual check. If there are any defects as mentioned below, replace the curtain shield airbag with a new one:
- Cuts, minute cracks or marked discoloration on the curtain shield airbag.
- Cracks or other damage to the connectors.

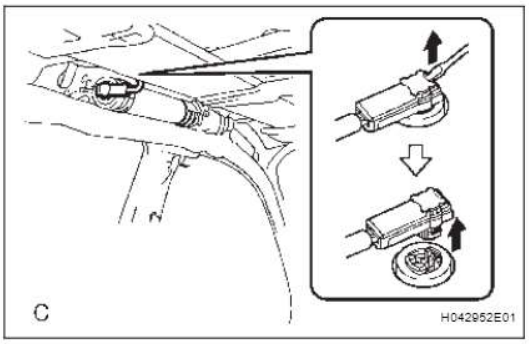
CAUTION:
For removal and installation of the curtain shield airbag assembly, be sure to follow the correct procedures.

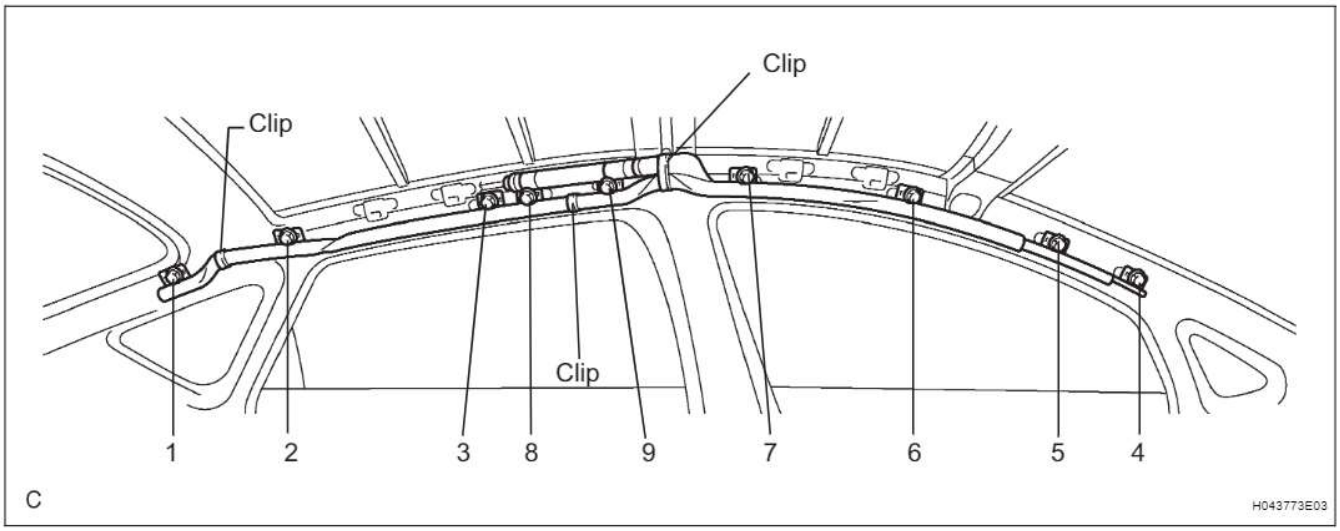
RS

REMOVAL

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
   CAUTION:
   Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.
2. **REMOVE ROOF HEADLINING ASSEMBLY**
   (a) Remove the roof headlining (see page IR-7).
3. **REMOVE CURTAIN SHIELD AIRBAG ASSEMBLY**
   (a) Disconnect the connector.
   NOTICE:
   When handling the airbag connector, take care not to damage the airbag wire harness.
   (b) Remove the 3 clips, 9 bolts and curtain shield airbag in the order shown in the illustration.

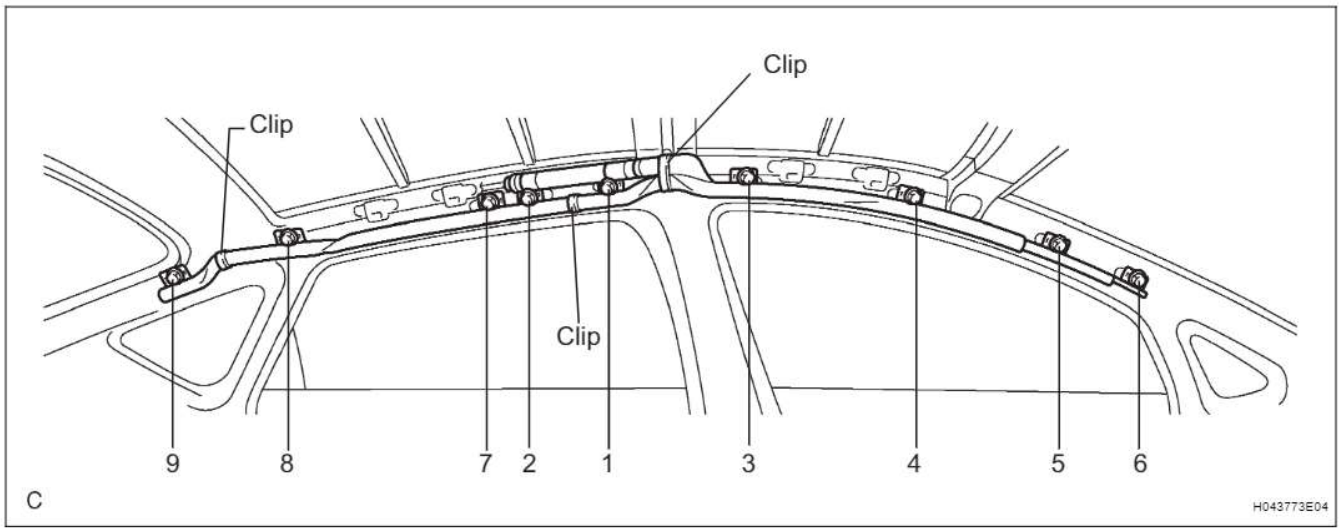


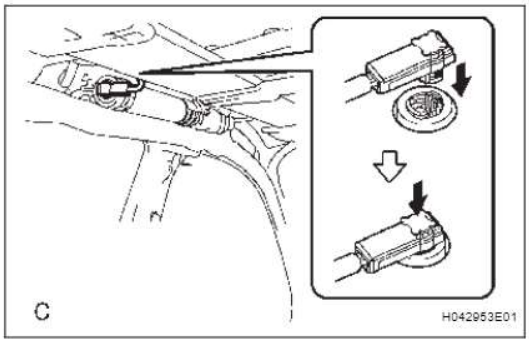


INSTALLATION

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).

1. **INSTALL CURTAIN SHIELD AIRBAG ASSEMBLY**
   (a) Install the curtain shield airbag with the 9 bolts and 3 clips in the order shown in the illustration.
   NOTICE:
   Do not twist the curtain shield airbag assembly when installing it.
   Torque: 14 N*m (143 kgf*cm, 10 ft.*lbf)





   (b) Connect the connector.
   NOTICE:
   When handling the airbag connector, take care not to damage the airbag wire harness.

2. **INSTALL ROOF HEADLINING ASSEMBLY**
   (a) Install the roof headlining (see page IR-13).

3. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

4. **PERFORM INITIALIZATION**
   (a) Perform initialization (see page IN-32).
   NOTICE:
   Certain systems need to be initialized after disconnecting and reconnecting the cable from the negative (-) battery terminal.

5. **CHECK SRS WARNING LIGHT**
   (a) Check the SRS warning light (see page RS-31).

RS

DISPOSAL

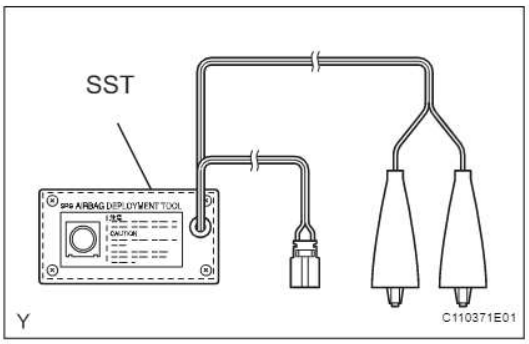
HINT:
When scrapping a vehicle equipped with an SRS or disposing of the curtain shield airbag assembly, be sure to deploy the airbag first in accordance with the procedure described below. If any abnormality occurs with the airbag deployment, contact the SERVICE DEPARTMENT of TOYOTA MOTOR SALES, U.S.A., INC.

CAUTION:

- **Never dispose of a curtain shield airbag that has an unactivated 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 (33 ft.) away from the airbag.**
- **The airbag becomes very hot when it is deployed. Do not touch it for at least 30 minutes after activation.**
- **Use gloves and safety glasses when handling a deployed airbag.**
- **Do not apply water to a deployed airbag.**
- **Always wash your hands with water after completing the operation.**

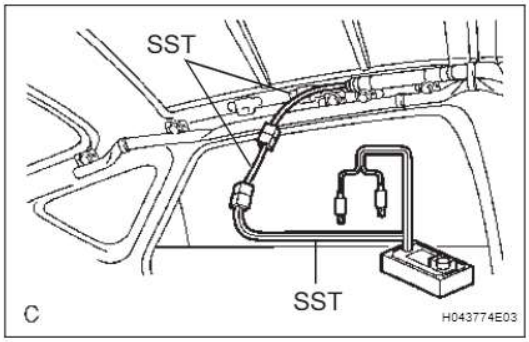
1. **DISPOSE OF CURTAIN SHIELD AIRBAG ASSEMBLY TOGETHER WITH VEHICLE**

HINT:
Prepare a battery as the power source to deploy the airbag.

