AIRBAG SYSTEM

PRECAUTION

CAUTION:

- The vehicle is equipped with a Supplemental Restraint System (SRS). It consists of a driver airbag, front passenger airbag, driver side knee airbag, front seat side airbag and curtain shield airbag. Failure to carry out service operations in the correct sequence could cause the SRS to unexpectedly deploy during servicing, possibly leading to a serious accident. Further, if a mistake is made in servicing the SRS, it is possible that the SRS may fail to operate when required. Before performing servicing (including removal or installation of parts, inspection or replacement), be sure to read the following items carefully, then follow the correct procedures indicated in the repair manual.
- Wait at least 90 seconds after the ignition switch is turned off and the negative (-) terminal cable is disconnected from the battery before starting the operation.
 - (The SRS is equipped with a backup power source, so that if work is started within 90 seconds after disconnecting the negative (-) terminal cable of the battery, the SRS may be deployed.)
- Do not expose the steering pad, front passenger airbag assembly, driver side knee airbag assembly, center airbag sensor assembly, front airbag sensor, front side seat airbag assembly, side airbag sensor, curtain shield airbag assembly, rear airbag sensor, seat position airbag sensor or occupant classification ECU directly to hot air or flames.
- Be sure to perform the initialization of the occupant classification ECU if any of the following conditions occur (See page RS-206). If the initialization is not performed, the SRS may not operate properly.
 - The occupant classification ECU is replaced.
 - Accessories (seatback tray, seat cover, etc.) are installed to the vehicle.
 - The passenger seat is removed from the vehicle, and then reinstalled or replaced.
 - The passenger airbag ON/OFF indicator ("OFF") comes on when the passenger seat is not occupied.
 - The vehicle is brought to the workshop for repair due to an accident or collision.

NOTICE:

 Malfunction symptoms of the SRS are difficult to confirm, so DTCs are the most important source of information when troubleshooting. When troubleshooting the SRS, always inspect DTCs before disconnecting the battery.

- Even in the case of a minor collision when the SRS does not deploy, the steering pad, front passenger airbag assembly, driver side knee airbag assembly, center airbag sensor assembly, front airbag sensor, front side seat airbag assembly, side airbag sensor, curtain shield airbag assembly, rear airbag sensor, seat position airbag sensor and occupant classification ECU should be inspected.
- Before repair work, remove the airbag sensor if any kind of shock is likely to occur to the airbag sensor during the repair.
- Never use SRS parts from another vehicle. When replacing parts, replace them with new ones.
- Never disassemble or repair any of the following parts in order to reuse them. If any of these parts have been dropped, or a defect is found (e.g. cracks, dents or any other defects) in any of the housings, brackets or connectors, then replace the part with a new one.
 - Steering Pad
 - Front Passenger Airbag Assembly
 - Driver Side Knee Airbag Assembly
 - Front Side Seat Airbag Assembly
 - Curtain Shield Airbag Assembly
 - Center Airbag Sensor Assembly
 - Front Airbag Sensor
 - Side Airbag Sensor
 - Rear Airbag Sensor
 - Seat Position Airbag Sensor
 - Occupant Classification ECU

NOTICE:

- Use a volt/ohmmeter with high impedance (10 $k\Omega/V$ minimum) for troubleshooting the electrical circuits.
- Information labels are attached near the SRS components. Follow the instructions in the caution.
- After work on the SRS is completed, perform the SRS warning light check (See page RS-28).
- When the negative (-) terminal cable is disconnected from the battery, the memory will be cleared. Because of this, be sure to make a record of the contents memorized in each system before starting work. When work is finished, adjust each system as it was before. Never attempt to avoid erasing vehicle system memories by using a backup power supply from outside the vehicle.
- If the vehicle is equipped with a mobile communication system, refer to the precaution in the INTRODUCTION section.
- 1. HANDLING PRECAUTIONS FOR AIRBAG SENSORS HINT:

In this section, the center airbag sensor assembly, 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.

- (a) Before starting the following operations, wait at least 90 seconds after disconnecting the negative (-) cable of 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 all of the sensors are installed in the vehicle.
- (c) Do not use airbag sensors which have 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 DTC 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 sensor and check the installation condition.

3. EXPRESSIONS OF IGNITION SWITCH

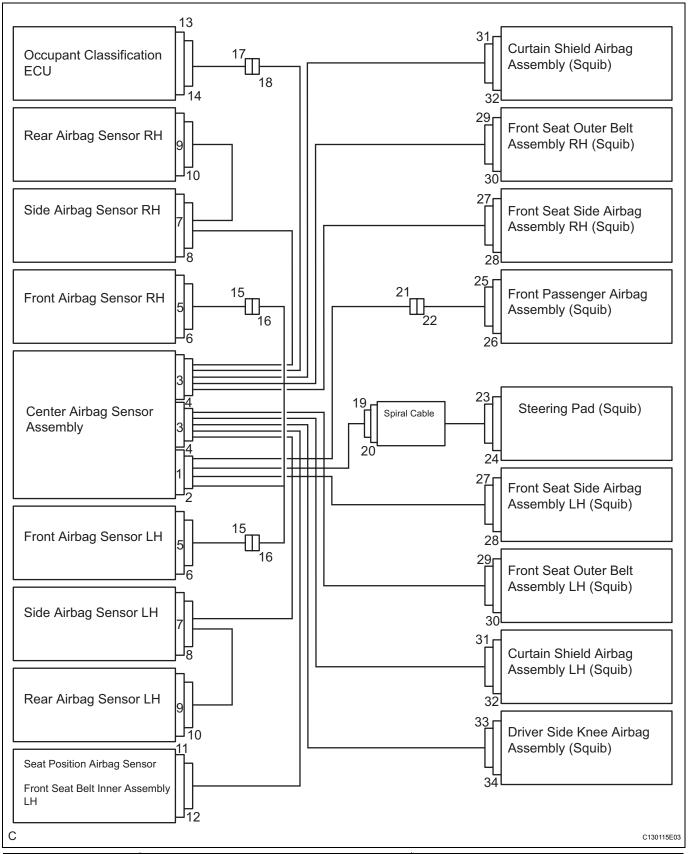
The type of ignition switch used on this model differs according to the specifications of the vehicle. The expressions listed in the table below are used in this section.

| Switch Type | | Ignition Switch (position) | Engine Switch (condition) | |
|-------------|----------------------------|----------------------------|---------------------------|--|
| | Ignition Switch off | LOCK | Off | |
| Expression | Ignition Switch on (IG) ON | ON | On (IG) | |
| Expression | Ignition Switch on (ACC) | ACC | On (ACC) | |
| | Engine Start | START | Start | |

4. SRS CONNECTORS

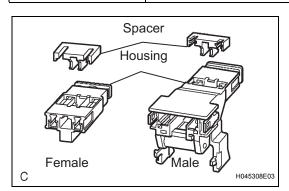
HINT:

SRS connectors are located as shown in the following illustration.

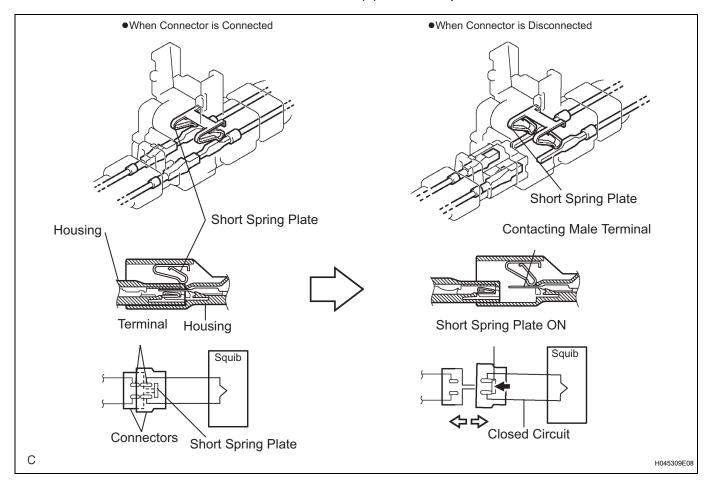


| No. | Connector Type | Application |
|-----|--------------------------------------|---|
| (1) | Terminal Twin-Lock Mechanism | Connectors 6, 8, 10, 12, 15, 16, 17, 18, 19, 21, 22, 27, 28, 32 |
| (2) | Activation Prevention Mechanism | Connectors 20, 22, 24, 26, 28, 30, 32, 34 |
| (3) | Half Connection Prevention Mechanism | Connectors 6, 8, 10, 16, 19, 21, 27, 31 |

| No. | Connector Type | Application |
|-----|---|-------------------------------|
| (4) | Connector Position Assurance Mechanism | Connector 6 |
| (5) | Connector Lock Mechanism (1) | Connectors 23, 25, 29, 31, 33 |
| (6) | Connector Lock Mechanism (2) | Connectors 2, 4 |
| (7) | Improper Connection Prevention Lock Mechanism | Connectors 1, 3 |

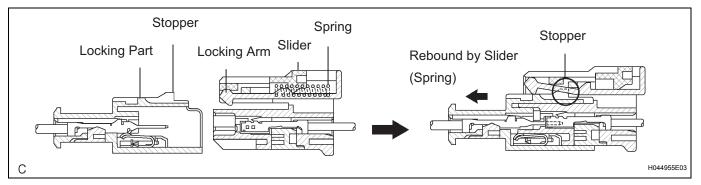


- (a) All connectors in the SRS, except the seat position airbag sensor connector and the occupant classification ECU connectors, are colored yellow to distinguish them from other connectors. These connectors have special functions, and are specially designed for the SRS. All SRS connectors use durable gold-plated terminals, and are placed in the locations shown on the previous page 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:



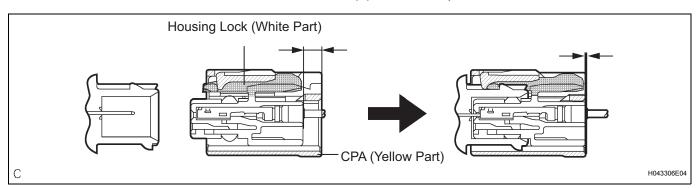
All connectors with an activation prevention mechanism contain a short spring plate. When these connectors are disconnected, the short spring plate creates a short circuit by automatically connecting the positive (+) and negative (-) terminals of the squib.

(3) Half connection prevention mechanism:



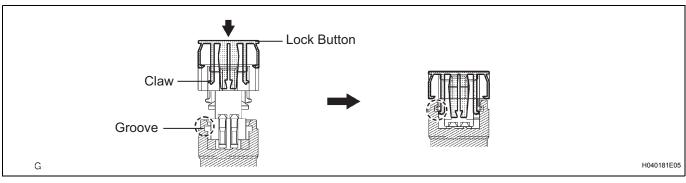
If the connector is not completely connected, the connector is disconnected due to the spring operation so that no continuity exists.

(4) Connector position assurance mechanism:



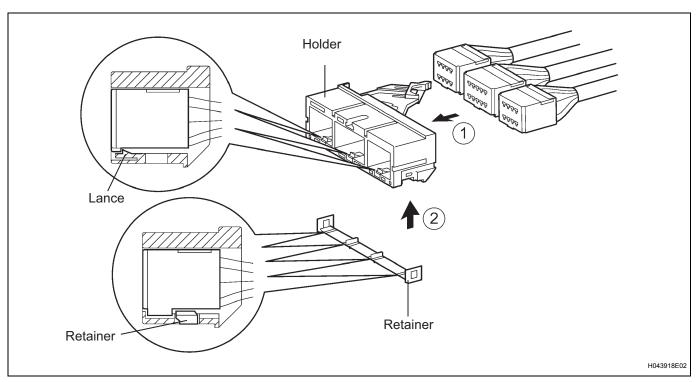
Only when the housing lock (white part) is completely engaged, the CPA (yellow part) slides, which completes the connector engagement.

(5) Connector lock mechanism (1):



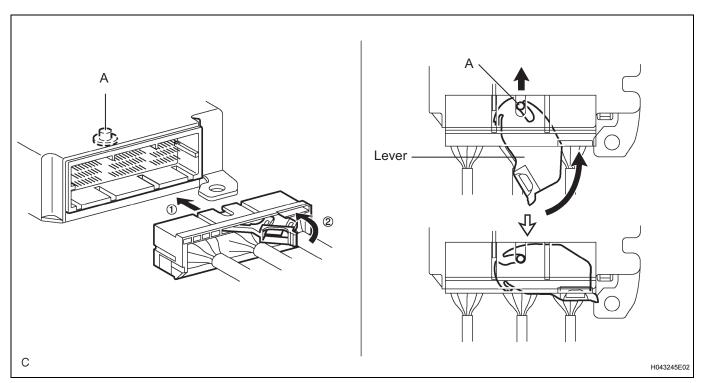
Locking the connector lock button connects the connector securely.

(6) Connector lock mechanism (2):



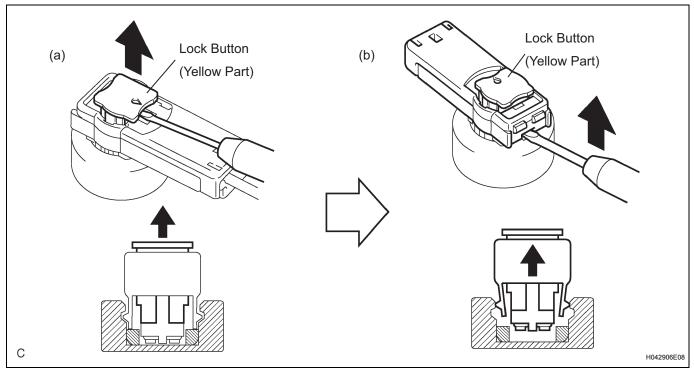
Both the primary lock with holder lances and the secondary lock with retainer prevent the connectors from becoming disconnected.

(7) Improper connection prevention lock mechanism:



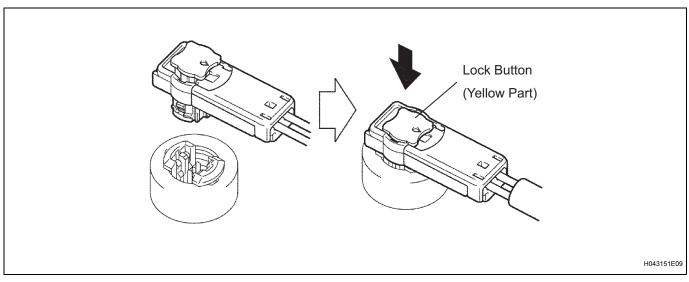
When connecting the holder, the lever is pushed into the end by rotating around the A axis to lock the holder securely.

- 5. DISCONNECTION OF CONNECTORS FOR STEERING PAD, FRONT PASSENGER AIRBAG ASSEMBLY (SQUIB SIDE), CURTAIN SHIELD AIRBAG ASSEMBLY AND DRIVER SIDE KNEE AIRBAG ASSEMBLY
 - (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.

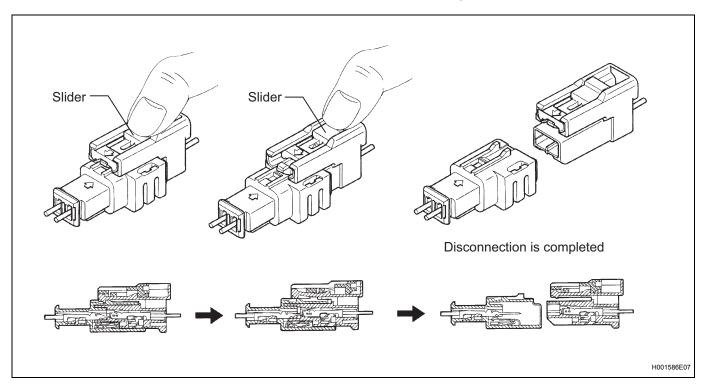


- 6. CONNECTION OF CONNECTORS FOR STEERING PAD, FRONT PASSENGER AIRBAG ASSEMBLY (SQUIB SIDE), CURTAIN SHIELD AIRBAG ASSEMBLY AND DRIVER SIDE KNEE AIRBAG ASSEMBLY
 - (a) Connect the connector.

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

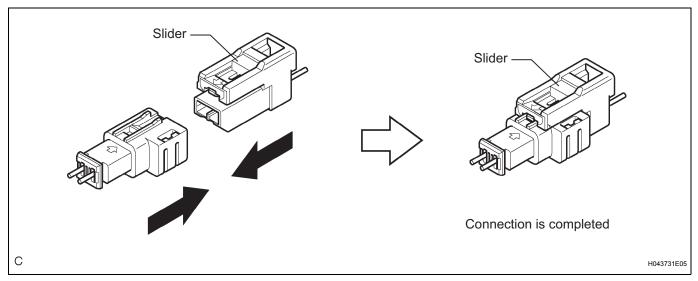


- 7. DISCONNECTION OF CONNECTOR FOR FRONT PASSENGER AIRBAG ASSEMBLY (INSTRUMENT PANEL WIRE SIDE)
 - (a) Place a finger on the slider, slide the slider to release the lock, and then disconnect the connector.



8. CONNECTION OF CONNECTOR FOR FRONT PASSENGER AIRBAG ASSEMBLY (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.)

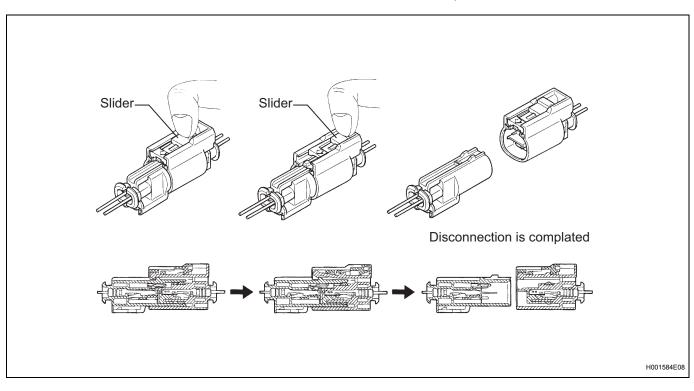


HINT:

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

9. DISCONNECTION OF CONNECTOR FOR FRONT SEAT SIDE AIRBAG ASSEMBLY

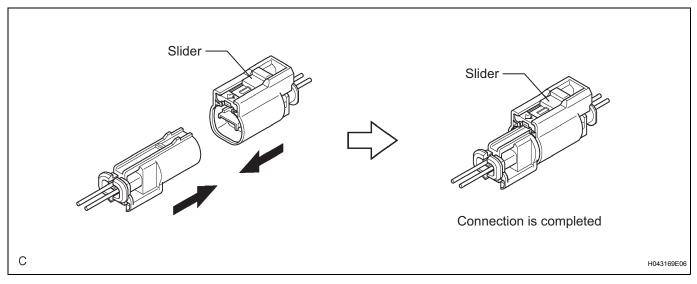
(a) Place a finger on the slider, slide the slider to release the lock, and then disconnect the connector.



10. CONNECTION OF CONNECTOR FOR FRONT SEAT SIDE AIRBAG ASSEMBLY

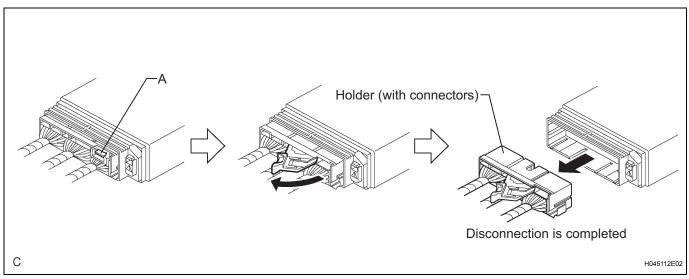
(a) Connect the connector as shown in the illustration.(When locking, make sure that the slider returns to its original position and a click sound can be heard.)HINT:

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



11. DISCONNECTION OF CONNECTOR FOR CENTER AIRBAG SENSOR ASSEMBLY

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

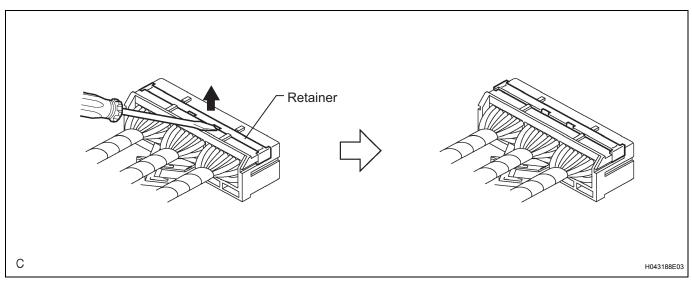


HINT:

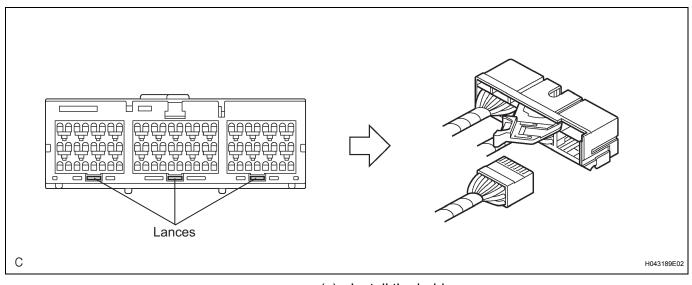
Perform the following procedures when replacing the holder.

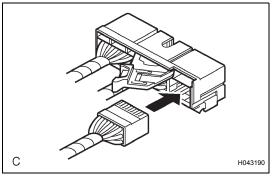
(b) Remove the holder.

(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.

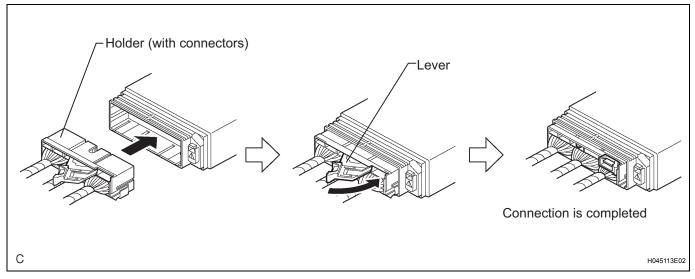
12. CONNECTION OF CONNECTOR FOR CENTER AIRBAG SENSOR ASSEMBLY

(a) Firmly insert the holder (with connectors) into the airbag sensor assembly center 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.)

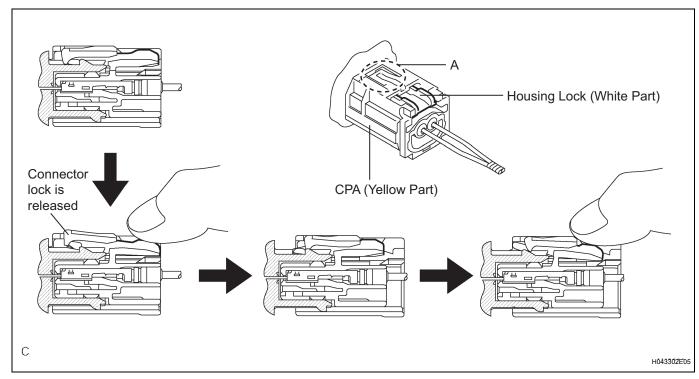
HINT:

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



13. DISCONNECTION OF CONNECTOR FOR FRONT AIRBAG SENSOR

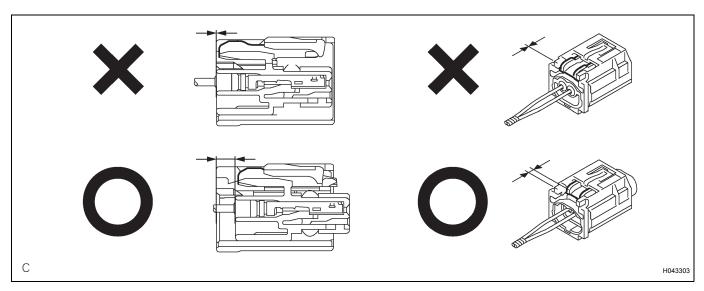
- (a) Push down the housing lock (white part) and slide the CPA (yellow part). (At this time, the connector cannot be disconnected yet).
- (b) Push down the housing lock (white part) again and disconnect the connector.



HINT:

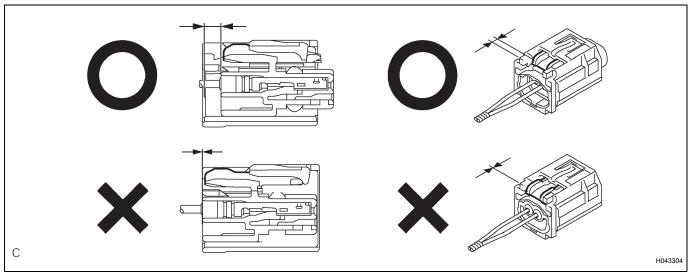
Do not push down the A part shown in the illustration when disconnecting.

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



14. CONNECTION OF CONNECTOR FOR FRONT AIRBAG SENSOR

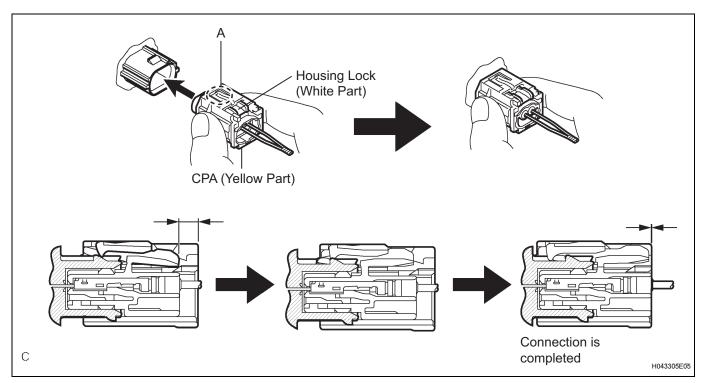
(a) Before connecting the connectors, check that the position of the housing lock (white part) is as shown in the illustration.

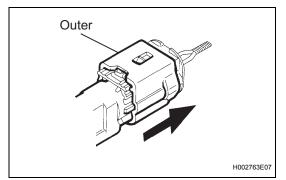


(b) Be sure to engage the connectors until they are locked. (When locking, make sure that a click sound can be heard.)

HINT:

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

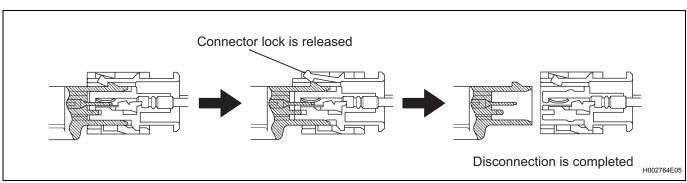




15. DISCONNECTION OF CONNECTORS FOR SIDE AIRBAG SENSOR AND REAR AIRBAG SENSOR

- (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:

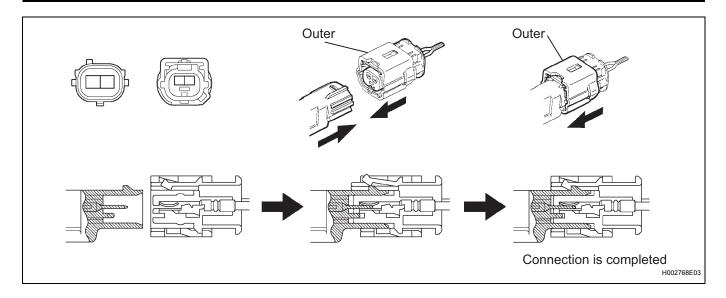
Be sure to hold both outer flank sides. Holding the top and bottom will make disconnection difficult.



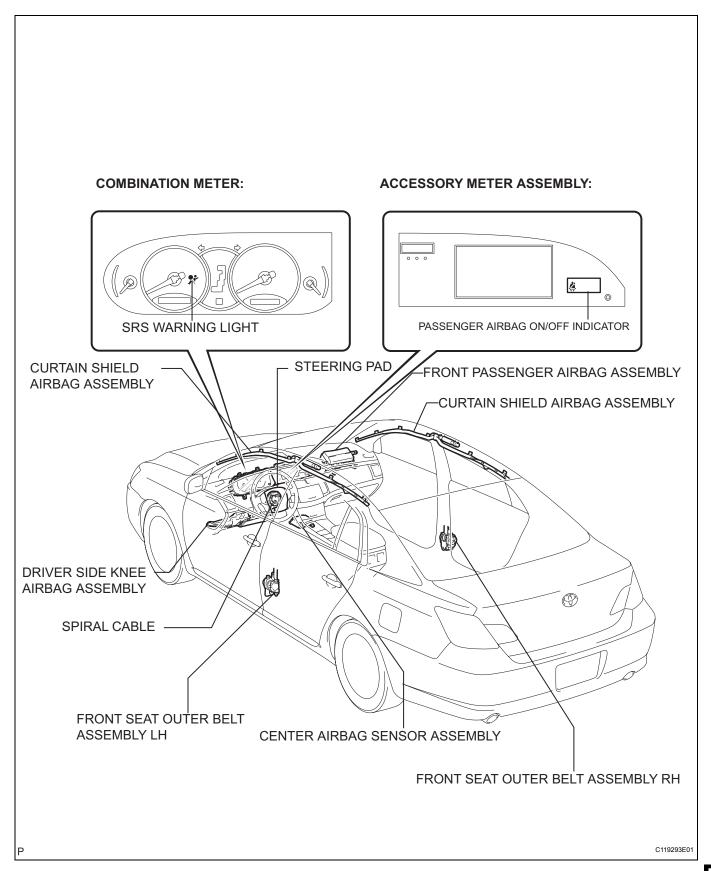
16. CONNECTION OF CONNECTORS FOR SIDE AIRBAG SENSOR AND REAR AIRBAG SENSOR

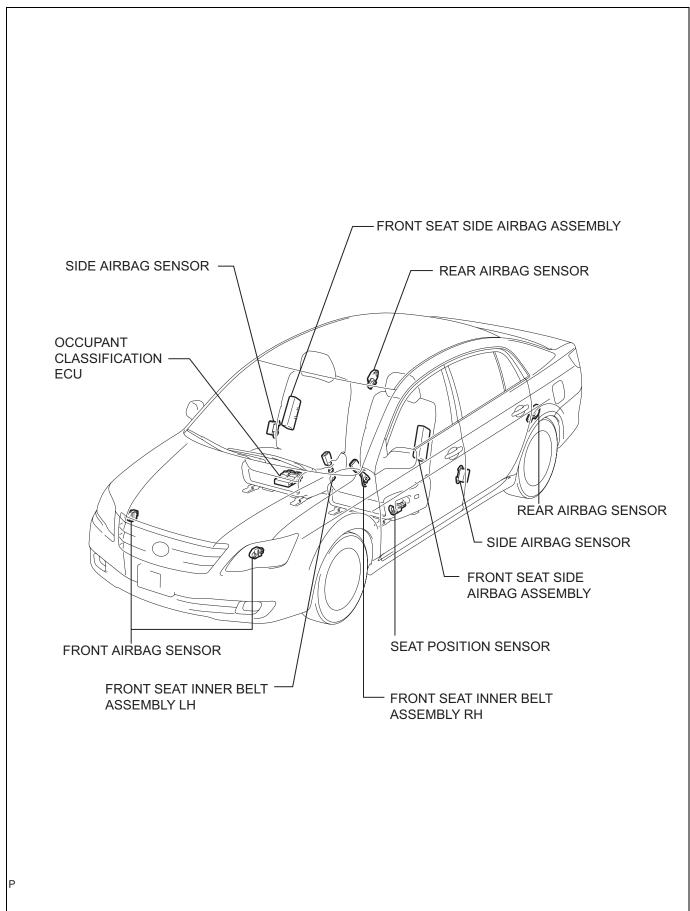
(a) Connect the connector as shown in the illustration.(When locking, make sure that the outer returns to its original position and a click sound can be heard.)HINT:

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



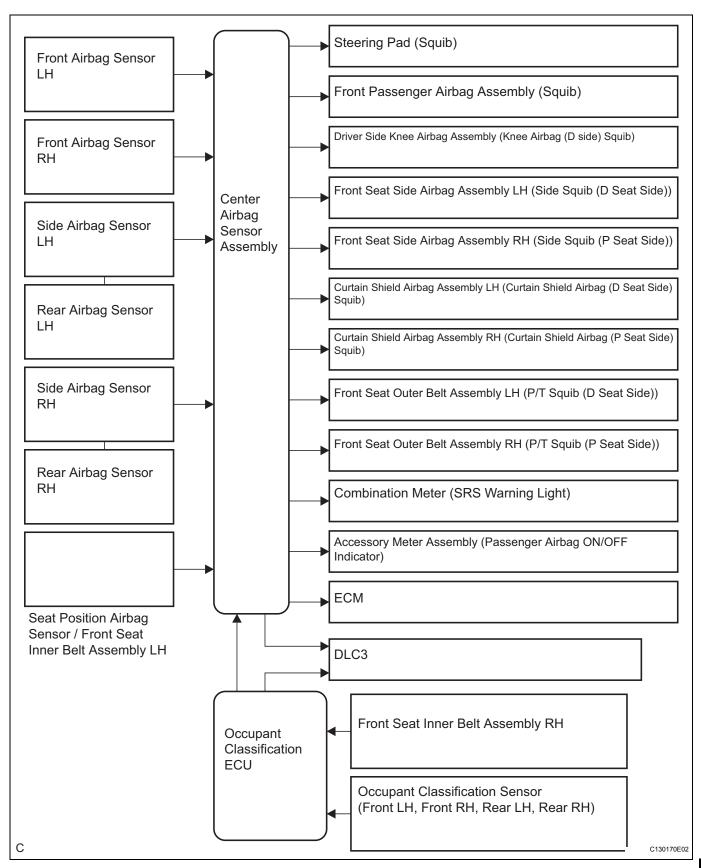
PARTS LOCATION





RS

SYSTEM DIAGRAM



SYSTEM DESCRIPTION

1. GENERAL

- (a) In conjunction with impact absorbing structure for a frontal collision, the SRS (Supplemental Restraint System) driver, front passenger and knee airbags were designed to supplement seat belts in the event of a frontal collision in order to help reduce shock to the head and chest of the driver and front passenger. This system is a 3-sensor type airbag system to detect the impact during a frontal collision using the airbag sensor assembly center and front airbag sensors. It also operates the airbag system and seat belt pretensioner.
- (b) In order to detect the extent of the collision during the initial stages of the collision in further detail, the front airbag sensors have been changed from mechanical type to electrical type deceleration sensors. Accordingly, the deployment of the driver and front passenger airbags is controlled in two stages according to the severity of the impact.
- (c) In conjunction with impact absorbing structure for a side collision, the front seat and curtain shield airbags were designed to help reduce shock to the driver, front passenger, and rear outer passengers in the event of a side collision.
- (d) The curtain shield airbag system that helps reduce shock to the front and rear seat occupants with a single curtain shield airbag has been adopted. In conjunction with this system, the side airbag sensor assemblies have been installed at the bottom of the center pillars and the airbag sensor rear has been installed at the bottom of the rear pillars respectively.
- (e) In this system, a front side collision is detected by the side airbag sensor assembly and airbag sensor assembly center in order to simultaneously deploy the side airbags and curtain shield airbags. A rear side collision is detected by the airbag sensor rear and the airbag sensor assembly center in order to deploy only the curtain shield airbag.

2. CONSTRUCTION AND OPERATION

- (a) FRONT AIRBAG SENSOR
 - (1) The front airbag sensor assemblies are installed on the right and left front side members respectively.
 - (2) The front airbag sensor consists of the deceleration sensor.
 - (3) The deceleration sensor is built into the front 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 frontal collision. Accordingly, the extent of the initial collision can be detected in detail.

(b) SIDE AIRBAG SENSOR

- (1) The side airbag sensor assemblies are installed on the bottom of the right and left center pillars respectively.
- (2) The side airbag sensor consists of the deceleration sensor.
- (3) The deceleration sensor is built into the side 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 front side collision. Accordingly, the extent of the initial collision can be detected in detail.

(c) REAR AIRBAG SENSOR

- (1) The rear airbag sensor assemblies are installed on the right and left rear pillars respectively.
- (2) The rear airbag sensor consists of the deceleration sensor.
- (3) The deceleration sensor is 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. Accordingly, the extent of the initial collision can be detected in detail.

(d) CENTER AIRBAG SENSOR ASSEMBLY

(1) General

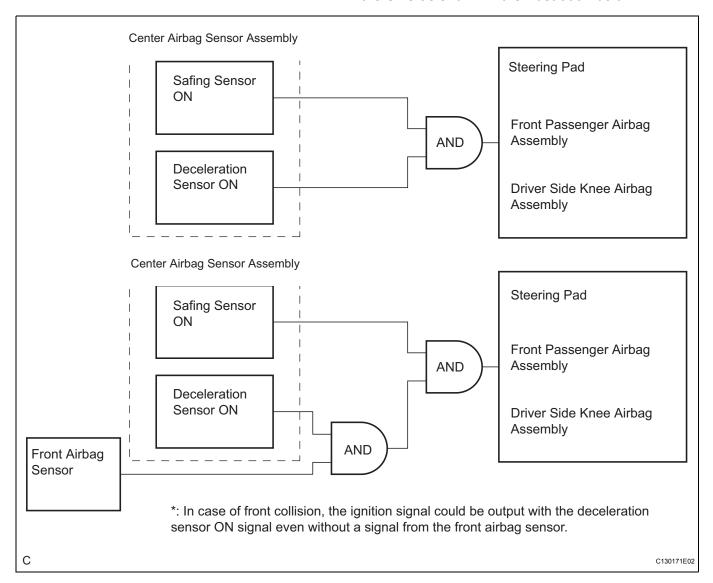
- The center airbag sensor assembly is installed on the center floor under the instrument panel.
- The center airbag sensor assembly consists of the deceleration sensor, electronic safing sensor, ignition control circuit and diagnostic circuit.
- The center airbag sensor assembly receives signals from the deceleration sensor and electronic safing sensor built into the center airbag sensor assembly and front airbag sensor. Then the center airbag sensor assembly determines whether or not the driver, front passenger and knee airbags and seat belt pretensioner should be activated, and diagnoses system malfunctions.
- The center airbag sensor assembly receives signals from the deceleration sensor and the electronic safing sensor built into the center airbag sensor assembly and the side airbag sensor and determines whether or not the front seat side airbag assembly and the curtain shield airbag assembly should be activated, and diagnoses system malfunctions.

- The center airbag sensor assembly receives signals from the deceleration sensor and the electronic safing sensor built into the center airbag sensor assembly and the rear airbag sensor, and determines whether or not the curtain shield airbag assembly should be activated, and diagnoses system malfunctions.
- (2) Deceleration sensor and ignition control circuit
 - The ignition control circuit performs
 calculations based on the signal output from
 the deceleration sensors of the center airbag
 sensor assembly and front airbag sensor. If
 the calculated values are greater than the
 specified values, it activates ignition
 operation.
- (3) Electronic safing sensor
 - The electronic safing sensor is built into the center airbag sensor assembly. During a frontal collision, front side collision, front side side collision, the sensor turns on and outputs an ON signal to the center airbag sensor assembly if a deceleration rate greater than the specified value is applied to the electronic safing sensor.
- (4) Backup power source
 - The backup power source consists of a power supply capacitor and a DC-DC converter. When the power system does not function during a collision, the power supply capacitor 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
- (5) Diagnostic circuit
 - This circuit constantly diagnoses system malfunctions. When a malfunction is detected, it lights up the SRS warning light on the combination meter to inform the driver.
- (6) 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. It comes on to inform the driver of system trouble when a malfunction is detected in self-diagnosis of the center airbag sensor assembly. Under normal operating conditions when the ignition switch is turned to on (IG), it comes on for approximately 6 seconds and then goes off.