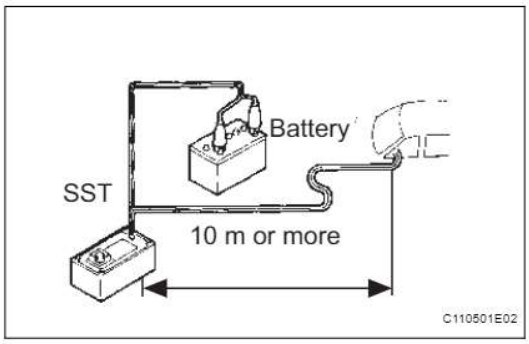


(a) Check if SST is functioning properly (see page RS-270).
(b) Follow the "Precaution" (see page RS-1).
(c) Disconnect the cable from the negative battery terminal. Wait at least 90 seconds after disconnecting the cable to prevent the airbag from deploying.
(d) Remove the roof headlining assembly (see page IR-7).
(e) Install SST.
(1) Disconnect the connector from the curtain shield airbag.

NOTICE:
When handling the airbag connector, take care not to damage the airbag wire harness.



(2) After connecting SST to each other, connect them to the curtain shield airbag.
SST 09082-00700, 09082-00802 (09082-10801, 09082-20801)
NOTICE:
To avoid damaging the SST connector and wire harness, do not lock the secondary lock of the twin lock.



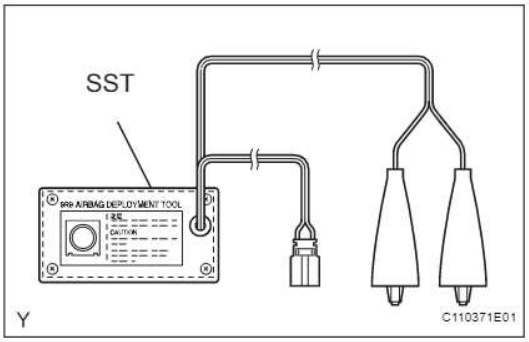
(3) Move SST at least 10 m (33 ft.) away from the vehicle rear side window.
(4) Maintaining enough clearance for the SST wire harness in the rear side window, close all the doors and windows of the vehicle.
NOTICE:
Take care not to damage the SST wire harness.
(5) Connect the SST's red clip to the battery positive (+) terminal and the black clip to the battery negative (-) terminal.

(f) Deploy the airbag.
(1) Check that no one is inside the vehicle or within a 10 m (33 ft.) radius of the vehicle.
(2) Press the SST activation switch and deploy the airbag.
CAUTION:
- **When deploying the airbag, make sure that no one is near the vehicle.**
- **The airbag becomes very hot when it is deployed. Do not touch it for at least 30 minutes after activation.**
- **Use gloves and safety glasses when handling a deployed airbag.**
- **Do not apply water to 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.

2. DISPOSE OF ONLY CURTAIN SHIELD AIRBAG ASSEMBLY
NOTICE:
- **When disposing of the curtain shield airbag, never use the customer's vehicle to deploy the airbag.**
- **Be sure to follow the procedure detailed below when deploying the airbag.**

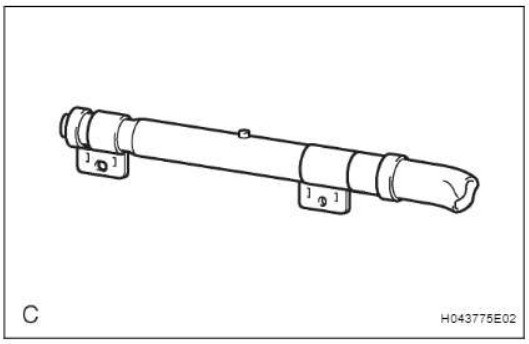
HINT:
Prepare a battery as the power source to deploy the airbag.



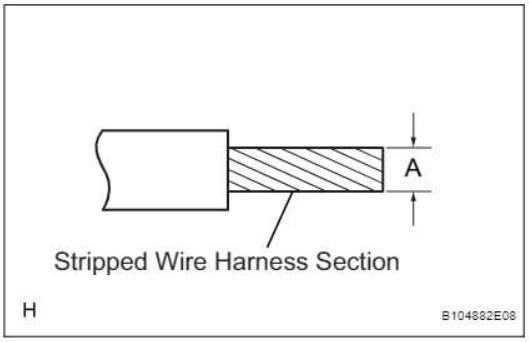
(a) Check if SST is functioning properly (see page RS-270).

(b) Remove the curtain shield airbag assembly (see page RS-291).

CAUTION:
When removing the curtain shield airbag, work must be started at least 90 seconds after the ignition switch is turned OFF and the negative (-) terminal cable is disconnected from the battery.



(c) Cut off the deployment section of the curtain shield airbag.



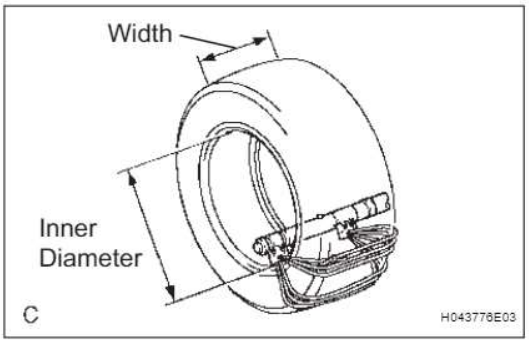
(d) Using a service wire harness for the vehicle, tie down the curtain shield airbag to the tire.

Wire harness:
Stripped wire harness section A:
1.25 mm^2 or more (0.0019 $in.^2$ or more)

CAUTION:
Do not use wire harnesses that are too thin or any other substitute items to tie down the curtain shield airbag assembly. They may snap when the airbag deploys. Always use vehicle wire harnesses that have an area of at least 1.25 mm^2 (0.0019 $in.^2$).

HINT:
To calculate the area of the stripped wire harness section:

Area = 3.14 x $Diameter^2/4$



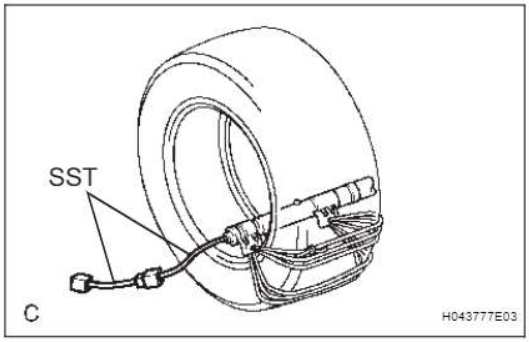
(1) Position the curtain shield airbag inside the tire as shown in the illustration.

Tire size:
Must exceed the following dimensions
Width:
185 mm (7.28 in.)
Inner diameter:
360 mm (14.17 in.)

CAUTION:
Make sure that the wire harness is tight. If there is slack in the wire harness, the curtain shield airbag assembly may become loose due to the shock when the airbag is deployed.

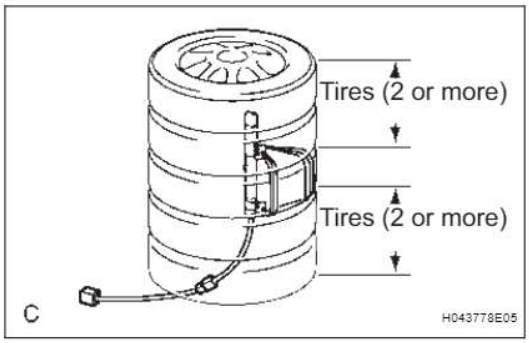
NOTICE:
Use tires that you are planning to throw away, as the airbag deployment may damage the tires.

(e) Install SST.
(1) After connecting SST to each other, connect them to the curtain shield airbag.
SST 09082-00802 (09082-10801, 09082-20801)

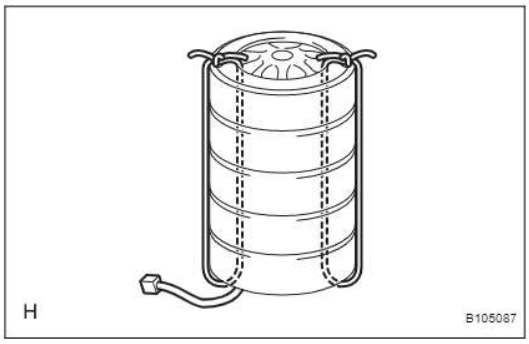


(f) Place the tires.
CAUTION:
Place the curtain shield airbag so that its deployment direction is away from the ground.

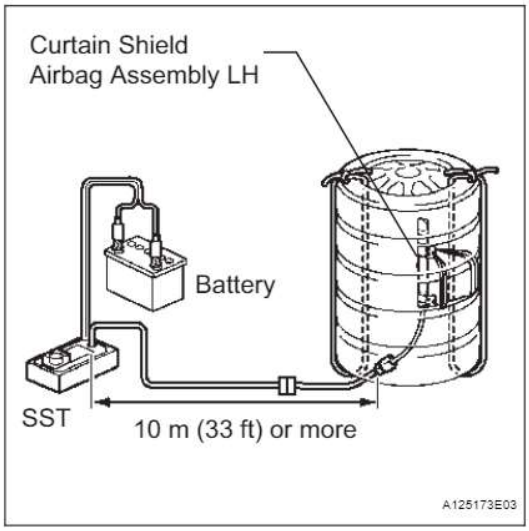
(1) Place at least 2 tires under the tire to which the curtain shield airbag is tied.
(2) Place at least 2 tires over the tire to which the curtain shield airbag is tied. The top tire should have a disc wheel installed.
NOTICE:
Do not place the SST connector under the tire because it could be damaged.



(3) Tie the tires together with 2 wire harnesses.
CAUTION:
Make sure that the wire harnesses are tight. If there is slack in a wire harness, the tires may come loose when the airbag is deployed.



(g) Install SST.
(1) Connect the SST connector.
SST 09082-00700
NOTICE:
To avoid damaging the SST connector and wire harness, do not lock the secondary lock of the twin lock. Also, secure some slack for the SST wire harness inside the tire.



(h) Deploy the airbag.
(1) Connect the SST's red clip to the battery positive (+) terminal and the black clip to the battery negative (-) terminal.
(2) Check that no one is within a 10 m (33 ft.) radius of the airbag.

(3) Press the SST activation switch and deploy the airbag.
CAUTION:
When deploying the airbag, make sure that no one is near the tire.
HINT:
The airbag is deployed as the LED of the SST activation switch comes on.



(i) Dispose of the curtain shield airbag.
CAUTION:
- **The airbag becomes very hot when it is deployed. Do not touch it for at least 30 minutes after activation.**
- **Use gloves and safety glasses when handling a deployed airbag.**
- **Do not apply water to a deployed airbag.**
- **Always wash your hands with water after completing the operation.**

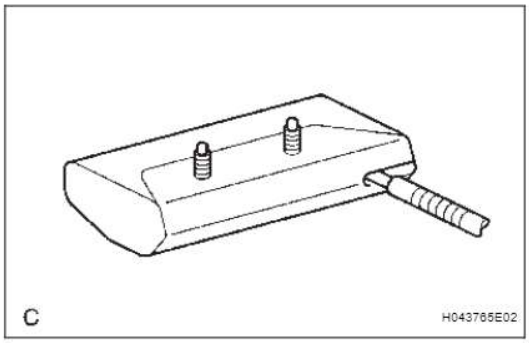
(1) Remove the curtain shield airbag from the tire.
(2) Place the curtain shield airbag in a plastic bag, tie it tightly and dispose of it in the same way as other general parts.



FRONT SEAT SIDE AIRBAG ASSEMBLY

ON-VEHICLE INSPECTION

1. **CHECK FRONT SEAT SIDE AIRBAG ASSEMBLY (VEHICLE NOT INVOLVED IN COLLISION)**
   (a) Perform a diagnostic system check (see page RS-41).
   (b) With the front seat installed on the vehicle, perform a visual check. If there are any defects as mentioned below, replace the front seat assembly with a new one:
   Cuts, minute cracks or marked discoloration on the front seat side airbag assembly.
   CAUTION:
   For removal and installation of the front seat side airbag, be sure to follow the correct procedures.



2. **CHECK FRONT SEAT SIDE AIRBAG ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-41).
   (b) With the front seat side airbag assembly removed from the vehicle, perform a visual check. If there are any defects as mentioned below, replace the front seat with a new one:
   - Cuts, minute cracks or marked discoloration on the front seat side airbag.
   - Cracks or other damage to the wire harness or connector.

   CAUTION:
   For removal and installation of the front seat side airbag, be sure to follow the correct procedures.

RS

DISPOSAL

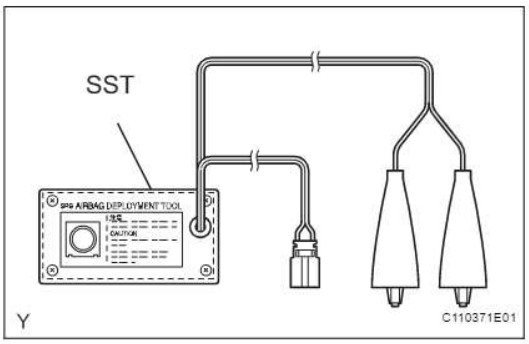
HINT:
When scrapping a vehicle equipped with an SRS or disposing of the front seat side airbag assembly, be sure to deploy the airbag first in accordance with the procedure described below. If any abnormality occurs with the airbag deployment, contact the SERVICE DEPARTMENT of TOYOTA MOTOR SALES, U.S.A., INC.

CAUTION:

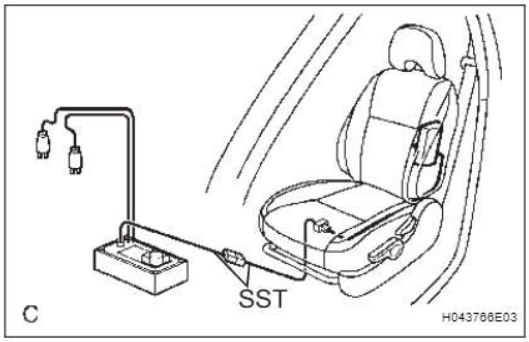
- **Never dispose of a front seat side airbag assembly that has an unactivated airbag.**
- **The airbag produces an exploding sound when it is deployed, so perform the operation outdoors and where it will not create a nuisance to nearby residents.**
- **When deploying the airbag, always use the specified 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 (33 ft.) away from the airbag assembly.**
- **The airbag becomes very hot when it is deployed. Do not touch it for at least 30 minutes after activation.**
- **Use gloves and safety glasses when handling a deployed airbag.**
- **Do not apply water to a deployed airbag.**
- **Always wash your hands with water after completing the operation.**

1. **DISPOSE OF FRONT SEAT SIDE AIRBAG ASSEMBLY TOGETHER WITH VEHICLE**

HINT:
Prepare a battery as the power source to deploy the airbag.

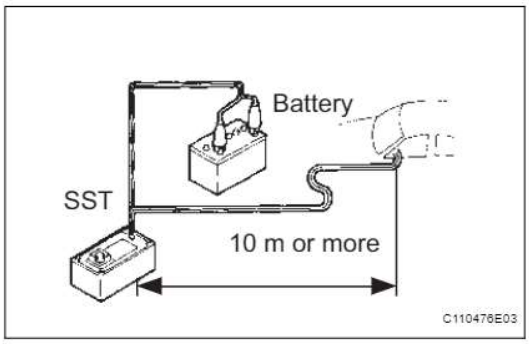


(a) Check if SST is functioning properly (see page RS-270).
(b) Follow the "Precaution" (see page RS-1).
(c) Disconnect the cable from the negative (-) battery terminal. Wait at least 90 seconds after disconnecting the cable to prevent the airbag from deploying.
(d) Remove the front seat (see page SE-4).
HINT:
Keep the front seat assembly in the cabin.
(e) Install SST.
(1) Disconnect the yellow connector from the front seat side airbag.
NOTICE:
When handling the airbag connector, take care not to damage the airbag wire harness.



(2) Connect the SST connector to the front seat side airbag connector.
SST 09082-00700, 09082-00750
NOTICE:
To avoid damaging the SST connector and wire harness, do not lock the secondary lock of the twin lock.

(3) Install the front seat (see page SE-10).



(4) Move SST at least 10 m (33 ft.) away from the vehicle front side window.

(5) Maintaining enough clearance for the SST wire harness in the front side window, close all the doors and windows of the vehicle.
NOTICE:
Take care not to damage the SST wire harness.

(6) Connect the SST's red clip to the battery positive (+) terminal and the black clip to the battery negative (-) terminal.

(f) Deploy the airbag.

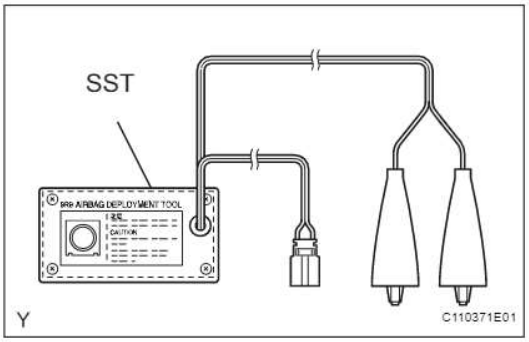
(1) Check that no one is inside the vehicle or within a 10 m (33 ft.) radius of the vehicle.

(2) Press the SST activation switch and deploy the airbag.
CAUTION:
- **When deploying the airbag, make sure that no one is near the vehicle.**
- **The airbag becomes very hot when it is deployed. Do not touch it for at least 30 minutes after activation.**
- **Use gloves and safety glasses when handling a deployed airbag.**
- **Do not apply water to 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.

2. DISPOSE OF ONLY FRONT SEAT SIDE AIRBAG ASSEMBLY
NOTICE:
- **When disposing of the front seat side airbag, never use the customer's vehicle to deploy the airbag.**
- **Be sure to follow the procedure detailed below when deploying the airbag.**

HINT:
Prepare a battery as the power source to deploy the airbag.



(a) Check if SST is functioning properly (see page RS-270).

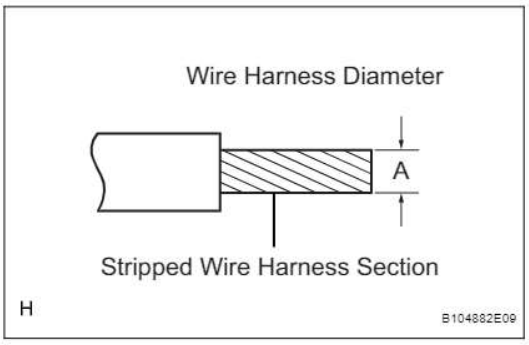
(b) Remove the front seat side airbag.

(1) Remove the front seat (see page SE-4).

(2) Remove the 2 nuts and the front seat side airbag from the seatback assembly.

CAUTION:

- **When removing the front seat side airbag, work must be started at least 90 seconds after the ignition switch is turned OFF and the negative (-) terminal cable is disconnected from the battery.**
- **When storing the front seat side airbag, keep the airbag deployment side facing upward.**



(c) Using a service wire harness for the vehicle, tie down the front seat side airbag to the tire.