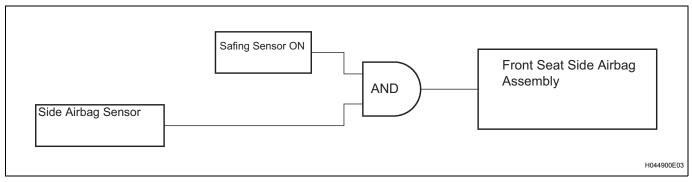
3. DEPLOYMENT CONDITION

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

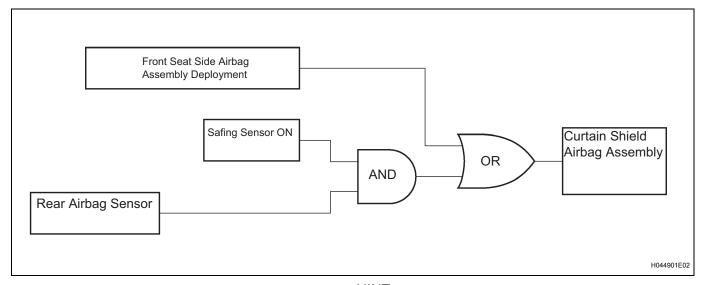
(a) The center airbag sensor assembly determines whether or not ignition is necessary based on signals from the deceleration sensor and the front airbag sensor.(*) If the safing sensor turns on simultaneously, current flows to the squibs to deploy the SRS as shown in the illustration below.



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



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



HINT:

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

HOW TO PROCEED WITH TROUBLESHOOTING

The intelligent tester can be used in steps 4, 6, 8 and 9.

| 1 | VEHICLE BROUGHT TO WORKSHOP |
|------|--|
| NEXT | |
| 2 | CUSTOMER PROBLEM ANALYSIS |
| NEXT | |
| 3 | WARNING LIGHT CHECK |
| NEXT | |
| 4 | DTCs CHECK (Present and Past DTCs) |
| | DTCs ARE OUTPUT (INCLUDING NORMAL SYSTEM CODE): Go to step 5 |
| | DTCs ARE NOT OUTPUT: PROBLEM SYMPTOMS TABLE |
| 5 | DTCs CHART |
| NEXT | |
| 6 | CIRCUIT INSPECTION |
| NEXT | |
| 7 | REPAIR |
| NEXT | |
| 8 | CLEAR DTCs (Present and Past DTCs) |
| | |

NEXT

| 9 | DTCs CHECK (Present and Pas | st DTCs) |
|------|-----------------------------|---|
| | | DTCs ARE NOT OUTPUT: Go to step 10 DTCs ARE OUTPUT: Go to step 5 |
| 10 | SYMPTOM SIMULATION | |
| | | WARNING LIGHT REMAINS OFF: Go to step 11 WARNING LIGHT IS ON: Go to step 5 |
| 11 | CONFIRMATION TEST | |
| NEXT | | |
| END | | |

PROBLEM SYMPTOMS TABLE

HINT:

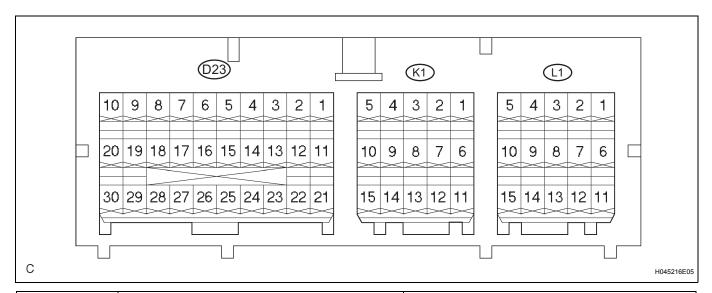
Proceed to the troubleshooting for each circuit in the table below.

AIRBAG SYSTEM:

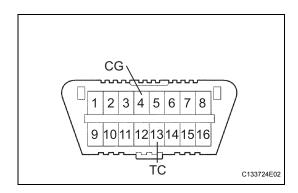
| Symptom | Suspected area | See page |
|---|------------------------------------|----------|
| The SRS warning light goes off after the primary check, but comes on again during the constant check. | SRS Warning Light Remains ON | RS-190 |
| 2. With the ignition switch in the ON position, the SRS warning light sometimes comes on after approximately 6 seconds. | SRS Warning Light Remains ON | RS-190 |
| 3. The SRS warning light always comes on even when DTC is not output. | SRS Warning Light Remains ON | RS-190 |
| With the ignition switch in the ON position, the SRS warning light does not come on. | SRS Warning Light does not Come On | RS-195 |
| Although an SRS warning light operates normally, DTC or a normal system code is not displayed. | TC and CG Terminal Circuit | RS-197 |
| 2. Although terminals TC and CG of DLC3 are not connected, DTC or a normal system code is displayed. | TC and CG Terminal Circuit | RS-197 |

TERMINALS OF ECU

1. AIRBAG SENSOR ASSEMBLY CENTER



| Terminal No. | Terminal Symbol | Destination |
|--------------|-----------------|--|
| D23-1 | P2+ | Front passenger airbag assembly (P squib, Dual stage - 2nd step) |
| D23-2 | P2- | Front passenger airbag assembly (P squib, Dual stage - 2nd step) |
| D23-3 | P- | Front passenger airbag assembly (P squib) |
| D23-4 | P+ | Front passenger airbag assembly (P squib) |
| D23-5 | D+ | Steering pad (D squib) |
| D23-6 | D- | Steering pad (D squib) |
| D23-7 | D2- | Steering pad (D squib, Dual stage - 2nd step) |
| D23-8 | D2+ | Steering pad (D squib, Dual stage - 2nd step) |
| D23-9 | DK+ | Driver side knee airbag assembly (Knee airbag (D side) squib) |
| D23-10 | DK- | Driver side knee airbag assembly (Knee airbag (D side) squib) |
| D23-13 | PBEW | Accessory meter assembly |
| D23-14 | LA | Combination meter (SRS warning light) |
| D23-15 | TC | DLC3 |
| D23-16 | SIL | DLC3 |
| D23-17 | P-AB | Accessory meter assembly (Passenger airbag ON/OFF indicator) |
| D23-18 | GSW | Body ECU |
| D23-21 | IG2 | IG2 Fuse (Power Source) |
| D23-22 | GSW2 | ECM |
| D23-23 | PAON | Accessory meter assembly (Passenger airbag ON/OFF indicator) |
| D23-25 | E1 | Ground |
| D23-26 | E2 | Ground |
| D23-27 | -SR | Front airbag sensor RH |
| D23-28 | -SL | Front airbag sensor LH |
| D23-29 | +SR | Front airbag sensor RH |
| D23-30 | +SL | Front airbag sensor LH |
| K1-1 | PD- | Front seat outer belt assembly LH (P/T squib (D seat side)) |
| K1-2 | PD+ | Front seat outer belt assembly LH (P/T squib (D seat side)) |



Nomal System Code (without Past Trouble Code) 0.25 sec. ON **OFF** 0.25 sec. Nomal System Code (with Past Trouble Code) 0.75 sec. ON OFF 0.25 sec. Trouble Code (Example Codes 11 and 31) 0.5 sec. 2.5 sec. 4.0 sec. 0.5 sec. 1.5 sec. Respeat DTC11 DTC31 Ν H013050E16

DTC CHECK / CLEAR

- 1. SUPPLEMENTAL RESTRAINT SYSTEM DTC CHECK (USING SST CHECK WIRE)
 - (a) Check the DTCs (Present trouble code).
 - (1) Turn the ignition switch on (IG), and wait for approximately 60 seconds.
 - (2) Using SST, connect terminals TC and CG of the DLC3.

SST 09843-18040

NOTICE:

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

- (b) Check the DTCs (Past trouble code).
 - (1) Using SST, connect terminals TC and CG of the DLC3.

SST 09843-18040

NOTICE:

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

- (2) Turn the ignition 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 trouble codes 11 and 31 are shown in the illustration to the left.
 - Normal system code indication (without past trouble code)

The light blinks twice per second.

- Normal system code indication (with past trouble code)
 - When the past trouble code is stored in the airbag sensor assembly center, the light blinks only once per second.
- Trouble code indication
 The first blinking indicates the first DTC. The second blinking occurs after a 1.5-second pause.

If there are more than 1 code, there will be a 2.5-second pause between each code. After all codes are shown, there will be a 4.0-second pause, and they all will be repeated. HINT:

- If 2 or more malfunctions are found, the indication begins with the smaller numbered code.
- If DTCs are indicated without connecting the terminals, proceed to the "TC Terminal Circuit" (See page RS-197).

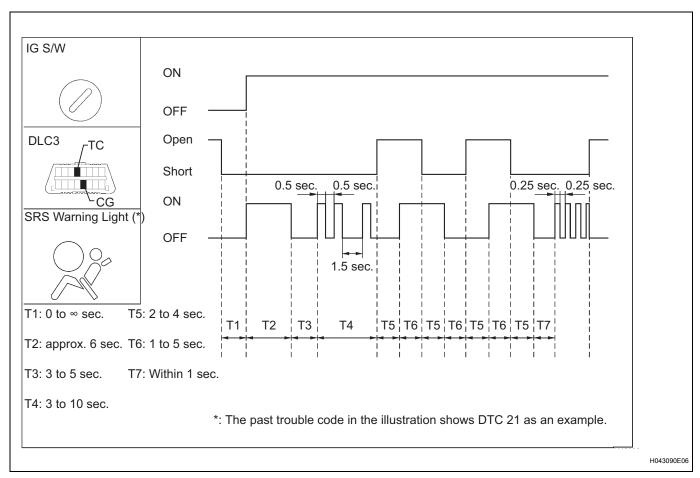
2. DTC CLEAR (USING SST CHECK WIRE)

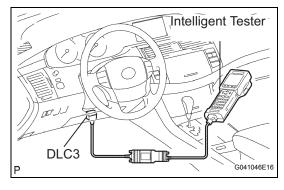
- (a) Clear the DTCs.
 - (1) When the ignition switch is turned off, the DTCs are cleared.

HINT:

- Depending on the DTC, the code may not be cleared by turning off the ignition switch. In this case, proceed to the next procedure.
- (2) Using SST, connect terminals TC and CG of the DLC3, and then turn the ignition switch on (IG). SST 09843-18040
- (3) Disconnect terminal TC of the DLC3 within 3 to 10 seconds after the DTCs are output, and check if the SRS warning light comes on after 3 seconds.
- (4) Within 2 to 4 seconds after the SRS warning light comes on, connect terminals TC and CG of the DLC3.
- (5) The SRS warning light should go off within 2 to 4 seconds after connecting terminals TC and CG of the DLC3. Then, disconnect terminal TC within 2 to 4 seconds after the SRS warning light goes off.
- (6) The SRS warning light comes on again within 2 to 4 seconds after disconnecting terminal TC. Then, reconnect terminals TC and CG within 2 to 4 seconds after the SRS warning light comes on, connect terminals TC and CG of the DLC3.

(7) Check if the SRS warning light goes off within 2 to 4 seconds after connecting terminals TC and CG of the DLC3. Also check if the normal system code is output within 1 second after the SRS warning light goes off.
If DTCs are not cleared, repeat this procedure until the codes are cleared.





3. SUPPLEMENTAL RESTRAINT SYSTEM DTC CHECK (USING INTELLIGENT TESTER)

- (a) Check the DTCs.
 - (1) Connect the intelligent tester to the DLC3.
 - (2) Turn the ignition switch on (IG).
 - (3) Check the DTCs by following the prompts on the tester screen.

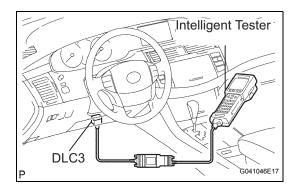
HINT:

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

- (b) Clear the DTCs.
 - (1) Connect the intelligent tester to the DLC3.
 - (2) Turn the ignition switch on (IG).
 - (3) 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 to the DLC3.
- (b) Turn the ignition switch on (IG).
- (c) Select the "SIGNAL CHECK", and proceed checking 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 check mode inspection when a malfunction in each squib circuit is suspected even after the normal system code is output through normal diagnosis mode inspection.

DATA LIST / ACTIVE TEST

HINT:

By accessing the DATA LIST displayed by the intelligent tester, you can perform such functions as reading the values of switches and sensors without removing any parts. Reading the DATA LIST is the first step of troubleshooting and is one method to shorten labor time.

1. DATA LIST FOR AIRBAG SENSOR ASSEMBLY CENTER

- (a) Connect the intelligent tester to the DLC3.
- (b) Turn the ignition switch on (IG).
- (c) Following the display on the tester screen, read the "DATA LIST".

| Item | Measurement Item/ Range (Display) | Normal Condition | Diagnostic Note |
|-----------------|---|---------------------|--|
| D SEAT POSITION | Seat position (Driver side)/ FORWARD: Seat position is forward BKWARD: Seat position is rearward FAIL: A failure is detected | FORWARD/BKWARD | - |
| PASSENGER CLASS | Passenger classification/ NG: Data is not determined OFF: Vacant CHILD: Child (less than 36 kg (79.37 lb)) is seated 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 FAIL: A failure is detected | OFF/CHILD/AF05/AM50 | - |
| D BUCKLE SW | Buckle switch (Driver side)/ UNSET: The seat belt is not fastened SET: The seat belt is fastened NG: Data is not determined | SET | When the seat belt (Driver side) is fastened. |
| P BUCKLE SW | Buckle switch (Passenger side)/ UNSET: The seat belt is not fastened SET: The seat belt is fastened NG: Data is not determined | SET | When the seat belt (Passenger side) is fastened. |
| DISPLAY TYPE | Display type information/ LR: The display is indicated by LH/RH DP: The display is indicated by Driver/Passenger | DP | - |
| PAST CODES | Number of past trouble codes/ Min.: 0, Max.: 255 | 0 to 255 | - |

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 (refer to the appropriate page).

HINT:

- When the SRS warning light remains on and the DTC output is the normal system code, a voltage source drop is likely to occur. This malfunction is not stored in the memory by the airbag sensor assembly center. If the power source voltage returns to normal, the SRS warning light will automatically go off.
- When 2 or more codes are indicated, the code with the lower number appears first.
- If a code is not listed on the display chart, the airbag sensor assembly center may have failed.
- In the case of any malfunction concerning an open circuit, short to ground, or short to B+ due to a squib, other trouble codes may not be detected. In this case, repair the malfunction currently indicated and then perform malfunction diagnosis again.
- Mark in the check mode column:
 - *1: DTC is not corresponding to the check mode.
 - *2: DTC is corresponding to the check mode.
- When DTC B1650/32 is detected as a result of troubleshooting for the Supplemental Restraint System, perform troubleshooting for the occupant classification system as shown in the chart below.

AIRBAG SYSTEM

| DTC No. | Detection Item | Trouble Area | Check Mode | SRS Warning Light | See page |
|----------|--|---|------------|-------------------|----------|
| B1000/31 | Center Airbag Sensor Assembly Malfunction | Center airbag sensor assembly | *1 | ON | RS-43 |
| B1610/13 | Front Airbag Sensor RH Circuit Malfunction | I. Instrument panel wire Engine room main wire Front airbag sensor RH Center airbag sensor assembly | *1 | ON | RS-44 |
| B1615/14 | Front Airbag Sensor LH Circuit Malfunction | 1. Instrument panel wire 2. Engine room main wire 3. Front airbag sensor LH 4. Center airbag sensor assembly | *1 | ON | RS-53 |
| B1620/21 | Driver Side - Side Airbag Sensor Circuit Malfunction | Floor wire Side airbag sensor H Rear airbag sensor H Center airbag sensor assembly | *1 | ON | RS-62 |

| DTC No. | Detection Item | Trouble Area | Check Mode | SRS Warning Light | See page |
|----------|---|--|------------|-------------------|----------|
| B1625/22 | Front Passenger Side - Side Airbag Sensor Circuit Malfunction | Floor wire No. 2 Side airbag sensor RH Rear airbag sensor RH Center airbag sensor assembly | *1 | ON | RS-70 |
| B1630/23 | Driver Side Rear Airbag Sensor Circuit Malfunction | Floor wire Rear airbag sensor H Side airbag sensor LH Center airbag sensor assembly | *1 | ON | RS-78 |
| B1635/24 | Front Passenger Side Rear Airbag Sensor Circuit Malfunction | Floor wire No. 2 Rear airbag sensor RH Side airbag sensor RH Center airbag sensor assembly | *1 | ON | RS-82 |
| B1650/32 | Occupant Classification System Malfunction | Floor wire No. 2 Front seat wire RH (with Power seat) Occupant classification system Center airbag sensor assembly | *1 | ON | RS-87 |
| B1653/35 | Seat Position Airbag Sensor Circuit Malfunction | Floor wire Seat position airbag sensor Center airbag sensor assembly | *1 | ON | RS-98 |
| B1655/37 | Driver Side Seat Belt Buckle Switch Circuit Malfunction | Floor wire Front seat inner belt assembly LH Center airbag sensor assembly | *1 | ON | RS-105 |
| B1660/43 | Passenger Airbag ON / OFF Indicator Circuit Malfunction | Instrument panel wire Accessory meter assembly (Passenger airbag ON/OFF indicator) Center airbag sensor assembly | *1 | ON | RS-111 |
| B1662/45 | Indicator Light Circuit Malfunction | Instrument panel wire Combination meter (SRS warning light) Airbag sensor assembly center | *1 | ON | RS-123 |
| B1800/51 | Short in Driver Side Squib Circuit | Instrument panel wire Spiral cable Steering pad Center airbag sensor assembly | *2 | ON | RS-127 |
| B1801/51 | Open in Driver Side Squib Circuit | Same as DTC No. B1800/51 | *2 | ON | RS-127 |
| B1802/51 | Short to GND in Driver Side Squib Circuit | Same as DTC No. B1800/51 | *2 | ON | RS-127 |
| B1803/51 | Short to B+ in Driver Side Squib Circuit | Same as DTC No. B1800/51 | *2 | ON | RS-127 |

RS

| DTC No. | Detection Item | Trouble Area | Check Mode | SRS Warning Light | See page |
|----------|--|--|------------|-------------------|----------|
| B1805/52 | Short in Front Passenger Side Squib Circuit | Instrument panel wire Instrument panel wire assembly Front passenger airbag assembly Center airbag sensor assembly | *2 | ON | RS-134 |
| B1806/52 | Open in Front Passenger Side Squib Circuit | Same as DTC No. B1805/52 | *2 | ON | RS-134 |
| B1807/52 | Short to GND in Front Passenger Side Squib Circuit | Same as DTC No. B1805/52 | *2 | ON | RS-134 |
| B1808/52 | Short to B+ in Front Passenger Side Squib Circuit | Same as DTC No. B1805/52 | *2 | ON | RS-134 |
| B1810/53 | Short in Driver Side Squib 2nd Step Circuit | Instrument panel wire Spiral cable Steering pad Center airbag sensor assembly | *2 | ON | RS-141 |
| B1811/53 | Open in Driver Side Squib 2nd Step Circuit | Same as DTC No. B1810/53 | *2 | ON | RS-141 |
| B1812/53 | Short to GND in Driver Side Squib 2nd Step Circuit | Same as DTC No. B1810/53 | *2 | ON | RS-141 |
| B1813/53 | Short to B+ in Driver Side Squib 2nd Step Circuit | Same as DTC No. B1810/53 | *2 | ON | RS-141 |
| B1815/54 | Short in Front Passenger Side Squib 2nd Step Circuit | Instrument panel wire Instrument panel wire assembly Front passenger airbag assembly Center airbag sensor assembly | *2 | ON | RS-148 |
| B1816/54 | Open in Front Passenger Side Squib 2nd Step Circuit | Same as DTC No. B1815/54 | *2 | ON | RS-148 |
| B1817/54 | Short to GND in Front Passenger Side Squib 2nd Step Circuit | Same as DTC No. B1815/54 | *2 | ON | RS-148 |
| B1818/54 | Short to B+ in Front Passenger Side Squib 2nd Step Circuit | Same as DTC No. B1815/54 | *2 | ON | RS-148 |
| B1820/55 | Short in Driver Side - Side Squib Circuit | Floor wire Front seat side airbag assembly LH Center airbag sensor assembly | *2 | ON | RS-155 |
| B1821/55 | Open in Driver Side - Side Squib Circuit | Same as DTC No. B1820/55 | *2 | ON | RS-155 |
| B1822/55 | Short to GND in Driver Side - Side Squib Circuit | Same as DTC No. B1820/55 | *2 | ON | RS-155 |

| DTC No. | Detection Item | Trouble Area | Check Mode | SRS Warning Light | See page |
|----------|--|---|------------|-------------------|----------|
| B1823/55 | Short to B+ in Driver Side - Side Squib Circuit | Same as DTC No. B1820/55 | *2 | ON | RS-155 |
| B1825/56 | Short in Front Passenger Side - Side Squib Circuit | Floor wire No. 2 Front seat side airbag assembly RH Center airbag sensor assembly | *2 | ON | RS-160 |
| B1826/56 | Open in Front Passenger Side - Side Squib Circuit | Same as DTC No. B1825/56 | *2 | ON | RS-160 |
| B1827/56 | Short to GND in Front Passenger Side - Side Squib Circuit | Same as DTC No. B1825/56 | *2 | ON | RS-160 |
| B1828/56 | Short to B+ in Front Passenger Side - Side Squib Circuit | Same as DTC No. B1825/56 | *2 | ON | RS-160 |
| B1830/57 | Short in Driver Side Curtain Shield Squib Circuit | Floor wire Curtain shield airbag assembly LH Center airbag sensor assembly | *2 | ON | RS-165 |
| B1831/57 | Open in Driver Side Curtain Shield Squib Circuit | Same as No. DTC B1830/57 | *2 | ON | RS-165 |
| B1832/57 | Short to GND in Driver Side Curtain Shield Squib Circuit | Same as No. DTC B1830/57 | *2 | ON | RS-165 |
| B1833/57 | Short to B+ in Driver Side Curtain Shield Squib Circuit | Same as No. DTC B1830/57 | *2 | ON | RS-165 |
| B1835/58 | Short in Front Passenger Side Curtain Shield Squib Circuit | Floor wire No. 2 Curtain shield airbag assembly RH Center airbag sensor assembly | *2 | ON | RS-170 |
| B1836/58 | Open in Front Passenger Side Curtain Shield Squib Circuit | Same as DTC No. B1835/58 | *2 | ON | RS-170 |
| B1837/58 | Short to GND in Front Passenger Side Curtain Shield Squib Circuit | Same as DTC No. B1835/58 | *2 | ON | RS-170 |
| B1838/58 | Short to B+ in Front Passenger Side Curtain Shield Squib Circuit | Same as DTC No. B1835/58 | *2 | ON | RS-170 |
| B1860/64 | Short in Driver Side Knee Airbag Squib Circuit | Instrument panel wire Driver side knee airbag assembly Center airbag sensor assembly | *2 | ON | RS-175 |
| B1861/64 | Open in Driver Side Knee Airbag Squib Circuit | Same as DTC No. B1860/64 | *2 | ON | RS-175 |
| B1862/64 | Short to GND in Driver Side Knee Airbag Squib Circuit | Same as DTC No. B1860/64 | *2 | ON | RS-175 |
| B1863/64 | Short to B+ in Driver Side Knee Airbag Squib Circuit | Same as DTC No. B1860/64 | *2 | ON | RS-175 |

| DTC No. | Detection Item | Trouble Area | Check Mode | SRS Warning Light | See page |
|----------|--|---|------------|-------------------|----------|
| B1900/73 | Short in Driver Side Front Pretensioner Squib Circuit | Floor wire Front seat outer belt assembly LH Center airbag sensor assembly | *2 | ON | RS-180 |
| B1901/73 | Open in Driver Side Front Pretensioner Squib Circuit | Same as DTC No. B1900/73 | *2 | ON | RS-180 |
| B1902/73 | Short to GND in Driver Side Front Pretensioner Squib Circuit | Same as DTC No. B1900/73 | *2 | ON | RS-180 |
| B1903/73 | Short to B+ in Driver Side Front Pretensioner Squib Circuit | Same as DTC No. B1900/73 | *2 | ON | RS-180 |
| B1905/74 | Short in Front Passenger Side Front Pretensioner Squib Circuit | 1. Floor wire No. 2 2. Front seat outer belt assembly RH 3. Center airbag sensor assembly | *2 | ON | RS-185 |
| B1906/74 | Open in Front Passenger Side Front Pretensioner Squib Circuit | Same as DTC No. B1905/74 | *2 | ON | RS-185 |
| B1907/74 | Short to GND in Front Passenger Side Front Pretensioner Squib Circuit | Same as DTC No. B1905/74 | *2 | ON | RS-185 |
| B1908/74 | Short to B+ in Front Passenger Side Front Pretensioner Squib Circuit | Same as DTC No. B1905/74 | *2 | ON | RS-185 |

DTC B1000/31 Center Airbag Sensor Assembly Malfunction

DESCRIPTION

The center airbag sensor assembly consists of the airbag sensor, the safing sensor, the drive circuit, the diagnosis circuit, the ignition control, etc.

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

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

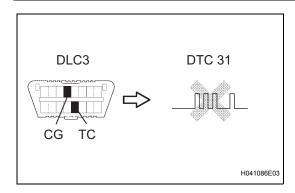
| DTC No. | DTC Detecting Condition | Trouble Area |
|----------|---|-------------------------------|
| B1000/31 | Center airbag sensor assembly malfunction | Center airbag sensor assembly |

HINT:

When a trouble code is displayed simultaneously with B1000/31, repair the malfunction indicated by this code (except B1000/31) first.

INSPECTION PROCEDURE

1 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (d) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (e) Clear the DTCs stored in memory (See page RS-34).
- (f) Turn the ignition switch off.
- (g) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (h) Check the DTCs (See page RS-34).

OK:

DTC B1000/31 is not output.





USE SIMULATION METHOD TO CHECK

DTC B1610/13 Front Airbag Sensor RH Circuit Malfunction

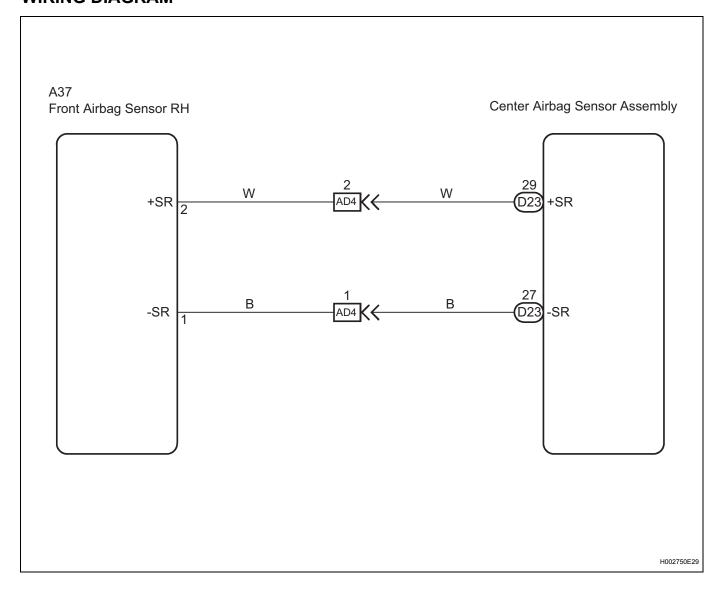
DESCRIPTION

The front airbag sensor RH consists of the diagnostic circuit, the frontal deceleration sensor, etc. If the center airbag sensor assembly receives signals from the frontal deceleration sensor, it determines whether or not the SRS should be activated.

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

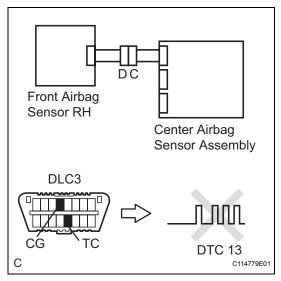
| DTC No. | DTC Detecting Condition | Trouble Area |
|----------|--|--|
| B1610/13 | The airbag sensor assembly center receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the front airbag sensor RH circuit for 2 seconds. Front airbag sensor RH malfunction Center airbag sensor assembly malfunction | Instrument panel wire Engine room main wire Front airbag sensor RH Center airbag sensor assembly |

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK DTC



- (a) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (b) Clear the DTCs stored in memory (See page RS-34).
- (c) Turn the ignition switch off.
- (d) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (e) Check the DTCs (See page RS-34).

OK:

DTC B1610/13 is not output.

HINT:

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



Go to step 2



USE SIMULATION METHOD TO CHECK

2 CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Check that the connectors are properly connected to the center airbag sensor assembly and the front airbag sensor RH.

OK:

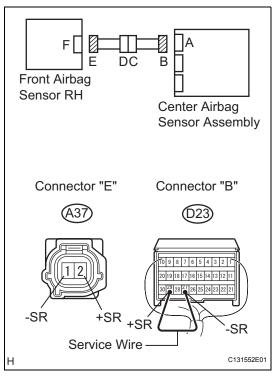
The connectors are properly connected.



CONNECT CONNECTORS, THEN GO TO STEP 1

ОК

3 CHECK FRONT AIRBAG SENSOR RH CIRCUIT (OPEN)



- (a) Disconnect the connectors from the center airbag sensor assembly and the front airbag sensor RH.
- (b) Using a service wire, connect D23-29 (+SR) and D23-27 (-SR) of connector "B".

NOTICE:

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

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

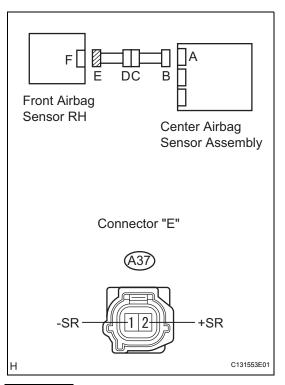
Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|---------------------|
| A37-2 (+SR) - A37-1 (-SR) | Always | Below 1 Ω |

| $\overline{}$ | | |
|---------------|--------------|--|
| NG | Go to step 8 | |



4 CHECK FRONT AIRBAG SENSOR RH CIRCUIT (SHORT)



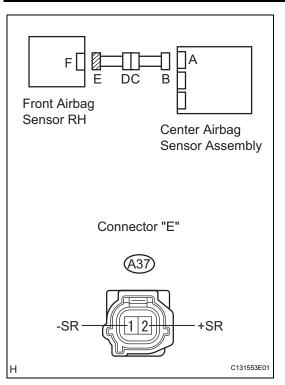
- (a) Disconnect the service wire from connector "B".
- (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|------------------------|
| A37-2 (+SR) - A37-1 (-SR) | Always | 1 M Ω or higher |



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



- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the ignition switch on (IG).
- (c) Measure the voltage according to the value(s) in the table below.

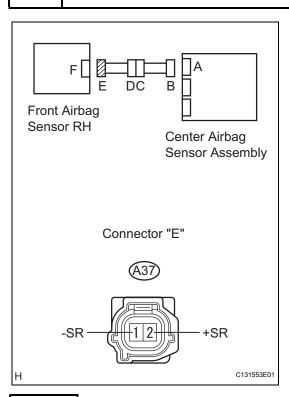
Standard voltage

| Tester connection | Condition | Specified condition |
|---------------------------|-------------------------|---------------------|
| A37-2 (+SR) - Body ground | Ignition switch on (IG) | Below 1 V |
| A37-1 (-SR) - Body ground | Ignition switch on (IG) | Below 1 V |

| NG Go to step 10 | NG | Go to step 10 | |
|------------------|----|---------------|--|
|------------------|----|---------------|--|



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



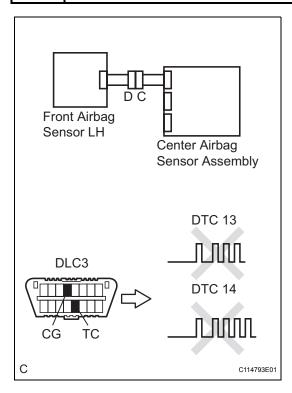
- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|------------------------|
| A37-2 (+SR) - Body ground | Always | 1 M Ω or higher |
| A37-1 (-SR) - Body ground | Always | 1 M Ω or higher |



7 CHECK FRONT AIRBAG SENSOR RH



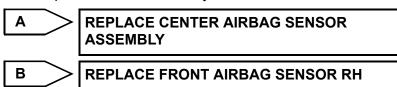
- (a) Connect the connectors to the center airbag sensor assembly.
- (b) Interchange the front airbag sensor RH with LH and connect the connectors to them.
- (c) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (d) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (e) Clear the DTCs stored in memory (See page RS-34).
- (f) Turn the ignition switch off.
- (g) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (h) Check the DTCs (See page RS-34).

Result

| Result | Proceed to |
|---|------------|
| DTC B1610/13 is output. | Α |
| DTC B1615/14 is output. | В |
| DTC B1610/13 and B1615/14 are not output. | С |

HINT:

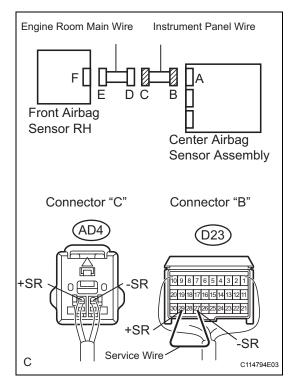
Codes other than DTC B1610/13 and B1615/14 may be output at this time, but they are not related to this check.





USE SIMULATION METHOD TO CHECK

8 CHECK INSTRUMENT PANEL WIRE (OPEN)



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

HINT:

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

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

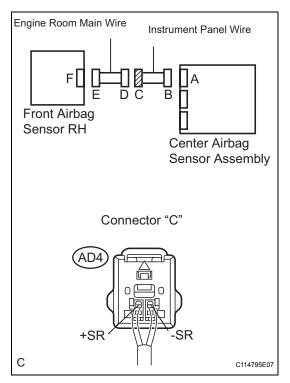
Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|---------------------|
| AD4-2 (+SR) - AD4-1 (-SR) | Always | Below 1 Ω |

NG REPAIR OR REPLACE INSTRUMENT PANEL WIRE

ОК

9 CHECK INSTRUMENT PANEL WIRE (SHORT)



- (a) Disconnect the instrument panel wire connector from the engine room main wire.
- (b) Measure the resistance according to the value(s) in the table below.

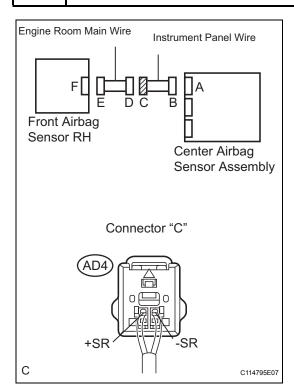
Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|---------------------|
| AD4-2 (+SR) - AD4-1 (-SR) | Always | 1 MΩor higher |

NG REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

10 CHECK INSTRUMENT PANEL WIRE (SHORT TO B+)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the instrument panel wire connector from the engine room main wire.
- (d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (e) Turn the ignition switch on (IG).
- (f) Measure the voltage according to the value(s) in the table below.

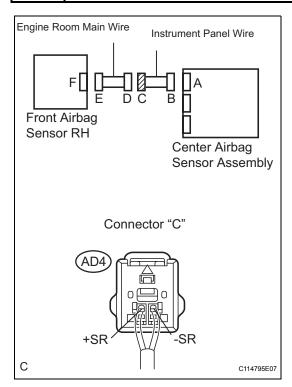
Standard voltage

| Tester connection | Condition | Specified condition |
|------------------------------|-------------------------|---------------------|
| AD4-2 (+SR) - Body ground | Ignition switch on (IG) | Below 1 V |
| AD4-1 (-SR) - Body ground | Ignition switch on (IG) | Below 1 V |





11 CHECK INSTRUMENT PANEL WIRE (SHORT TO GROUND)



- (a) Disconnect the instrument panel wire connector from the engine room main wire.
- (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|------------------------------|-----------|------------------------|
| AD4-2 (+SR) - Body ground | Always | 1 M Ω or higher |
| AD4-1 (-SR) - Body ground | Always | 1 M Ω or higher |



OK

DTC B1615/14 Front Airbag Sensor LH Circuit Malfunction

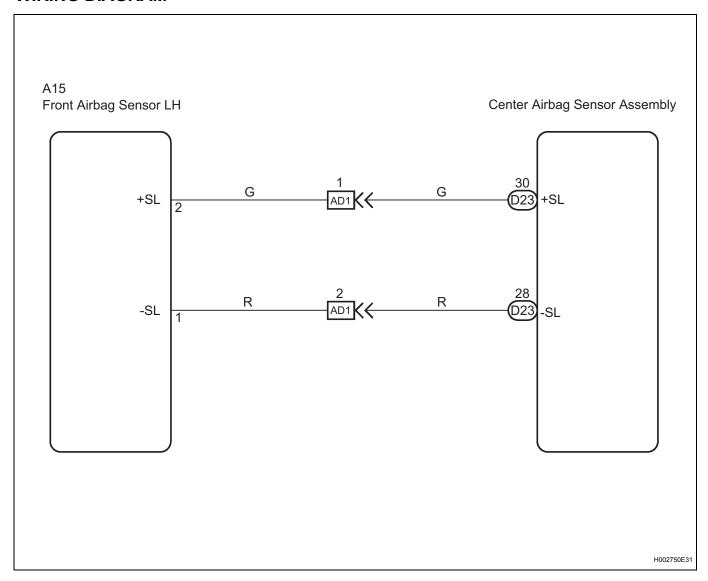
DESCRIPTION

The front airbag sensor LH consists of the diagnostic circuit and the frontal deceleration sensor, etc. If the center airbag sensor assembly 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.

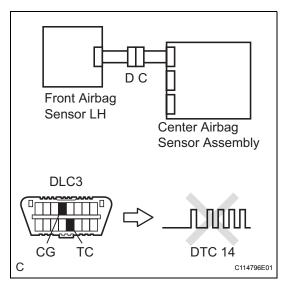
| DTC No. | DTC Detecting Condition | Trouble Area |
|----------|--|--|
| B1615/14 | The center airbag sensor assembly receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the front airbag sensor LH circuit for 2 seconds. Front airbag sensor LH malfunction Center airbag sensor assembly malfunction | Instrument panel wire Engine room main wire Front airbag sensor LH Center airbag sensor assembly |

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK DTC



- (a) Connect the connectors to the center airbag sensor assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (d) Clear the DTCs stored in memory (See page RS-34).
- (e) Turn the ignition switch off.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-34).

OK:

DTC B1615/14 is not output.

HINT:

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

NG

Go to step 2

OK

USE SIMULATION METHOD TO CHECK

2 CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Check that the connectors are properly connected to the center airbag sensor assembly and the front airbag sensor LH.

OK:

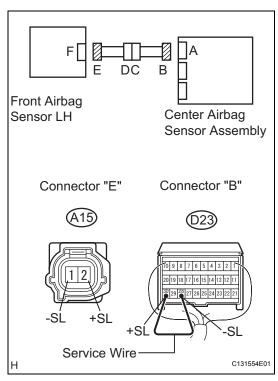
The connectors are properly connected.

NG

CONNECT CONNECTORS, THEN GO TO STEP 1

OK

3 CHECK FRONT AIRBAG SENSOR LH CIRCUIT (OPEN)



- (a) Disconnect the connectors from the airbag sensor assembly center and the airbag sensor front LH.
- (b) Using a service wire, connect D23-30 (+SL) and D23-28 (-SL) of connector "B".

NOTICE:

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

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

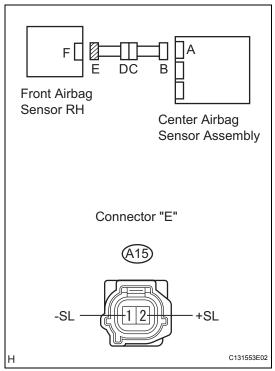
Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|---------------------|
| A15-2 (+SL) - A15-1 (-SL) | Always | Below 1 Ω |

| NG Go to step 8 | |
|-----------------|--|
|-----------------|--|



4 CHECK FRONT AIRBAG SENSOR LH CIRCUIT (SHORT)



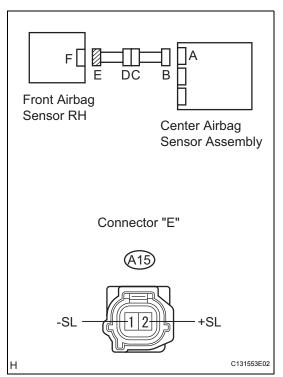
- (a) Disconnect the service wire from connector "B".
- (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|------------------------|
| A15-2 (+SL) - A15-1 (-SL) | Always | 1 M Ω or higher |



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



- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the ignition switch on (IG).
- (c) Measure the voltage according to the value(s) in the table below.