Wire harness:

Stripped wire harness section A:

1.25 mm^2 or more (0.0019 $in.^2$ or more)

HINT:

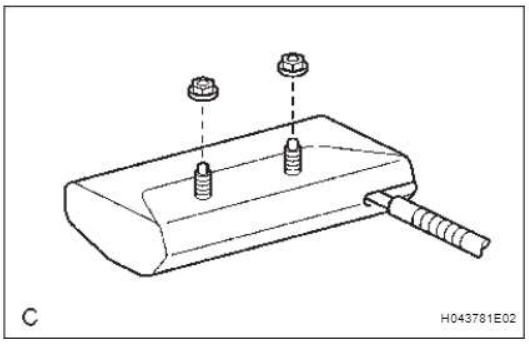
To calculate the area of the stripped wire harness section:

Area = 3.14 x $Diameter^2/4$

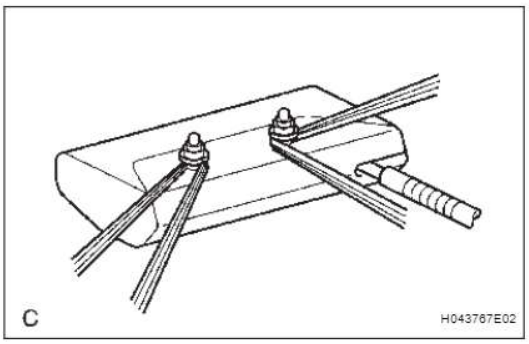
CAUTION:

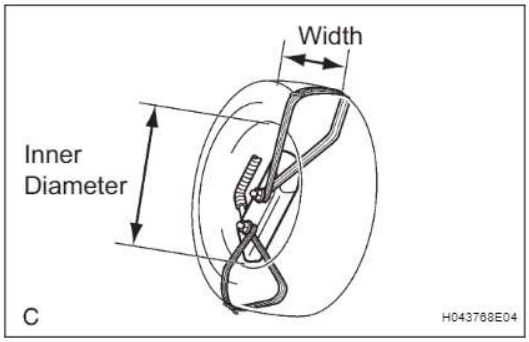
Do not use wire harnesses that are too thin or any other substitute items to tie down the front seat side airbag. They may snap when the airbag deploys. Always use vehicle wire harnesses that have an area of at least 1.25 mm^2 (0.0019 $in.^2$).

(1) Install the 2 nuts to the front seat side airbag.



(2) Wind the wire harness around the stud bolts of the front seat side airbag as shown in the illustration.



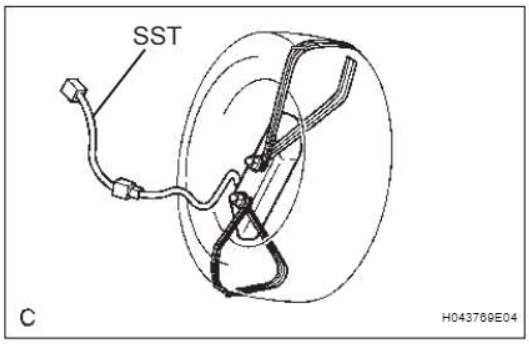


(3) Position the front seat side airbag inside the tire.

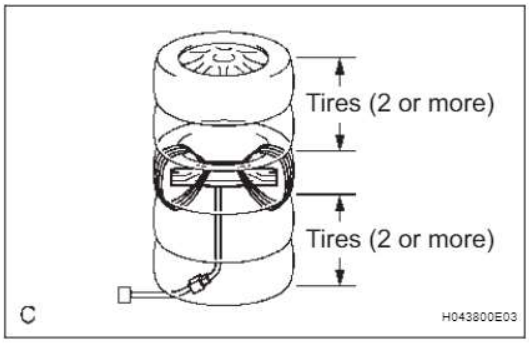
Tire size:
Must exceed the following dimensions
Width:
185 mm (7.28 in.)
Inner diameter:
360 mm (14.17 in.)

CAUTION:
- **Make sure that the wire harness is tight. If there is slack in the wire harness, the front seat side airbag may become loose due to the shock when the airbag is deployed.**
- **Always tie down the front seat side airbag with the airbag deployment direction facing inside the tire.**

NOTICE:
Use tires that you are planning to throw away, as the airbag deployment may damage the tires.

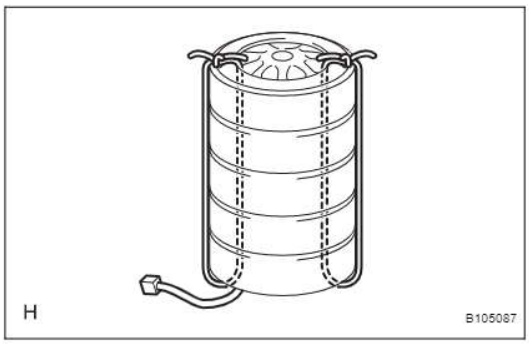


(d) Install SST.
(1) Connect the SST connector to the front seat side airbag connector.
SST 09082-00750



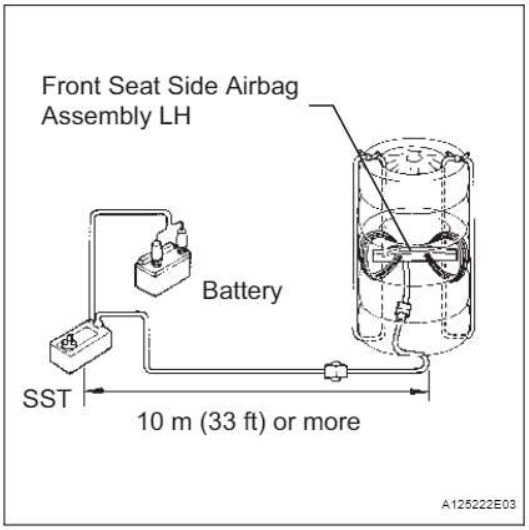
(e) Place the tires.
(1) Place at least 2 tires under the tire to which the front seat side airbag is tied.
(2) Place at least 2 tires over the tire to which the front seat side airbag is tied. The top tire should have a disc wheel installed.

NOTICE:
Do not place the SST connector under the tire because it could be damaged.



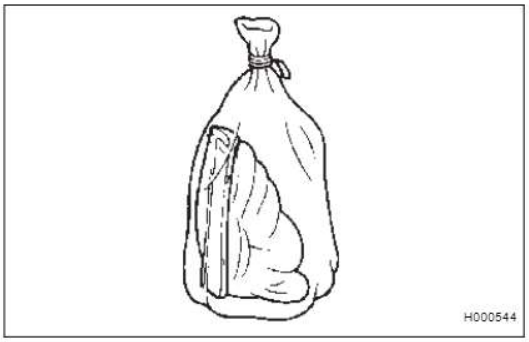
(3) Tie the tires together with 2 wire harnesses.

CAUTION:
Make sure that the wire harnesses are tight. If there is slack in a wire harness, the tires may come loose when the airbag is deployed.



(f) Install SST.
(1) Connect the SST connector.
SST 09082-00700
NOTICE:
To avoid damaging the SST connector and wire harness, do not lock the secondary lock of the twin lock. Also, secure some slack for the SST wire harness inside the tire.

(g) Deploy the airbag.
(1) Connect the SST's red clip to the battery positive (+) terminal and the black clip to the battery negative (-) terminal.
(2) Check that no one is within a 10 m (33 ft.) radius of the airbag.
(3) Press the SST activation switch and deploy the airbag.
CAUTION:
When deploying the airbag, make sure that no one is near the tire.
HINT:
The airbag is deployed as the LED of the SST activation switch comes on.

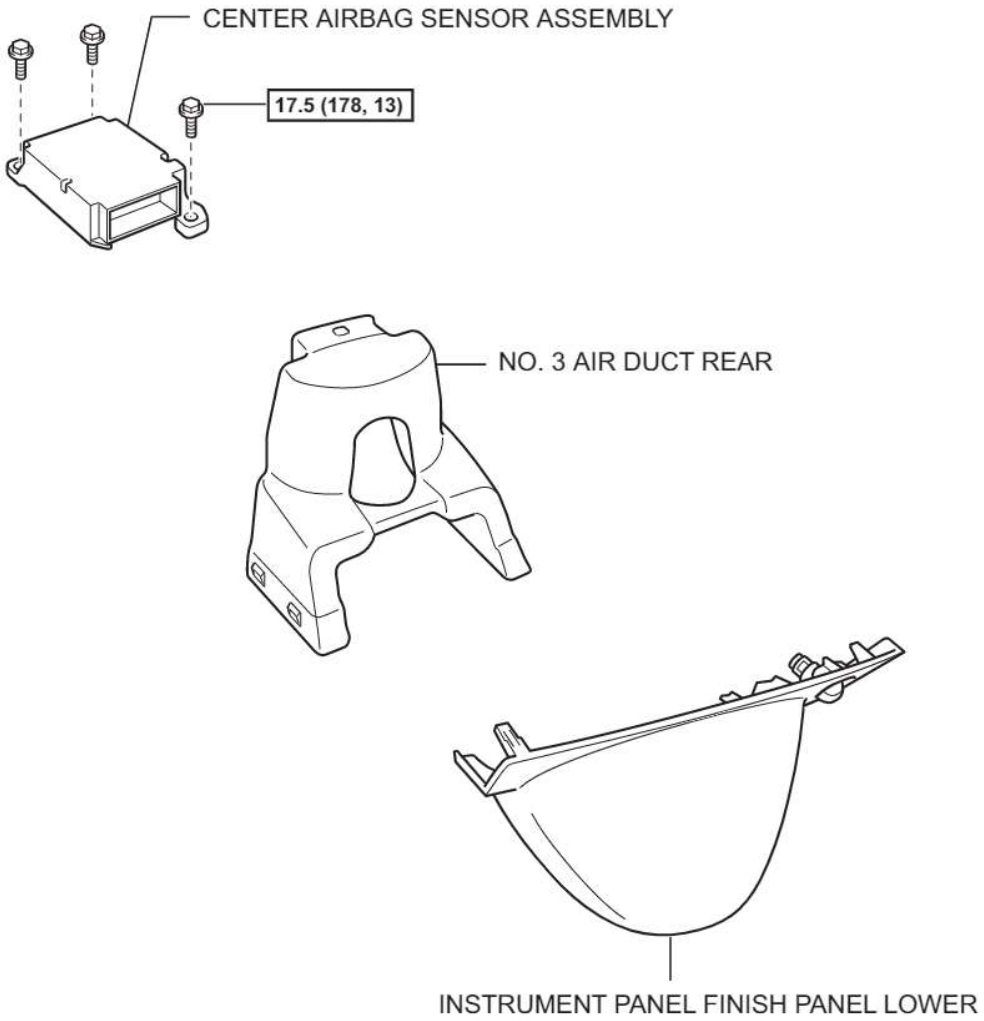


(h) Dispose of the front seat side airbag assembly.
CAUTION:
- **The airbag becomes very hot when it is deployed. Do not touch it for at least 30 minutes after activation.**
- **Use gloves and safety glasses when handling a deployed airbag.**
- **Do not apply water to a deployed airbag.**
- **Always wash your hands with water after completing the operation.**