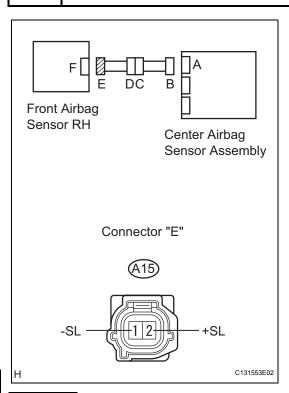
Standard voltage

| Tester connection | Condition | Specified condition |
|---------------------------|-------------------------|---------------------|
| A15-2 (+SL) - Body ground | Ignition switch on (IG) | Below 1 V |
| A15-1 (-SL) - Body ground | Ignition switch on (IG) | Below 1 V |

| NG | Go to step 10 | |
|----|---------------|--|
| | | |



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



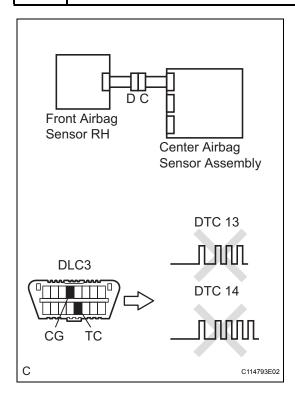
- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|------------------------|
| A15-2 (+SL) - Body ground | Always | 1 M Ω or higher |
| A15-1 (-SL) - Body ground | Always | 1 M Ω or higher |

NG Go to step 11

7 CHECK FRONT AIRBAG SENSOR LH



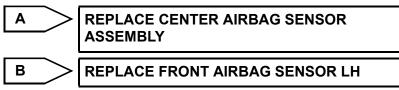
- (a) Connect the connectors to the center airbag sensor assembly.
- (b) Interchange the front airbag sensor RH with LH and connect the connectors to them.
- (c) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (d) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (e) Clear the DTCs stored in memory (See page RS-34).
- (f) Turn the ignition switch off.
- (g) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (h) Check the DTCs (See page RS-34).

Result

| Result | Proceed to |
|---|------------|
| DTC B1615/14 is output. | Α |
| DTC B1610/13 is output. | В |
| DTC B1610/13 and B1615/14 are not output. | С |

HINT:

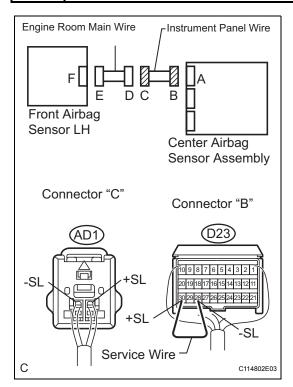
Codes other than DTC B1610/13 and B1615/14 may be output at this time, but they are not related to this check.





USE SIMULATION METHOD TO CHECK

8 CHECK INSTRUMENT PANEL WIRE (OPEN)



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

HINT:

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

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

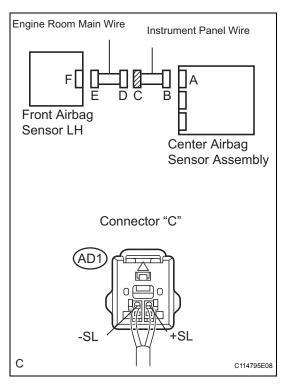
Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|---------------------|
| AD1-1 (+SL) - AD1-2 (-SL) | Always | Below 1 Ω |

NG REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

9 CHECK INSTRUMENT PANEL WIRE (SHORT)



- (a) Disconnect the instrument panel wire connector from the engine room main wire.
- (b) Measure the resistance according to the value(s) in the table below.

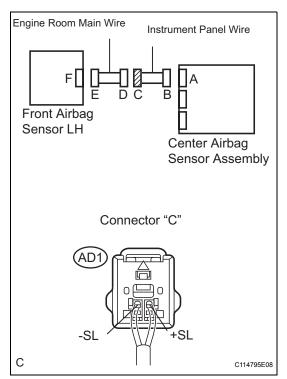
Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|------------------------|
| AD1-1 (+SL) - AD1-2 (-SL) | Always | 1 M Ω or higher |

NG REPAIR OR REPLACE INSTRUMENT PANEL WIRE

ОК

10 CHECK INSTRUMENT PANEL WIRE (SHORT TO B+)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the instrument panel wire connector from the engine room main wire.
- (d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (e) Turn the ignition switch on (IG).
- (f) Measure the voltage according to the value(s) in the table below.

Standard voltage

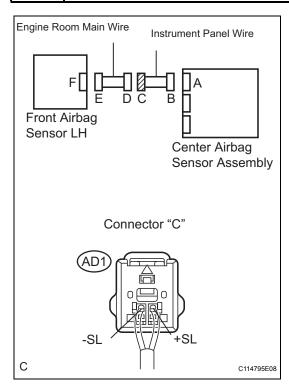
| Tester connection | Condition | Specified condition |
|---------------------------|-------------------------|---------------------|
| AD1-1 (+SL) - Body ground | Ignition switch on (IG) | Below 1 V |
| AD1-2 (-SL) - Body ground | Ignition switch on (IG) | Below 1 V |



REPAIR OR REPLACE INSTRUMENT PANEL WIRE



11 CHECK INSTRUMENT PANEL WIRE (SHORT TO GROUND)



- (a) Disconnect the instrument panel wire connector from the engine room main wire.
- (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|------------------------|
| AD1-1 (+SL) - Body ground | Always | 1 M Ω or higher |
| AD1-2 (-SL) - Body ground | Always | 1 M Ω or higher |

NG REPAIR OR REPLACE INSTRUMENT PANEL WIRE



| DTC | B1620/21 | Driver Side - Side Airbag Sensor Circuit Mal- function |
|-----|----------|---|
|-----|----------|---|

DESCRIPTION

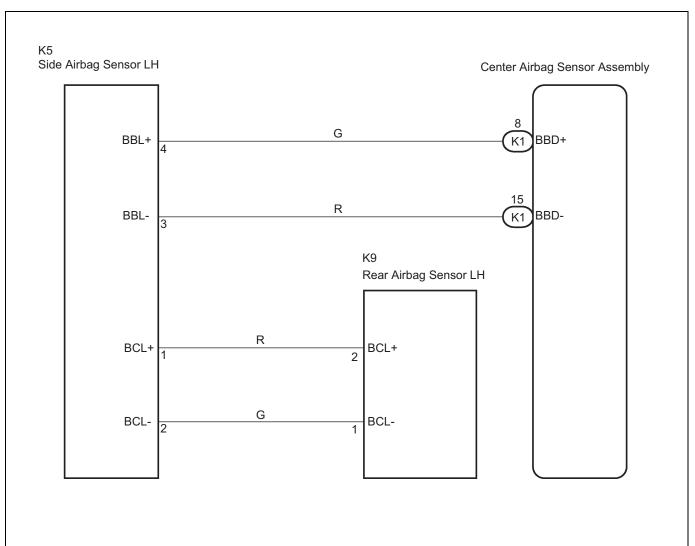
The side airbag sensor LH consists of the safing sensor, the diagnostic circuit, the lateral deceleration sensor, etc.

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

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

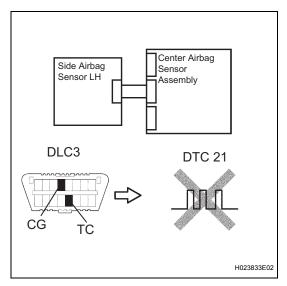
| DTC No. | DTC Detecting Condition | Trouble Area |
|----------|---|--|
| B1620/21 | The center airbag sensor assembly receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the driver side - side airbag sensor circuit for 2 seconds. Side airbag sensor LH malfunction Rear airbag sensor LH malfunction Center airbag sensor assembly malfunction | Floor wire Side airbag sensor LH Rear airbag sensor LH Center airbag sensor assembly |

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK DTC



- (a) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (b) Clear the DTCs stored in memory (See page RS-34).
- (c) Turn the ignition switch off.
- (d) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (e) Check the DTCs (See page RS-34).

OK:

DTC B1620/21 is not output.

HINT:

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



Go to step 2



USE SIMULATION METHOD TO CHECK

2 CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Check that the connectors are properly connected to the center airbag sensor assembly and the side airbag sensor LH.

OK:

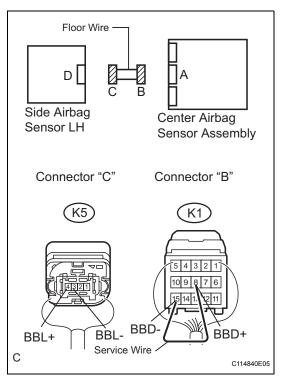
The connectors are connected.

NG)

CONNECT CONNECTORS, THEN GO TO STEP 1

OK/

3 CHECK FLOOR WIRE (OPEN)



- (a) Disconnect the connectors from the center airbag sensor assembly and the side airbag sensor LH.
- (b) Using a service wire, connect K1-8 (BBD+) and K1-15 (BBD-) of connector "B".

NOTICE:

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

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

Standard resistance

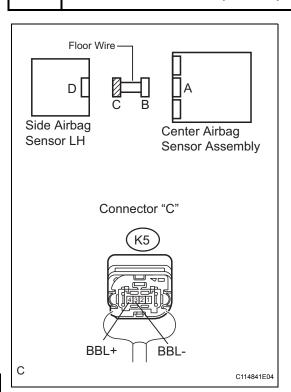
| Tester connection | Condition | Specified condition |
|------------------------------|-----------|---------------------|
| K5-4 (BBL+) - K5-3 (BBL-) | Always | Below 1 Ω |

NG

REPAIR OR REPLACE FLOOR WIRE



4 CHECK FLOOR WIRE (SHORT)



- (a) Disconnect the service wire from connector "B".
- (b) Measure the resistance according to the value(s) in the table below.

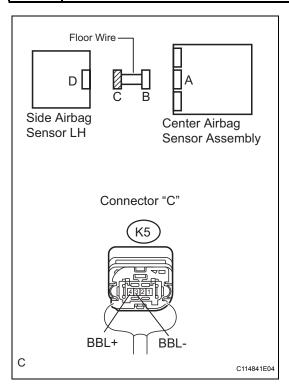
Standard resistance

| Tester connection | Condition | Specified condition |
|------------------------------|-----------|------------------------|
| K5-4 (BBL+) - K5-3 (BBL-) | Always | 1 M Ω or higher |

NG

REPAIR OR REPLACE FLOOR WIRE

5 CHECK FLOOR WIRE (SHORT TO B+)



- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the ignition switch on (IG).
- (c) Measure the voltage according to the value(s) in the table below.

Standard voltage

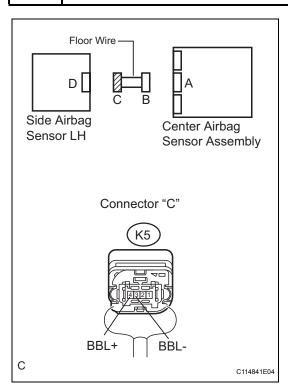
| Tester connection | Condition | Specified condition |
|------------------------------|-------------------------|---------------------|
| K5-4 (BBL+) - Body ground | Ignition switch on (IG) | Below 1 V |
| K5-3 (BBL-) - Body ground | Ignition switch on (IG) | Below 1 V |



REPAIR OR REPLACE FLOOR WIRE



6 CHECK FLOOR WIRE (SHORT TO GROUND)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Measure the resistance according to the value(s) in the table below.

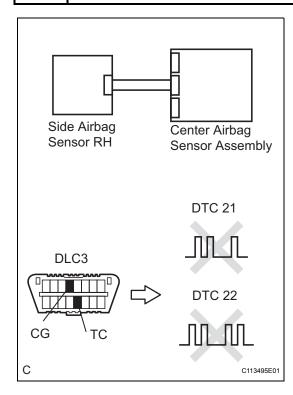
Standard resistance

| Tester connection | Condition | Specified condition |
|------------------------------|-----------|------------------------|
| K5-4 (BBD+) - Body ground | Always | 1 M Ω or higher |
| K5-3 (BBD-) - Body ground | Always | 1 M Ω or higher |

NG

REPAIR OR REPLACE FLOOR WIRE

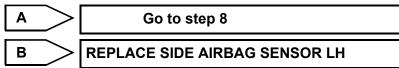
7 CHECK SIDE AIRBAG SENSOR LH



- (a) Connect the connectors to the center airbag sensor assembly.
- (b) Interchange the side airbag sensor RH with LH and connect the connectors to them.
- (c) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (d) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (e) Clear the DTCs stored in memory (See page RS-34).
- (f) Turn the ignition switch off.
- (g) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (h) Check the DTCs (See page RS-34).

Result

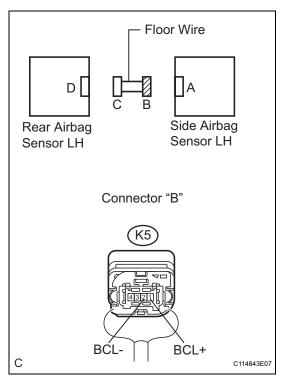
| Result | Proceed to |
|---|------------|
| DTC B1620/21 is output. | Α |
| DTC B1625/22 is output. | В |
| DTC B1620/21 and B1625/22 are not output. | С |





USE SIMULATION METHOD TO CHECK

8 CHECK FLOOR WIRE (SHORT)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Return the side airbag sensor RH and LH to their original positions and connect the connectors to them.
- (d) Disconnect the connectors from the side airbag sensor LH and rear airbag sensor LH.
- (e) Measure the resistance according to the value(s) in the table below.

Standard resistance

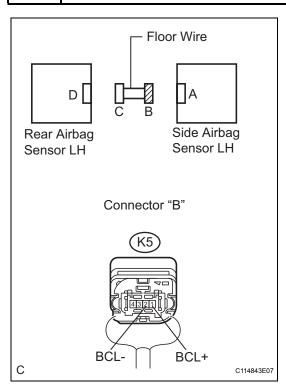
| Tester connection | Condition | Specified condition |
|------------------------------|-----------|------------------------|
| K5-1 (BCL+) - K5-2 (BCL-) | Always | 1 M Ω or higher |

NG

REPAIR OR REPLACE FLOOR WIRE



9 CHECK FLOOR WIRE (SHORT TO B+)



- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the ignition switch on (IG).
- (c) Measure the voltage according to the value(s) in the table below.

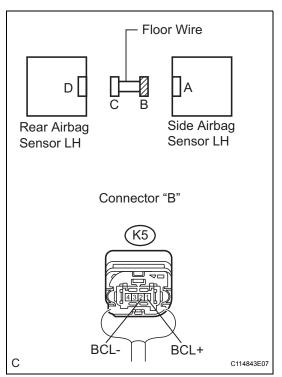
Standard voltage

| Tester connection | Condition | Specified condition |
|------------------------------|-------------------------|---------------------|
| K5-1 (BCL+) - Body ground | Ignition switch on (IG) | Below 1 V |
| K5-2 (BCL-) - Body ground | Ignition switch on (IG) | Below 1 V |

NG

REPAIR OR REPLACE FLOOR WIRE

10 CHECK FLOOR WIRE (SHORT TO GROUND)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Measure the resistance according to the value(s) in the table below.

Standard resistance

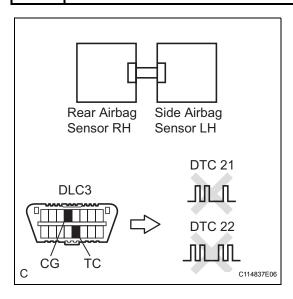
| Tester connection | Condition | Specified condition |
|------------------------------|-----------|------------------------|
| K5-1 (BCL+) - Body ground | Always | 1 M Ω or higher |
| K5-2 (BCL-) - Body ground | Always | 1 M Ω or higher |



REPAIR OR REPLACE FLOOR WIRE



11 CHECK REAR AIRBAG SENSOR LH



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Connect the connector to the side airbag sensor LH.
- (d) Interchange the rear airbag sensor LH with RH and connect the connectors to them.
- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Clear the DTCs stored in memory (See page RS-34).
- (h) Turn the ignition switch off.
- (i) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (j) Check the DTCs (See page RS-34).

Result

| Result | Proceed to |
|---|------------|
| DTC B1620/21 is output. | Α |
| DTC B1625/22 is output. | В |
| DTC B1620/21 and B1625/22 are not output. | С |

HINT:

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



A REPLACE CENTER AIRBAG SENSOR ASSEMBLY

B REPLACE REAR AIRBAG SENSOR LH

ပ

USE SIMULATION METHOD TO CHECK

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

DESCRIPTION

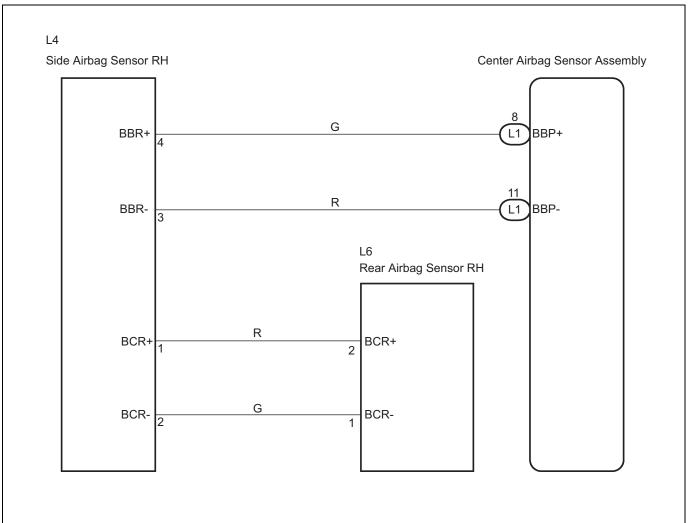
The side airbag sensor RH consists of the safing sensor, the diagnostic circuit, the lateral deceleration sensor, etc.

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

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

| DTC No. | DTC Detecting Condition | Trouble Area |
|----------|---|--|
| B1625/22 | The center airbag sensor assembly receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the front passenger side - side airbag sensor circuit for 2 seconds. Side airbag sensor RH malfunction Rear airbag sensor RH malfunction Center airbag sensor assembly malfunction | Floor wire No.2 Side airbag sensor RH Rear airbag sensor RH Center airbag sensor assembly |

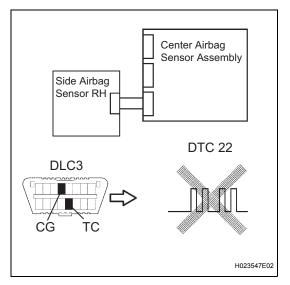
WIRING DIAGRAM



С

INSPECTION PROCEDURE

1 CHECK DTC



- (a) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (b) Clear the DTCs stored in memory (See page RS-34).
- (c) Turn the ignition switch off.
- (d) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (e) Check the DTCs (See page RS-34).

OK:

DTC B1625/22 is not output.

HINT:

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



Go to step 2



USE SIMULATION METHOD TO CHECK

2 CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Check that the connectors are properly connected to the center airbag sensor assembly and the side airbag sensor RH.

OK:

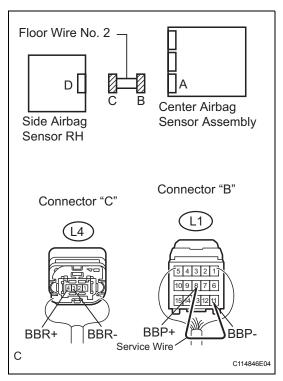
The connectors are connected.

NG

CONNECT CONNECTORS, THEN GO TO STEP 1

OK

3 CHECK FLOOR WIRE NO. 2 (OPEN)



- (a) Disconnect the connectors from the center airbag sensor assembly and the side airbag sensor RH.
- (b) Using a service wire, connect L1-8 (BBP+) and L1-11 (BBP-) of connector "B".

NOTICE:

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

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

Standard resistance

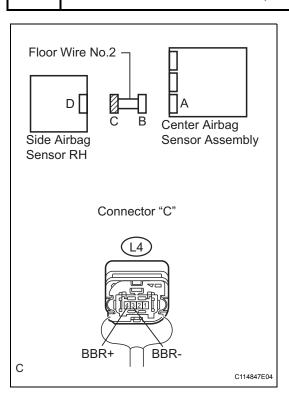
| Tester connection | Condition | Specified condition |
|------------------------------|-----------|---------------------|
| L4-4 (BBR+) - L4-3 (BBR-) | Always | Below 1 Ω |

NG)

REPAIR OR REPLACE FLOOR WIRE NO. 2



4 CHECK FLOOR WIRE NO. 2 (SHORT)



- (a) Disconnect the service wire from connector "B".
- (b) Measure the resistance according to the value(s) in the table below.

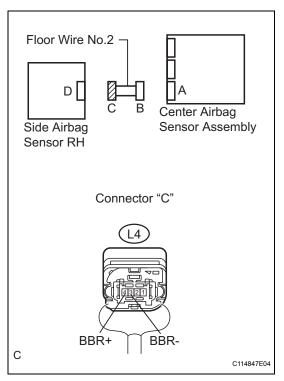
Standard resistance

| Tester connection | Condition | Specified condition |
|------------------------------|-----------|------------------------|
| L4-4 (BBR+) - L4-3 (BBR-) | Always | 1 M Ω or higher |

NG

REPAIR OR REPLACE FLOOR WIRE NO. 2

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



- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the ignition switch on (IG).
- (c) Measure the voltage according to the value(s) in the table below.

Standard voltage

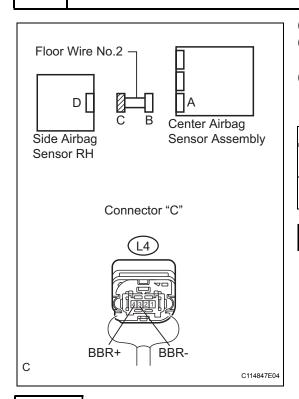
| Tester connection | Condition | Specified condition |
|------------------------------|-------------------------|---------------------|
| L4-4 (BBR+) - Body ground | Ignition switch on (IG) | Below 1 V |
| L4-3 (BBR-) - Body ground | Ignition switch on (IG) | Below 1 V |



REPAIR OR REPLACE FLOOR WIRE NO. 2



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



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Measure the resistance according to the value(s) in the table below.

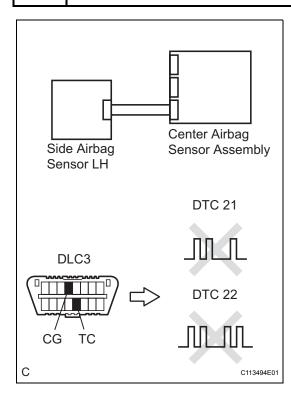
Standard resistance

| Tester connection | Condition | Specified condition |
|------------------------------|-----------|------------------------|
| L4-4 (BBR+) - Body ground | Always | 1 M Ω or higher |
| L4-3 (BBR-) - Body ground | Always | 1 M Ω or higher |

NG)

REPAIR OR REPLACE FLOOR WIRE NO. 2

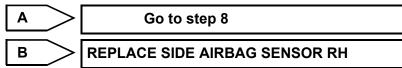
7 CHECK SIDE AIRBAG SENSOR RH



- (a) Connect the connectors to the center airbag sensor assembly.
- (b) Interchange the side airbag sensor RH with LH and connect the connectors to them.
- (c) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (d) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (e) Clear the DTCs stored in memory (See page RS-34).
- (f) Turn the ignition switch off.
- (g) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (h) Check the DTCs (See page RS-34).

Result

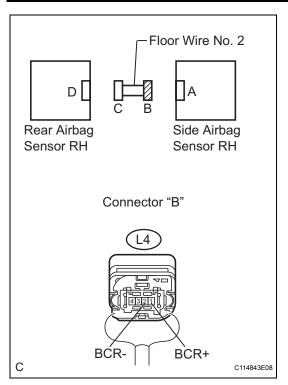
| Result | Proceed to |
|---|------------|
| DTC B1625/22 is output. | Α |
| DTC B1620/21 is output. | В |
| DTC B1620/21 and B1625/22 are not output. | С |





USE SIMULATION METHOD TO CHECK

8 CHECK FLOOR WIRE NO. 2 (SHORT)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Return the side airbag sensor LH and RH to their original positions and connect the connectors to them.
- (d) Disconnect the connectors from the side airbag sensor RH and rear airbag sensor RH.
- (e) Measure the resistance according to the value(s) in the table below.

Standard resistance

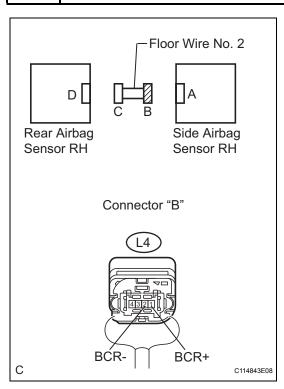
| Tester connection | Condition | Specified condition |
|------------------------------|-----------|------------------------|
| L4-1 (BCR+) - L4-2 (BCR-) | Always | 1 M Ω or higher |

NG

REPAIR OR REPLACE FLOOR WIRE NO. 2



9 CHECK FLOOR WIRE NO. 2 (SHORT TO B+)



- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the ignition switch on (IG).
- (c) Measure the voltage according to the value(s) in the table below.

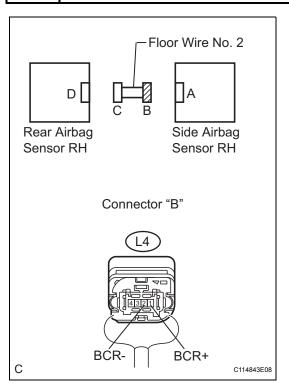
Standard voltage

| Tester connection | Condition | Specified condition |
|------------------------------|-------------------------|---------------------|
| L4-1 (BCR+) - Body ground | Ignition switch on (IG) | Below 1 V |
| L4-2 (BCR-) - Body ground | Ignition switch on (IG) | Below 1 V |

NG)

REPAIR OR REPLACE FLOOR WIRE NO. 2

10 CHECK FLOOR WIRE NO. 2 (SHORT TO GROUND)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Measure the resistance according to the value(s) in the table below.

Standard resistance

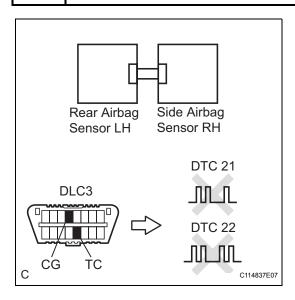
| Tester connection | Condition | Specified condition |
|------------------------------|-----------|------------------------|
| L4-1 (BCR+) - Body ground | Always | 1 M Ω or higher |
| L4-2 (BCR-) - Body ground | Always | 1 M Ω or higher |



REPAIR OR REPLACE FLOOR WIRE NO. 2



11 CHECK REAR AIRBAG SENSOR RH



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Connect the connector to the side airbag sensor RH.
- (d) Interchange the rear airbag sensor RH with LH and connect the connectors to them.
- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Clear the DTCs stored in memory (See page RS-34).
- (h) Turn the ignition switch off.
- (i) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (j) Check the DTCs (See page RS-34).

Result

| Result | Proceed to |
|---|------------|
| DTC B1625/22 is output. | Α |
| DTC B1620/21 is output. | В |
| DTC B1620/21 and B1625/22 are not output. | С |

HINT:

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

A REPLACE CENTER AIRBAG SENSOR ASSEMBLY

B REPLACE REAR AIRBAG SENSOR RH

C _

USE SIMULATION METHOD TO CHECK

| DTC | B1630/23 | Driver Side Rear Airbag Sensor Circuit Mal- function |
|-----|----------|---|
|-----|----------|---|

DESCRIPTION

The rear airbag sensor LH consists of the safing sensor, the diagnostic circuit, the lateral deceleration sensor, etc.

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

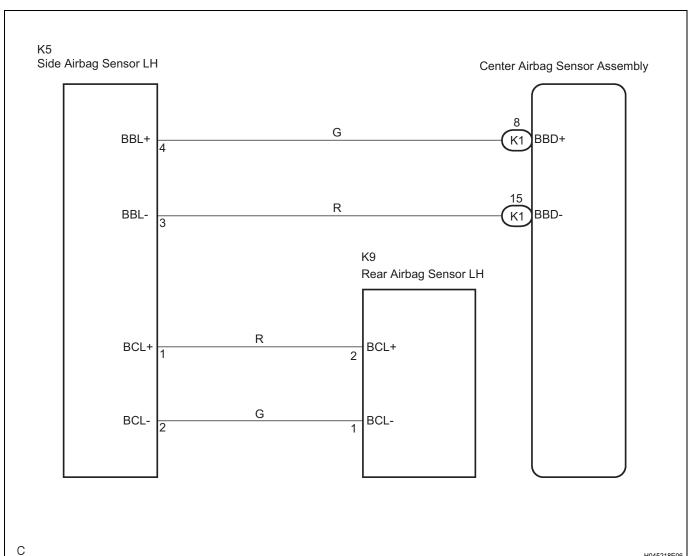
DTC B1630/23 is recorded when a malfunction is detected in the driver side rear airbag sensor circuit.

| DTC No. | DTC Detecting Condition | Trouble Area |
|----------|--|--|
| B1630/23 | The center airbag sensor assembly receives an open circuit signal in the driver side rear airbag sensor circuit for 2 seconds. Rear airbag sensor LH malfunction Side airbag sensor LH malfunction Center airbag sensor assembly malfunction | Floor wire Rear airbag sensor LH Side airbag sensor LH Center airbag sensor assembly |

HINT:

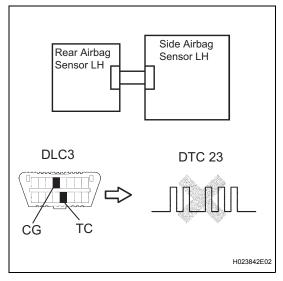
Troubleshoot DTC B1620/21 first when the DTC B1620/21 and B1630/23 are output simultaneously.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK DTC



- (a) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (b) Clear the DTCs stored in memory (See page RS-34).
- (c) Turn the ignition switch off.
- (d) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (e) Check the DTCs (See page RS-34).

OK:

DTC B1630/23 is not output.

NG)

Go to step 2



USE SIMULATION METHOD TO CHECK

2 CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Check that the connectors are properly connected to the side airbag sensor LH and the rear airbag sensor LH. OK:

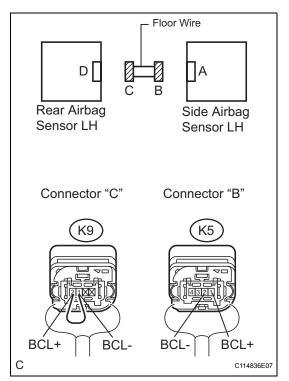
The connectors are connected.

NG

CONNECT CONNECTORS, THEN GO TO STEP 1

ОК

3 CHECK FLOOR WIRE (OPEN)



- (a) Disconnect the connectors from the side airbag sensor LH and the rear airbag sensor LH.
- (b) Using a service wire, connect K5-1 (BCL+) and K5-2 (BCL-) of connector "B".

NOTICE:

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

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

Standard resistance

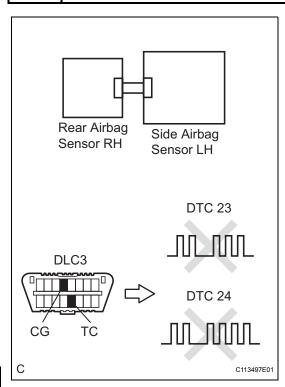
| Tester connection | Condition | Specified condition |
|------------------------------|-----------|---------------------|
| K9-2 (BCL+) - K9-1 (BCL-) | Always | Below 1 Ω |

NG

REPAIR OR REPLACE FLOOR WIRE



4 CHECK REAR AIRBAG SENSOR LH



- (a) Disconnect the service wire from connector "B".
- (b) Connect the connectors to the side airbag sensor LH.
- (c) Interchange the rear airbag sensor LH with RH and connect the connectors to them.
- (d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (e) Turn the ignition switch on (IG), and wait for at least 60 seconds
- (f) Clear the DTCs stored in memory (See page RS-34).
- (g) Turn the ignition switch off.
- (h) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (i) Check the DTCs (See page RS-34).

Result

| Result | Proceed to |
|---|------------|
| DTC B1630/23 is output. | Α |
| DTC B1635/24 is output. | В |
| DTC B1630/23 and B1635/24 are not output. | С |

HINT:

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

A Go to step 5

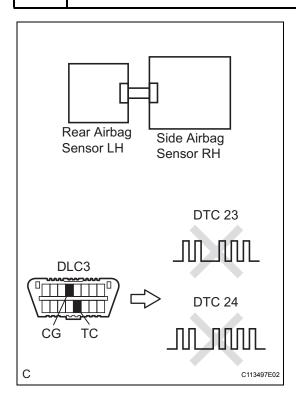
в >

REPLACE REAR AIRBAG SENSOR LH



USE SIMULATION METHOD TO CHECK

5 CHECK SIDE AIRBAG SENSOR LH



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Return the rear airbag sensor RH and LH to their original positions and connect the connectors to them.
- (d) Interchange the side airbag sensor LH with RH and connect the connectors to them.
- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Clear the DTCs stored in memory (See page RS-34).
- (h) Turn the ignition switch off.
- (i) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (j) Check the DTCs (See page RS-34).Result

| Result | Proceed to |
|---|------------|
| DTC B1630/23 is output. | Α |
| DTC B1635/24 is output. | В |
| DTC B1630/23 and B1635/24 are not output. | С |

HINT:

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





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, the lateral deceleration sensor, etc.

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

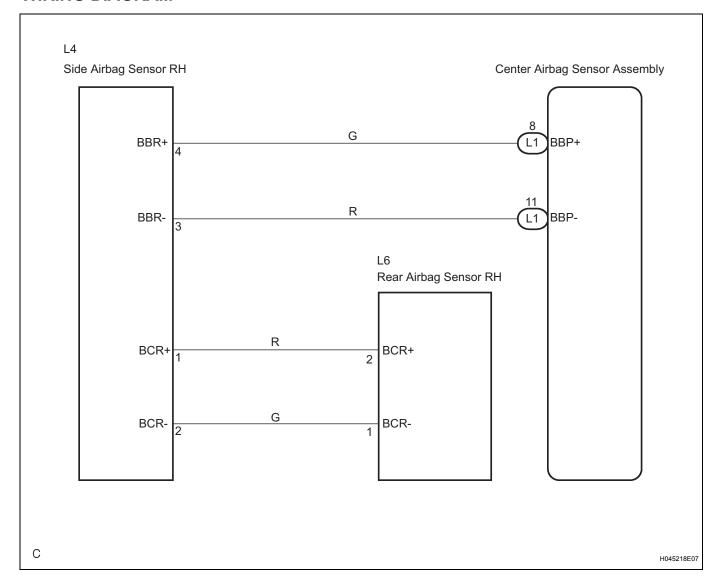
DTC B1635/24 is recorded when a malfunction is detected in the front passenger side rear airbag sensor circuit.

| DTC No. | DTC Detecting Condition | Trouble Area |
|----------|--|--|
| B1635/24 | The center airbag sensor assembly receives an open circuit signal in the front passenger side rear airbag sensor circuit for 2 seconds. Rear airbag sensor RH malfunction Side airbag sensor RH malfunction Center airbag sensor assembly malfunction | Floor wire No.2 Rear airbag sensor RH Side airbag sensor RH Center airbag sensor assembly |

HINT:

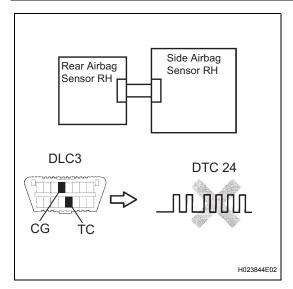
Troubleshoot DTC B1625/22 first when the DTC B1625/22 and B1635/24 are output simultaneously.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK DTC



- (a) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (b) Clear the DTCs stored in memory (See page RS-34).
- (c) Turn the ignition switch off.
- (d) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (e) Check the DTCs (See page RS-34).

OK:

DTC B1635/24 is not output.

NG

Go to step 2

ОК

USE SIMULATION METHOD TO CHECK

2 CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Check that the connectors are properly connected to the side airbag sensor RH and the rear airbag sensor RH. **OK:**

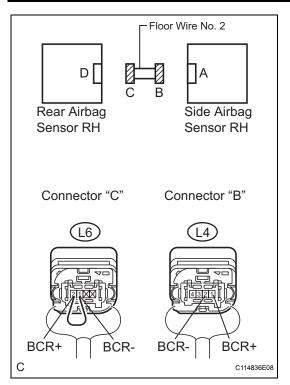
The connectors are connected.

NG C

CONNECT CONNECTORS, THEN GO TO STEP 1

ok

3 CHECK FLOOR WIRE NO. 2 (OPEN)



- (a) Disconnect the connectors from the side airbag sensor RH and the rear airbag sensor RH.
- (b) Using a service wire, connect L4-1 (BCR+) and L4-2 (BCR-) of connector "B".

NOTICE:

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

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

Standard resistance

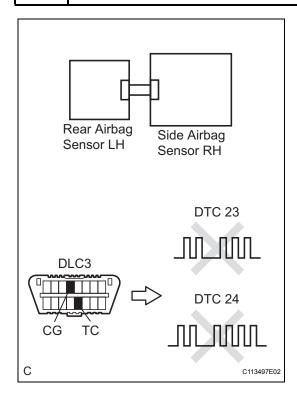
| Tester connection | Condition | Specified condition |
|------------------------------|-----------|---------------------|
| L6-2 (BCR+) - L6-1 (BCR-) | Always | Below 1 Ω |

NG

REPAIR OR REPLACE FLOOR WIRE NO. 2



4 CHECK REAR AIRBAG SENSOR RH



- (a) Connect the connectors to the side airbag sensor RH.
- (b) Interchange the rear airbag sensor LH with RH and connect the connectors to them.
- (c) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (d) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (e) Clear the DTCs stored in memory (See page RS-34).
- (f) Turn the ignition switch off.
- (g) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (h) Check the DTCs (See page RS-34).

Result

| Result | Proceed to |
|---|------------|
| DTC B1635/24 is output. | Α |
| DTC B1630/23 is output. | В |
| DTC B1630/23 and B1635/24 are not output. | С |

HINT:

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



Go to step 5

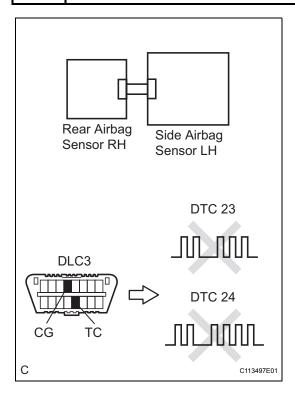
В

REPLACE REAR AIRBAG SENSOR RH



USE SIMULATION METHOD TO CHECK

CHECK SIDE AIRBAG SENSOR RH



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Return the rear airbag sensor LH and RH to their original positions and connect the connectors to them.
- (d) Interchange the side airbag sensor RH with LH and connect the connectors to them.
- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Clear the DTCs stored in memory (See page RS-34).
- (h) Turn the ignition switch off.
- Turn the ignition switch on (IG), and wait for at least 60 seconds.
- Check the DTCs (See page RS-34).

Result

| Result | Proceed to |
|---|------------|
| DTC B1635/24 is output. | Α |
| DTC B1630/23 is output. | В |
| DTC B1630/23 and B1635/24 are not output. | С |

HINT:

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

REPLACE CENTER AIRBAG SENSOR **ASSEMBLY**

В

REPLACE SIDE AIRBAG SENSOR RH



USE SIMULATION METHOD TO CHECK

| DTC B | 31653/35 | Seat Position Airbag Sensor Circuit Malfunction |
|-------|----------|---|
|-------|----------|---|

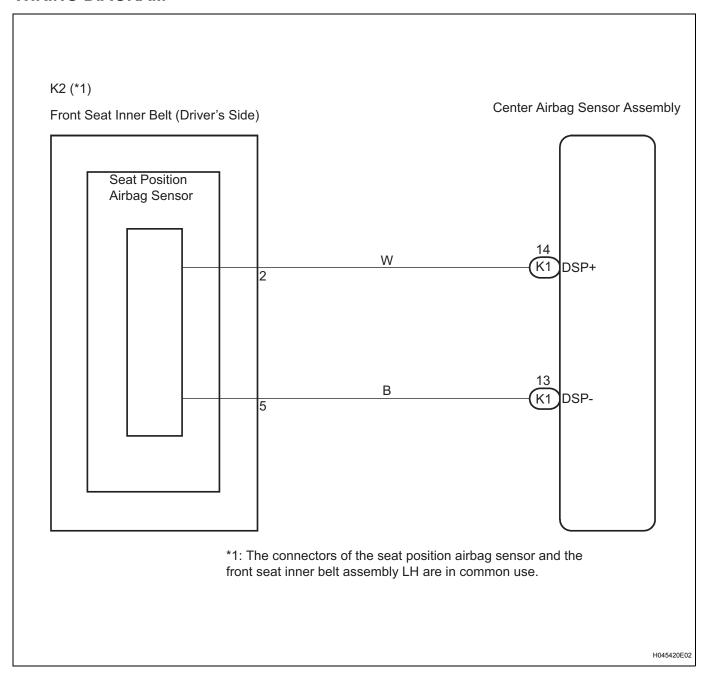
DESCRIPTION

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

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

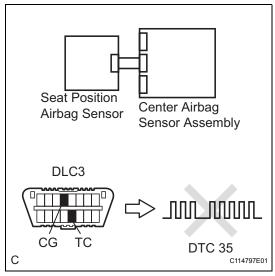
| DTC No. | No. DTC Detecting Condition Trouble Area | |
|----------|--|--|
| B1653/35 | The center airbag sensor assembly receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the seat position airbag sensor circuit for 2 seconds. Seat position airbag sensor malfunction Center airbag sensor assembly malfunction | Floor wire Seat position airbag sensor Center airbag sensor assembly |

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK DTC



- (a) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (b) Clear the DTCs stored in memory (See page RS-34).
- (c) Turn the ignition switch off.
- (d) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (e) Check the DTCs (See page RS-34).

OK:

DTC B1653/35 is not output.

HINT:

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

NG

Go to step 2



2

USE SIMULATION METHOD TO CHECK

CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Check that the connectors are properly connected to the center airbag sensor assembly and the seat position airbag sensor.

OK:

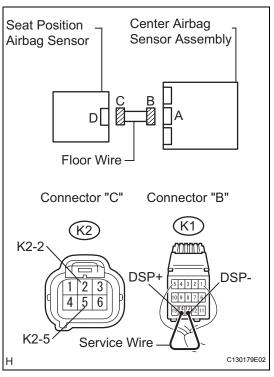
The connectors are properly connected.



CONNECT CONNECTORS, THEN GO TO STEP 1

OK

3 CHECK FLOOR WIRE (OPEN)



- (a) Disconnect the connectors from the center airbag sensor assembly and the seat position airbag sensor.
- (b) Using a service wire, connect K1-14 (DSP+) and K1-13 (DSP-) of connector "B".

NOTICE:

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

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

Standard resistance

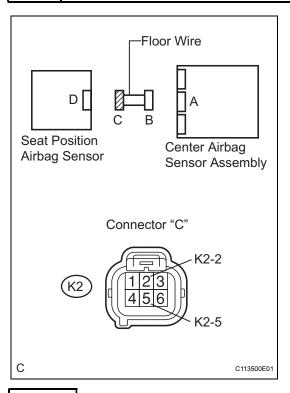
| Tester connection | Condition | Specified condition |
|-------------------|-----------|---------------------|
| K2-2 - K2-5 | Always | Below 1 Ω |

NG

REPAIR OR REPLACE FLOOR WIRE



4 CHECK FLOOR WIRE (SHORT)



- (a) Disconnect the service wire from connector "B".
- (b) Measure the resistance according to the value(s) in the table below.

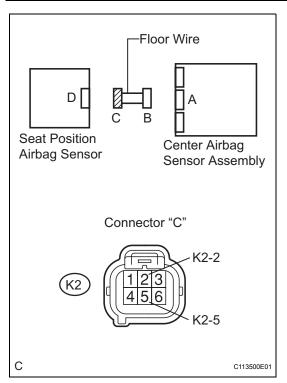
Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------|-----------|------------------------|
| K2-2 - K2-5 | Always | 1 M Ω or higher |

NG >

REPAIR OR REPLACE FLOOR WIRE

5 CHECK FLOOR WIRE (SHORT TO B+)



- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the ignition switch on (IG).
- (c) Measure the voltage according to the value(s) in the table below.

Standard voltage

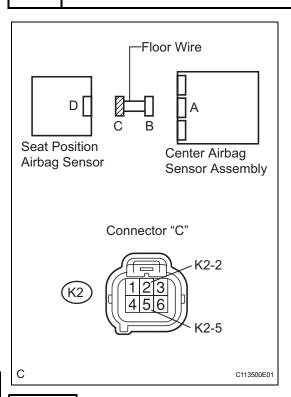
| Tester connection | Condition | Specified condition |
|--------------------|-------------------------|---------------------|
| K2-2 - Body ground | Ignition switch on (IG) | Below 1 V |
| K2-5 - Body ground | Ignition switch on (IG) | Below 1 V |

NG]

REPAIR OR REPLACE FLOOR WIRE



6 CHECK FLOOR WIRE (SHORT TO GROUND)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Measure the resistance according to the value(s) in the table below.

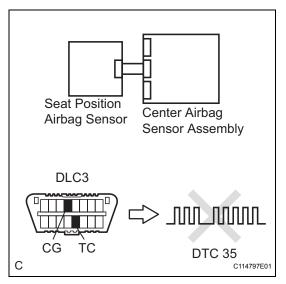
Standard resistance

| Tester connection | Condition | Specified condition |
|--------------------|-----------|------------------------|
| K2-2 - Body ground | Always | 1 M Ω or higher |
| K2-5 - Body ground | Always | 1 M Ω or higher |

NG)

REPAIR OR REPLACE FLOOR WIRE

7 CHECK SEAT POSITION AIRBAG SENSOR



- (a) Connect the connectors to the center airbag sensor assembly and the seat position airbag sensor.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds
- (d) Clear the DTCs stored in memory (See page RS-34).
- (e) Turn the ignition switch off.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-34).

OK:

DTC B1653/35 is not output.

HINT:

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



Go to step 8



USE SIMULATION METHOD TO CHECK

8 REPLACE SEAT POSITION AIRBAG SENSOR

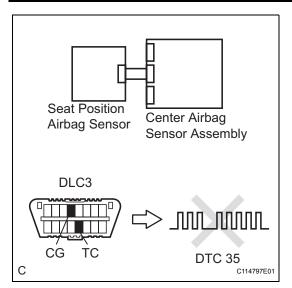
- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Replace the seat position airbag sensor (See page RS-367).

HINT:

Perform inspection using parts from a normal vehicle if possible.



9 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (c) Clear the DTCs stored in memory (See page RS-34).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (f) Check the DTCs (See page RS-34).

OK:

DTC B1653/35 is not output.

HINT:

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



REPLACE CENTER AIRBAG SENSOR ASSEMBLY



END

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

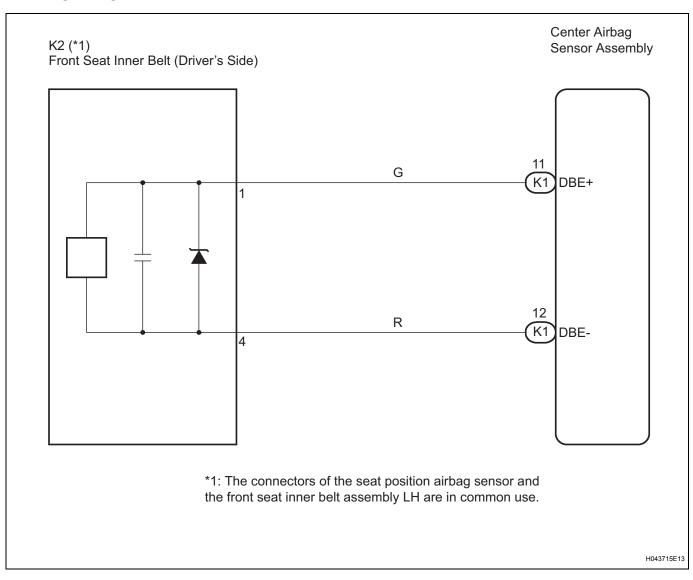
DESCRIPTION

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

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

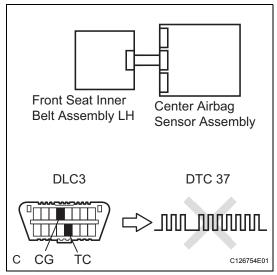
| DTC No. | DTC Detection Condition | Trouble Area |
|----------|---|--|
| B1655/37 | The center airbag sensor assembly receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the driver side seat belt buckle switch circuit for 2 seconds. Front seat inner belt assembly LH malfunction Center airbag sensor assembly malfunction | Floor wire Front seat inner belt assembly LH (Driver side seat belt buckle switch) Center airbag sensor assembly |

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK DTC



- (a) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (b) Clear the DTCs stored in memory (See page RS-34).
- (c) Turn the ignition switch off.
- (d) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (e) Check the DTCs (See page RS-34).

OK:

DTC B1655/37 is not output.

HINT:

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

NG

Go to step 2



USE SIMULATION METHOD TO CHECK

2 CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Check that the connectors are properly connected to the center airbag sensor assembly and the front seat inner belt assembly LH.

OK:

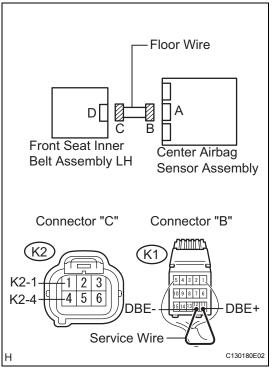
The connectors are properly connected.



CONNECT CONNECTORS, THEN GO TO STEP 1

ok_

3 CHECK FLOOR WIRE (OPEN)



- (a) Disconnect the connectors from the center airbag sensor assembly and the front seat inner belt assembly LH.
- (b) Using a service wire, connect K1-11 (DBE+) and K1-12 (DBE-) of connector "B".

NOTICE:

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

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

Standard resistance

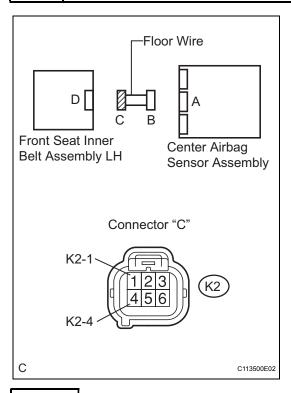
| Tester connection | Condition | Specified condition |
|-------------------|-----------|---------------------|
| K2-1 - K2-4 | Always | Below 1 Ω |

NG

REPAIR OR REPLACE FLOOR WIRE



4 CHECK FLOOR WIRE (SHORT)



- (a) Disconnect the service wire from connector "B".
- (b) Measure the resistance according to the value(s) in the table below.

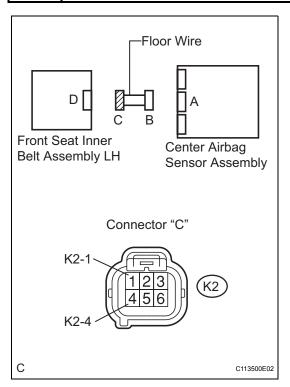
Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------|-----------|------------------------|
| K2-1 - K2-4 | Always | 1 M Ω or higher |

NG >

REPAIR OR REPLACE FLOOR WIRE

5 CHECK FLOOR WIRE (SHORT TO B+)



- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the ignition switch on (IG).
- (c) Measure the voltage according to the value(s) in the table below.

Standard voltage

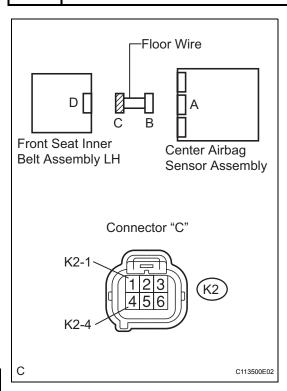
| Tester connection | Condition | Specified condition |
|--------------------|-------------------------|---------------------|
| K2-1 - Body ground | Ignition switch on (IG) | Below 1 V |
| K2-4 - Body ground | Ignition switch on (IG) | Below 1 V |

NG

REPAIR OR REPLACE FLOOR WIRE



6 CHECK FLOOR WIRE (SHORT TO GROUND)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Measure the resistance according to the value(s) in the table below.

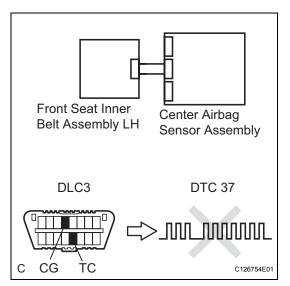
Standard resistance

| Tester connection | Condition | Specified condition |
|--------------------|-----------|------------------------|
| K2-1 - Body ground | Always | 1 M Ω or higher |
| K2-4 - Body ground | Always | 1 M Ω or higher |

NG)

REPAIR OR REPLACE FLOOR WIRE

7 CHECK FRONT SEAT INNER BELT ASSEMBLY LH



- (a) Connect the connectors to the center airbag sensor assembly and the front seat inner belt assembly LH.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (d) Clear the DTCs stored in memory (See page RS-34).
- (e) Turn the ignition switch off.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-34).

OK:

DTC B1655/37 is not output.

HINT:

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



Go to step 8



USE SIMULATION METHOD TO CHECK

8 REPLACE FRONT SEAT INNER BELT ASSEMBLY LH

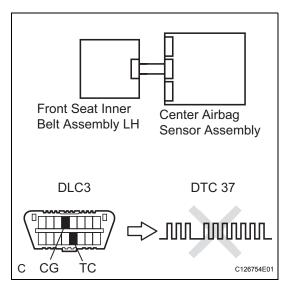
- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Replace the front seat inner belt assembly LH (See page SB-7).

HINT:

Perform inspection using parts from a normal vehicle if possible.



9 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (c) Clear the DTCs stored in memory (See page RS-34).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (f) Check the DTCs (See page RS-34).

OK:

DTC B1655/37 is not output.

HINT:

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



REPLACE CENTER AIRBAG SENSOR ASSEMBLY



END

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

DESCRIPTION

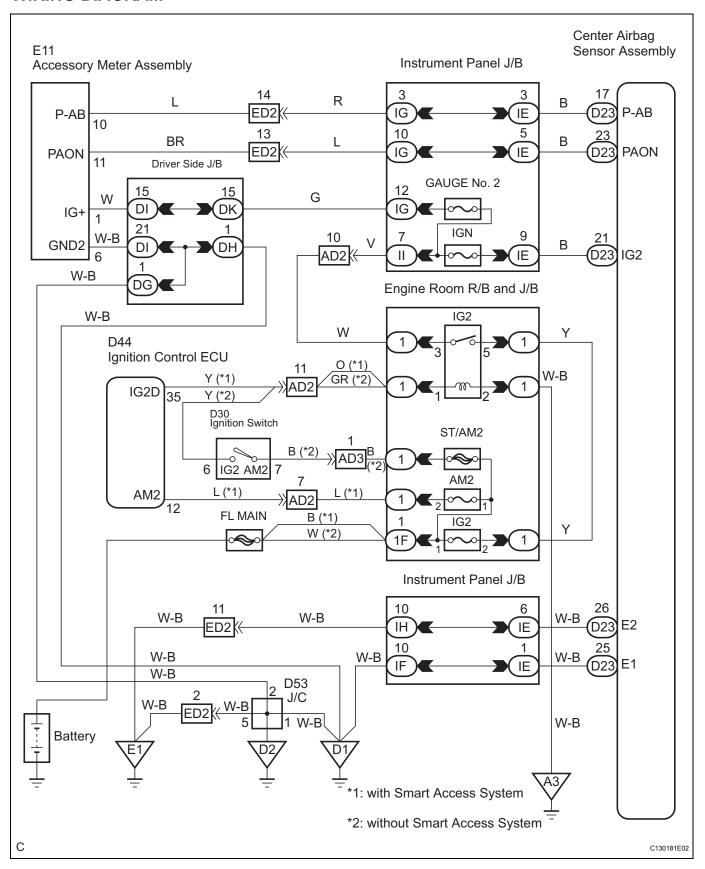
The passenger airbag ON/OFF indicator circuit consists of the center airbag sensor assembly and the accessory meter assembly.

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

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

| DTC No. | DTC Detecting Condition | Trouble Area |
|----------|---|---|
| B1660/43 | The center airbag sensor assembly receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the passenger airbag ON/OFF indicator circuit for 2 seconds. Accessory meter assembly malfunction Center airbag sensor assembly malfunction | Instrument panel wire Instrument panel wire No. 2 Accessory meter assembly Center airbag sensor assembly |

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK PASSENGER AIRBAG ON / OFF INDICATOR OPERATION

- (a) Turn the ignition switch on (IG).
- (b) Check the passenger airbag ON/OFF indicator operation.

HINT:

Refer to the normal condition of the passenger airbag ON/OFF indicator (See page RS-212).

Result:

A:

The passenger airbag ON/OFF indicator always comes on.

B:

The passenger airbag ON/OFF indicator does not come on.

В

Go to step 13



2 CHECK CONNECTION OF CONNECTOR

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Check that the connector is properly connected to the center airbag sensor assembly.

OK:

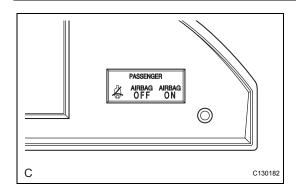
The connector is connected.

NG)

CONNECT CONNECTOR, THEN CHECK DTC



3 CHECK ACCESSORY METER ASSEMBLY (PASSENGER AIRBAG ON / OFF INDICATOR)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connector from the accessory meter assembly.
- (d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (e) Turn the ignition switch on (IG).
- (f) Check the passenger airbag ON/OFF indicator operation.

OK:

The passenger airbag ON/OFF indicator ("ON" and "OFF") do not come on.

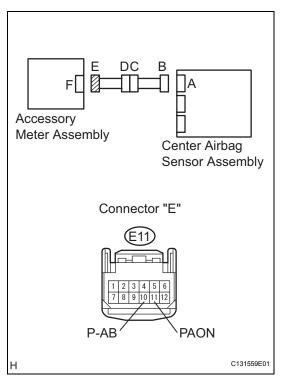
NG Go to step 4



OK

REPLACE CENTER AIRBAG SENSOR ASSEMBLY

4 CHECK PASSENGER AIRBAG ON / OFF INDICATOR CIRCUIT (SHORT TO GROUND)



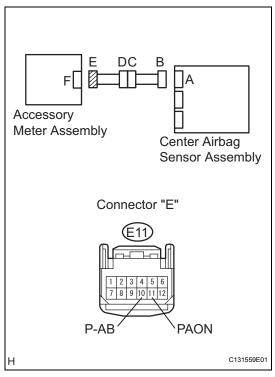
- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable form the battery, and wait for at least 90 seconds.
- (c) Disconnect the connectors from the center airbag sensor assembly.
- (d) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Terminal connection | Condition | Specified condition |
|--------------------------------|-----------|------------------------|
| E11-11 (PAON) - Body ground | Always | 1 M Ω or higher |
| E11-10 (P-AB) - Body ground | Always | 1 M Ω or higher |



5 CHECK PASSENGER AIRBAG ON / OFF INDICATOR CIRCUIT (SHORT)



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

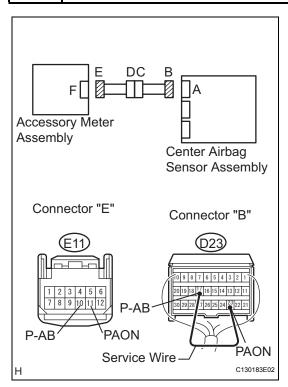
Standard resistance

| Terminal connection | Condition | Specified condition |
|--------------------------------|-----------|------------------------|
| E11-11 (PAON) - Body ground | Always | 1 M Ω or higher |
| E11-10 (P-AB) - Body ground | Always | 1 M Ω or higher |

| NG Go to step 10 | Go to step 10 |
|------------------|---------------|
|------------------|---------------|



6 CHECK PASSENGER AIRBAG ON / OFF INDICATOR CIRCUIT (OPEN)



(a) Using a service wire, connect D23-23 (PAON) and D23-17 (P-AB) of connector "B".

NOTICE:

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

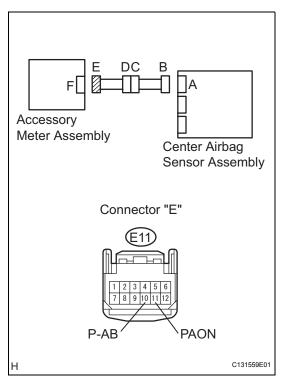
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|----------------------------------|-----------|---------------------|
| E11-11 (PAON) - E11-10 (P-AB) | Always | Below 1 Ω |



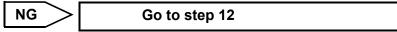
7 CHECK PASSENGER AIRBAG ON / OFF INDICATOR CIRCUIT (SHORT TO B+)



- (a) Disconnect the service wire from connector "B".
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG).
- (d) Measure the voltage according to the value(s) in the table below.

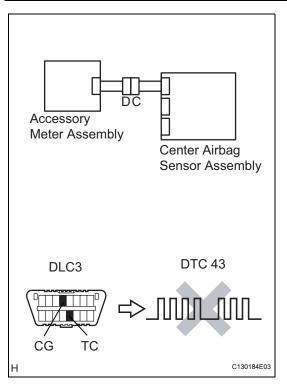
Standard voltage

| Tester connection | Condition | Specified condition |
|--------------------------------|-------------------------|---------------------|
| E11-11 (PAON) - Body ground | Ignition switch on (IG) | Below 1 V |
| E11-10 (P-AB) - Body ground | Ignition switch on (IG) | Below 1 V |





8 CHECK ACCESSORY METER ASSEMBLY



- (a) Connect the connectors to the center airbag sensor assembly and the accessory meter assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (d) Clear the DTCs stored in memory (See page RS-34).
- (e) Turn the ignition switch off.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-34).

OK:

DTC B1660/43 is not output.

HINT:

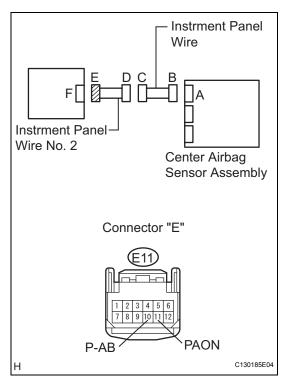
Codes other than DTC B1660/43 may be output at this time, but they are not related to this check.





USE SIMULATION METHOD TO CHECK

9 CHECK INSTRUMENT PANEL WIRE NO. 2 (SHORT TO GROUND)



- (a) Disconnect the instrument panel wire No. 2 connector from the instrument panel wire.
- (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

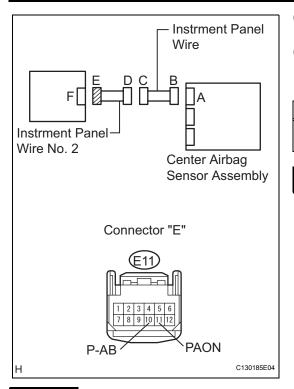
| Tester connection | Condition | Specified condition |
|--------------------------------|-----------|------------------------|
| E11-11 (PAON) - Body ground | Always | 1 M Ω or higher |
| E11-10 (P-AB) - Body ground | Always | 1 M Ω or higher |

NG REPAIR OR REPLACE INSTRUMENT PANEL WIRE NO. 2



REPAIR OR REPLACE INSTRUMENT PANEL WIRE

10 CHECK INSTRUMENT PANEL WIRE NO. 2 (SHORT)



- (a) Disconnect the instrument panel wire No. 2 connector from the instrument panel wire.
- (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

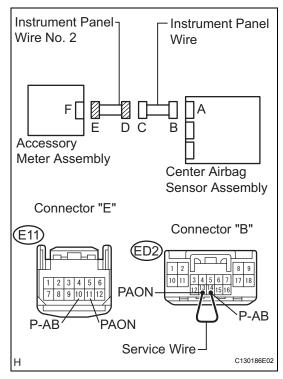
| Tester connection | Condition | Specified condition |
|----------------------------------|-----------|------------------------|
| E11-11 (PAON) - E11-10 (P-AB) | Always | 1 M Ω or higher |

NG REPAIR OR REPLACE INSTRUMENT PANEL WIRE NO. 2

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

11 CHECK INSTRUMENT PANEL WIRE NO. 2 (OPEN)



- (a) Disconnect the service wire from connector "B".
- (b) Disconnect the instrument panel wire No. 2 connector from the instrument panel wire.
- (c) Using a service wire, connect ED2-13 (PAON) and ED2-14 (P-AB) of connector "D".

NOTICE:

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

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

Standard resistance

| Tester connection | Condition | Specified condition |
|----------------------------------|-----------|---------------------|
| E11-11 (PAON) - E11-10 (P-AB) | Always | Below 1 Ω |

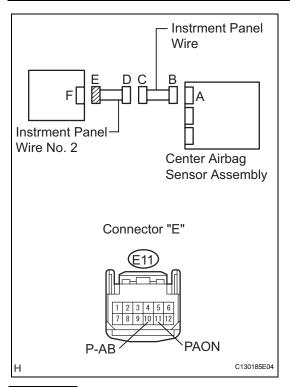
NG

REPAIR OR REPLACE INSTRUMENT PANEL WIRE NO. 2

ОК

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

12 CHECK INSTRUMENT PANEL WIRE NO. 2 (SHORT TO B+)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the instrument panel wire No. 2 connector from the instrument panel wire.
- (d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (e) Turn the ignition switch on (IG).
- (f) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|--------------------------------|-------------------------|---------------------|
| E11-11 (PAON) - Body ground | Ignition switch on (IG) | Below 1 V |
| E11-10 (P-AB) - Body ground | Ignition switch on (IG) | Below 1 V |



REPAIR OR REPLACE INSTRUMENT PANEL WIRE NO. 2

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

13 CHECK CONNECTION OF CONNECTOR

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Check that the connectors are properly connected to the center airbag sensor assembly and the accessory meter assembly.

OK:

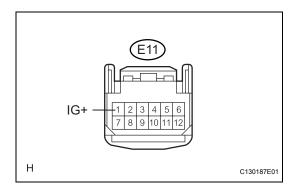
The connectors are connected.

NG

CONNECT CONNECTOR, THEN CHECK DTC

ОК

14 CHECK WIRE HARNESS (SOURCE VOLTAGE)



- (a) Disconnect the connector from the accessory meter assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait at least 2 seconds.
- (c) Turn the ignition switch on (IG).
- (d) Measure the voltage according to the value(s) in the table below.

Standard voltage

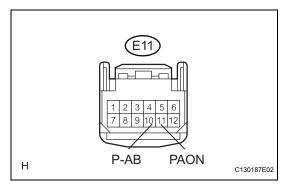
| Terminal connection | Condition | Specified condition |
|------------------------------|-------------------------|---------------------|
| E11-1 (IG+) - Body ground | Ignition switch on (IG) | 10 to 14 V |

NG

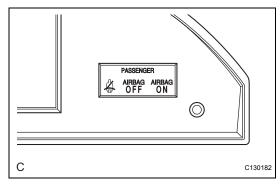
REPAIR OR REPLACE WIRE HARNESS



15 CHECK ACCESSORY METER ASSEMBLY



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Connect the connector to the accessory meter assembly.
- (d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (e) Turn the ignition switch on (IG).



(f) Check that the passenger airbag ON/OFF indicator condition in the table below.

Standard

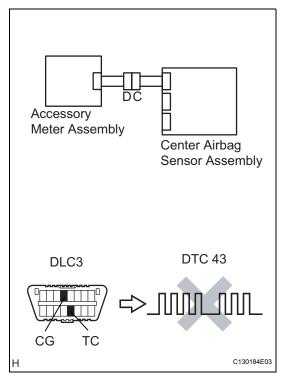
| Terminal connection | Condition | Specified condition |
|--------------------------------|-------------------------|------------------------|
| E11-11 (PAON) - Body ground | Ignition switch on (IG) | ON indicator comes on |
| E11-10 (P-AB) - Body ground | Ignition switch on (IG) | OFF indicator comes on |

NG

REPLACE ACCESSORY METER ASSEMBLY



16 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Connect the connector to the center airbag sensor assembly.
- (d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (e) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (f) Clear the DTCs stored in memory (See page RS-34).
- (g) Turn the ignition switch off.
- (h) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (i) Check the DTCs (See page RS-34).

OK:

DTC B1660/43 is not output.

HINT:

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



REPLACE CENTER AIRBAG SENSOR ASSEMBLY



USE SIMULATION METHOD TO CHECK

DTC B1662/45 Indicator Light Circuit Malfunction

DESCRIPTION

The indicator light circuit consists of the center airbag sensor assembly and the combination meter. When the center airbag sensor assembly detects a malfunction in the SRS airbag system, the SRS warning light comes on to inform the driver.

It also comes on when the source voltage drops, and automatically goes off in approximately 10 seconds after the source voltage returns to normal (DTC is not stored).

The SRS warning light comes on for 6 seconds after the ignition switch is turned on (IG) and goes off in the system is normal.

When an open circuit is detected, such as when the connector between the combination meter and the center airbag sensor assembly is disconnected, the SRS warning light remains on even when approximately 6 seconds elapsed after the ignition switch is turned on (IG).

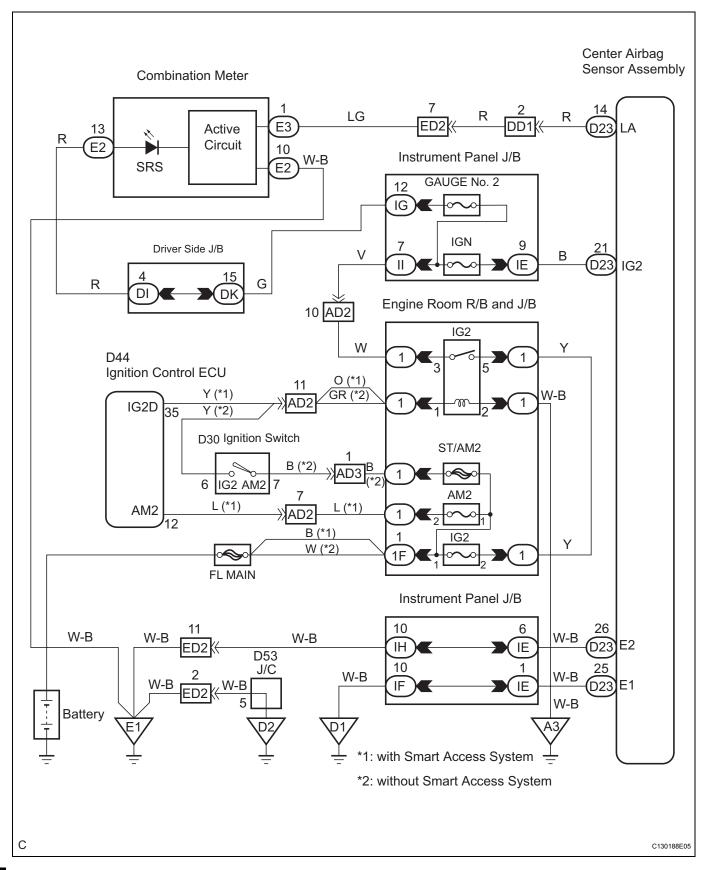
DTC B1662/45 is recorded when a malfunction is detected in the indicator light circuit.

| DTC No. | DTC Detecting Condition | Trouble Area |
|----------|---|---|
| B1662/45 | The center airbag sensor assembly receives an open circuit signal or a short circuit to ground signal in the indicator light circuit for 2 seconds. Combination meter malfunction Center airbag sensor assembly malfunction | Instrument panel wire Combination meter (SRS warning light) Center airbag sensor assembly |

HINT:

When DTC B1662/45 and B1000/31 are output simultaneously, perform the troubleshooting for DTC B1662/45 first.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK BATTERY

(a) Measure the voltage of the battery.

Standard voltage:

11 to 14 V

NG Ì

REPLACE BATTERY

OK

2 CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Check that the connectors are properly connected to the center airbag sensor assembly and the combination meter.

OK:

The connectors are connected.

NG

CONNECT CONNECTORS, THEN GO TO STEP 1

OK

3 CHECK COMBINATION METER

- (a) Disconnect the connectors from the center airbag sensor assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), check the operation of the SRS warning light.

OK:

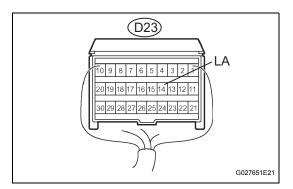
The SRS warning light comes on.

NG

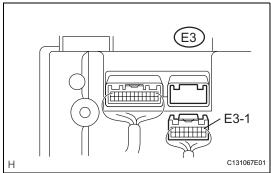
GO TO COMBINATION METER SYSTEM

ок

4 CHECK INSTRUMENT PANEL WIRE



(a) Disconnect the connector from the combination meter.



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

Standard resistance

| Tester connection | Condition | Specified condition |
|------------------------------|-----------|------------------------|
| D23-14 (LA) - E3-1 | Always | Below 1 Ω |
| D23-14 (LA) - Body ground | Always | 1 M Ω or higher |



> REPAIR OR REPLACE INSTRUMENT PANEL WIRE



REPLACE CENTER AIRBAG SENSOR ASSEMBLY

| 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 |

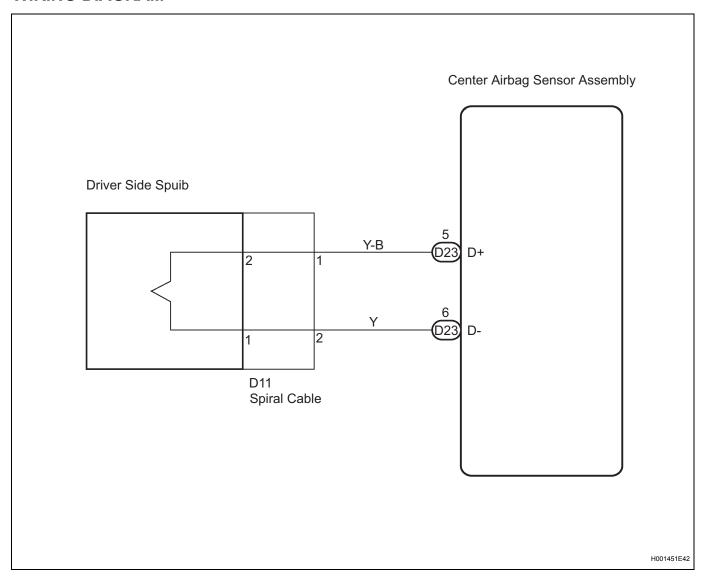
DESCRIPTION

The driver side squib circuit consists of the center airbag sensor assembly, 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 Detecting Condition | Trouble Area |
|----------|---|--|
| B1800/51 | The center airbag sensor assembly receives a line short circuit signal 5 times in the driver side squib circuit during primary check. Driver side squib malfunction Spiral cable malfunction Center airbag sensor assembly malfunction | Instrument panel wire Spiral cable Steering pad (Driver side squib) Center airbag sensor assembly |
| B1801/51 | The center airbag sensor assembly receives an open circuit signal in the driver side squib circuit for 2 seconds. Driver side squib malfunction Spiral cable malfunction Center airbag sensor assembly malfunction | Instrument panel wire Spiral cable Steering pad (Driver side squib) Center airbag sensor assembly |
| B1802/51 | The center airbag sensor assembly receives a short circuit to ground signal in the driver side squib circuit for 0.5 seconds. Driver side squib malfunction Spiral cable malfunction Center airbag sensor assembly malfunction | Instrument panel wire Spiral cable Steering pad (Driver side squib) Center airbag sensor assembly |
| B1803/51 | The center airbag sensor assembly receives a short circuit to B+ signal in the driver side squib circuit for 0.5 seconds. Driver side squib malfunction Spiral cable malfunction Center airbag sensor assembly malfunction | Instrument panel wire Spiral cable Steering pad (Driver side squib) Center airbag sensor assembly |

WIRING DIAGRAM



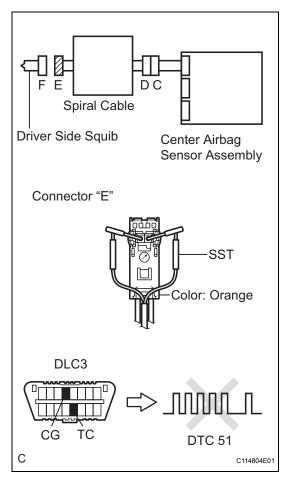
INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "check mode" (signal check) with the intelligent tester (See page RS-37).
- After selecting the "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road (See page RS-37).



1 CHECK STEERING PAD (DRIVER SIDE SQUIB)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connectors from the steering pad.
- (d) Connect the white wire side of SST (resistance 2.1 Ω) to connector "E" (orange connector).

CAUTION:

Never connect a tester 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 the SST into the terminals of the connector when connecting.
- Insert straight the SST into the terminals of the connector.

SST 09843-18060

- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Clear the DTCs stored in memory (See page RS-34).
- (h) Turn the ignition switch off.
- (i) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (j) Check the DTCs (See page RS-34).

OK:

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

HINT:

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



REPLACE STEERING PAD



2 CHECK CONNECTOR

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the SST from connector "E".
- (d) Check that the spiral cable connectors (on the steering pad side) are not damaged.

OK:

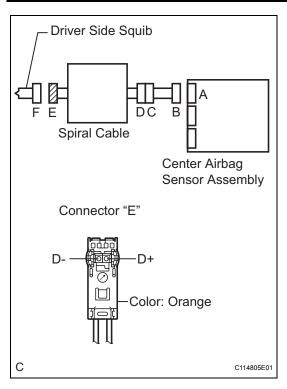
The lock button is not disengaged, or the claw of the lock is not deformed or damaged.

NG

REPLACE SPIRAL CABLE



3 CHECK DRIVER SIDE SQUIB CIRCUIT



- (a) Disconnect the connectors from the center airbag sensor assembly.
- (b) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|-------------------|-------------------------|---------------------|
| D+ - Body ground | Ignition switch on (IG) | Below 1 V |
| D Body ground | Ignition switch on (IG) | Below 1 V |

- (c) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------|-----------|---------------------|
| D+ - D- | Always | Below 1 Ω |

- (d) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------|-----------|------------------------|
| D+ - Body ground | Always | 1 M Ω or higher |
| D Body ground | Always | 1 M Ω or higher |

- (e) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "B" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

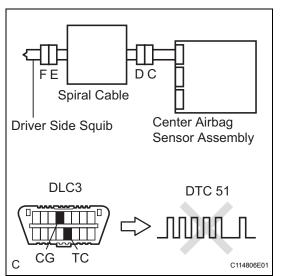
Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------|-----------|------------------------|
| D+ - D- | Always | 1 M Ω or higher |



OK

4 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Connect the connectors to the steering pad and the center airbag sensor assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds
- (d) Clear the DTCs stored in memory (See page RS-34).
- (e) Turn the ignition switch off.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-34).