(1) Remove the front seat side airbag from the tire.
(2) Place the front seat side airbag in a plastic bag, tie it tightly and dispose of it in the same way as other general parts.

CENTER AIRBAG SENSOR ASSEMBLY

COMPONENTS



N*m (kgf*cm, ft.*lbf) : Specified torque

G

B126632E02

ON-VEHICLE INSPECTION

1. **CHECK CENTER AIRBAG SENSOR ASSEMBLY (VEHICLE NOT INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-41).

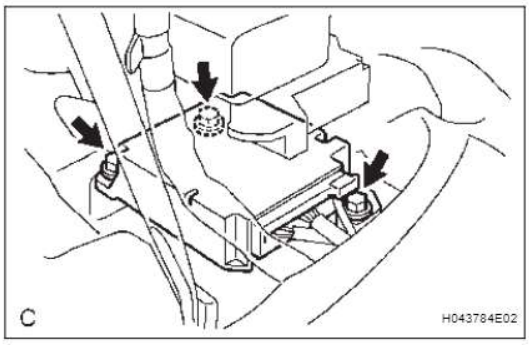
2. **CHECK CENTER AIRBAG SENSOR ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-41).

3. **CHECK CENTER AIRBAG SENSOR ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG DEPLOYED)**
   (a) Replace the center airbag sensor.
   CAUTION:
   For removal and installation of the center airbag sensor assembly, be sure to follow the correct procedures.

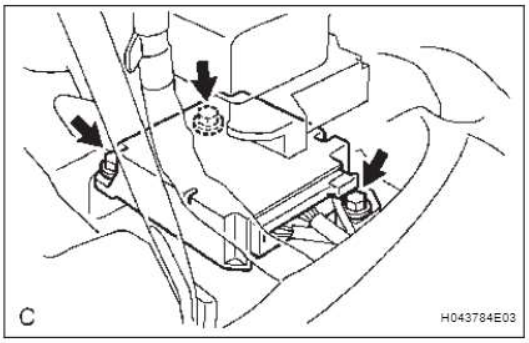
REMOVAL

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
   CAUTION:
   Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.
2. **REMOVE INSTRUMENT PANEL FINISH PANEL LOWER CENTER (See page IP-18)**
3. **REMOVE NO. 3 AIR DUCT REAR**
4. **REMOVE CENTER AIRBAG SENSOR ASSEMBLY**
   (a) Remove the 3 bolts and airbag sensor.
   (b) Disconnect the airbag sensor connectors.



RS



INSTALLATION

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).

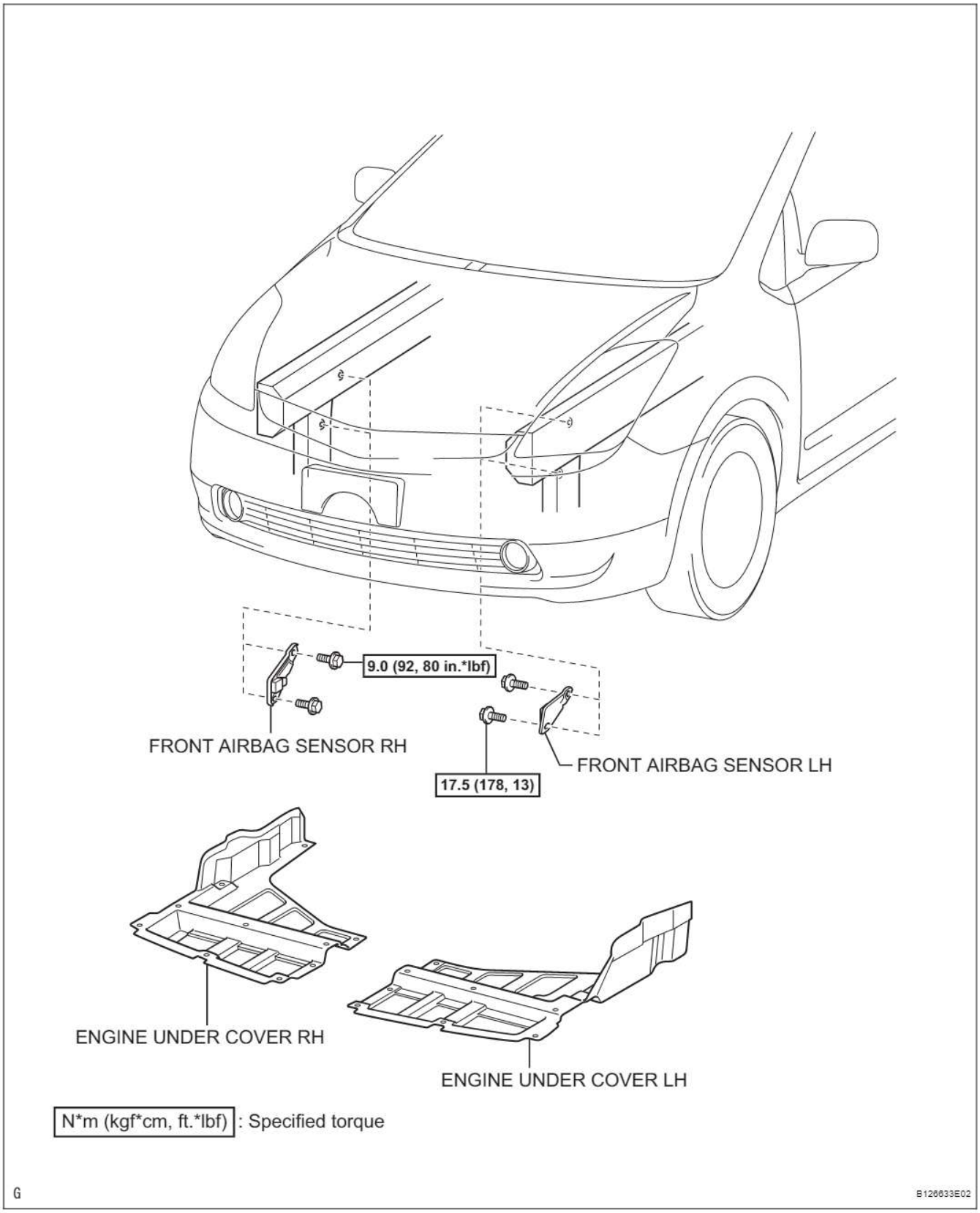
1. **INSTALL CENTER AIRBAG SENSOR ASSEMBLY**
   (a) Install the airbag sensor with the 3 bolts.
   Torque: 17.5 N*m (178 kgf*cm, 13 ft.*lbf)
   CAUTION:
   - **If the airbag sensor has been dropped, or there are any cracks, dents or other defects in the case, bracket or connector, replace it with a new one.**
   - **When installing the airbag sensor, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.**

   (b) Connect the airbag sensor connectors.
2. **INSTALL NO. 3 AIR DUCT REAR**
3. **INSTALL INSTRUMENT PANEL FINISH PANEL LOWER CENTER (See page IP-21)**
4. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
5. **PERFORM INITIALIZATION**
   (a) Perform initialization (see page IN-32).
   NOTICE:
   Certain systems need to be initialized after disconnecting and reconnecting the cable from the negative (-) battery terminal.
6. **CHECK SRS WARNING LIGHT**
   (a) Check the SRS warning light (see page RS-31).

FRONT AIRBAG SENSOR

COMPONENTS

RS



ON-VEHICLE INSPECTION

1. **CHECK FRONT AIRBAG SENSOR (VEHICLE NOT INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-41).

2. **CHECK FRONT AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-41).
   (b) If the front fender of the vehicle or its periphery are damaged, perform a visual check:
   - Check for cracks, dents or chips in the case.
   - Check for cracks, dents, chips and scratches in the connector.
   - Check for peeling of the label or damage on the serial number.

   If any of the defects mentioned above are present, replace the front airbag sensor with a new one.
   CAUTION:
   For removal and installation of the front airbag sensor, be sure to follow the correct procedures.

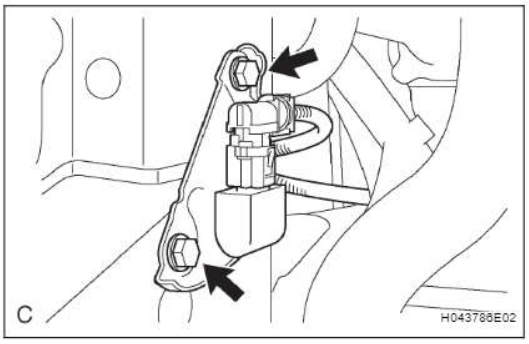
3. **CHECK FRONT AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG DEPLOYED)**
   (a) Replace the front airbag sensor.
   CAUTION:
   - **For removal and installation of the front airbag sensor, be sure to follow the correct procedures.**
   - **If the airbags have deployed, replace the front airbag sensor on the side in which the collision occurred. Replace both if necessary.**

RS

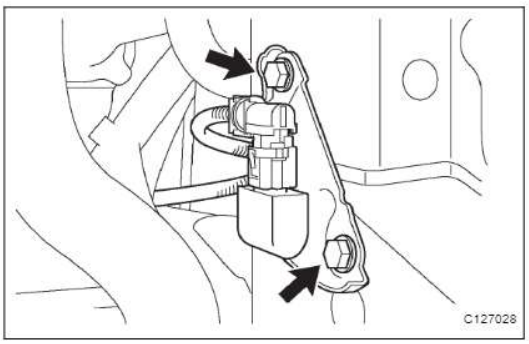
REMOVAL

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
   CAUTION:
   Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.
2. **REMOVE ENGINE UNDER COVER LH**
3. **REMOVE ENGINE UNDER COVER RH**
4. **REMOVE FRONT AIRBAG SENSOR LH**
   (a) Disconnect the sensor connector.
   (b) Remove the 2 bolts and sensor.

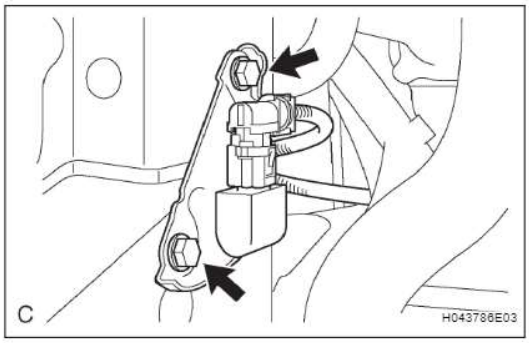


5. **REMOVE FRONT AIRBAG SENSOR RH**
   (a) Disconnect the sensor connector.
   (b) Remove the 2 bolts and sensor.



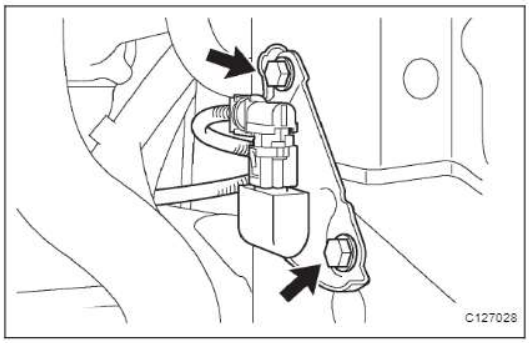
INSTALLATION

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).



1. **INSTALL FRONT AIRBAG SENSOR LH**
   (a) Install the sensor with the 2 bolts.
   Torque: 17.5 N*m (178 kgf*cm, 13 ft.*lbf)
   CAUTION:
   - **If the 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 airbag sensor, make sure that the SRS wiring does not interfere with other parts and is not pinched between other parts.**

   (b) Check that there is no free play in the installation parts of the sensor.
   (c) Connect the sensor connector.



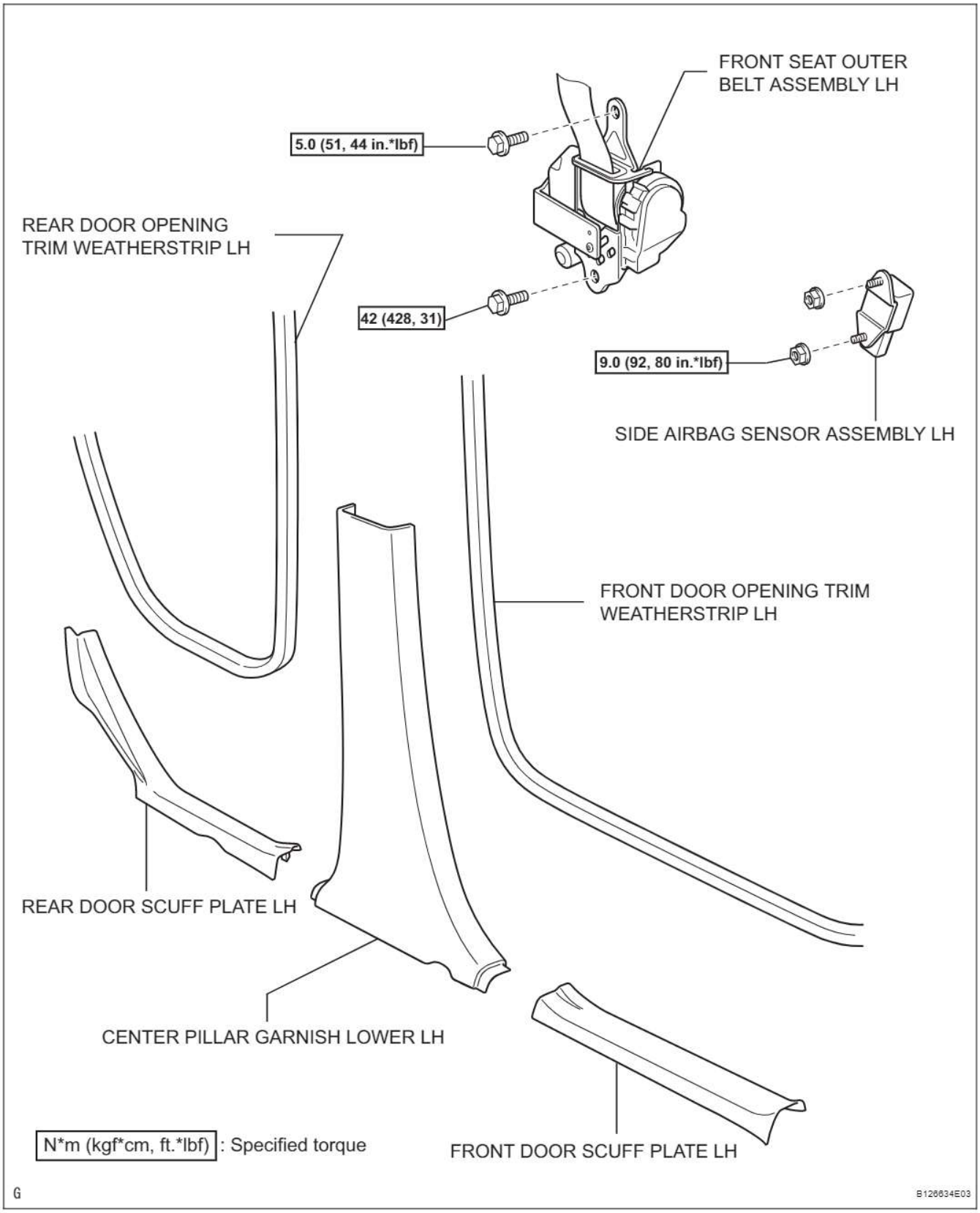
2. **INSTALL FRONT AIRBAG SENSOR RH**
   (a) Install the sensor with the 2 bolts.
   Torque: 9.0 N*m (92 kgf*cm, 80 ft.*lbf)
   NOTICE:
   - **If the airbag sensor has been dropped, or there are any cracks, dents or other defects in the case or connector, replace it with a new one.**
   - **When installing the airbag sensor, make sure that the SRS wiring does not interfere with other parts and is not pinched between other parts.**

   (b) Check that there is no free play in the installation parts of the sensor.
   (c) Connect the sensor connector.
3. **INSTALL ENGINE UNDER COVER LH**
4. **INSTALL ENGINE UNDER COVER RH**
5. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
6. **PERFORM INITIALIZATION**
   (a) Perform initialization (see page IN-32).
   NOTICE:
   Certain systems need to be initialized after disconnecting and reconnecting the cable from the negative (-) battery terminal.
7. **CHECK SRS WARNING LIGHT**
   (a) Check the SRS warning light (see page RS-31).

SIDE AIRBAG SENSOR

COMPONENTS

RS



ON-VEHICLE INSPECTION

1. **CHECK SIDE AIRBAG SENSOR (VEHICLE NOT INVOLVED IN COLLISION)**
   (a) Perform a diagnostic system check (see page RS-41).

2. **CHECK SIDE AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-31).
   (b) When the center pillar of the vehicle or its periphery are damaged, check if there is any damage to the side airbag sensor. If there are any defects as mentioned below, replace the side airbag sensor with a new one:
   - Cracks, dents or chips on the sensor housing.
   - Cracks or other damage to the connector.
   - Peeling off of the label or damage to the serial number.

   CAUTION:
   For removal and installation of the side airbag sensor, be sure to follow the correct procedures.