OK:

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

HINT:

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

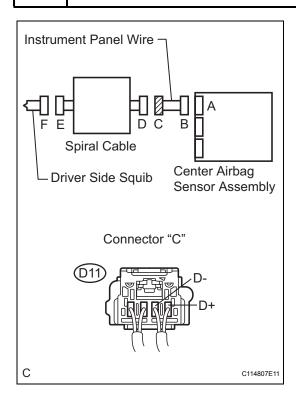


REPLACE CENTER AIRBAG SENSOR ASSEMBLY



USE SIMULATION METHOD TO CHECK

5 CHECK INSTRUMENT PANEL WIRE



- (a) Restore the released activation prevention mechanism of connector "B" to the original condition.
- (b) Disconnect the instrument panel wire connector from the spiral cable.
- (c) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|--------------------------|-------------------------|---------------------|
| D11-1 (D+) - Body ground | Ignition switch on (IG) | Below 1 V |
| D11-2 (D-) - Body ground | Ignition switch on (IG) | Below 1 V |

- (d) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------------|-----------|---------------------|
| D11-1 (D+) - D11-2 (D-) | Always | Below 1 Ω |

- (e) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|--------------------------|-----------|------------------------|
| D11-1 (D+) - Body ground | Always | 1 M Ω or higher |
| D11-2 (D-) - Body ground | Always | 1 M Ω or higher |

- (f) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "B" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

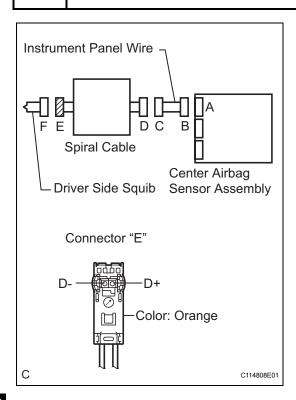
| Tester connection | Condition | Specified condition |
|-------------------------|-----------|------------------------|
| D11-1 (D+) - D11-2 (D-) | Always | 1 M Ω or higher |



REPAIR OR REPLACE INSTRUMENT PANEL WIRE



6 CHECK SPIRAL CABLE



- (a) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|-------------------|-------------------------|---------------------|
| D+ - Body ground | Ignition switch on (IG) | Below 1 V |
| D Body ground | Ignition switch on (IG) | Below 1 V |

- (b) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------|-----------|---------------------|
| D+ - D- | Always | Below 1 Ω |

- (c) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------|-----------|------------------------|
| D+ - Body ground | Always | 1 M Ω or higher |
| D Body ground | Always | 1 M Ω or higher |

- (d) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "D" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------|-----------|------------------------|
| D+ - D- | Always | 1 M Ω or higher |

NG REPLACE SPIRAL CABLE

OK

USE SIMULATION METHOD TO CHECK

| 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

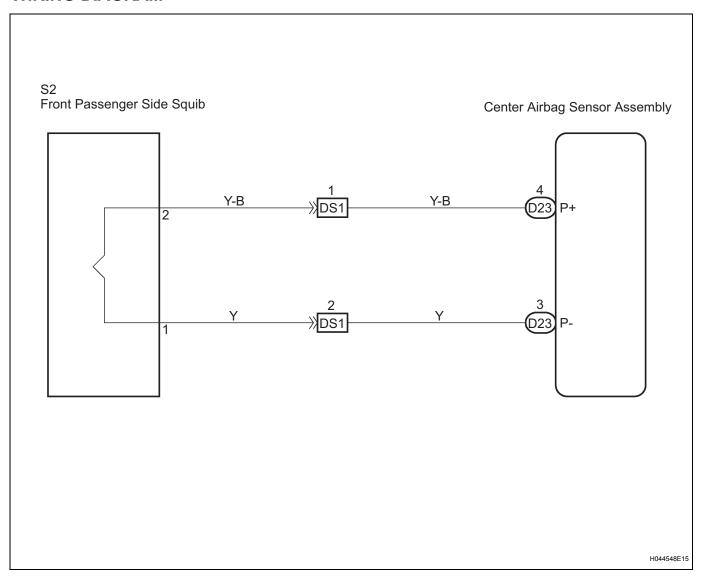
The front passenger side squib circuit consists of the center airbag sensor assembly and the front passenger airbag assembly.

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 | The center airbag sensor assembly receives a line short circuit signal 5 times in the front passenger side squib circuit during primary check. Front passenger side squib malfunction Center airbag sensor assembly malfunction | Instrument panel wire Instrument panel wire assembly Front passenger airbag assembly (Front passenger side squib) Center airbag sensor assembly | |
| B1806/52 | The center airbag sensor assembly receives an open circuit signal in the front passenger side squib circuit for 2 seconds. Front passenger side squib malfunction Center airbag sensor assembly malfunction | Instrument panel wire Instrument panel wire assembly Front passenger airbag assembly (Front passenger side squib) Center airbag sensor assembly | |
| B1807/52 | The center airbag sensor assembly receives a short circuit to ground signal in the front passenger side squib circuit for 0.5 seconds. Front passenger side squib malfunction Center airbag sensor assembly malfunction | Instrument panel wire Instrument panel wire assembly Front passenger airbag assembly (Front passenger side squib) Center airbag sensor assembly | |
| B1808/52 | The center airbag sensor assembly receives a short circuit to B+ signal in the front passenger side squib circuit for 0.5 seconds. Front passenger side squib malfunction Center airbag sensor assembly malfunction | Instrument panel wire Instrument panel wire assembly Front passenger airbag assembly (Front passenger side squib) Center airbag sensor assembly | |

WIRING DIAGRAM

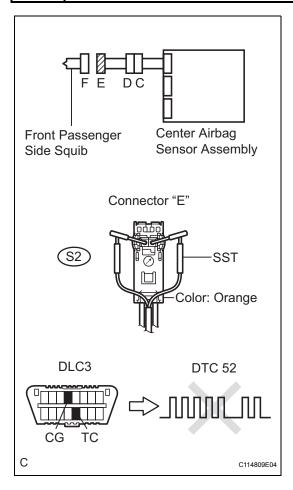


INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "check mode" (signal check) with the intelligent tester (See page RS-37).
- After selecting the "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road (See page RS-37).

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



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connectors from the front passenger airbag assembly.
- (d) Connect the white wire side of SST (resistance 2.1 Ω) to connector "E" (orange connector).

CAUTION:

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

NOTICE:

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

SST 09843-18060

- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Clear the DTCs stored in memory (See page RS-34).
- (h) Turn the ignition switch off.
- (i) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (j) Check the DTCs (See page RS-34).

OK

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

HINT:

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



REPLACE FRONT PASSENGER AIRBAG ASSEMBLY



2 CHECK CONNECTOR

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

OK:

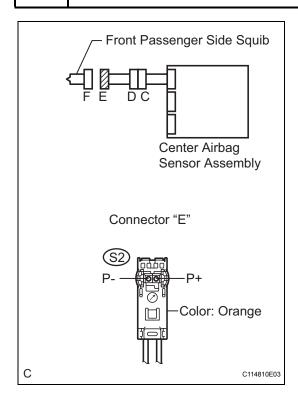
The lock button is not disengaged, or the claw of the lock is not deformed or damaged.



REPAIR OR REPLACE INSTRUMENT PANEL WIRE ASSEMBLY



3 CHECK FRONT PASSENGER SIDE SQUIB CIRCUIT



- (a) Disconnect the connectors from the center airbag sensor assembly.
- (b) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|-------------------------|-------------------------|---------------------|
| S2-2 (P+) - Body ground | Ignition switch on (IG) | Below 1 V |
| S2-1 (P-) - Body ground | Ignition switch on (IG) | Below 1 V |

- (c) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-----------------------|-----------|---------------------|
| S2-2 (P+) - S2-1 (P-) | Always | Below 1 Ω |

- (d) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------------|-----------|------------------------|
| S2-2 (P+) - Body ground | Always | 1 M Ω or higher |
| S2-1 (P-) - Body ground | Always | 1 M Ω or higher |

- (e) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "B" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

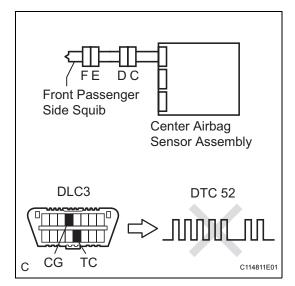
| l | Tester connection | Condition | Specified condition |
|---|-----------------------|-----------|------------------------|
| | S2-2 (P+) - S2-1 (P-) | Always | 1 M Ω or higher |

NG)

Go to step 5



4 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Connect the connectors to the front passenger airbag assembly and the center airbag sensor assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (d) Clear the DTCs stored in memory (See page RS-34).
- (e) Turn the ignition switch off.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-34).

OK:

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

HINT:

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

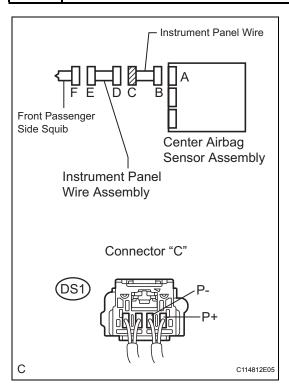


REPLACE CENTER AIRBAG SENSOR ASSEMBLY



USE SIMULATION METHOD TO CHECK

5 CHECK INSTRUMENT PANEL WIRE



- (a) Restore the released activation prevention mechanism of connector "B" to the original condition.
- (b) Disconnect the instrument panel wire connector from the instrument panel wire assembly.
- (c) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|--------------------------|-------------------------|---------------------|
| DS1-1 (P+) - Body ground | Ignition switch on (IG) | Below 1 V |
| DS1-2 (P-) - Body ground | Ignition switch on (IG) | Below 1 V |

- (d) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------------|-----------|---------------------|
| DS1-1 (P+) - DS1-2 (P-) | Always | Below 1 Ω |

- (e) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|--------------------------|-----------|------------------------|
| DS1-1 (P+) - Body ground | Always | 1 M Ω or higher |
| DS1-2 (P-) - Body ground | Always | 1 M Ω or higher |

- (f) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "B" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

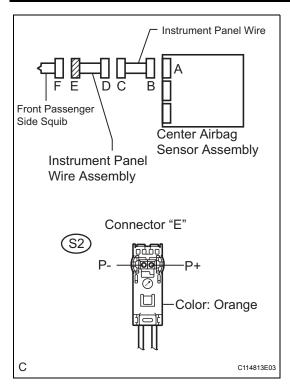
| Tester connection | Condition | Specified condition |
|-------------------------|-----------|------------------------|
| DS1-1 (P+) - DS1-2 (P-) | Always | 1 M Ω or higher |

NG

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

6 CHECK INSTRUMENT PANEL WIRE ASSEMBLY



- (a) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|-------------------------|-------------------------|---------------------|
| S2-2 (P+) - Body ground | Ignition switch on (IG) | Below 1 V |
| S2-1 (P-) - Body ground | Ignition switch on (IG) | Below 1 V |

- (b) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-----------------------|-----------|---------------------|
| S2-2 (P+) - S2-1 (P-) | Always | Below 1 Ω |

- (c) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------------|-----------|------------------------|
| S2-2 (P+) - Body ground | Always | 1 M Ω or higher |
| S2-1 (P-) - Body ground | Always | 1 M Ω or higher |

- (d) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "D" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-----------------------|-----------|------------------------|
| S2-2 (P+) - S2-1 (P-) | Always | 1 M Ω or higher |

NG

REPAIR OR REPLACE INSTRUMENT PANEL WIRE ASSEMBLY



USE SIMULATION METHOD TO CHECK

| 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 |

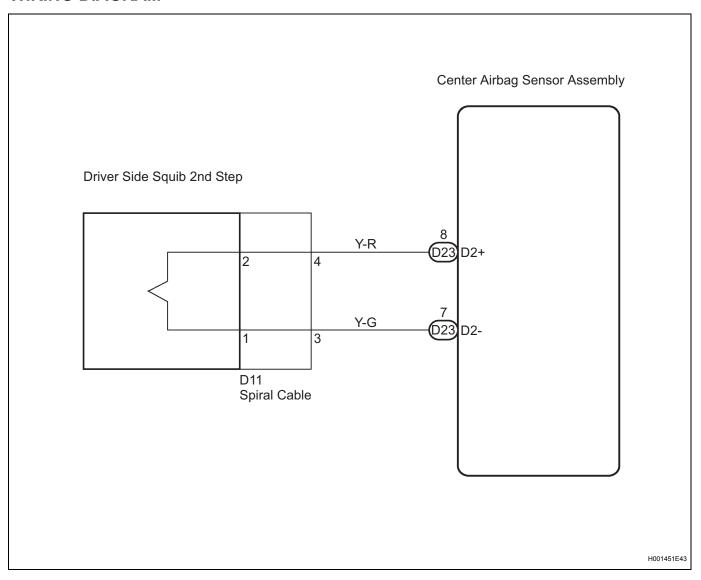
DESCRIPTION

The driver side squib 2nd step circuit consists of the center airbag sensor assembly, 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 Detecting Condition | Trouble Area |
|----------|---|---|
| B1810/53 | The center airbag sensor assembly receives a line short circuit signal 5 times in the driver side squib 2nd step circuit during primary check. Driver side squib 2nd step malfunction Spiral cable malfunction Center airbag sensor assembly malfunction | Instrument panel wire Spiral cable Steering pad (Driver side squib 2nd step) Center airbag sensor assembly |
| B1811/53 | The center airbag sensor assembly receives an open circuit signal in the driver side squib 2nd step circuit for 2 seconds. Driver side squib 2nd step malfunction Spiral cable malfunction Center airbag sensor assembly malfunction | Instrument panel wire Spiral cable Steering pad (Driver side squib 2nd step) Center airbag sensor assembly |
| B1812/53 | The center airbag sensor assembly receives a short circuit to ground signal in the driver side 2nd step circuit for 0.5 seconds. Driver side squib 2nd step malfunction Spiral cable malfunction Center airbag sensor assembly malfunction | Instrument panel wire Spiral cable Steering pad (Driver side squib 2nd step) Center airbag sensor assembly |
| B1813/53 | The center airbag sensor assembly receives a short circuit to B+ signal in the driver side squib 2nd step circuit for 0.5 seconds. Driver side squib 2nd step malfunction Spiral cable malfunction Center airbag sensor assembly malfunction | Instrument panel wire Spiral cable Steering pad (Driver side squib 2nd step) Center airbag sensor assembly |

WIRING DIAGRAM

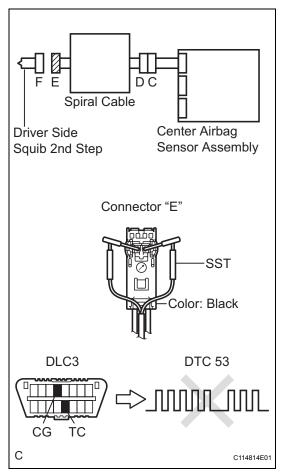


INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "check mode" (signal check) with the intelligent tester (See page RS-37).
- After selecting the "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road (See page RS-37).

1 CHECK STEERING PAD (DRIVER SIDE SQUIB 2ND STEP)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connectors from the steering pad.
- (d) Connect the white wire side of SST (resistance 2.1 Ω) to connector "E" (black connector).

CAUTION:

Never connect a tester 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 the SST into the terminals of the connector when connecting.
- Insert straight the SST into the terminals of the connector.

SST 09843-18060

- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Clear the DTCs stored in memory (See page RS-34).
- (h) Turn the ignition switch off.
- (i) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (j) Check the DTCs (See page RS-34).

OK:

DTC B1810, B1811, B1812, B1813 or 53 is not output.

HINT:

Codes other than DTC B1810, B1811, B1812, B1813, and 53 may be output at this time, but they are not related to this check.



REPLACE STEERING PAD



2 CHECK CONNECTOR

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the SST from connector "E".
- (d) Check that the spiral cable connectors (on the steering pad side) are not damaged.

OK:

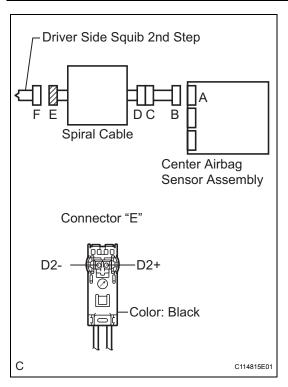
The lock button is not disengaged, or the claw of the lock is not deformed or damaged.

NG

REPLACE SPIRAL CABLE



3 CHECK DRIVER SIDE SQUIB 2ND STEP CIRCUIT



- (a) Disconnect the connectors from the center airbag sensor assembly.
- (b) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|-------------------|-------------------------|---------------------|
| D2+ - Body ground | Ignition switch on (IG) | Below 1 V |
| D2 Body ground | Ignition switch on (IG) | Below 1 V |

- (c) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------|-----------|---------------------|
| D2+ - D2- | Always | Below 1 Ω |

- (d) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------|-----------|------------------------|
| D2+ - Body ground | Always | 1 M Ω or higher |
| D2 Body ground | Always | 1 M Ω or higher |

- (e) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "B" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

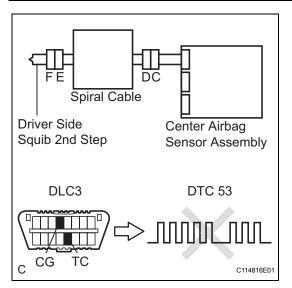
Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------|-----------|------------------------|
| D2+ - D2- | Always | 1 M Ω or higher |



OK

4 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Connect the connectors to the steering pad and the center airbag sensor assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (d) Clear the DTCs stored in memory (See page RS-34).
- (e) Turn the ignition switch off.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-34).

OK:

DTC B1810, B1811, B1812, B1813 or 53 is not output.

HINT:

Codes other than DTC B1810, B1811, B1812, B1813 and 53 may be output at this time, but they are not related to this check.

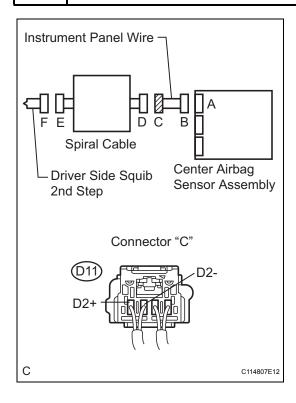


REPLACE CENTER AIRBAG SENSOR ASSEMBLY



USE SIMULATION METHOD TO CHECK

5 CHECK INSTRUMENT PANEL WIRE



- (a) Check for a short to B+ in the circuit.
 - Restore the released activation prevention mechanism of connector "B" to the original condition.
 - (2) Disconnect the instrument panel wire connector from the spiral cable.
 - (3) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (4) Turn the ignition switch on (IG).
 - (5) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|---------------------------|-------------------------|---------------------|
| D11-4 (D2+) - Body ground | Ignition switch on (IG) | Below 1 V |
| D11-3 (D2-) - Body ground | Ignition switch on (IG) | Below 1 V |

- (b) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.



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

Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|---------------------|
| D11-4 (D2+) - D11-3 (D2-) | Always | Below 1 Ω |

- (c) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|------------------------|
| D11-4 (D2+) - Body ground | Always | 1 M Ω or higher |
| D11-3 (D2-) - Body ground | Always | 1 M Ω or higher |

- (d) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "B" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

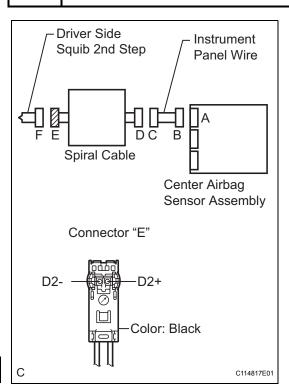
| Tester connection | Condition | Specified condition |
|---------------------------|-----------|------------------------|
| D11-4 (D2+) - D11-3 (D2-) | Always | 1 M Ω or higher |



REPAIR OR REPLACE INSTRUMENT PANEL WIRE



6 CHECK SPIRAL CABLE



- (a) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|-------------------|-------------------------|---------------------|
| D2+ - Body ground | Ignition switch on (IG) | Below 1 V |
| D2 Body ground | Ignition switch on (IG) | Below 1 V |

- (b) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------|-----------|---------------------|
| D2+ - D2- | Always | Below 1 Ω |

(c) Check for a short to ground in the circuit.

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

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------|-----------|------------------------|
| D2+ - Body ground | Always | 1 M Ω or higher |
| D2 Body ground | Always | 1 M Ω or higher |

- (d) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "D" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------|-----------|------------------------|
| D2+ - D2- | Always | 1 M Ω or higher |



REPLACE SPIRAL CABLE



USE SIMULATION METHOD TO CHECK

| 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

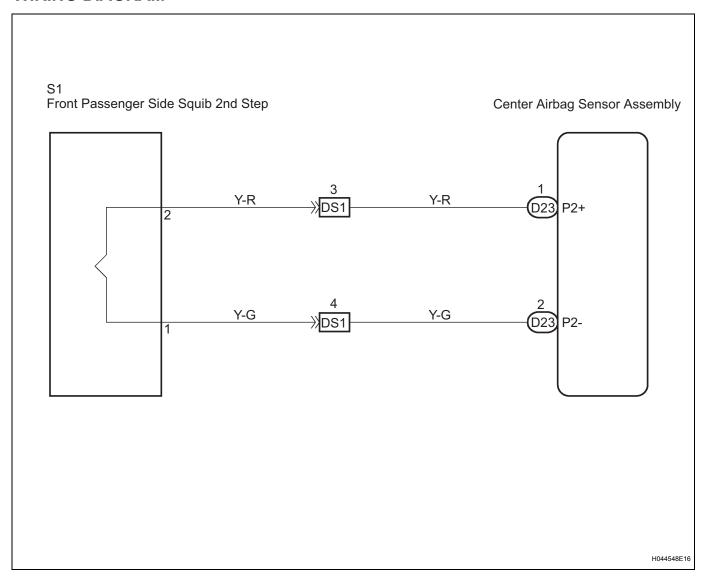
The front passenger side squib 2nd step circuit consists of the center airbag sensor assembly and the front passenger airbag assembly.

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 Detecting Condition | Trouble Area |
|----------|---|--|
| B1815/54 | The center airbag sensor assembly receives a line short circuit signal 5 times in the front passenger side squib 2nd step circuit during primary check. Front passenger side squib 2nd step malfunction Center airbag sensor assembly malfunction | Instrument panel wire Instrument panel wire assembly Front passenger airbag assembly (Front passenger side squib 2nd step) Center airbag sensor assembly |
| B1816/54 | The center airbag sensor assembly receives an open circuit signal in the front passenger side squib 2nd step circuit for 2 seconds. Front passenger side squib 2nd step malfunction Center airbag sensor assembly malfunction | Instrument panel wire Instrument panel wire assembly Front passenger airbag assembly (Front passenger side squib 2nd step) Center airbag sensor assembly |
| B1817/54 | The center airbag sensor assembly receives a short circuit to ground signal in the front passenger side squib 2nd step circuit for 0.5 seconds. Front passenger side squib 2nd step malfunction Center airbag sensor assembly malfunction | Instrument panel wire Instrument panel wire assembly Front passenger airbag assembly (Front passenger side squib 2nd step) Center airbag sensor assembly |
| B1818/54 | The center airbag sensor assembly receives a short circuit to B+ signal in the front passenger side squib 2nd step circuit for 0.5 seconds. Front passenger side squib 2nd step malfunction Center airbag sensor assembly malfunction | Instrument panel wire Instrument panel wire assembly Front passenger airbag assembly (Front passenger side squib 2nd step) Center airbag sensor assembly |

WIRING DIAGRAM

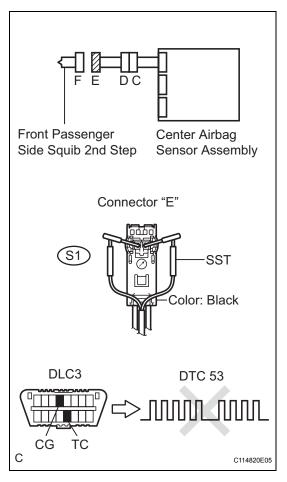


INSPECTION PROCEDURE

HINT

- Perform the simulation method by selecting the "check mode" (signal check) with the intelligent tester (See page RS-37).
- After selecting the "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road (See page RS-37).

CHECK FRONT PASSENGER AIRBAG ASSEMBLY (FRONT PASSENGER SIDE SQUIB 2ND STEP)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connectors from the front passenger airbag assembly.
- (d) Connect the white wire side of SST (resistance 2.1 Ω) to connector "E" (black connector).

CAUTION:

Never connect a tester to the front passenger airbag assembly (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 the SST into the terminals of the connector when connecting.
- Insert straight the SST into the terminals of the connector.

SST 09843-18060

- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Clear the DTCs stored in memory (See page RS-34).
- (h) Turn the ignition switch off.
- (i) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (j) Check the DTCs (See page RS-34).

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.



REPLACE FRONT PASSENGER AIRBAG ASSEMBLY



2

CHECK CONNECTOR

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

OK:

The lock button is not disengaged, or the claw of the lock is not damaged or deformed.

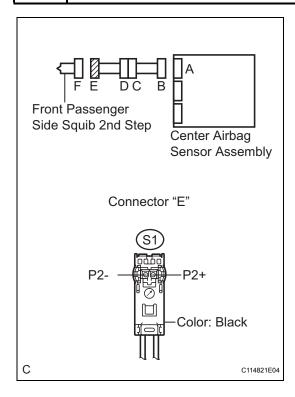


REPAIR OR REPLACE INSTRUMENT PANEL WIRE ASSEMBLY



3

CHECK FRONT PASSENGER SIDE SQUIB 2ND STEP CIRCUIT



- (a) Disconnect the connectors from the center airbag sensor assembly.
- (b) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|--------------------------|-------------------------|---------------------|
| S1-2 (P2+) - Body ground | Ignition switch on (IG) | Below 1 V |
| S1-1 (P2-) - Body ground | Ignition switch on (IG) | Below 1 V |

- (c) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------------|-----------|---------------------|
| S1-2 (P2+) - S1-1 (P2-) | Always | Below 1 Ω |

- (d) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|--------------------------|-----------|------------------------|
| S1-2 (P2+) - Body ground | Always | 1 M Ω or higher |
| S1-1 (P2-) - Body ground | Always | 1 M Ω or higher |

- (e) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "B" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

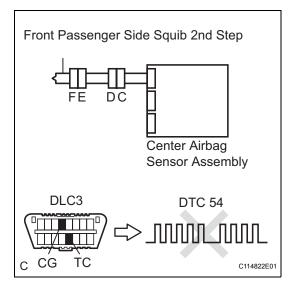
| Tester connection | Condition | Specified condition |
|-------------------------|-----------|------------------------|
| S1-2 (P2+) - S1-1 (P2-) | Always | 1 M Ω or higher |

NG

Go to step 5



4 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Connect the connectors to the front passenger airbag assembly and the center airbag sensor assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (d) Clear the DTCs stored in memory (See page RS-34).
- (e) Turn the ignition switch off.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-34).

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.

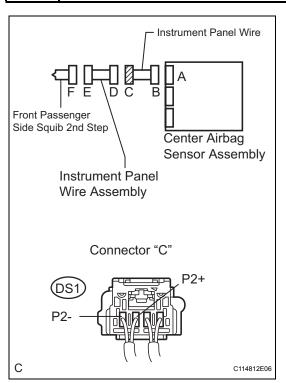


REPLACE CENTER AIRBAG SENSOR ASSEMBLY



USE SIMULATION METHOD TO CHECK

5 CHECK INSTRUMENT PANEL WIRE



- (a) Check for a short to B+ in the circuit.
 - Restore the released activation prevention mechanism of connector "B" to the original condition.
 - (2) Disconnect the instrument panel wire connector from the instrument panel wire assembly.
 - (3) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (4) Turn the ignition switch on (IG).
 - (5) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|---------------------------|-------------------------|---------------------|
| DS1-3 (P2+) - Body ground | Ignition switch on (IG) | Below 1 V |
| DS1-4 (P2-) - Body ground | Ignition switch on (IG) | Below 1 V |

- (b) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|---------------------|
| DS1-3 (P2+) - DS1-4 (P2-) | Always | Below 1 Ω |

- (c) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|------------------------|
| DS1-3 (P2+) - Body ground | Always | 1 M Ω or higher |
| DS1-4 (P2-) - Body ground | Always | 1 M Ω or higher |

- (d) Check for a short in the circuit.
 - Release the activation prevention mechanism built into connector "B" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

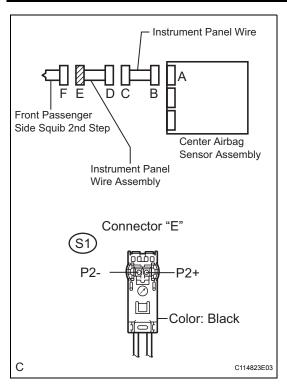
Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|------------------------|
| DS1-3 (P2+) - DS1-4 (P2-) | Always | 1 M Ω or higher |

NG

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

6 CHECK INSTRUMENT PANEL WIRE ASSEMBLY



- (a) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|--------------------------|-------------------------|---------------------|
| S1-2 (P2+) - Body ground | Ignition switch on (IG) | Below 1 V |
| S1-1 (P2-) - Body ground | Ignition switch on (IG) | Below 1 V |

- (b) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------------|-----------|---------------------|
| S1-2 (P2+) - S1-1 (P2-) | Always | Below 1 Ω |

- (c) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|--------------------------|-----------|------------------------|
| S1-2 (P2+) - Body ground | Always | 1 M Ω or higher |
| S1-1 (P2-) - Body ground | Always | 1 M Ω or higher |

- (d) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "D" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------------|-----------|------------------------|
| S1-2 (P2+) - S1-1 (P2-) | Always | 1 M Ω or higher |



REPAIR OR REPLACE INSTRUMENT PANEL WIRE ASSEMBLY



USE SIMULATION METHOD TO CHECK

| 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 |

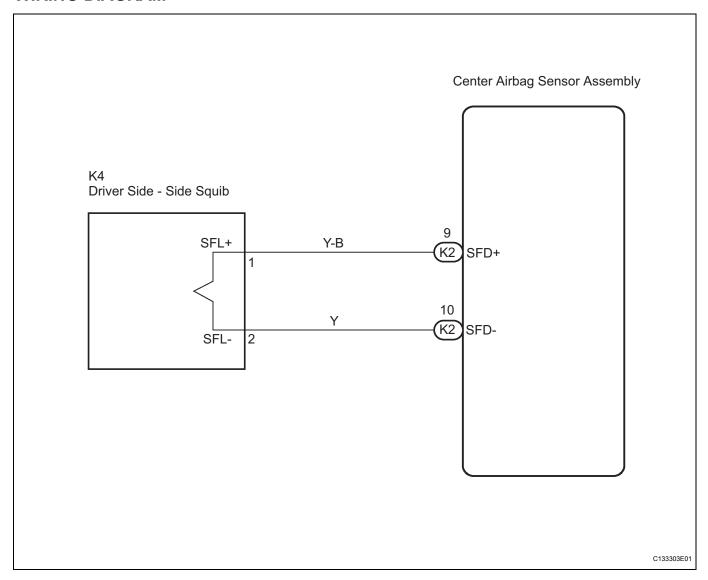
DESCRIPTION

The driver side - side squib circuit consists of the center airbag sensor assembly and the front seat side airbag assembly LH.

This circuit instructs the SRS to deploy when deployment conditions are met. These DTCs are recorded when a malfunction is detected in the driver side - side squib circuit.

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

WIRING DIAGRAM

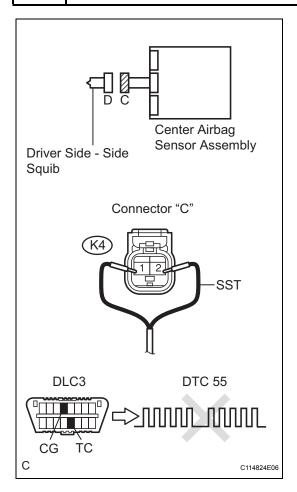


INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "check mode" (signal check) with the intelligent tester (See page RS-37).
- After selecting the "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road (See page RS-37).

1 CHECK FRONT SEAT SIDE AIRBAG ASSEMBLY LH (DRIVER SIDE - SIDE SQUIB)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connector from the front seat side airbag assembly LH.
- (d) Connect the black wire side of SST (resistance 2.1 Ω) to connector "C".

CAUTION:

Never connect a tester to the front seat side airbag assembly LH (driver side - side squib) for measurement, as this may lead to a serious injury due to airbag deployment.

NOTICE:

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

SST 09843-18060

- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Clear the DTCs stored in memory (See page RS-34).
- (h) Turn the ignition switch off.
- (i) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (j) Check the DTCs (See page RS-34).

OK:

DTC B1820, B1821, B1822, B1823 or 55 is not output.

HINT:

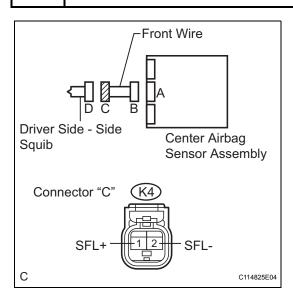
Codes other than DTC B1820, B1821, B1822, B1823 and 55 may be output at this time, but they are not related to this check.



REPLACE FRONT SEAT ASSEMBLY LH

ОК

2 CHECK FLOOR WIRE (DRIVER SIDE - SIDE SQUIB CIRCUIT)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the SST from connector "C".
- (d) Disconnect the connectors from the center airbag sensor assembly.
- (e) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|---------------------------|-------------------------|---------------------|
| K4-1 (SFL+) - Body ground | Ignition switch on (IG) | Below 1 V |
| K4-2 (SFL-) - Body ground | Ignition switch on (IG) | Below 1 V |

- (f) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|---------------------|
| K4-1 (SFL+) - K4-2 (SFL-) | Always | Below 1 Ω |

- (g) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|------------------------|
| K4-1 (SFL+) - Body ground | Always | 1 M Ω or higher |
| K4-2 (SFL-) - Body ground | Always | 1 M Ω or higher |

- (h) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "B" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

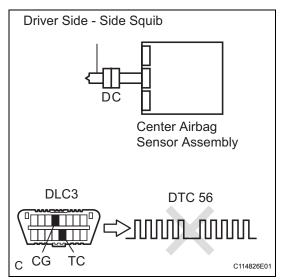
| Tester connection | Condition | Specified condition |
|---------------------------|-----------|------------------------|
| K4-1 (SFL+) - K4-2 (SFL-) | Always | 1 M Ω or higher |

NG

REPAIR OR REPLACE FLOOR WIRE

OK

3 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Connect the connectors to the front seat side airbag assembly LH and the center airbag sensor assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (d) Clear the DTCs stored in memory (See page RS-34).
- (e) Turn the ignition switch off.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-34).

OK:

DTC B1820, B1821, B1822, B1823 or 55 is not output.

HINT:

Codes other than DTC B1820, B1821, B1822, B1823 and 55 may be output at this time, but they are not related to this check.



REPLACE CENTER AIRBAG SENSOR ASSEMBLY



USE SIMULATION METHOD TO CHECK

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

DESCRIPTION

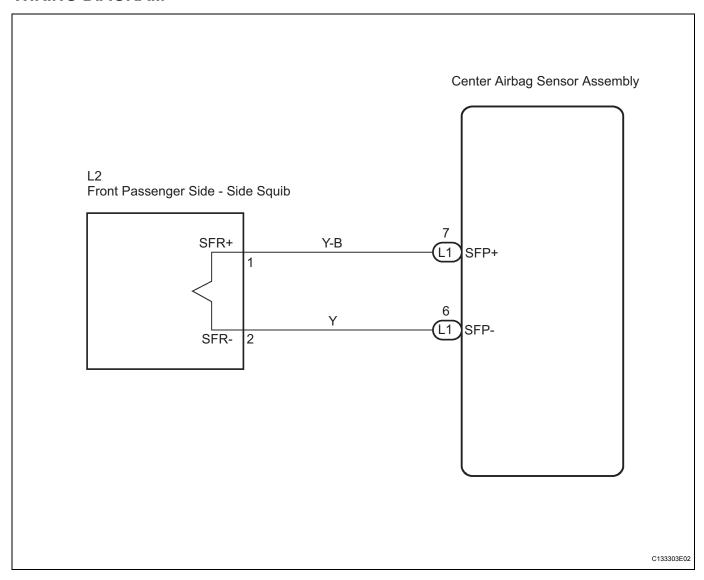
The front passenger side - side squib circuit consists of the center airbag sensor assembly and the front seat side airbag assembly RH.

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

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

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

WIRING DIAGRAM

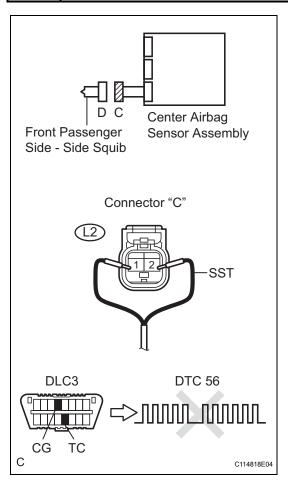


INSPECTION PROCEDURE

HINT

- Perform the simulation method by selecting the "check mode" (signal check) with the intelligent tester (See page RS-37).
- After selecting the "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road (See page RS-37).

1 CHECK FRONT SEAT SIDE AIRBAG ASSEMBLY RH (FRONT PASSENGER SIDE - SIDE SQUIB)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connector from the front seat side airbag assembly RH.
- (d) Connect the black wire side of SST (resistance 2.1 Ω) to connector "C".

CAUTION:

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

NOTICE:

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

SST 09843-18060

- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Clear the DTCs stored in memory (See page RS-34).
- (h) Turn the ignition switch off.
- (i) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (j) Check the DTCs (See page RS-34).

OK:

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

HINT:

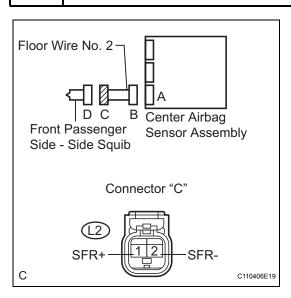
Codes other than DTC B1825, B1826, B1827, B1828 and 56 may be output at this time, but they are not related to this check.



REPLACE FRONT SEAT ASSEMBLY RH

OK

2 CHECK FLOOR WIRE NO. 2 (FRONT PASSENGER SIDE - SIDE SQUIB CIRCUIT)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the SST from connector "C".
- (d) Disconnect the connectors from the center airbag sensor assembly.
- (e) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|---------------------------|-------------------------|---------------------|
| L2-1 (SFR+) - Body ground | Ignition switch on (IG) | Below 1 V |
| L2-2 (SFR-) - Body ground | Ignition switch on (IG) | Below 1 V |

- (f) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|---------------------|
| L2-1 (SFR+) - L2-2 (SFR-) | Always | Below 1 Ω |

- (g) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|------------------------|
| L2-1 (SFR+) - Body ground | Always | 1 M Ω or higher |
| L2-2 (SFR-) - Body ground | Always | 1 M Ω or higher |

- (h) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "B" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

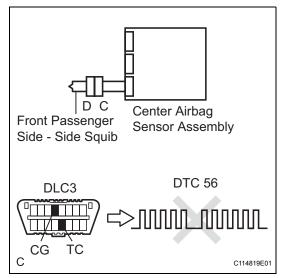
| Tester connection | Condition | Specified condition |
|---------------------------|-----------|------------------------|
| L2-1 (SFR+) - L2-2 (SFR-) | Always | 1 M Ω or higher |

NG

REPAIR OR REPLACE FLOOR WIRE NO. 2

OK

3 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Connect the connectors to the front seat airbag assembly RH and the center airbag sensor assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (d) Clear the DTCs stored in memory (See page RS-34).
- (e) Turn the ignition switch off.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-34).

OK:

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

HINT:

Codes other than DTC B1825, B1826, B1827, B1828 and 56 may be output at this time, but they are not related to this check.



REPLACE CENTER AIRBAG SENSOR ASSEMBLY



USE SIMULATION METHOD TO CHECK

| 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

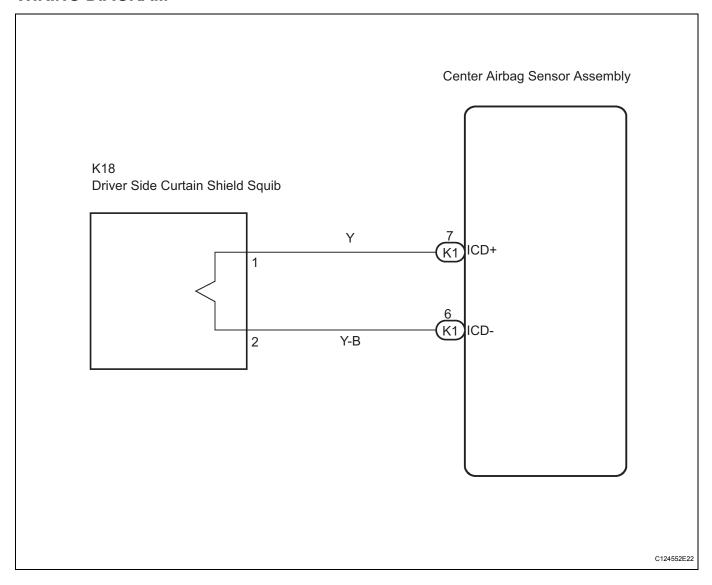
The driver side curtain shield squib circuit consists of the center airbag sensor assembly and the curtain shield airbag assembly LH.

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 | The center airbag sensor assembly receives a line short circuit signal 5 times in the driver side curtain shield squib circuit during primary check. Driver side curtain shield squib malfunction Center airbag sensor assembly malfunction | Floor wire Curtain shield airbag assembly LH (Driver side curtain shield squib) Center airbag sensor assembly |
| B1831/57 | The center airbag sensor assembly receives an open circuit signal in the driver side curtain shield squib circuit for 2 seconds. Driver side curtain shield squib malfunction Center airbag sensor assembly malfunction | Floor wire Curtain shield airbag assembly LH (Driver side curtain shield squib) Center airbag sensor assembly |
| B1832/57 | The center airbag sensor assembly receives a short circuit to ground signal in the driver side curtain shield squib circuit for 0.5 seconds. Driver side curtain shield squib malfunction Center airbag sensor assembly malfunction | Floor wire Curtain shield airbag assembly LH (Driver side curtain shield squib) Center airbag sensor assembly |
| B1833/57 | The center airbag sensor assembly receives a short circuit to B+ signal in the driver side curtain shield squib circuit for 0.5 seconds. Driver side curtain shield squib malfunction Center airbag sensor assembly malfunction | Floor wire Curtain shield airbag assembly LH (Driver side curtain shield squib) Center airbag sensor assembly |

WIRING DIAGRAM

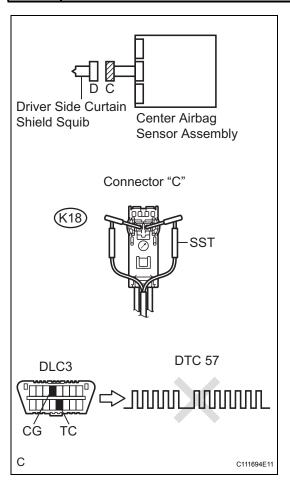


INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "check mode" (signal check) with the intelligent tester (See page RS-37).
- After selecting the "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road (See page RS-37).

1 CHECK CURTAIN SHIELD AIRBAG ASSEMBLY LH (DRIVER SIDE CURTAIN SHIELD SQUIB)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connector from the curtain shield airbag assembly LH.
- (d) Connect the white wire side of SST (resistance 2.1 Ω) to connector "C".

CAUTION:

Never connect a tester to the curtain shield airbag assembly 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 the SST into the terminals of the connector when connecting.
- Insert straight the SST into the terminals of the connector.

SST 09843-18060

- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Clear the DTCs stored in memory (See page RS-34).
- (h) Turn the ignition switch off.
- (i) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (j) Check the DTCs (See page RS-34).

OK:

DTC B1830, B1831, B1832, B1833 or 57 is not output.

HINT:

Codes other than DTC B1830, B1831, B1832, B1833 and 57 may be output at this time, but they are not related to this check.



REPLACE CURTAIN SHIELD AIRBAG ASSEMBLY LH



2 CHECK CONNECTOR

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the SST from connector "C".
- (d) Check that the floor wire connector (on the curtain shield assembly LH side) is not damaged.

OK:

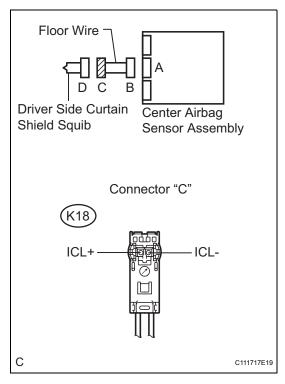
The lock button is not disengaged, or the claw of the lock is not deformed or damaged.

NG >

REPAIR OR REPLACE FLOOR WIRE



3 CHECK FLOOR WIRE (DRIVER SIDE CURTAIN SHIELD SQUIB CIRCUIT)



- (a) Disconnect the connectors from the center airbag sensor assembly.
- (b) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|-------------------------------|-------------------------|---------------------|
| K18-1 (ICL+) - Body ground | Ignition switch on (IG) | Below 1 V |
| K18-2 (ICL-) - Body ground | Ignition switch on (IG) | Below 1 V |

- (c) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-----------------------------|-----------|---------------------|
| K18-1 (ICL+) - K18-2 (ICL-) | Always | Below 1 Ω |

- (d) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------------------|-----------|------------------------|
| K18-1 (ICL+) - Body ground | Always | 1 M Ω or higher |
| K18-2 (ICL-) - Body ground | Always | 1 M Ω or higher |

- (e) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "B" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

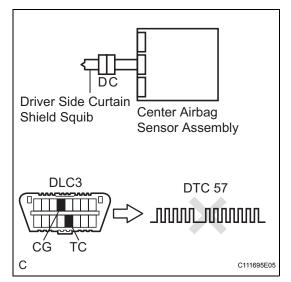
| Tester connection | Condition | Specified condition |
|-----------------------------|-----------|------------------------|
| K18-1 (ICL+) - K18-2 (ICL-) | Always | 1 M Ω or higher |

RS

NG > REPAIR OR REPLACE FLOOR WIRE



4 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Connect the connectors to the curtain shield airbag assembly LH and the center airbag sensor assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (d) Clear the DTCs stored in memory (See page RS-34).
- (e) Turn the ignition switch off.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-34).

OK:

DTC B1830, B1831, B1832, B1833 or 57 is not output.

HINT:

Codes other than DTC B1830, B1831, B1832, B1833 and 57 may be output at this time, but they are not related to this check.



REPLACE CENTER AIRBAG SENSOR ASSEMBLY



USE SIMULATION METHOD TO CHECK

| 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

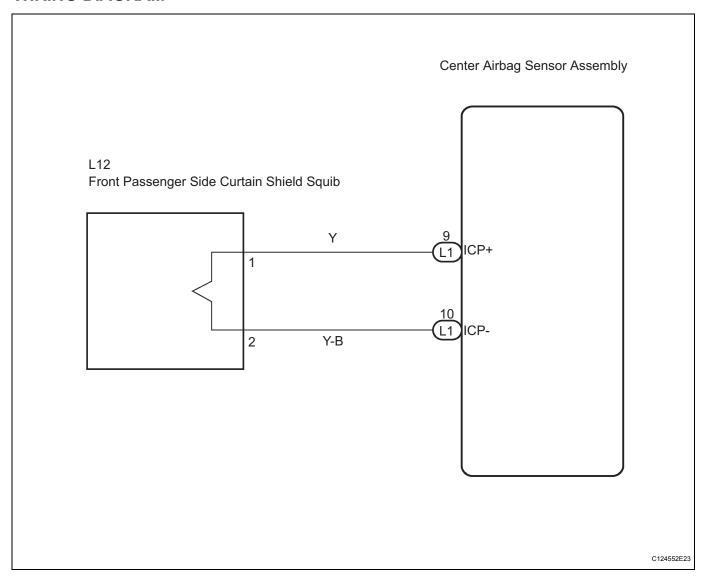
The front passenger side curtain shield squib circuit consists of the center airbag sensor assembly and the curtain shield airbag assembly RH.

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

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

| DTC No. | DTC Detection Condition | Trouble Area |
|----------|---|--|
| B1835/58 | The center airbag sensor assembly receives a line short circuit signal 5 times in the front passenger side curtain shield squib circuit during primary check. Front passenger side curtain shield squib malfunction Center airbag sensor assembly malfunction | Floor wire No. 2 Curtain shield airbag assembly RH (Front passenger side curtain shield squib) Center airbag sensor assembly |
| B1836/58 | The center airbag sensor assembly receives an open circuit signal in the front passenger side curtain shield squib circuit for 2 seconds. Front passenger side curtain shield squib malfunction Center airbag sensor assembly malfunction | Floor wire No. 2 Curtain shield airbag assembly RH (Front passenger side curtain shield squib) Center airbag sensor assembly |
| B1837/58 | The center airbag sensor assembly receives a short circuit to ground signal in the front passenger side curtain shield squib circuit for 0.5 seconds. Front passenger side curtain shield squib malfunction Center airbag sensor assembly malfunction | Floor wire No. 2 Curtain shield airbag assembly RH (Front passenger side curtain shield squib) Center airbag sensor assembly |
| B1838/58 | The center airbag sensor assembly receives a short circuit to B+ signal in the front passenger side curtain shield squib circuit for 0.5 seconds. Front passenger side curtain shield squib malfunction Center airbag sensor assembly malfunction | Floor wire No. 2 Curtain shield airbag assembly RH (Front passenger side curtain shield squib) Center airbag sensor assembly |

WIRING DIAGRAM

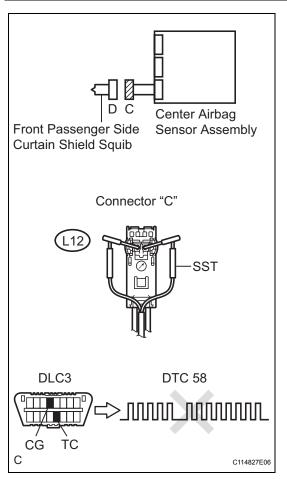


INSPECTION PROCEDURE

HINT

- Perform the simulation method by selecting the "check mode" (signal check) with the intelligent tester (See page RS-37).
- After selecting the "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road (See page RS-37).

CHECK CURTAIN SHIELD AIRBAG ASSEMBLY RH (FRONT PASSENGER SIDE CURTAIN SHIELD SQUIB)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connectors from the curtain shield airbag assembly RH.
- (d) Connect the white wire side of SST (resistance 2.1 Ω) to connector "C".

CAUTION:

Never connect a tester to the curtain shield airbag assembly 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 the SST into the terminals of the connector when connecting.
- Insert straight the SST into the terminals of the connector.

SST 09843-18060

- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Clear the DTCs stored in memory (See page RS-34).
- (h) Turn the ignition switch off.
- (i) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (j) Check the DTCs (See page RS-34).

OK:

DTC B1835, B1836, B1837, B1838 or 58 is not output.

HINT:

Codes other than DTC B1835, B1836, B1837, B1838 and 58 may be output at this time, but they are not related to this check.



REPLACE CURTAIN SHIELD AIRBAG ASSEMBLY RH



2 CHECK CONNECTOR

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the SST from connector "C".
- (d) Check that the floor wire No. 2 connectors (on the curtain shield airbag assembly RH side) are not damaged.

OK:

The lock button is not disengaged, or the claw of the lock is not deformed or damaged.

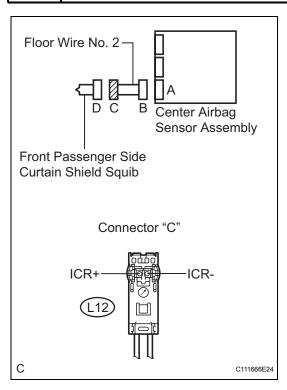
NG >

REPAIR OR REPLACE FLOOR WIRE NO. 2



3

CHECK FLOOR WIRE NO. 2 (FRONT PASSENGER SIDE CURTAIN SHIELD SQUIB CIRCUIT)



- (a) Disconnect the connectors from the center airbag sensor assembly.
- (b) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|-------------------------------|-------------------------|---------------------|
| L12-1 (ICR+) - Body ground | Ignition switch on (IG) | Below 1 V |
| L12-2 (ICR-) - Body ground | Ignition switch on (IG) | Below 1 V |

- (c) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-----------------------------|-----------|---------------------|
| L12-1 (ICR+) - L12-2 (ICR-) | Always | Below 1 Ω |

- (d) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------------------|-----------|------------------------|
| L12-1 (ICR+) - Body ground | Always | 1 M Ω or higher |
| L12-2 (ICR-) - Body ground | Always | 1 M Ω or higher |

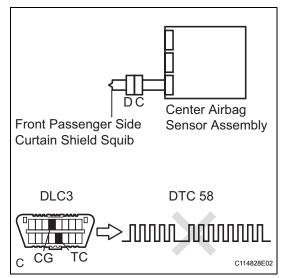
- (e) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "B" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-----------------------------|-----------|------------------------|
| L12-1 (ICR+) - L12-2 (ICR-) | Always | 1 M Ω or higher |



4 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Connect the connectors to the curtain shield airbag assembly RH and the center airbag sensor assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (d) Clear the DTCs stored in memory (See page RS-34).
- (e) Turn the ignition switch off.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-34).

OK:

DTC B1835, B1836, B1837, B1838 or 58 is not output.

HINT:

Codes other than DTC B1835, B1836, B1837, B1838 and 58 may be output at this time, but they are not related to this check.



REPLACE CENTER AIRBAG SENSOR ASSEMBLY



USE SIMULATION METHOD TO CHECK

| DTC | B1860/64 | Short in Driver Side Knee Airbag Squib Circuit |
|-----|----------|---|
| DTC | B1861/64 | Open in Driver Side Knee Airbag Squib Circuit |
| DTC | B1862/64 | Short to GND in Driver Side Knee Airbag Squib Circuit |
| DTC | B1863/64 | Short to B+ in Driver Side Knee Airbag Squib Circuit |

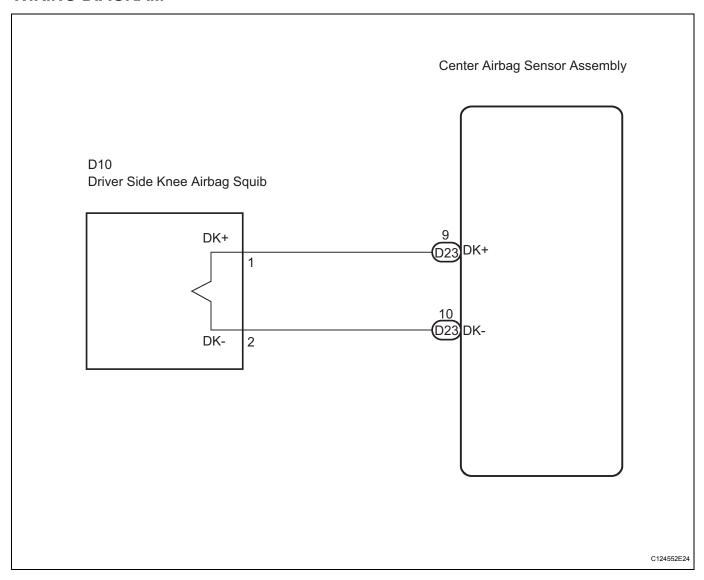
DESCRIPTION

The driver side knee airbag squib circuit consists of the center airbag sensor assembly and the driver side knee airbag assembly.

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 knee airbag squib circuit.

| DTC No. | DTC Detecting Condition | Trouble Area |
|----------|---|--|
| B1860/64 | The center airbag sensor assembly receives a line short circuit signal 5 times in the driver side knee airbag squib circuit during primary check. Driver side knee airbag squib malfunction Center airbag sensor assembly malfunction | Instrument panel wire Driver side knee airbag assembly (Driver side knee airbag squib) Center airbag sensor assembly |
| B1861/64 | The center airbag sensor assembly receives an open circuit signal in the driver side knee airbag squib circuit for 2 seconds. Driver side knee airbag squib malfunction Center airbag sensor assembly malfunction | Instrument panel wire Driver side knee airbag assembly (Driver side knee airbag squib) Center airbag sensor assembly |
| B1862/64 | The airbag sensor assembly center receives a short circuit to ground signal in the driver side knee airbag squib circuit for 0.5 seconds. Driver side knee airbag squib malfunction Center airbag sensor assembly malfunction | Instrument panel wire Driver side knee airbag assembly (Driver side knee airbag squib) Center airbag sensor assembly |
| B1863/64 | The airbag sensor assembly center receives a short circuit to B+ signal in the driver side knee airbag squib circuit for 0.5 seconds. Driver side knee airbag squib malfunction Center airbag sensor assembly malfunction | Instrument panel wire Driver side knee airbag assembly (Driver side knee airbag squib) Center airbag sensor assembly |

WIRING DIAGRAM



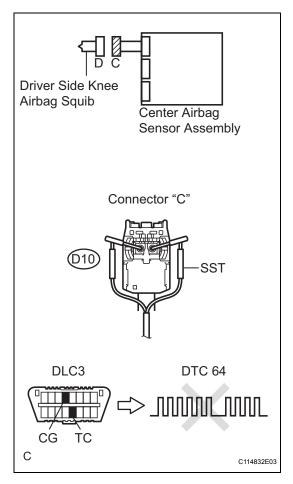
INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "check mode" (signal check) with the intelligent tester (See page RS-37).
- After selecting the "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road (See page RS-37).



1 CHECK DRIVER SIDE KNEE AIRBAG ASSEMBLY (DRIVER SIDE KNEE AIRBAG SQUIB)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connector from the driver side knee airbag assembly.
- (d) Connect the white wire side of SST (resistance 2.1 Ω) to the floor wire.

CAUTION:

Never connect a tester to the driver side knee airbag assembly (driver side knee airbag squib) for measurement, as this may lead to a serious injury due to airbag deployment.

NOTICE:

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

SST 09843-18060

- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Clear the DTCs stored in memory (See page RS-34).
- (h) Turn the ignition switch off.
- (i) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (j) Check the DTCs (See page RS-34).

OK:

DTC B1860, B1861, B1862, B1863 or 64 is not output.

HINT:

Codes other than DTC B1860, B1861, B1862, B1863 and 64 may be output at this time, but they are not related to this check.



REPLACE DRIVER SIDE KNEE AIRBAG ASSEMBLY



2 CHECK CONNECTOR

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the SST from connector "C".
- (d) Check that the instrument panel wire connector (on the driver side knee airbag assembly side) is not damaged. OK:

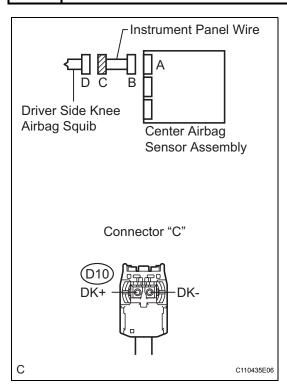
The lock button is not disengaged, or the claw of the lock is not deformed or damaged.



REPAIR OR REPLACE INSTRUMENT PANEL WIRE



3 CHECK INSTRUMENT PANEL WIRE (DRIVER SIDE KNEE AIRBAG SQUIB CIRCUIT)



- (a) Disconnect the connectors from the center airbag sensor assembly.
- (b) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|------------------------------|-------------------------|---------------------|
| D10-1 (DK+) - Body ground | Ignition switch on (IG) | Below 1 V |
| D10-2 (DK-) - Body ground | Ignition switch on (IG) | Below 1 V |

- (c) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|---------------------------|-----------|---------------------|
| D10-1 (DK+) - D10-2 (DK-) | Always | Below 1 Ω |

- (d) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|------------------------------|-----------|------------------------|
| D10-1 (DK+) - Body ground | Always | 1 M Ω or higher |
| D10-2 (DK-) - Body ground | Always | 1 M Ω or higher |

- (e) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "B" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

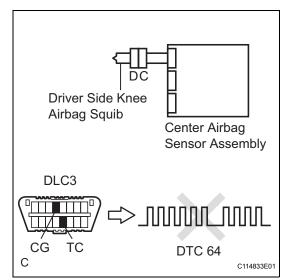
| Tester connection | Condition | Specified condition |
|---------------------------|-----------|------------------------|
| D10-1 (DK+) - D10-2 (DK-) | Always | 1 M Ω or higher |

NG

REPAIR OR REPLACE INSTRUMENT PANEL WIRE



4 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Connect the connectors to the driver side knee airbag assembly and the center airbag sensor assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (d) Clear the DTCs stored in memory (See page RS-34).
- (e) Turn the ignition switch off.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-34).

OK:

DTC B1860, B1861, B1862, B1863 or 64 is not output.

HINT:

Codes other than DTC B1860, B1861, B1862, B1863 and 64 may be output at this time, but they are not related to this check.



REPLACE CENTER AIRBAG SENSOR ASSEMBLY



USE SIMULATION METHOD TO CHECK

| 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

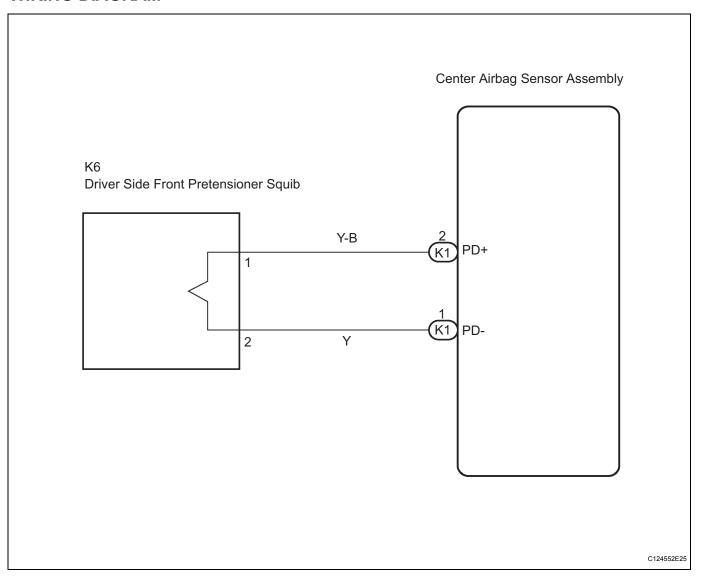
The driver side front pretensioner squib circuit consists of the center airbag sensor assembly and the front seat outer belt assembly LH.

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

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

| DTC No. DTC Detection Condition | | Trouble Area |
|---------------------------------|---|---|
| B1900/73 | The center airbag sensor assembly receives a line short circuit signal 5 times in the driver side front pretensioner squib circuit during primary check. Driver side front pretensioner squib malfunction Center airbag sensor assembly malfunction | Floor wire Front seat outer belt assembly LH (Driver side front pretensioner squib) Center airbag sensor assembly |
| B1901/73 | The center airbag sensor assembly receives an open circuit signal in the driver side front pretensioner squib circuit for 2 seconds. Driver side front pretensioner squib malfunction Center airbag sensor assembly malfunction | Floor wire Front seat outer belt assembly LH (Driver side front pretensioner squib) Center airbag sensor assembly |
| B1902/73 | The center airbag sensor assembly receives a short circuit to ground signal in the driver side front pretensioner squib circuit for 0.5 seconds. Driver side front pretensioner squib malfunction Center airbag sensor assembly malfunction | Floor wire Front seat outer belt assembly LH (Driver side front pretensioner squib) Center airbag sensor assembly |
| B1903/73 | The center airbag sensor assembly receives a short circuit to B+ signal in the driver side front pretensioner squib circuit for 0.5 seconds. Driver side front pretensioner squib malfunction Center airbag sensor assembly malfunction | Floor wire Front seat outer belt assembly LH (Driver side front pretensioner squib) Center airbag sensor assembly |

WIRING DIAGRAM

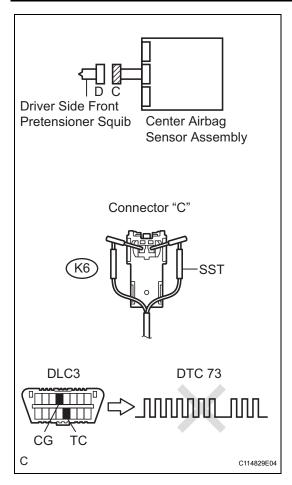


INSPECTION PROCEDURE

HINT

- Perform the simulation method by selecting the "check mode" (signal check) with the intelligent tester (See page RS-37).
- After selecting the "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road (See page RS-37).

CHECK FRONT SEAT OUTER BELT ASSEMBLY LH (DRIVER SIDE FRONT PRETENSIONER SQUIB)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connectors from the front seat outer belt assembly LH.
- (d) Connect the white wire side of SST (resistance 2.1 Ω) to connector "C".

CAUTION:

Never connect a tester to the front seat outer belt assembly 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 the SST into the terminals of the connector when connecting.
- Insert straight the SST into the terminals of the connector.

SST 09843-18060

- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Clear the DTCs stored in memory (See page RS-34).
- (h) Turn the ignition switch off.
- (i) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (j) Check the DTCs (See page RS-34).

OK:

DTC B1900, B1901, B1902, B1903 or 73 is not output.

HINT:

Codes other than DTC B1900, B1901, B1902, B1903 and 73 may be output at this time, but they are not related to this check.



REPLACE FRONT SEAT OUTER BELT ASSEMBLY LH



- 2 CHECK CONNECTOR
- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the SST from connector "C".
- (d) Check that the floor wire connector (on the front seat outer belt assembly LH side) is not damaged.

OK:

The lock button is not disengaged, or the claw of the lock is not deformed or damaged.

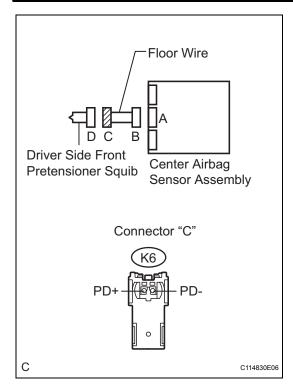
NG >

REPAIR OR REPLACE FLOOR WIRE



3

CHECK FLOOR WIRE (DRIVER SIDE FRONT PRETENSIONER SQUIB CIRCUIT)



- (a) Disconnect the connectors from the center airbag sensor assembly.
- (b) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|-----------------------------|-------------------------|---------------------|
| K6-1 (PD+) - Body ground | Ignition switch on (IG) | Below 1 V |
| K6-2 (PD-) - Body ground | Ignition switch on (IG) | Below 1 V |

- (c) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------------|-----------|---------------------|
| K6-1 (PD+) - K6-2 (PD-) | Always | Below 1 Ω |

- (d) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-----------------------------|-----------|------------------------|
| K6-1 (PD+) - Body ground | Always | 1 M Ω or higher |
| K6-2 (PD-) - Body ground | Always | 1 M Ω or higher |

- (e) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "B" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

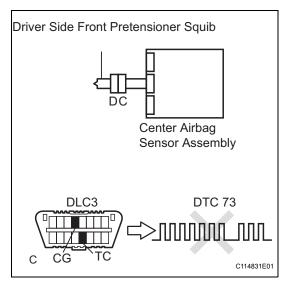
Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------------|-----------|------------------------|
| K6-1 (PD+) - K6-2 (PD-) | Always | 1 M Ω or higher |

REPAIR OR REPLACE FLOOR WIRE



4 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Connect the connectors to the front seat outer belt assembly LH and the center airbag sensor assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (d) Clear the DTCs stored in memory (See page RS-34).
- (e) Turn the ignition switch off.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-34).

OK:

DTC B1900, B1901, B1902, B1903 or 73 is not output.

HINT:

Codes other than DTC B1900, B1901, B1902, B1903 or 73 may be output at this time, but they are not related to this check.



REPLACE CENTER AIRBAG SENSOR ASSEMBLY



USE SIMULATION METHOD TO CHECK

| 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

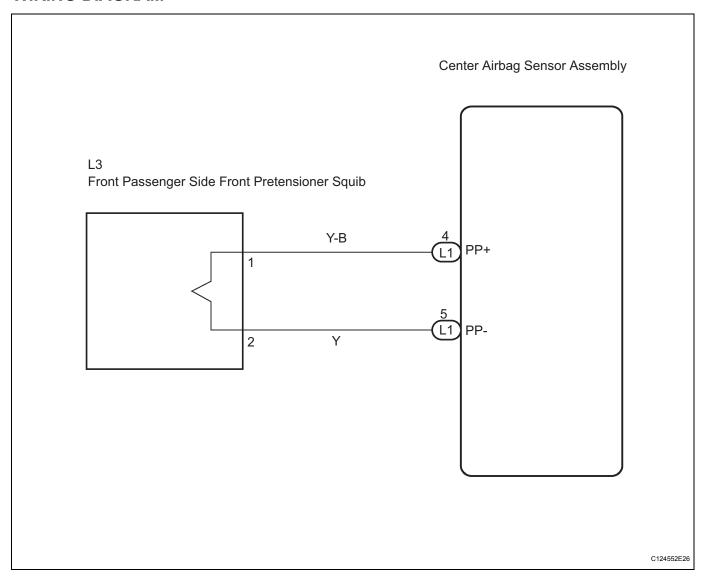
The front passenger side front pretensioner squib circuit consists of the center airbag sensor assembly and the front seat outer belt assembly RH.

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 | The center airbag sensor assembly receives a line short circuit signal 5 times in the front passenger side front pretensioner squib circuit during primary check. Front passenger side front pretensioner squib malfunction Center airbag sensor assembly malfunction | Floor wire No. 2 Front seat outer belt assembly RH (Front passenger side front pretensioner squib) Center airbag sensor assembly | |
| B1906/74 | The center airbag sensor assembly receives an open circuit signal in the front passenger side front pretensioner squib circuit for 2 seconds. Front passenger side front pretensioner squib malfunction Center airbag sensor assembly malfunction | Floor wire No. 2 Front seat outer belt assembly RH (Front passenger side front pretensioner squib) Center airbag sensor assembly | |
| B1907/74 | The center airbag sensor assembly receives a short circuit to ground signal in the front passenger side front pretensioner squib circuit for 0.5 seconds. Front passenger side front pretensioner squib malfunction Center airbag sensor assembly malfunction | Floor wire No. 2 Front seat outer belt assembly RH (Front passenger side front pretensioner squib) Center airbag sensor assembly | |
| The center airbag sensor assembly receives a short circuit to B+ signal in the front passenger side front pretensioner squib circuit for 0.5 seconds. Front passenger side front pretensioner squib malfunction Center airbag sensor assembly malfunction | | Floor wire No. 2 Front seat outer belt assembly RH (Front passenger side front pretensioner squib) Center airbag sensor assembly | |

WIRING DIAGRAM

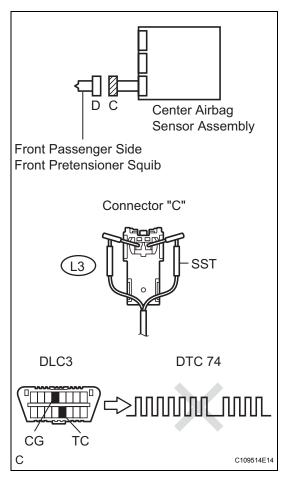


INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting the "check mode" (signal check) with the intelligent tester (See page RS-37).
- After selecting the "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road (See page RS-37).

CHECK FRONT SEAT OUTER BELT ASSEMBLY RH (FRONT PASSENGER SIDE FRONT PRETENSIONER SQUIB)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connectors from the front seat outer belt assembly RH.
- (d) Connect the white wire side of SST (resistance 2.1 Ω) to connector "C".

CAUTION:

Never connect a tester to the front seat outer belt assembly 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 the SST into the terminals of the connector when connecting.
- Insert straight the SST into the terminals of the connector.

SST 09843-18060

- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Clear the DTCs stored in memory (See page RS-34).
- (h) Turn the ignition switch off.
- (i) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (j) Check the DTCs (See page RS-34).

OK:

DTC B1905, B1906, B1907, B1908 or 74 is not output.

HINT:

Codes other than DTC B1905, B1906, B1907, B1908 and 74 may be output at this time, but they are not related to this check.



REPLACE FRONT SEAT OUTER BELT ASSEMBLY RH



1

2 CHECK CONNECTOR

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the SST from connector "C".
- (d) Check that the floor wire No. 2 connector (on the front seat outer belt assembly RH side) is not damaged.

OK:

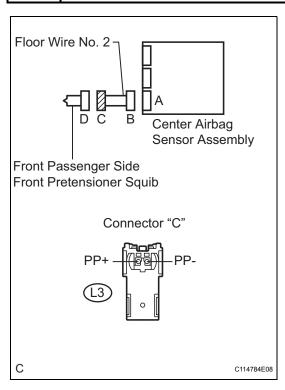
The lock button is not disengaged, or the claw of the lock is not deformed or damaged.

NG >

REPAIR OR REPLACE FLOOR WIRE NO. 2



CHECK FLOOR WIRE NO. 2 (FRONT PASSENGER SIDE FRONT PRETENSIONER SQUIB CIRCUIT)



- (a) Disconnect the connectors from the center airbag sensor assembly.
- (b) Check for a short to B+ in the circuit.
 - (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch on (IG).
 - (3) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|--------------------------|-------------------------|---------------------|
| L3-1 (PP+) - Body ground | Ignition switch on (IG) | Below 1 V |
| L3-2 (PP-) - Body ground | Ignition switch on (IG) | Below 1 V |

- (c) Check for an open in the circuit.
 - (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|-------------------------|-----------|---------------------|
| L3-1 (PP+) - L3-2 (PP-) | Always | Below 1 Ω |

- (d) Check for a short to ground in the circuit.
 - (1) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|--------------------------|-----------|------------------------|
| L3-1 (PP+) - Body ground | Always | 1 M Ω or higher |
| L3-2 (PP-) - Body ground | Always | 1 M Ω or higher |

- (e) Check for a short in the circuit.
 - (1) Release the activation prevention mechanism built into connector "B" (See page RS-28).
 - (2) Measure the resistance according to the value(s) in the table below.

Standard resistance

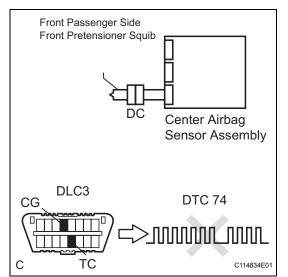
| Tester connection | Condition | Specified condition |
|-------------------------|-----------|------------------------|
| L3-1 (PP+) - L3-2 (PP-) | Always | 1 M Ω or higher |

S

NG > REPAIR OR REPLACE FLOOR WIRE NO. 2



4 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Connect the connectors to the front seat outer belt assembly RH and the center airbag sensor assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (d) Clear the DTCs stored in memory (See page RS-34).
- (e) Turn the ignition switch off.
- (f) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (g) Check the DTCs (See page RS-34).

OK:

DTC B1905, B1906, B1907, B1908 or 74 is not output.

HINT:

Codes other than DTC B1905, B1906, B1907, B1908 and 74 may be output at this time, but they are not related to this check.



REPLACE CENTER AIRBAG SENSOR ASSEMBLY



USE SIMULATION METHOD TO CHECK

SRS Warning Light Remains ON

DESCRIPTION

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

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

A malfunction in this circuit is displayed differently from other codes. The source voltage drop is indicated when the SRS warning light comes on without showing any DTCs.

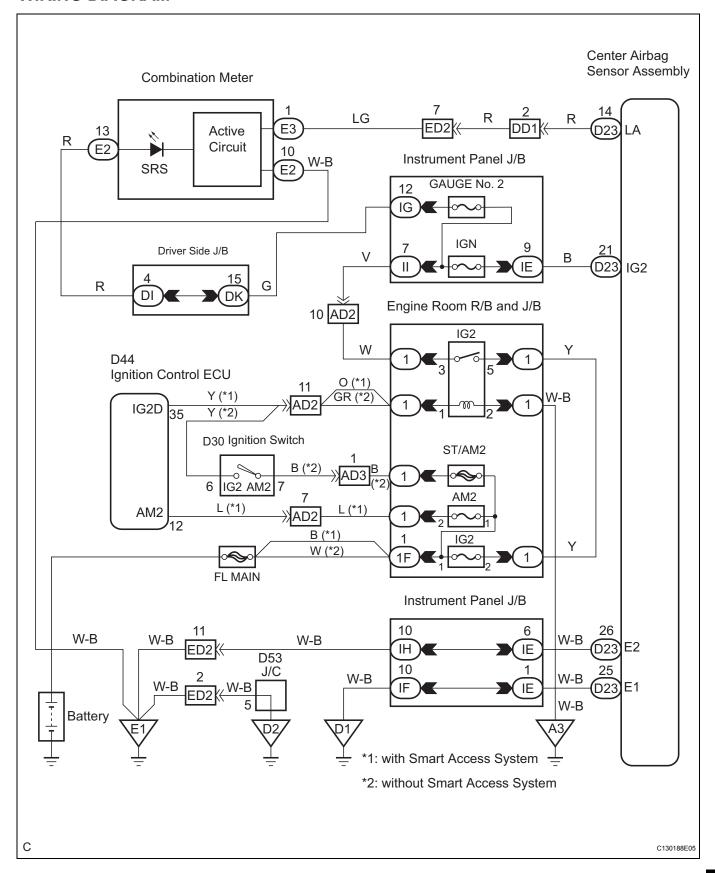
A malfunction in this circuit is not recorded in the center airbag sensor assembly. The SRS warning light automatically goes off when the source voltage returns to normal.

The SRS warning light is located on the combination meter.

When the SRS is normal, the SRS warning light comes on for approximately 6 seconds after the ignition switch is turned from off to on (IG), and then goes off automatically.

If there is a malfunction in the SRS, the SRS warning light comes on to inform the driver of a problem. When terminals TC and CG of the DLC3 are connected, the DTCs are displayed by blinking the SRS warning light.

WIRING DIAGRAM



INSPECTION PROCEDURE

- 1 CHECK BATTERY
- (a) Measure the voltage of the battery.

Standard voltage:

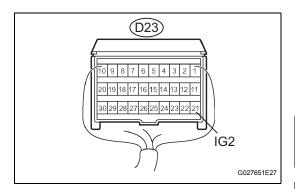
11 to 14 V

NG >

REPLACE BATTERY

OK

2 CHECK WIRE HARNESS (POWER SOURCE)



- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the ignition switch on (IG).
- (c) Measure the voltage according to the value(s) in the table below.

Standard voltage

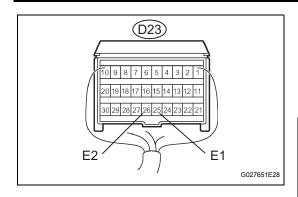
| Tester connection | Condition | Specified condition |
|-------------------------------|-------------------------|---------------------|
| D23-21 (IG2) - Body ground | Ignition switch on (IG) | 10 to 14 V |

NG

REPAIR OR REPLACE WIRE HARNESS (BATTERY - CENTER AIRBAG SENSOR ASSEMBLY)

OK /

3 CHECK WIRE HARNESS (CENTER AIRBAG SENSOR ASSEMBLY - BODY GROUND)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Measure the resistance according to the value(s) in the table below.

Standard resistance

| Tester connection | Condition | Specified condition |
|------------------------------|-----------|---------------------|
| D23-25 (E1) - Body ground | Always | Below 1 Ω |
| D23-26 (E2) - Body ground | Always | Below 1 Ω |

NG

REPAIR OR REPLACE WIRE HARNESS

OK

4 CHECK CONNECTION OF CONNECTORS

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

(b) Check that the connectors are properly connected to the center airbag sensor assembly.

OK:

The connectors are connected.

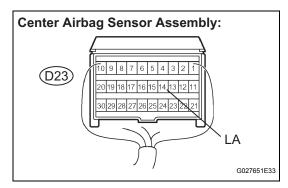
NG >

CONNECT CONNECTORS

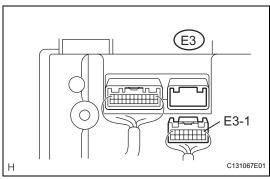
OK

5

CHECK WIRE HARNESS (CENTER AIRBAG SENSOR ASSEMBLY - COMBINATION METER)



(a) Disconnect the connectors from the combination meter.



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

Standard resistance

| Tester connection | Condition | Specified condition |
|------------------------------|-----------|------------------------|
| D23-14 (LA) - E3-1 | Always | Below 1 Ω |
| D23-14 (LA) - Body ground | Always | 1 M Ω or higher |

Standard voltage

| Tester connection | Condition | Specified condition |
|------------------------------|-------------------------|---------------------|
| D23-14 (LA) - Body ground | Ignition switch on (IG) | Below 1 V |

NG

REPAIR OR REPLACE WIRE HARNESS

ОК

6 CHECK COMBINATION METER

- (a) Connect the connectors to the combination meter.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch on (IG).
- (d) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition |
|---------------------|-------------------------|---------------------|
| E2-13 - Body ground | Ignition switch on (IG) | 8 to 14 V |

NG

ОК

REPLACE CENTER AIRBAG SENSOR ASSEMBLY

SRS Warning Light does not Come ON

DESCRIPTION

The SRS warning light is located on the combination meter.