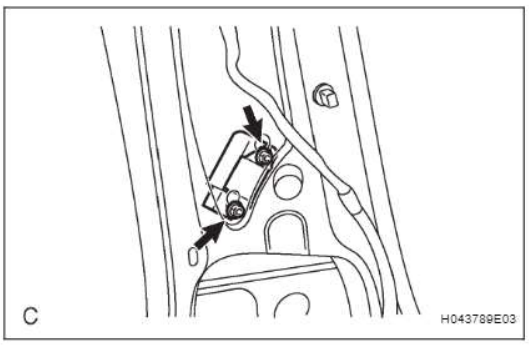
3. **CHECK SIDE AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG DEPLOYED)**
   (a) Replace the side airbag sensor.
   CAUTION:
   - **For removal and installation of the side airbag sensor, be sure to follow the correct procedures.**
   - **If the airbags have deployed, replace the side airbag sensor on the side in which the collision occurred. Replace both if necessary.**

RS

REMOVAL

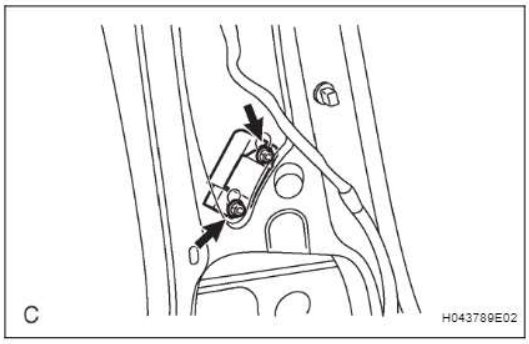
CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
   CAUTION:
   Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.
   HINT:
   - Use the same procedures for the RH side and LH side.
   - The procedures listed below are for the LH side.
2. **REMOVE FRONT DOOR SCUFF PLATE LH (See page IR-7)**
3. **REMOVE REAR DOOR SCUFF PLATE LH (See page IR-9)**
4. **REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP LH**
5. **REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP LH**
6. **REMOVE CENTER PILLAR GARNISH LOWER LH (See page IR-9)**
7. **REMOVE FRONT SEAT OUTER BELT ASSEMBLY LH (See page SB-9)**
8. **REMOVE SIDE AIRBAG SENSOR ASSEMBLY LH**
   (a) Remove the 2 nuts and sensor.
   (b) Disconnect the connector.



INSTALLATION

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).
HINT:
- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.

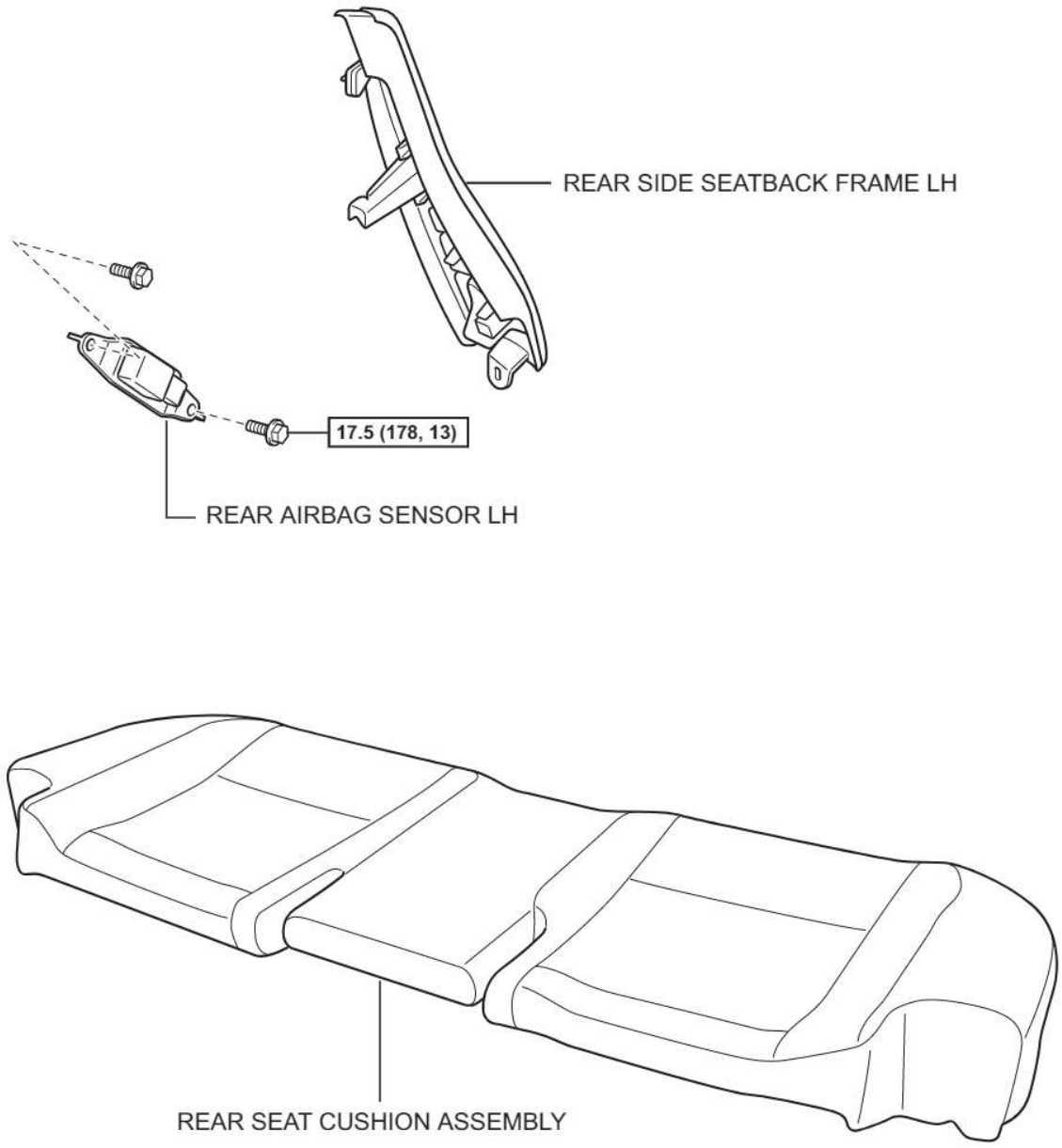


1. **INSTALL SIDE AIRBAG SENSOR ASSEMBLY LH**
   (a) Install the sensor with the 2 nuts.
   Torque: 9.0 N*m (92 kgf*cm, 80 in.*lbf)
   CAUTION:
   - **If the airbag sensor has been dropped, or there are any cracks, dents or other defects in the case, bracket or connector, replace it with a new one.**
   - **When installing the airbag sensor, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.**
   (b) Check that there is no looseness in the installation parts of the sensor.
   (c) Connect the connector.
2. **INSTALL FRONT SEAT OUTER BELT ASSEMBLY LH (See page SB-10)**
3. **INSTALL CENTER PILLAR GARNISH LOWER LH (See page IR-17)**
4. **INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP LH**
5. **INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH**
6. **INSTALL REAR DOOR SCUFF PLATE LH (See page IR-18)**
7. **INSTALL FRONT DOOR SCUFF PLATE LH (See page IR-19)**
8. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
9. **PERFORM INITIALIZATION**
   (a) Perform initialization (see page IN-32).
   NOTICE:
   Certain systems need to be initialized after disconnecting and reconnecting the cable from the negative (-) battery terminal.
10. **CHECK SRS WARNING LIGHT**
    (a) Check the SRS warning light (see page RS-31).

REAR AIRBAG SENSOR

COMPONENTS

RS



N*m (kgf*cm, ft.*lbf) : Specified torque

G B126635E02

ON-VEHICLE INSPECTION

1. **CHECK REAR AIRBAG SENSOR (VEHICLE NOT INVOLVED IN COLLISION)**
   (a) Perform a diagnostic system check (see page RS-41).

2. **CHECK REAR AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-41).
   (b) When the quarter panel of the vehicle or its periphery is damaged, check if there is any damage to the rear airbag sensor. If there are any defects as mentioned below, replace the rear airbag sensor with a new one:
   - Cracks, dents or chips on the sensor housing.
   - Cracks or other damage to the connector.
   - Peeling off of the label or damage to the serial number.

   CAUTION:
   For removal and installation of the rear airbag sensor, be sure to follow the correct procedures.

3. **CHECK REAR AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG DEPLOYED)**
   (a) Replace the rear airbag sensor.
   CAUTION:
   - **For removal and installation of the rear airbag sensor, be sure to follow the correct procedures.**
   - **If the airbags are deployed, replace the rear airbag sensor on the side in which the collision occurred. Replace both if necessary.**

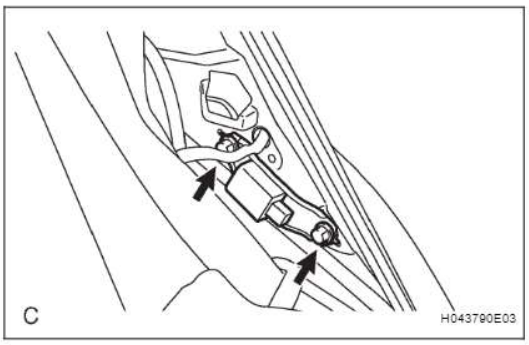
RS

REMOVAL

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing (see page RS-1).
HINT:

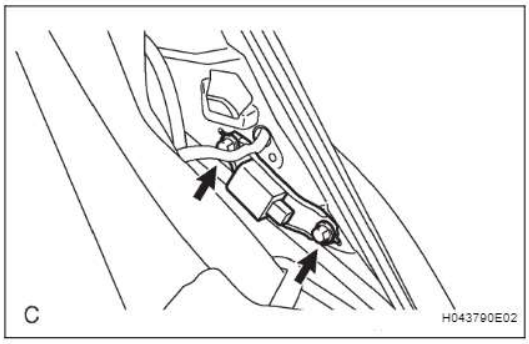
- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
   CAUTION:
   Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.
2. **REMOVE REAR SEAT CUSHION ASSEMBLY (See page SE-15)**
3. **REMOVE REAR SIDE SEATBACK FRAME LH**
4. **REMOVE REAR AIRBAG SENSOR LH**
   (a) Remove the 2 bolts and sensor.
   (b) Disconnect the connector.



INSTALLATION

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).
HINT:
- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.