When the SRS is normal, the SRS warning light comes on for approximately 6 seconds after the ignition switch is turned from off to on (IG), and then goes off automatically.

If there is a malfunction in the SRS, the SRS warning light comes on to inform the driver of a problem. When terminals TC and CG of the DLC3 are connected, the DTC is displayed by blinking the SRS warning light.

WIRING DIAGRAM

See page RS-191.

INSPECTION PROCEDURE

1 CHECK BATTERY

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

11 to 14 V

NG

REPAIR OR REPLACE WIRE HARNESS OR BATTERY

OK

2 CHECK COMBINATION METER

- (a) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (b) Turn the ignition switch on (IG).
- (c) Check the SRS warning light operation.

OK:

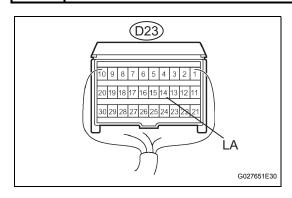
The SRS warning light does not come on.

NG

REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK

3 CHECK WIRE HARNESS (COMBINATION METER - CENTER AIRBAG SENSOR ASSEMBLY)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connector from the combination meter.
- (d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (e) Measure the voltage according to the value(s) in the table below.

Standard voltage

| Tester connection | Condition | Specified condition | |
|------------------------------|-------------------------|---------------------|--|
| D23-14 (LA) - Body ground | Ignition switch on (IG) | Below 1 V | |

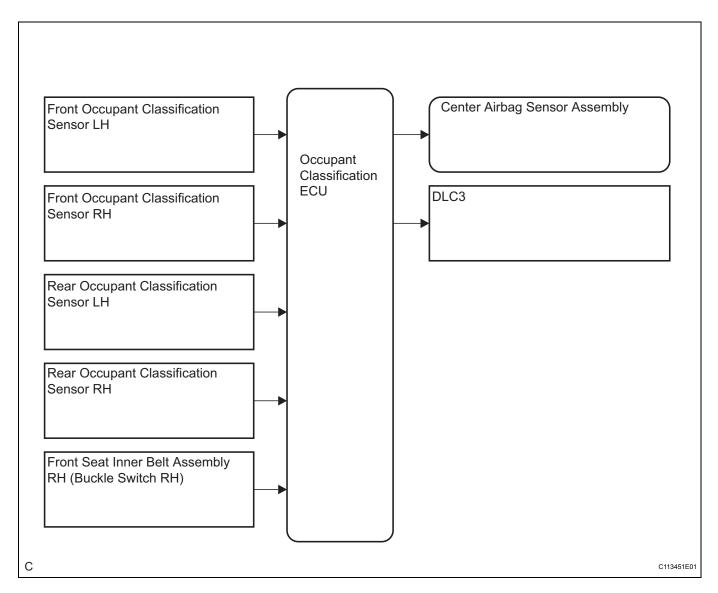
NG)

REPAIR OR REPLACE WIRE HARNESS



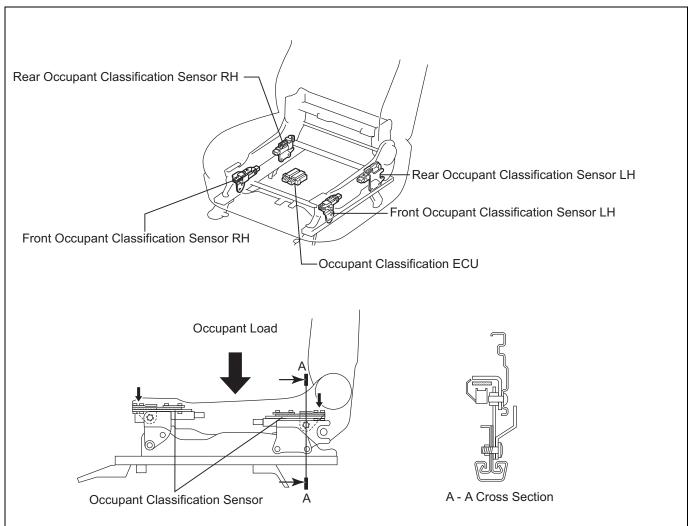
REPLACE COMBINATION METER

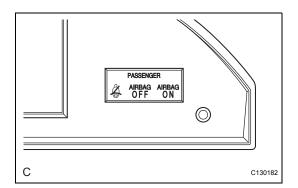
SYSTEM DIAGRAM



SYSTEM DESCRIPTION

- DESCRIPTION OF OCCUPANT CLASSIFICATION SYSTEM
 - (a) GENERAL DESCRIPTION.
 - (1) In the occupant classification system, the occupant classification ECU calculates the weight of the occupant based on a signal from the occupant classification sensors. This system recognizes the occupant to be a child if it detects a weight of less than 36 kg (79.37 lb), and disables the front passenger airbag and front passenger side-side airbag.
 - (2) This system is mainly comprised of 4 occupant classification sensors that detect the load on the front passenger seat. The occupant classification ECU controls the system, and the passenger airbag ON/OFF indicator indicates the ON/OFF condition of the front passenger airbag and front passenger side-side airbag.
 - (b) OCCUPANT CLASSIFICATION SENSOR.





- (1) The occupant classification sensors are installed on 4 brackets connecting the seat rail and seat frame. Accordingly, when load is applied to the front passenger seat by an occupant sitting in it, the occupant classification sensors register a distortion.
- (c) DESCRIPTION FOR PASSENGER AIRBAG ON/ OFF INDICATOR.
 - (1) The passenger airbag ON/OFF indicator is installed on the clock assembly. This indicator informs the driver by ON/OFF indication, whether the occupant classification ECU puts the front passenger airbag assembly into an active state or inactive state.
 - (2) If a malfunction occurs in the occupant classification system, "OFF" indication of the passenger airbag ON/OFF indicator and the SRS warning light turn on.

HOW TO PROCEED WITH TROUBLESHOOTING

The intelligent tester can be used in steps 4, 6, 8 and 9.

| 1 | VEHICLE BROUGHT TO WORKSHOP | | |
|-----------|------------------------------------|------------------------------|--|
| NEXT | | | |
| 2 | CUSTOMER PROBLEM ANALYSIS | | |
| NEXT | | | |
| 3 | PASSENGER AIRBAG ON/OFF INDICATO | OR CHECK | |
| NEXT | | | |
| 4 | DTCs CHECK (Present and Past DTCs) | | |
| Result | (a) Che | eck for DTCs. | |
| | Result | Proceed to | |
| DTC is ou | ıtput. | A | |
| DTC is no | ot output. | В | |
| | В | SO TO PROBLEM SYMPTOMS TABLE | |
| A | | | |
| 5 | DTCs CHART | | |
| NEXT | | | |
| 6 | CIRCUIT INSPECTION | | |
| NEXT | | | |
| 7 | REPAIR | | |
| NEXT | | | |
| 8 | CLEAR DTCs (Present and Past DTCs) | | |



9 DTCs CHECK (Present and Past DTCs)

(a) Check for DTCs.

Result

| Result | Proceed to | |
|--------------------|------------|--|
| DTC is not output. | A | |
| DTC is output. | В | |

B Go to step 5



10 SYMPTOM SIMULATION

(a) Check the passenger airbag ON/OFF indicator condition.

Result

| Result | Proceed to |
|---|------------|
| Passenger airbag ON/OFF indicator is operate normally. | A |
| Passenger airbag ON/OFF indicator ("OFF") and SRS warning light comes on. | В |

B Go to step 5



11 CONFIRMATION TEST

NEXT

END

HOW TO PROCEED WITH TROUBLESHOOTING

The intelligent tester can be used in steps 4, 6, 8 and 9.

| 1 | VEHICLE BROUGHT TO WORKSHOP | | |
|-----------|------------------------------------|------------------------------|--|
| NEXT | | | |
| 2 | CUSTOMER PROBLEM ANALYSIS | | |
| NEXT | | | |
| 3 | PASSENGER AIRBAG ON/OFF INDICATO | OR CHECK | |
| NEXT | | | |
| 4 | DTCs CHECK (Present and Past DTCs) | | |
| Result | (a) Che | eck for DTCs. | |
| | Result | Proceed to | |
| DTC is ou | ıtput. | A | |
| DTC is no | ot output. | В | |
| | В | SO TO PROBLEM SYMPTOMS TABLE | |
| A | | | |
| 5 | DTCs CHART | | |
| NEXT | | | |
| 6 | CIRCUIT INSPECTION | | |
| NEXT | | | |
| 7 | REPAIR | | |
| NEXT | | | |
| 8 | CLEAR DTCs (Present and Past DTCs) | | |



9 DTCs CHECK (Present and Past DTCs)

(a) Check for DTCs.

Result

| Result | Proceed to | |
|--------------------|------------|--|
| DTC is not output. | A | |
| DTC is output. | В | |

B Go to step 5



10 SYMPTOM SIMULATION

(a) Check the passenger airbag ON/OFF indicator condition.

Result

| Result | Proceed to |
|---|------------|
| Passenger airbag ON/OFF indicator is operate normally. | A |
| Passenger airbag ON/OFF indicator ("OFF") and SRS warning light comes on. | В |

B Go to step 5



11 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 occur.

- · The occupant classification ECU is replaced.
- Accessories (seatback tray and seat cover, etc.) are installed.
- The front passenger seat is removed from the vehicle.
- The passenger airbag ON/OFF indicator ("OFF") comes on when the front passenger seat is not occupied.
- The vehicle is brought to the workshop for repair due to an accident or a collision.
- (a) Zero point calibration and sensitivity check procedures.

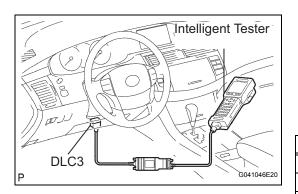
HINT:

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

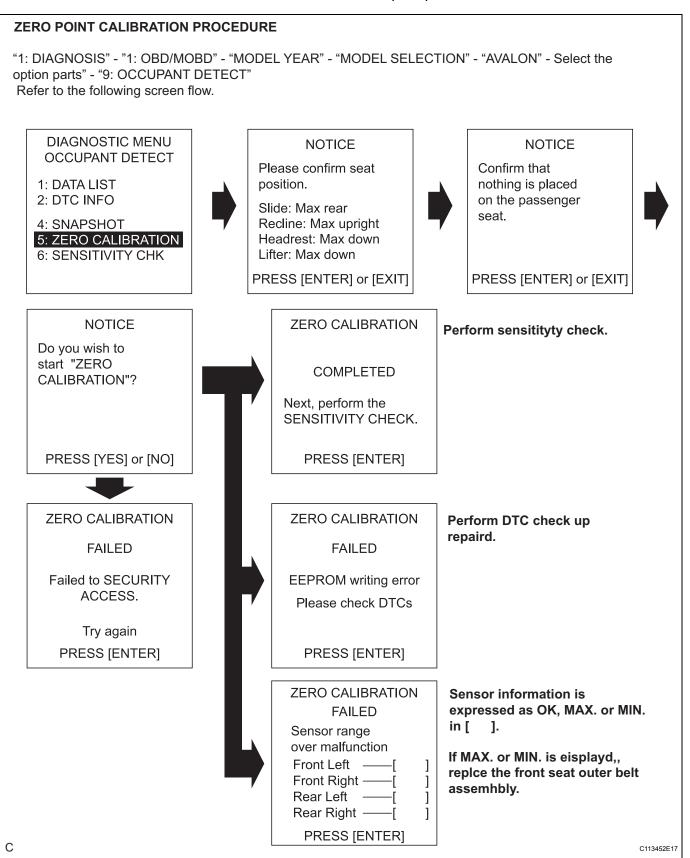
(1) Adjust the seat position according to the table below.

| Adjustment Component | Position |
|----------------------|-------------------|
| Slide Direction | Rearmost position |
| Reclining Angle | Upright position |
| Headrest Height | Lowest position |
| Lifter Height | Lowest position |

- (2) Connect the intelligent tester to the DLC3.
- (3) Turn the ignition switch on (IG).



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



HINT:

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

OK:

"COMPLETE" is displayed.

- (5) Perform the sensitivity check by following the prompts on the tester screen.
- (6) Confirm that the beginning sensor reading within standard value.

Standard value:

-3.2 to 3.2 kg (-7 to 7 lb)

- (7) Place a 30 kg (66.14 lb) weight (eg. a 30 kg (66.14 lb) of lead mass) onto the front passenger seat.
- (8) Confirm that the sensitivity is within the standard value.

SENSITIVITY CHECK PROCEDURE

"1: DIAGNOSIS" - "1: OBD/MOBD" - "MODEL YEAR" - "MODEL SELECTION = AVALON" - Select the option parts - "9: OCCUPANT DETECT" - Refer to the following screen flow.

DIAGNOSTIC MENU OCCUPANT DETECT

- 1: DATA LIST 2: DTC INFO
- 4: SNAPSHOT
- 5: ZERO CALIBRATION

6: SENSITIVITY CHK



NOTICE

Please confirm that nothing is placed on the passenger seat.





SENSITIVITY CHECK

Beginning sensor reading should be -3.2 to 3.2 kg. (-7 to 7 lds)

Sensor reading 0.00 kg



PRESS [ENTER]

SENSITIVITY CHECK

Blace 30 kg (66 lbs) weight on passenger seat. Sensor reading should be 27 to 33 kg. (59 to 73 lbs)

С

Sensor reading 0.00 kg (*1) PRESS [ENTER] *1: kg = lb

Unit can be changed based on unit conversion setting.

[System Selection Screen]

"1: DIAGNOSIS" - "9: SETUP" - "4: UNIT CONVERSION" - "WEIGHT" (kg = lbs)

C113453E15

Standard value:

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 appear properly if the weight made from liquid is used).

- When the sensitivity deviates from the standard value, 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 value, replace the front seat assembly RH.
- When zero point calibration has not finished normally, replace the front seat assembly RH.

PROBLEM SYMPTOMS TABLE

HINT:

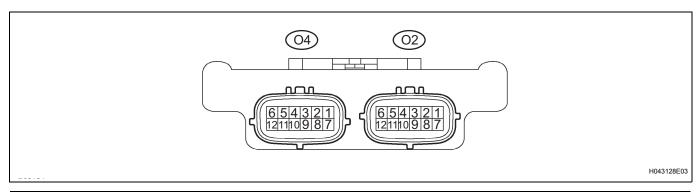
Proceed to the troubleshooting for each circuit in the table below.

OCCUPANT CLASSIFICATION SYSTEM

| Symptom | Suspected area | See page |
|--|--|----------|
| The front passenger seat condition differs from the indication by the passenger airbag ON/OFF indicator (DTC is not output). | Trouble in Passenger Airbag ON/OFF Indicator | RS-298 |

TERMINALS OF ECU

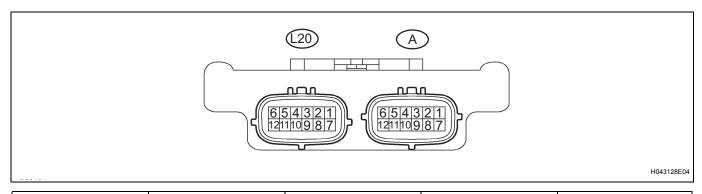
1. OCCUPANT CLASSIFICATION ECU (for Power seat)



| Terminal No. (Symbols) | Wiring Color | Terminal Description | Condition | Specification |
|-------------------------------|--------------|--|--|------------------|
| O2-1 (SGD1) - O4-3 (GND) | G - W-B | Front occupant classification sensor LH ground line | Always | Below 1 V |
| O2-2 (SGD2) - O4-3 (GND) | O - W-B | Front occupant classification sensor RH ground line | Always | Below 1 V |
| O2-3 (SGD3) - O4-3 (GND) | W - W-B | Rear occupant classification sensor LH ground line | Always | Below 1 V |
| O2-4 (SGD4) - O4-3 (GND) | BR - W-B | Rear occupant classification sensor RH ground line | Always | Below 1 V |
| O2-5 (SVC3) - O2-3 (SGD3) | GR - W | Rear occupant classification sensor LH power supply line | Ignition switch on (IG), a load is applied to rear occupant classification sensor LH | 4.5 to 5.1 V |
| O2-6 (SVC4) - O2-4 (SGD4) | V - BR | Rear occupant classification sensor RH power supply line | Ignition switch on (IG), a load is applied to rear occupant classification sensor RH | 4.5 to 5.1 V |
| O2-7 (SIG1) - O2-1 (SGD1) | P - G | Front occupant classification sensor LH signal line | Ignition switch on (IG), a load is applied to front occupant classification sensor LH | 0.2 to 4.9 V |
| O2-8 (SIG2) - O2-2 (SGD2) | L-0 | Front occupant classification sensor RH signal line | Ignition switch on (IG), a load is applied to front occupant classification sensor RH | 0.2 to 4.9 V |
| O2-9 (SIG3) - O2-3 (SGD3) | Y - W | Rear occupant classification sensor LH signal line | Ignition switch on (IG), a load is applied to rear occupant classification sensor LH | 0.2 to 4.9 V |
| O2-10 (SIG4) - O2-4 (SGD4) | B - BR | Rear occupant classification sensor RH signal line | Ignition switch on (IG), a load is applied to rear occupant classification sensor RH | 0.2 to 4.9 V |
| O2-11 (SVC1) - O2-1 (SGD1) | R - G | Front occupant classification sensor LH power supply line | Ignition switch on (IG), a load is applied to front occupant classification sensor LH | 4.5 to 5.1 V |
| O2-12 (SVC2) - O2-2 (SGD2) | W - O | Front occupant classification sensor RH power supply line | Ignition switch on (IG), a load is applied to front occupant classification sensor RH | 4.5 to 5.1 V |
| O4-1 (+B) - O4-3 (GND) | R - W-B | Battery | Always | 10 to 14 V |
| O4-2 (DIA) - O4-3 (GND) | V - W-B | Diagnosis (DLC3) | Ignition switch on (IG) | Pulse generation |

| Terminal No. (Symbols) | Wiring Color | Terminal Description | Condition | Specification |
|-----------------------------|-------------------|--|-------------------------|------------------|
| O4-3 (GND) - Body ground | W-B - Body ground | Ground | Always | Below 1 V |
| O4-4 (FSR-) - O4-3 (GND) | B - W-B | Center airbag sensor assembly communication line (-) | Always | Below 1 V |
| O4-5 (BGND) - O4-3 (GND) | GR - W-B | Passenger side buckle switch ground line | Always | Below 1 V |
| O4-7 (IG) - O4-3 (GND) | BR - W-B | Power source (ECU-B Fuse) | Ignition switch on (IG) | 10 to 14 V |
| O4-8 (FSR+) - O4-4 (FSR- | W - B | Center airbag sensor assembly communication line | Ignition switch on (IG) | Pulse generation |
| O4-9 (BSW) - O4-5 (BGND) | L - GR | Passenger side buckle switch line | Always | Below 1 V |

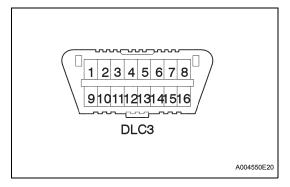
2. OCCUPANT CLASSIFICATION ECU (for Manual seat)



| Terminal No. (Symbols) | Wiring Color | Terminal Description | Condition | Specification |
|--------------------------|--------------|--|--|---------------|
| A-1 (SGD1) - L20-3 (GND) | G - W-B | Front occupant classification sensor LH ground line | Always | Below 1 V |
| A-2 (SGD2) - L20-3 (GND) | O - W-B | Front occupant classification sensor RH ground line | Always | Below 1 V |
| A-3 (SGD3) - L20-3 (GND) | W - W-B | Rear occupant classification sensor LH ground line | Always | Below 1 V |
| A-4 (SGD4) - L20-3 (GND) | BR - W-B | Rear occupant classification sensor RH ground line | Always | Below 1 V |
| A-5 (SVC3) - A-3 (SGD3) | GR - W | Rear occupant classification sensor LH power supply line | Ignition switch on (IG), a load is applied to rear occupant classification sensor LH | 4.5 to 5.1 V |
| A-6 (SVC4) - A-4 (SGD4) | V - BR | Rear occupant classification sensor RH power supply line | Ignition switch on (IG), a load is applied to rear occupant classification sensor RH | 4.5 to 5.1 V |
| A-7 (SIG1) - A-1 (SGD1) | P - G | Front occupant classification sensor LH signal line | Ignition switch on (IG), a load is applied to front occupant classification sensor LH | 0.2 to 4.9 V |
| A-8 (SIG2) - A-2 (SGD2) | L-0 | Front occupant classification sensor RH signal line | Ignition switch on (IG), a load is applied to front occupant classification sensor RH | 0.2 to 4.9 V |
| A-9 (SIG3) - A-3 (SGD3) | Y - W | Rear occupant classification sensor LH signal line | Ignition switch on (IG), a load is applied to rear occupant classification sensor LH | 0.2 to 4.9 V |

RS

| Terminal No. (Symbols) | Wiring Color | Terminal Description | Condition | Specification |
|--------------------------------|-------------------|---|---|------------------|
| A-10 (SIG4) - A-4 (SGD4) | B - BR | Rear occupant classification sensor RH signal line | Ignition switch on (IG), a load is applied to rear occupant classification sensor RH | 0.2 to 4.9 V |
| A-11 (SVC1) - A-1 (SGD1) | R - G | Front occupant classification sensor LH power supply line | Ignition switch on (IG), a load is applied to front occupant classification sensor LH | 4.5 to 5.1 V |
| A-12 (SVC2) - A-2 (SGD2) | W - O | Front occupant classification sensor RH power supply line | Ignition switch on (IG), a load is applied to front occupant classification sensor RH | 4.5 to 5.1 V |
| L20-1 (+B) - L20-3 (GND) | Y - W-B | Battery | Always | 10 to 14 V |
| L20-2 (DIA) - L20-3 (GND) | G - W-B | Diagnosis (DLC3) | Ignition switch on (IG) | Pulse generation |
| L20-3 (GND) - Body ground | W-B - Body ground | Ground | Always | Below 1 V |
| L20-4 (FSR-) - L20-3 (GND) | B - W | Center airbag sensor assembly communication line (-) | Always | Below 1 V |
| L20-5 (BGND) - L20-3 (GND) | GR - W-B | Passenger side buckle switch ground line | Always | Below 1 V |
| L20-7 (IG) - L20-3 (GND) | L - W-B | Power source (ECU-B Fuse) | Ignition switch on (IG) | 10 to 14 V |
| L20-8 (FSR+) - L20-4 (FSR-) | W - B | Center airbag sensor assembly communication line | Ignition switch on (IG) | Pulse generation |
| L20-9 (BSW) - L20-5 (BGND) | R - GR | Passenger side buckle switch line | Always | Below 1 V |



DIAGNOSIS SYSTEM

1. CHECK DLC3

(a) The vehicle's ECM conforms to the ISO 9141-2 for communication protocol. The terminal arrangement of the DLC3 complies with SAE J1962 and meets the ISO 9141-2 format.

| Terminal No. | Connection/Voltage or Resistance | Condition |
|--------------|---|---------------------|
| 7 | Bus + Line/Pulse generation | During Transmission |
| 4 | Chassis Ground - Body Ground/Below 1 Ω | Always |
| 16 | Battery Positive - Body Ground/10 to 14 V | Always |

HINT:

If the display shows a communication error message when connecting the cable of the intelligent tester to the DLC3, turning the ignition switch on (IG) and operating the intelligent tester, there is a problem on the vehicle side or tool side.

 If communication is normal when the tool 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 tool itself. Consult the Service Department listed in the tool's instruction manual.

2. 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. Then the same or similar conditions and environment in which the problem occurred in the customer's vehicle should be simulated. No matter how experienced or skilled a technician may be, if he proceeds to troubleshoot without confirming the problem symptoms, he will likely overlook something important and make a wrong guess at some points in the repair operation.

This leads to a standstill in troubleshooting.

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

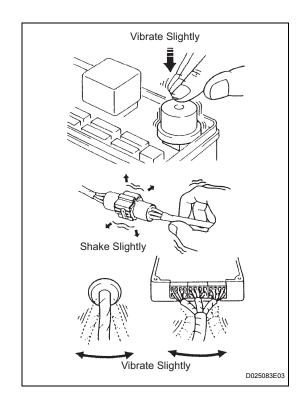
HINT:

Perform the simulation method only during the primary check period (for approximately 6 seconds after the ignition switch is turned on (IG)).

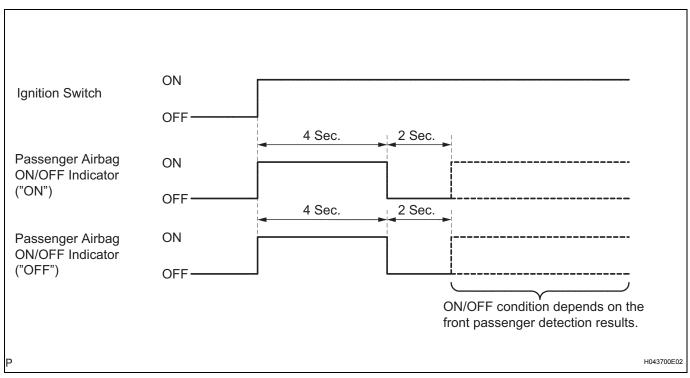
(1) Slightly vibrate the part of the sensor considered to be the problem cause with your fingers and check whether the malfunction occurs.

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.
- (b) Simulation method for DTC B1794: Turn the ignition switch from the off to on (IG), hold for 10 seconds, and back to off again 50 times in a row. HINT:

DTC B1794 is output if the occupant classification ECU receives the ignition switch off-on (IG)-off signal 50 times in a row when a malfunction occurs in the power circuit for the occupant classification system.

3. FUNCTION OF PASSENGER AIRBAG ON/OFF INDICATOR

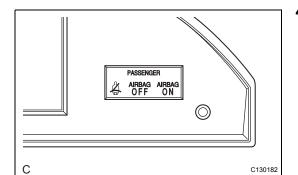
- (a) Initial check.
 - (1) Turn the ignition switch on (IG).
 - (2) The passenger airbag ON/OFF indicator ("ON" and "OFF") come on for approximately 4 seconds, then goes off for approximately 2 seconds.
 - (3) Approximately 6 seconds after the ignition switch is turned to on (IG), the passenger airbag 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 |

| Condition | ON Indicator | OFF Indicator |
|--|--------------|---------------|
| Front passenger occupant classification system failure | OFF | ON |

HINT:

- The passenger airbag ON/OFF indicator is 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 ON/OFF indicator ("OFF") come on. In this case, check the DTCs in the "AIRBAG SYSTEM" first.



4. CHECK PASSENGER AIRBAG ON/OFF INDICATOR

- (a) Turn the ignition switch on (IG).
- (b) Check that the passenger airbag ON/OFF indicator ("ON" and "OFF") come on for approximately 4 seconds, then goes off for approximately 2 seconds. HINT:

Refer to the table in step 3 regarding the passenger airbag ON/OFF indicator when the ignition switch is turned to on (IG) and approximately 6 seconds pass.

DTC CHECK / CLEAR

1. DTC CHECK

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for "AIRBAG SYSTEM", perform troubleshooting for the occupant classification system.

- (a) Check the DTCs.
 - (1) Connect the intelligent tester to the DLC3.
 - (2) Turn the ignition switch on (IG).
 - (3) Check the DTCs by following the prompts on the tester screen.

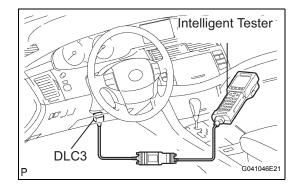
HINT:

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

- (b) Clear the DTCs.
 - (1) Connect the intelligent tester to the DLC3.
 - (2) Turn the ignition switch on (IG).
 - (3) Clear the DTCs by following the prompts on the tester screen.

HINT:

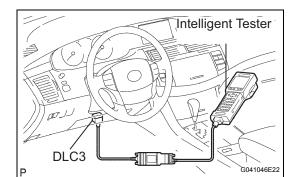
Refer to the intelligent tester operator's manual for further details.



DATA LIST / ACTIVE TEST

HINT:

By accessing the DATA LIST displayed by the intelligent tester, you can perform such functions as reading the values of switches and sensors without removing any parts. Reading the DATA LIST is the first step of troubleshooting and is one method to shorten labor time.



1. DATA LIST FOR OCCUPANT CLASSIFICATION ECU

- (a) Connect the intelligent tester to the DLC3.
- (b) Turn the ignition switch on (IG).
- (c) Following the display on the tester screen, read the "DATA LIST".

| Item | Measurement Item/ Range (Display) | Normal Condition | Diagnostic Note |
|-----------------|---|-------------------------|---|
| IG SW | Ignition switch condition/ ON: Ignition switch on (IG) OFF: Ignition switch off | ON/OFF | - |
| P BUCKLE SW | Buckle switch (Passenger side)/ SET: The seat belt is fastened UNSET: The seat belt is not fastened NG: Data is not determined | SET | When the seat belt (Passenger side) is fastened |
| PASSENGER CLASS | Passenger classification/ AM50: Adult (more than 54 kg (119.05 lb)) is seated AF05: Adult (36 to 54 kg (79.37 to 119.05 lb)) is seated CHILD: Child (less than 36 kg (79.37 lb)) is seated CRS: Child restraint system (less than 7 kg (15.43 lb)) and passenger side buckle switch is ON, then 7 to 36 kg (15.43 to 79.37 lb) is set OFF: Vacant | AM50/AF05/CHILD/CRS/OFF | - |
| SENS RANGE INF | Sensor range information/ OK: The value of a sensor is within the range NG: The value of a sensor is over the range | ОК | - |
| 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) | ОК | - |
| 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) | ОК | - |

| Item | Measurement Item/ Range (Display) | Normal Condition | Diagnostic Note |
|----------------|--|---|-----------------|
| 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) | - |
| #CODES | Number of DTC recorded/ Min.: 0, Max.: 255 | 0 | - |

DIAGNOSTIC TROUBLE CODE CHART

1. DTCS FOR OCCUPANT CLASSIFICATION SYSTEM

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

| DTC No. | Detection Item | Trouble Area | See page |
|---------|---|--|----------|
| B1771 | Passenger Side Buckle Switch Circuit Malfunction | 1. Front seat inner belt assembly RH 2. Occupant classification ECU 3. Floor wire No.2 4. Front seat wire RH (*1) | RS-219 |
| B1780 | Front Occupant Classification Sensor LH Circuit Malfunction | Front seat assembly RH (Front occupant classification sensor LH) Occupant classification ECU Front seat wire RH | RS-225 |
| B1781 | Front Occupant Classification Sensor RH Circuit Malfunction | Front seat assembly RH (Front occupant classification sensor RH) Occupant classification ECU Front seat wire RH | RS-232 |
| B1782 | Rear Occupant Classification Sensor LH Circuit Malfunction | Front seat assembly RH (Rear occupant classification sensor LH) Occupant classification ECU Front seat wire RH | RS-239 |
| B1783 | Rear Occupant Classification Sensor RH Circuit Malfunction | Front seat assembly RH (Rear occupant classification sensor RH) Occupant classification ECU Front seat wire RH | RS-246 |
| B1785 | Front Occupant Classification Sensor LH Collision Detection | Front seat assembly RH (Front occupant classification sensor LH) Occupant classification ECU | RS-253 |
| B1786 | Front Occupant Classification Sensor RH Collision Detection | Front seat assembly RH (Front occupant classification sensor RH) Occupant classification ECU | RS-257 |
| B1787 | Rear Occupant Classification Sensor LH Collision Detection | Front seat assembly RH (Rear occupant classification sensor LH) Occupant classification ECU | RS-261 |
| B1788 | Rear Occupant Classification Sensor RH Collision Detection | Front seat assembly RH (Rear occupant classification sensor RH) Occupant classification ECU | RS-265 |
| B1790 | Center Airbag Sensor Assembly Communication Circuit Malfunction | Occupant classification ECU Center airbag sensor assembly Floor wire No.2 Front seat wire RH (*1) | RS-269 |
| B1793 | Occupant Classification Sensor Power Supply Circuit Malfunction | Front seat assembly RH (Occupant classification sensors) Front seat wire RH (*1) Occupant classification ECU | RS-281 |
| B1794 | Open in Occupant Classification ECU Battery Positive Line | 1. Battery 2. ECU-B fuse 3. Floor wire No. 2 4. Front seat wire RH (*1) 5. Occupant classification ECU | RS-288 |

| DTC No. | Detection Item | Trouble Area | See page |
|---------|--|---|----------|
| B1795 | Occupant Classification ECU Malfunction | Occupant classification ECU Floor wire No.2 Front seat wire RH (*1) Front seat inner belt assembly RH | RS-293 |
| B1796 | Sleep Operation Failure of Occupant Classification ECU | Occupant classification ECU | RS-296 |

*1: for Power Seat

| DTC | B1771 | Passenger Side Buckle Switch Circuit Malfunction |
|-----|-------|--|
|-----|-------|--|

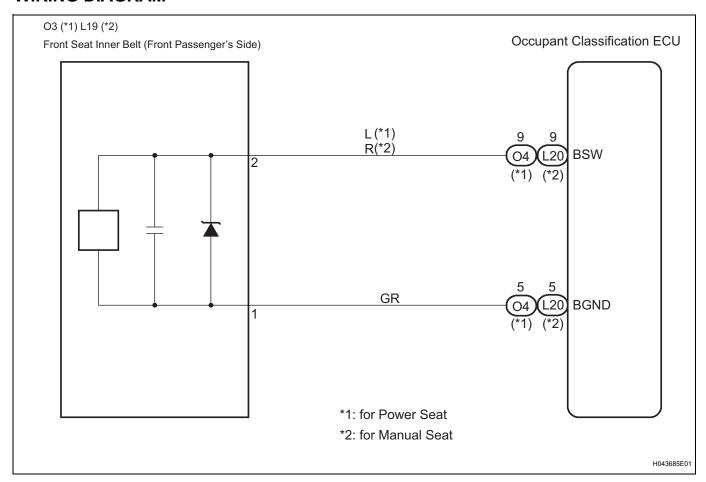
DESCRIPTION

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

DTC B1771 is recorded when a malfunction is detected in the passenger side buckle switch circuit. Troubleshoot DTC B1771 first when the DTC B1771 and B1795 are output simultaneously.

| DTC No. | DTC Detecting Condition | Trouble Area |
|---------|--|---|
| B1771 | The occupant classification ECU receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the passenger side buckle switch circuit for 2 seconds. Passenger side buckle switch malfunction Cccupant classification ECU malfunction | Front seat inner belt assembly RH Floor wire No.2 Front seat wire RH (for Power seat) Occupant classification ECU |

WIRING DIAGRAM



INSPECTION PROCEDURE

HINIT:

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



1 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1771 is not output.

HINT:

Codes other than DTC B1771 may be output at this time, but they are not related to this check.

ok)

USE SIMULATION METHOD TO CHECK

NG

2 CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Check that the connectors are properly connected to the occupant classification ECU and the front seat inner belt assembly RH.

OK:

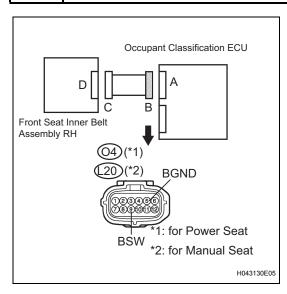
The connectors are connected.

NG

CONNECT CONNECTORS, THEN GO TO STEP 1

OK

3 CHECK WIRE HARNESS (SHORT TO B+)



- (a) Disconnect the connectors from the occupant classification ECU and the front seat inner belt assembly RH.
- (b) Connect the negative (-) terminal cable to the battery.
- (c) Turn the ignition switch on (IG).
- (d) Measure the voltage according to the value(s) in the table below.

Voltage

| Tester connection | Condition | Specified condition |
|------------------------------------|-------------------------|---------------------|
| O4-9 (BSW) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| O4-5 (BGND) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| L20-9 (BSW) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |
| L20-5 (BGND) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |

*1: for Power seat

*2: for Manual seat

NG

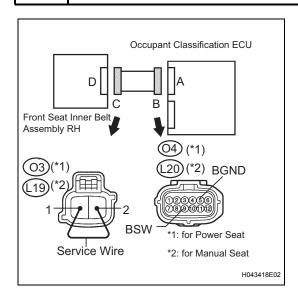
REPAIR OR REPLACE FLOOR WIRE NO.2 (W/O POWER SEAT)

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH (W/ POWER SEAT)



4 CHECK WIRE HARNESS (OPEN)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) for Power seat:

Using a service wire, connect O3-2 and O3-1 of connector "C".

(d) for Manual seat:

Using a service wire, connect L19-2 and L19-1 of connector "C".

NOTICE:

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

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

Resistance

| Tester connection | Condition | Specified condition |
|------------------------------------|-----------|---------------------|
| O4-9 (BSW) - O4-5 (BGND) (*1) | Always | Below 1 Ω |
| L20-9 (BSW) - L20-5 (BGND) (*2) | Always | Below 1 Ω |

- *1: for Power seat
- *2: for Manual seat

NG

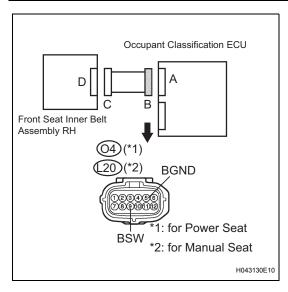
REPAIR OR REPLACE FLOOR WIRE NO.2 (W/O POWER SEAT)

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH (W/ POWER SEAT)



5 CHECK WIRE HARNESS (SHORT)



- (a) Disconnect the service wire from connector "C".
- (b) Measure the resistance according to the value(s) in the table below.

Resistance

| Tester connection | Condition | Specified condition |
|------------------------------------|-----------|------------------------|
| O4-9 (BSW) - O4-5 (BGND) (*1) | Always | 1 M Ω or Higher |
| L20-9 (BSW) - L20-5 (BGND) (*2) | Always | 1 M Ω or Higher |

*1: for Power seat

*2: for Manual seat

NG)

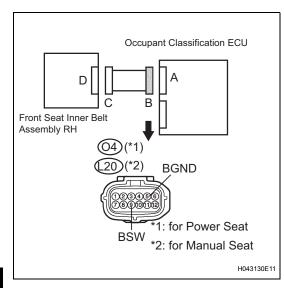
REPAIR OR REPLACE FLOOR WIRE NO.2 (W/O POWER SEAT)

NG)

REPAIR OR REPLACE FRONT SEAT WIRE RH (W/ POWER SEAT)



6 CHECK WIRE HARNESS (SHORT TO GROUND)



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

Resistance

| Tester connection | Condition | Specified condition |
|------------------------------------|-----------|------------------------|
| O4-9 (BSW) - Body ground (*1) | Always | 1 M Ω or Higher |
| O4-5 (BGND) - Body ground (*1) | Always | 1 M Ω or Higher |
| L20-9 (BSW) - Body ground (*2) | Always | 1 M Ω or Higher |
| L20-5 (BGND) - Body ground (*2) | Always | 1 M Ω or Higher |

- *1: for Power seat
- *2: for Manual seat

NG

REPAIR OR REPLACE FLOOR WIRE NO.2 (W/O POWER SEAT)

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH (W/ POWER SEAT)

OK

7 CHECK DTC

- (a) Connect the connectors to the occupant classification ECU and the front seat inner belt assembly RH.
- (b) Connect the negative (-) terminal cable to the battery.
- (c) Turn the ignition switch on (IG).
- (d) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (e) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (f) Turn the ignition switch off.
- (g) Turn the ignition switch on (IG).
- (h) Check the DTCs (See page RS-215).

OK:

DTC B1771 is not output.

HINT:

Codes other than DTC B1771 may be output at this time, but they are not related to this check.

OK

USE SIMULATION METHOD TO CHECK

NG

8

REPLACE FRONT SEAT INNER BELT ASSEMBLY RH

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the front seat inner belt assembly RH (See page SB-7).