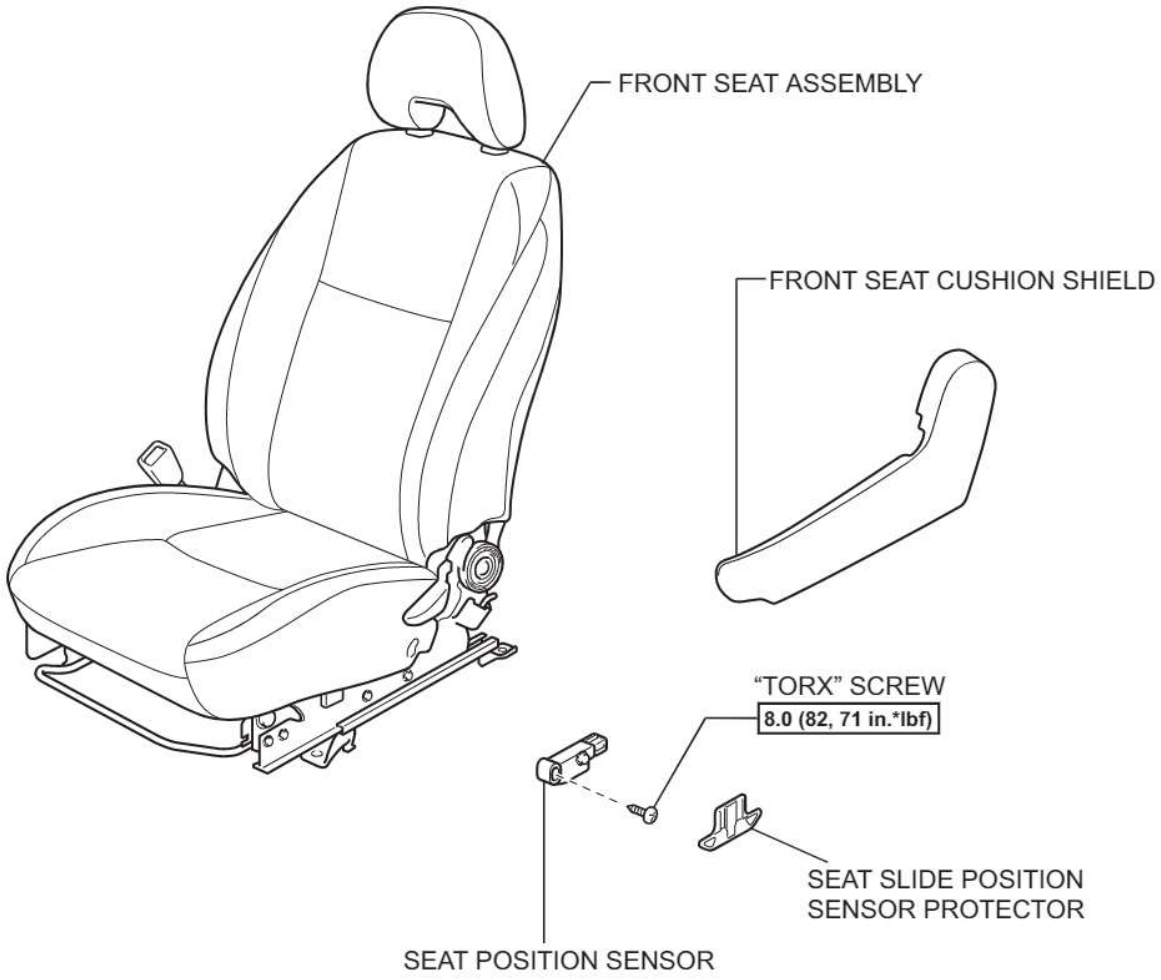


1. **INSTALL REAR AIRBAG SENSOR LH**
   (a) Install the sensor with the 2 bolts.
   Torque: 17.5 N*m (178 kgf*cm, 13 in.*lbf)
   CAUTION:
   - **If the airbag sensor has been dropped, or there are any cracks, dents or other defects in the case, bracket or connector, replace it with a new one.**
   - **When installing the airbag sensor, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.**

   (b) Check that there is no looseness in the installation parts of the airbag sensor.
   (c) Connect the connector.
2. **INSTALL REAR SIDE SEATBACK FRAME LH**
3. **INSTALL REAR SEAT CUSHION ASSEMBLY (See page SE-23)**
4. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
5. **PERFORM INITIALIZATION**
   (a) Perform initialization (see page IN-32).
   NOTICE:
   Certain systems need to be initialized after disconnecting and reconnecting the cable from the negative (-) battery terminal.
6. **CHECK SRS WARNING LIGHT**
   (a) Check the SRS warning light (see page RS-31).

SEAT POSITION SENSOR

COMPONENTS



N*m (kgf*cm, ft.*lbf) : Specified torque

G B126636E03

ON-VEHICLE INSPECTION

1. **CHECK SEAT POSITION SENSOR (VEHICLE NOT INVOLVED IN COLLISION)**
   (a) Perform a diagnostic system check (see page RS-41).

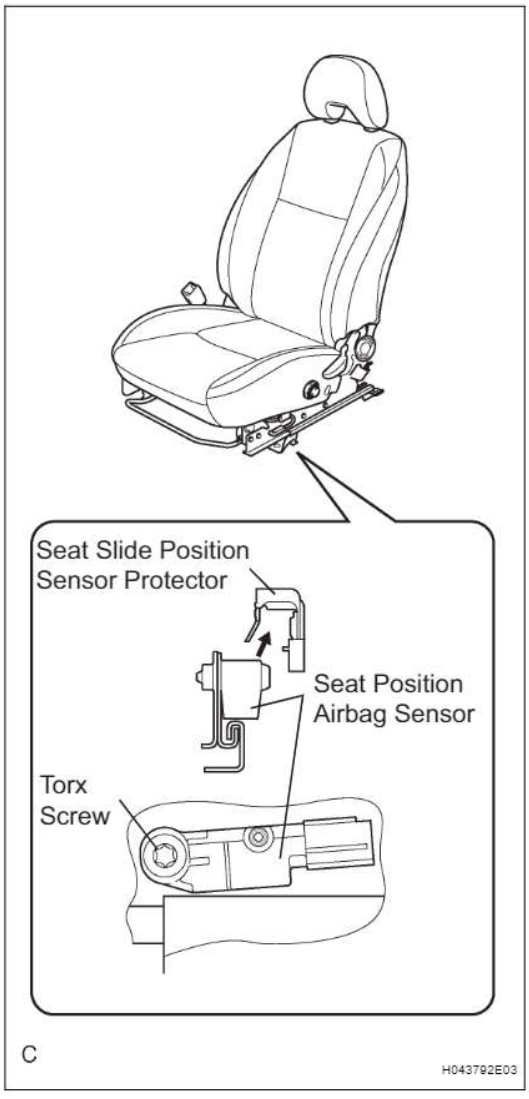
2. **CHECK SEAT POSITION SENSOR (VEHICLE INVOLVED IN COLLISION)**
   (a) Perform a diagnostic system check (see page RS-41).
   (b) Even if the airbag was not deployed, check if there is any damage to the seat position sensor.
   If there are any defects as mentioned below, replace the seat position sensor with a new one:
   - Cracks, dents or chips on the sensor housing.
   - Cracks or other damage to the connector.

   CAUTION:
   For removal and installation of the seat position sensor, be sure to follow the correct procedures.

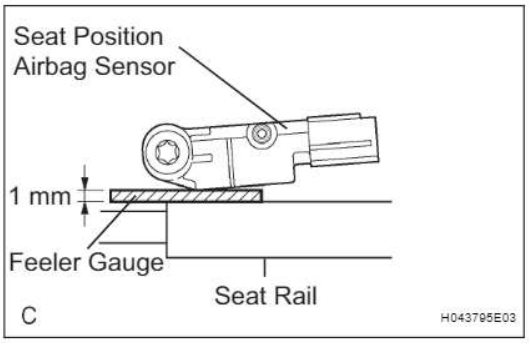
REMOVAL

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
   CAUTION:
   Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.
2. **REMOVE FRONT SEAT ASSEMBLY**
   (a) Remove the front seat assembly (see page SE-4).
3. **REMOVE SEAT POSITION SENSOR**
   (a) Remove the seat slide position sensor protector.
   (b) Disconnect the connector.
   (c) Using a T30 "torx" socket, remove the screw and seat position sensor.



RS



INSTALLATION

CAUTION:
Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).

1. **INSTALL SEAT POSITION SENSOR**
   (a) Check that the power switch is off.
   (b) Check that the negative battery (-) terminal is disconnected.
   CAUTION:
   After disconnecting the cable from the negative battery terminal, wait for at least 90 seconds before starting the operation.
   (c) Using a 1 mm (0.039 in.) feeler gauge, install the seat position sensor.
   NOTICE:
   - **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 other parts and that it is not pinched between other parts.**

   HINT:
   Be sure that the clearance between the seat position sensor and the seat rail is within 0.6 mm (0.023 in.) to 1.4 mm (0.055 in.).
   (d) Using a "torx" socket wrench (T30), tighten the "torx" screw to install the seat position sensor.
   Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)
   (e) Make sure that the clearance between the seat position sensor and the seat rail is within 0.6 mm (0.023 in.) to 1.4 mm (0.055 in.).
   (f) Check that there is no looseness in the installation parts of the seat position sensor.
   (g) Connect the connector.
   (h) Install the seat slide position sensor protector to the seat position sensor.

2. **INSTALL FRONT SEAT ASSEMBLY**
   (a) Install the front seat assembly (see page SE-10).

3. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

4. **PERFORM INITIALIZATION**
   (a) Perform initialization (see page IN-32).
   NOTICE:
   Certain systems need to be initialized after disconnecting and reconnecting the cable from the negative (-) battery terminal.

5. **CHECK SRS WARNING LIGHT**
   (a) Check the SRS warning light (see page RS-31).