HINT:

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

- (d) Connect the negative (-) terminal cable to the battery.
- (e) Turn the ignition switch on (IG).
- (f) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (g) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (h) Turn the ignition switch off.
- (i) Turn the ignition switch on (IG).
- (j) Check the DTCs (See page RS-215).

OK:

DTC B1771 is not output.

HINT:

Codes other than DTC B1771 may be output at this time, but they are not related to this check.



OK > END

NG

9 REPLACE OCCUPANT CLASSIFICATION ECU

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the occupant classification ECU (See page RS-371).

NEXT

10 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NEXT

11 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

DTC B1780 Front Occupant Classification Sensor LH Circuit Malfunction

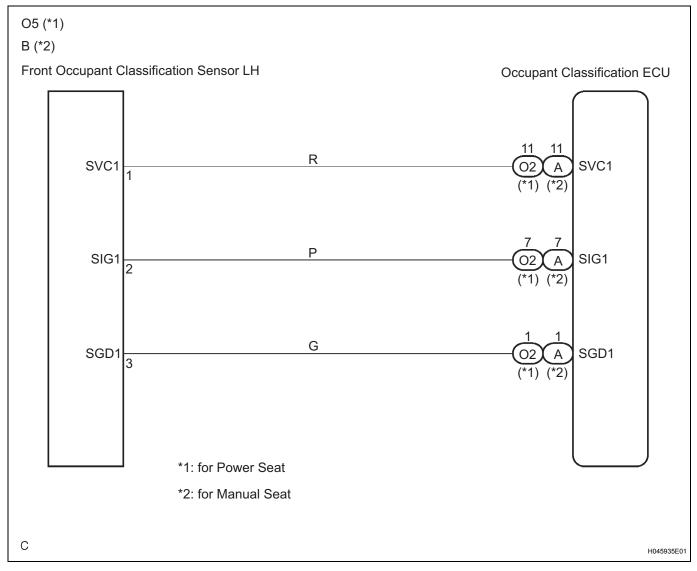
DESCRIPTION

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 Detecting Condition | Trouble Area |
|---------|--|---|
| B1780 | The occupant classification ECU receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the front occupant classification sensor LH circuit for 2 seconds. Front occupant classification sensor LH malfunction Occupant classification ECU malfunction | Front seat assembly RH (Front occupant classification sensor LH) Front seat wire 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 under surface of seat cushion.
- In the above case, hold the seat so that it does not fall down. Holding the seat for a long period of time may cause a problem, such as seat rail deformation. Hold the seat only as necessary.

1 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1780 is not output.

HINT:

Codes other than DTC B1780 may be output at this time, but they are not related to this check.

OK

USE SIMULATION METHOD TO CHECK

NG

2 CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Check that the connectors are properly connected to the occupant classification ECU and the front occupant classification sensor LH.

OK:

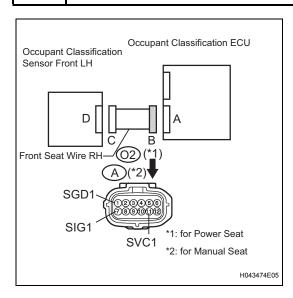
The connectors are connected.

NG

CONNECT CONNECTORS, THEN GO TO STEP 1

OK

3 CHECK FRONT SEAT WIRE RH (SHORT TO B+)



- (a) Disconnect the connectors from the occupant classification ECU and the front occupant classification sensor LH.
- (b) Connect the negative (-) terminal cable to the battery.
- (c) Turn the ignition switch on (IG).
- (d) Measure the voltage according to the value(s) in the table below.

Voltage

| Tester connection | Condition | Specified condition |
|------------------------------------|-------------------------|---------------------|
| O2-1 (SGD1) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| O2-7 (SIG1) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| O2-11 (SVC1) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| A-1 (SGD1) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |
| A-7 (SIG1) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |
| A-11 (SVC1) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |

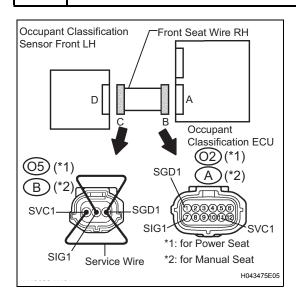
- *1: for Power seat
- *2: for Manual seat



REPAIR OR REPLACE FRONT SEAT WIRE RH



4 CHECK FRONT SEAT WIRE RH (OPEN)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) for Power seat:

Using a service wire, connect O5-1 (SVC1) and O5-3 (SGD1), and connect O5-2 (SIG1) and O5-3 (SGD1) of connector "C".

(d) for Manual seat:

Using a service wire, connect B-1 (SVC1) and B-3 (SGD1), and connect B-2 (SIG1) and B-3 (SGD1) of connector "C".

NOTICE:

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

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

Resistance

| Tester connection | Condition | Specified condition |
|------------------------------------|-----------|---------------------|
| O2-7 (SIG1) - O2-1 (SGD1) (*1) | Always | Below 1 Ω |
| O2-11 (SVC1) - O2-1 (SGD1) (*1) | Always | Below 1 Ω |
| A-7 (SIG1) - A-1 (SGD1) (*2) | Always | Below 1 Ω |
| A-11 (SVC1) - A-1 (SGD1) (*2) | Always | Below 1 Ω |

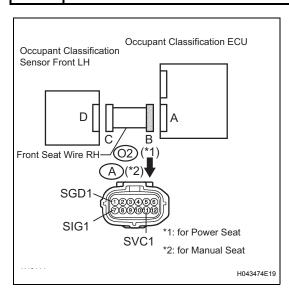
*1: for Power seat *2: for Manual seat

NG)

REPAIR OR REPLACE FRONT SEAT WIRE RH



CHECK FRONT SEAT WIRE RH (SHORT)



- (a) Disconnect the service wire from connector "C".
- (b) Measure the resistance according to the value(s) in the table below.

Resistance

| Tester connection | Condition | Specified condition |
|------------------------------------|-----------|------------------------|
| O2-7 (SIG1) - O2-1 (SGD1) (*1) | Always | 1 MΩ or Higher |
| O2-11 (SVC1) - O2-1 (SGD1) (*1) | Always | 1 MΩ or Higher |
| O2-7 (SIG1) - O2-11 (SVC1) (*1) | Always | 1 MΩ or Higher |
| A-7 (SIG1) - A-1 (SGD1) (*2) | Always | 1 MΩ or Higher |
| A-11 (SVC1) - A-1 (SGD1) (*2) | Always | 1 MΩ or Higher |
| A-7 (SIG1) - A-11 (SVC1) (*2) | Always | 1 M Ω or Higher |

*1: for Power seat

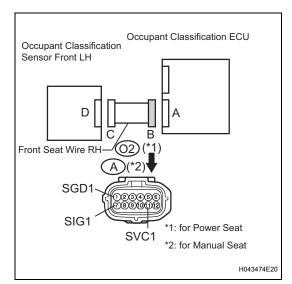
*2: for Manual seat

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH

ОК

6 CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)



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

Resistance

| Tester connection | Condition | Specified condition |
|------------------------------------|-----------|------------------------|
| O2-1 (SGD1) - Body ground (*1) | Always | 1 M Ω or Higher |
| O2-7 (SIG1) - Body ground (*1) | Always | 1 M Ω or Higher |
| O2-11 (SVC1) - Body ground (*1) | Always | 1 M Ω or Higher |
| A-1 (SGD1) - Body ground (*2) | Always | 1 M Ω or Higher |
| A-7 (SIG1) - Body ground (*2) | Always | 1 M Ω or Higher |
| A-11 (SVC1) - Body ground (*2) | Always | 1 M Ω or Higher |

*1: for Power seat

*2: for Manual seat

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH



7 CHECK DTC

- (a) Connect the connectors to the occupant classification ECU and the front occupant classification sensor LH.
- (b) Connect the negative (-) terminal cable to the battery.
- (c) Turn the ignition switch on (IG).
- (d) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (e) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (f) Turn the ignition switch off.
- (g) Turn the ignition switch on (IG).
- (h) Check the DTCs (See page RS-215).

OK:

DTC B1780 is not output.

HINT:

Codes other than DTC B1780 may be output at this time, but they are not related to this check.



USE SIMULATION METHOD TO CHECK

NG

8 REPLACE OCCUPANT CLASSIFICATION ECU

RS

- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the occupant classification ECU (See page RS-371).

HINT:

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

NEXT

9 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NG]

Go to step 12

OK

10 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NG)

Go to step 12

OK

11 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1780 is not output.

HINT:

Codes other than DTC B1780 may be output at this time, but they are not related to this check.

OK

END

NG

12 REPLACE FRONT SEAT ASSEMBLY RH

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the front seat assembly RH (See page SE-50 for power seat or SE-40 for manual seat).

NEXT

13 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is display.

NEXT

14 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NEXT

| DTC | B1781 | Front Occupant Classification Sensor RH Circuit Malfunction |
|-----|-------|---|
|-----|-------|---|

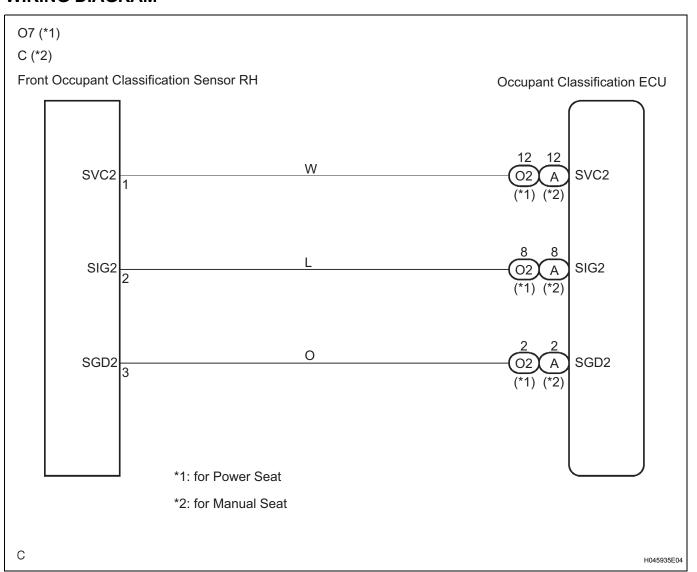
DESCRIPTION

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 Detecting Condition | Trouble Area |
|---------|--|---|
| B1781 | The occupant classification ECU receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the front occupant classification sensor RH circuit for 2 seconds. Front occupant classification sensor RH malfunction Occupant classification ECU malfunction | Front seat assembly RH (Front occupant classification sensor RH) Front seat wire 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 under surface of seat cushion.
- In the above case, hold the seat so that it does not fall down. Holding the seat for a long period of time may cause a problem, such as seat rail deformation. Hold the seat only as necessary.

1 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1781 is not output.

HINT:

Codes other than DTC B1781 may be output at this time, but they are not related to this check.

OK

USE SIMULATION METHOD TO CHECK

NG

2 CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Check that the connectors are properly connected to the occupant classification ECU and the front occupant classification sensor RH.

OK:

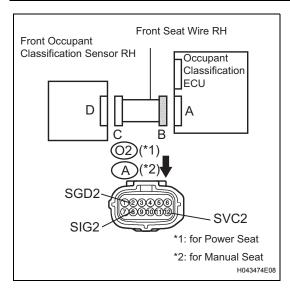
The connectors are connected.

NG]

CONNECT CONNECTORS, THEN GO TO STEP 1

OK

3 CHECK FRONT SEAT WIRE RH (SHORT TO B+)



- (a) Disconnect the connectors from the occupant classification ECU and the front occupant classification sensor RH.
- (b) Connect the negative (-) terminal cable to the battery.
- (c) Turn the ignition switch on (IG).
- (d) Measure the voltage according to the value(s) in the table below.

Voltage

| Tooton commontion | Canditian | Considered condition |
|------------------------------------|-------------------------|----------------------|
| Tester connection | Condition | Specified condition |
| O2-2 (SGD2) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| O2-8 (SIG2) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| O2-12 (SVC2) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| A-2 (SGD2) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |
| A-8 (SIG2) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |
| A-12 (SVC2) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |

*1: for Power seat

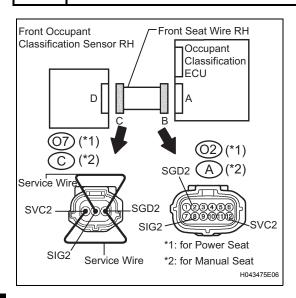
*2: for Manual seat



REPAIR OR REPLACE FRONT SEAT WIRE RH



CHECK FRONT SEAT WIRE RH (OPEN)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) for Power seat:

Using a service wire, connect O7-1 (SVC2) and O7-3 (SGD2), and connect O7-2 (SIG2) and O7-3 (SGD2) of connector "C".

(d) for Manual seat:

Using a service wire, connect C-1 (SVC2) and C-3 (SGD2), and connect C-2 (SIG2) and C-3 (SGD2) of connector "C".

NOTICE:

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

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

Resistance

| Tester connection | Condition | Specified condition |
|------------------------------------|-----------|---------------------|
| O2-8 (SIG2) - O2-2 (SGD2) (*1) | Always | Below 1 Ω |
| O2-12 (SVC2) - O2-2 (SGD2) (*1) | Always | Below 1 Ω |
| A-8 (SIG2) - A-2 (SGD2) (*2) | Always | Below 1 Ω |
| A-12 (SVC2) - A-2 (SGD2) (*2) | Always | Below 1 Ω |

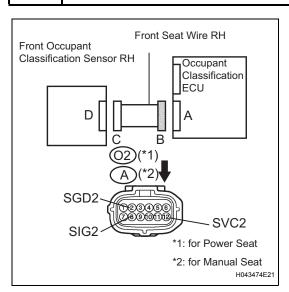
*1: for Power seat *2: for Manual seat

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH



5 CHECK FRONT SEAT WIRE RH (SHORT)



- (a) Disconnect the service wire from connector "C".
- (b) Measure the resistance according to the value(s) in the table below.

Resistance

| Tester connection | Condition | Specified condition |
|------------------------------------|-----------|---------------------|
| O2-8 (SIG2) - O2-2 (SGD2) (*1) | Always | 1 MΩ or Higher |
| O2-12 (SVC2) - O2-2 (SGD2) (*1) | Always | 1 MΩ or Higher |
| O2-8 (SIG2) - O2-12 (SVC2) (*1) | Always | 1 MΩ or Higher |
| A-8 (SIG2) - A-2 (SGD2) (*2) | Always | 1 MΩ or Higher |
| A-12 (SVC2) - A-2 (SGD2) (*2) | Always | 1 MΩ or Higher |
| A-8 (SIG2) - A-12 (SVC2) (*2) | Always | 1 MΩ or Higher |

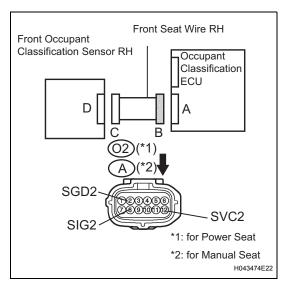
- *1: for Power seat
- *2: for Manual seat

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH



6 CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)



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

Resistance

| Tester connection | Condition | Specified condition |
|------------------------------------|-----------|------------------------|
| O2-2 (SGD2) - Body ground (*1) | Always | 1 M Ω or Higher |
| O2-8 (SIG2) - Body ground (*1) | Always | 1 M Ω or Higher |
| O2-12 (SVC2) - Body ground (*1) | Always | 1 M Ω or Higher |
| A-2 (SGD2) - Body ground (*2) | Always | 1 M Ω or Higher |
| A-8 (SIG2) - Body ground (*2) | Always | 1 M Ω or Higher |
| A-12 (SVC2) - Body ground (*2) | Always | 1 M Ω or Higher |

*1: for Power seat

*2: for Manual seat



REPAIR OR REPLACE FRONT SEAT WIRE RH



7 CHECK DTC

- (a) Connect the connectors to the occupant classification ECU and the front occupant classification sensor RH.
- (b) Connect the negative (-) terminal cable to the battery.
- (c) Turn the ignition switch on (IG).
- (d) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (e) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (f) Turn the ignition switch off.
- (g) Turn the ignition switch on (IG).
- (h) Check the DTCs (See page RS-215).

OK:

DTC B1781 is not output.

HINT:

Codes other than DTC B1781 may be output at this time, but they are not related to this check.



USE SIMULATION METHOD TO CHECK

NG

<u>RS</u>

8 REPLACE OCCUPANT CLASSIFICATION ECU

(a) Turn the ignition switch off.

- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the occupant classification ECU (See page RS-371).

HINT:

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

NEXT

9 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NG

Go to step 12

OK

10 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NG

Go to step 12

OK

11 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1781 is not output.

HINT:

Codes other than DTC B1781 may be output at this time, but they are not related to this check.

OK

NG

12 REPLACE FRONT SEAT ASSEMBLY RH

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the front seat assembly RH (See page SE-50 for power seat or SE-40 for manual seat).

NEXT

13 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NEXT

14 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NEXT

DTC B1782 Rear Occupant Classification Sensor LH Circuit Malfunction

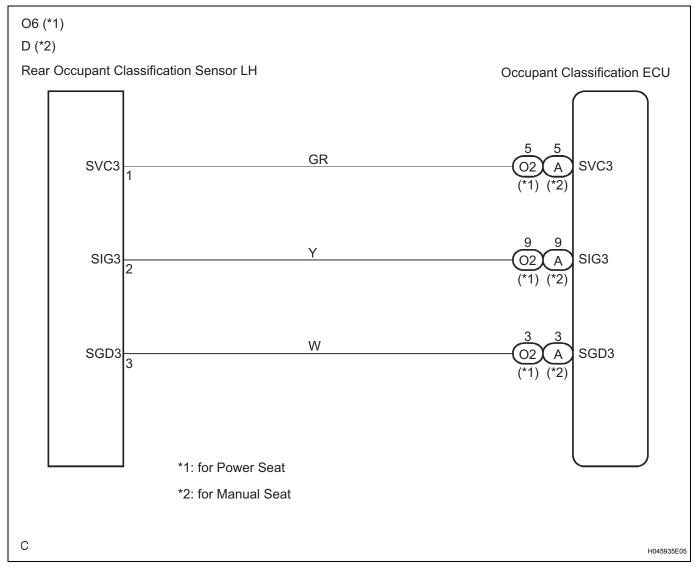
DESCRIPTION

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 Detecting Condition | Trouble Area |
|---------|--|--|
| B1782 | The occupant classification ECU receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the rear occupant classification sensor LH circuit for 2 seconds. Rear occupant classification sensor LH malfunction Occupant classification ECU malfunction | Front seat assembly RH (Rear occupant classification sensor LH) Front seat wire 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 under surface of seat cushion.
- In the above case, hold the seat so that it does not fall down. Holding the seat for a long period of time may cause a problem, such as seat rail deformation. Hold the seat only as necessary.

1 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1782 is not output.

HINT:

Codes other than DTC B1782 may be output at this time, but they are not related to this check.

OK)

USE SIMULATION METHOD TO CHECK

NG

2 CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Check that the connectors are properly connected to the occupant classification ECU and the rear occupant classification sensor LH.

OK:

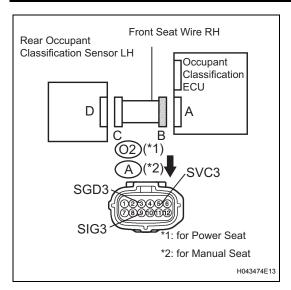
The connectors are connected.

NG

CONNECT CONNECTORS, THEN GO TO STEP 1

OK

3 CHECK FRONT SEAT WIRE RH (SHORT TO B+)



- (a) Disconnect the connectors from the occupant classification ECU and the rear occupant classification sensor LH.
- (b) Connect the negative (-) terminal cable to the battery.
- (c) Turn the ignition switch on (IG).
- (d) Measure the voltage according to the value(s) in the table below.

Voltage

| Tester connection | Condition | Specified condition |
|-----------------------------------|-------------------------|---------------------|
| O2-3 (SGD3) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| O2-5 (SVC3) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| O2-9 (SIG3) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| A-3 (SGD3) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |
| A-9 (SIG3) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |
| A-5 (SVC3) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |

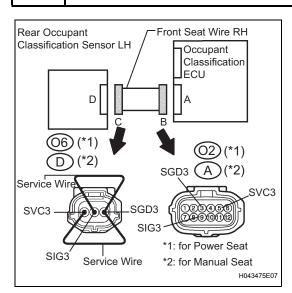
- *1: for Power seat
- *2: for Manual seat



REPAIR OR REPLACE FRONT SEAT WIRE RH



4 CHECK FRONT SEAT WIRE RH (OPEN)



- (a) Turn the ignition switch to the LOCK position.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) for Power seat:

Using a service wire, connect O6-1 (SVC3) and O6-3 (SGD3), and connect O6-2 (SIG3) and O6-3 (SGD3) of connector "C".

(d) for Manual seat:

Using a service wire, connect D-1 (SVC3) and D-3 (SGD3), and connect D-2 (SIG3) and D-3 (SGD3) of connector "C".

NOTICE:

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

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

Resistance

| Tester connection | Condition | Specified condition |
|-----------------------------------|-----------|---------------------|
| O2-5 (SVC3) - O2-3 (SGD3) (*1) | Always | Below 1 Ω |
| O2-9 (SIG3) - O2-3 (SGD3) (*1) | Always | Below 1 Ω |
| A-9 (SIG3) - A-3 (SGD3) (*2) | Always | Below 1 Ω |
| A-5 (SVC3) - A-3 (SGD3) (*2) | Always | Below 1 Ω |

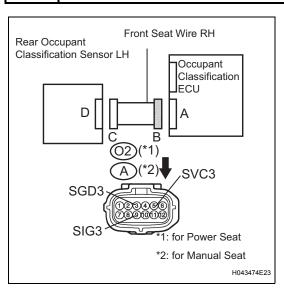
*1: for Power seat *2: for Manual seat

NG)

REPAIR OR REPLACE FRONT SEAT WIRE RH



CHECK FRONT SEAT WIRE RH (SHORT)



- (a) Disconnect the service wire from connector "C".
- (b) Measure the resistance according to the value(s) in the table below.

Resistance

| Tester connection | Condition | Specified condition |
|-----------------------------------|-----------|------------------------|
| O2-5 (SVC3) - O2-3 (SGD3) (*1) | Always | 1 M Ω or Higher |
| O2-9 (SIG3) - O2-3 (SGD3) (*1) | Always | 1 M Ω or Higher |
| O2-5 (SVC3) - O2-9 (SIG3) (*1) | Always | 1 M Ω or Higher |
| A-9 (SIG3) - A-3 (SGD3) (*2) | Always | 1 M Ω or Higher |
| A-5 (SVC3) - A-3 (SGD3) (*2) | Always | 1 M Ω or Higher |
| A-9 (SIG3) - A-5 (SVC3) (*2) | Always | 1 M Ω or Higher |

*1: for Power seat

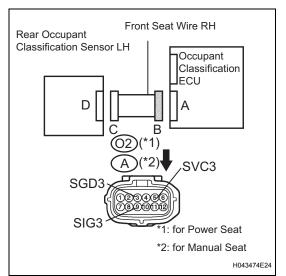
*2: for Manual seat

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

6 CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)



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

Resistance

| Tester connection | Condition | Specified condition |
|-----------------------------------|-----------|------------------------|
| O2-3 (SGD3) - Body ground (*1) | Always | 1 M Ω or Higher |
| O2-5 (SVC3) - Body ground (*1) | Always | 1 M Ω or Higher |
| O2-9 (SIG3) - Body ground (*1) | Always | 1 M Ω or Higher |
| A-3 (SGD3) - Body ground (*2) | Always | 1 M Ω or Higher |
| A-9 (SIG3) - Body ground (*2) | Always | 1 M Ω or Higher |
| A-5 (SVC3) - Body ground (*2) | Always | 1 M Ω or Higher |

*1: for Power seat

*2: for Manual seat

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

7 CHECK DTC

- (a) Connect the connectors to the occupant classification ECU and the rear occupant classification sensor LH.
- (b) Connect the negative (-) terminal cable to the battery.
- (c) Turn the ignition switch on (IG).
- (d) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (e) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (f) Turn the ignition switch off.
- (g) Turn the ignition switch on (IG).
- (h) Check the DTCs (See page RS-215).

OK:

DTC B1782 is not output.

HINT:

Codes other than DTC B1782 may be output at this time, but they are not related to this check.



USE SIMULATION METHOD TO CHECK

NG

8 REPLACE OCCUPANT CLASSIFICATION ECU

RS

- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the occupant classification ECU (See page RS-371).

HINT:

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

NEXT

9 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NG]

Go to step 12

OK

10 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NG)

Go to step 12

OK

11 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1782 is not output.

HINT:

Codes other than DTC B1782 may be output at this time, but they are not related to this check.

OK

| NG | |
|----|--|
| | |

12 REPLACE FRONT SEAT ASSEMBLY RH

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the front seat assembly RH (See page SE-50 for power seat or SE-40 for manual seat).

NEXT

13 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NEXT

14 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

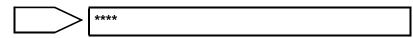
Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

15 USE SIMULATION METHOD TO CHECK



| DTC | I RI/XX | Rear Occupant Classification Sensor RH Circuit Malfunction |
|-----|---------|--|
|-----|---------|--|

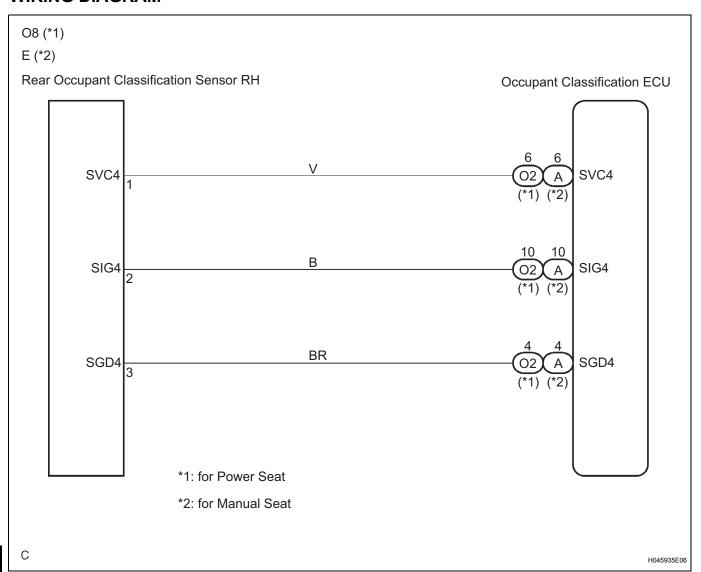
DESCRIPTION

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 Detecting Condition | Trouble Area |
|---------|--|--|
| B1783 | The occupant classification ECU receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the rear occupant classification sensor RH circuit for 2 seconds. Rear occupant classification sensor RH malfunction. Occupant classification ECU malfunction. | Front seat assembly RH (Rear occupant classification sensor RH) Front seat wire 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 under surface of seat cushion.
- In the above case, hold the seat so that it does not fall down. Holding the seat for a long period of time may cause a problem, such as seat rail deformation. Hold the seat only as necessary.

1 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1783 is not output.

HINT:

Codes other than DTC B1783 may be output at this time, but they are not related to this check.

OK

USE SIMULATION METHOD TO CHECK

NG

2 CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Check that the connectors are properly connected to the occupant classification ECU and the rear occupant classification sensor RH.

OK:

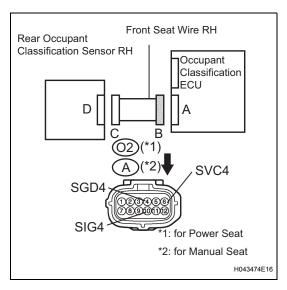
The connectors are connected.

NG)

CONNECT CONNECTORS, THEN GO TO STEP 1

OK

3 CHECK FRONT SEAT WIRE RH (SHORT TO B+)



- (a) Disconnect the connectors from the occupant classification ECU and the rear occupant classification sensor RH.
- (b) Connect the negative (-) terminal cable to the battery.
- (c) Turn the ignition switch on (IG).
- (d) Measure the voltage according to the value(s) in the table below.

Voltage

| Tester connection | Condition | Specified condition |
|------------------------------------|-------------------------|---------------------|
| O2-4 (SGD4) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| O2-6 (SVC4) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| O2-10 (SIG4) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| A-4 (SGD4) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |
| A-10 (SIG4) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |
| A-6 (SVC4) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |

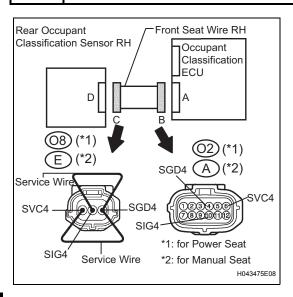
- *1: for Power seat
- *2: for Manual seat



REPAIR OR REPLACE FRONT SEAT WIRE RH



CHECK FRONT SEAT WIRE RH (OPEN)



- (a) Turn the ignition switch to the LOCK position.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) for Power seat:

Using a service wire, connect O8-1 (SVC4) and O8-3 (SGD4), and connect O8-2 (SIG4) and O8-3 (SGD4) of connector "C".

(d) for Manual seat:

Using a service wire, connect E-1 (SVC4) and E-3 (SGD4), and connect E-2 (SIG4) and E-3 (SGD4) of connector "C".

NOTICE:

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

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

Resistance

| Tester connection | Condition | Specified condition |
|------------------------------------|-----------|---------------------|
| O2-6 (SVC4) - O2-4 (SGD4) (*1) | Always | Below 1 Ω |
| O2-10 (SIG4) - O2-4 (SGD4) (*1) | Always | Below 1 Ω |
| A-10 (SIG4) - A-4 (SGD4) (*2) | Always | Below 1 Ω |
| A-6 (SVC4) - A-4 (SGD4) (*2) | Always | Below 1 Ω |

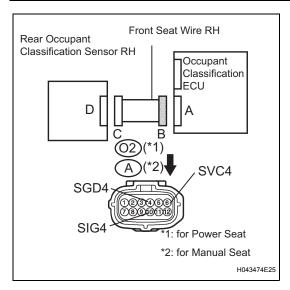
*1: for Power seat *2: for Manual seat

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH



5 CHECK FRONT SEAT WIRE RH (SHORT)



- (a) Disconnect the service wire from connector "C".
- (b) Measure the resistance according to the value(s) in the table below.

Resistance

| Tester connection | Condition | Specified condition |
|------------------------------------|-----------|------------------------|
| O2-6 (SVC4) - O2-4 (SGD4) (*1) | Always | 1 MΩ or Higher |
| O2-10 (SIG4) - O2-4 (SGD4) (*1) | Always | 1 M Ω or Higher |
| O2-6 (SVC4) - O2-10 (SIG4) (*1) | Always | 1 MΩ or Higher |
| A-10 (SIG4) - A-4 (SGD4) (*2) | Always | 1 MΩ or Higher |
| A-6 (SVC4) - A-4 (SGD4) (*2) | Always | 1 MΩ or Higher |
| A-10 (SIG4) - A-6 (SVC4) (*2) | Always | 1 M Ω or Higher |

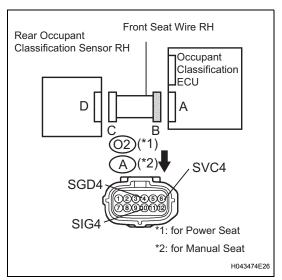
- *1: for Power seat
- *2: for Manual seat

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

6 CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)



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

Resistance

| Tester connection | Condition | Specified condition |
|------------------------------------|-----------|------------------------|
| O2-4 (SGD4) - Body ground (*1) | Always | 1 M Ω or Higher |
| O2-6 (SVC4) - Body ground (*1) | Always | 1 M Ω or Higher |
| O2-10 (SIG4) - Body ground (*1) | Always | 1 M Ω or Higher |
| A-4 (SGD4) - Body ground (*2) | Always | 1 M Ω or Higher |
| A-10 (SIG4) - Body ground (*2) | Always | 1 M Ω or Higher |
| A-6 (SVC4) - Body ground (*2) | Always | 1 M Ω or Higher |

*1: for Power seat

*2: for Manual seat

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

7 CHECK DTC

- (a) Connect the connectors to the occupant classification ECU and the rear occupant classification sensor RH.
- (b) Connect the negative (-) terminal cable to the battery.
- (c) Turn the ignition switch on (IG).
- (d) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (e) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (f) Turn the ignition switch off.
- (g) Turn the ignition switch on (IG).
- (h) Check the DTCs (See page RS-215).

OK:

DTC B1783 is not output.

HINT:

Codes other than DTC B1783 may be output at this time, but they are not related to this check.

OK)

USE SIMULATION METHOD TO CHECK

NG

8

<u>RS</u>

REPLACE OCCUPANT CLASSIFICATION ECU

(a) Turn the ignition switch off.

- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the occupant classification ECU (See page RS-371).

HINT:

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

NEXT

9 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NG

Go to step 12

OK

10 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NG

Go to step 12

OK

11 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1783 is not output.

HINT:

Codes other than DTC B1783 may be output at this time, but they are not related to this check.

OK

NG

12 REPLACE FRONT SEAT ASSEMBLY RH

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the front seat assembly RH (See page SE-50 for power seat or SE-40 for manual seat).

NEXT

13 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NEXT

14 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NEXT

DTC B1785 Front Occupant Classification Sensor LH Collision Detection

DESCRIPTION

DTC B1785 is output when the occupant classification ECU receives a collision detection signal sent by the front occupant classification sensor LH if an accident occurs.

DTC B1785 is also output when the front seat assembly 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 "Zero point calibration" and "Sensitivity check".

Therefore, if DTC B1785 is output, first perform "Zero point calibration" and "Sensitivity check".

| DTC No. | DTC Detecting Condition | Trouble Area |
|---------|--|--|
| B1785 | Front seat assembly RH malfunction Occupant classification ECU malfunction Front occupant classification sensor LH sensed large load | Occupant classification ECU Front seat assembly RH (Front occupant classification sensor LH) |

WIRING DIAGRAM

See page RS-225.

INSPECTION PROCEDURE

1 PERFORM ZERO POINT CALIBRATION

- (a) Connect the intelligent tester to the DLC3.
- (b) Turn the ignition switch on (IG).
- (c) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.



OK

2 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NG Go to step 4

OK

3 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).

- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1785 is not output.

HINT:

Codes other than DTC B1785 may be output at this time, but they are not related to this check.

ок 🕽

END

NG

4 REPLACE FRONT SEAT ASSEMBLY RH

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the front seat assembly RH (See page SE-50 for power seat or SE-40 for manual seat). HINT:

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

NEXT

5 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NG

Go to step 8

OK

6 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NG

Go to step 8



7 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1785 is not output.

HINT:

Codes other than DTC B1785 may be output at this time, but they are not related to this check.

OK > END

NG

8 REPLACE OCCUPANT CLASSIFICATION ECU

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the occupant classification ECU (See page RS-371).

NEXT

9 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NEXT

10 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

RS-260

NEXT

DTC B1786 Front Occupant Classification Sensor RH Collision Detection

DESCRIPTION

DTC B1786 is output when the occupant classification ECU receives a collision detection signal sent by the front occupant classification sensor RH if an accident occurs.

DTC B1786 is also output when the front seat assembly 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 "Zero point calibration" and "Sensitivity check".

Therefore, if DTC B1786 is output, first perform "Zero point calibration" and "Sensitivity check".

| DTC No. | DTC Detection Condition | Trouble Area |
|---------|--|--|
| B1786 | Front seat assembly RH malfunction Occupant classification ECU malfunction Front occupant classification sensor RH sensed large load | Occupant classification ECU Front seat assembly RH (Front occupant classification sensor RH) |

WIRING DIAGRAM

See page RS-232.

INSPECTION PROCEDURE

1 PERFORM ZERO POINT CALIBRATION

- (a) Connect the intelligent tester to the DLC3.
- (b) Turn the ignition switch on (IG).
- (c) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.



OK

2 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NG Go to step 4

OK

3 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).

- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1786 is not output.

HINT:

Codes other than DTC B1786 may be output at this time, but they are not related to this check.

OK > END

NG

4 REPLACE FRONT SEAT ASSEMBLY RH

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the front seat assembly RH (See page SE-50 for power seat or SE-40 for manual seat). HINT:

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

NEXT

5 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NG Go to step 8

OK

6 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NG Go to step 8



7 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1786 is not output.

HINT:

Codes other than DTC B1786 may be output at this time, but they are not related to this check.

OK > END

NG

8 REPLACE OCCUPANT CLASSIFICATION ECU

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the occupant classification ECU (See page RS-371).

NEXT

9 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NEXT

10 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

RS-264

NEXT

DTC

B1787

Rear Occupant Classification Sensor LH Collision Detection

DESCRIPTION

DTC B1787 is output when the occupant classification ECU receives a collision detection signal sent by the rear occupant classification sensor LH if an accident occurs.

DTC B1787 is also output when the front seat assembly 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 "Zero point calibration" and "Sensitivity check".

Therefore, if DTC B1787 is output, first perform "Zero point calibration" and "Sensitivity check".

| DTC No. | DTC Detecting Condition | Trouble Area |
|---------|---|---|
| B1787 | Front seat assembly RH malfunction Occupant classification ECU malfunction Rear occupant classification sensor LH sensed large load | Occupant classification ECU Front seat assembly RH (Rear occupant classification sensor LH) |

WIRING DIAGRAM

See page RS-239.

INSPECTION PROCEDURE

1 PERFORM ZERO POINT CALIBRATION

- (a) Connect the intelligent tester to the DLC3.
- (b) Turn the ignition switch on (IG).
- (c) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.



OK

2 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NG Go to step 4

OK

3 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).

- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1787 is not output.

HINT:

Codes other than DTC B1787 may be output at this time, but they are not related to this check.

OK > END

NG

4 REPLACE FRONT SEAT ASSEMBLY RH

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the front seat assembly RH (See page SE-50 for power seat or SE-40 for manual seat). HINT:

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

NEXT

5 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NG >

Go to step 8

OK

6 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NG

Go to step 8



7 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1787 is not output.

HINT:

Codes other than DTC B1787 may be output at this time, but they are not related to this check.

OK > END

NG

8 REPLACE OCCUPANT CLASSIFICATION ECU

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the occupant classification ECU (See page RS-371).

NEXT

9 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NEXT

10 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

RS-268

NEXT

DTC

B1788

Rear Occupant Classification Sensor RH Collision Detection

DESCRIPTION

DTC B1788 is output when the occupant classification ECU receives a collision detection signal sent by the rear occupant classification sensor RH if an accident occurs.

DTC B1788 is also output when the front seat assembly 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 "Zero point calibration" and "Sensitivity check".

Therefore, if DTC B1788 is output, first perform "Zero point calibration" and "Sensitivity check".

| DTC No. | DTC Detection Condition | Trouble Area |
|---------|---|---|
| B1788 | Front seat assembly RH malfunction Occupant classification ECU malfunction Rear occupant classification sensor RH sensed large load | Occupant classification ECU Front seat assembly RH (Rear occupant classification sensor RH) |

WIRING DIAGRAM

See page RS-246.

INSPECTION PROCEDURE

1 PERFORM ZERO POINT CALIBRATION

- (a) Connect the intelligent tester to the DLC3.
- (b) Turn the ignition switch on (IG).
- (c) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.



OK

2 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NG Go to step 4

OK

3 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).

- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1788 is not output.

HINT:

Codes other than DTC B1788 may be output at this time, but they are not related to this check.

OK > END

NG

4 REPLACE FRONT SEAT ASSEMBLY RH

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the front seat assembly RH (See page SE-50 for power seat or SE-40 for manual seat). HINT:

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

NEXT

5 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NG >

Go to step 8

OK

6 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NG

Go to step 8

7 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1788 is not output.

HINT:

Codes other than DTC B1788 may be output at this time, but they are not related to this check.

OK > END

NG

8 REPLACE OCCUPANT CLASSIFICATION ECU

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the occupant classification ECU (See page RS-371).

NEXT

9 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NEXT

10 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

RS-272

NEXT

END

DTC B1790 Center Airbag Sensor Assembly Communication Circuit Malfunction

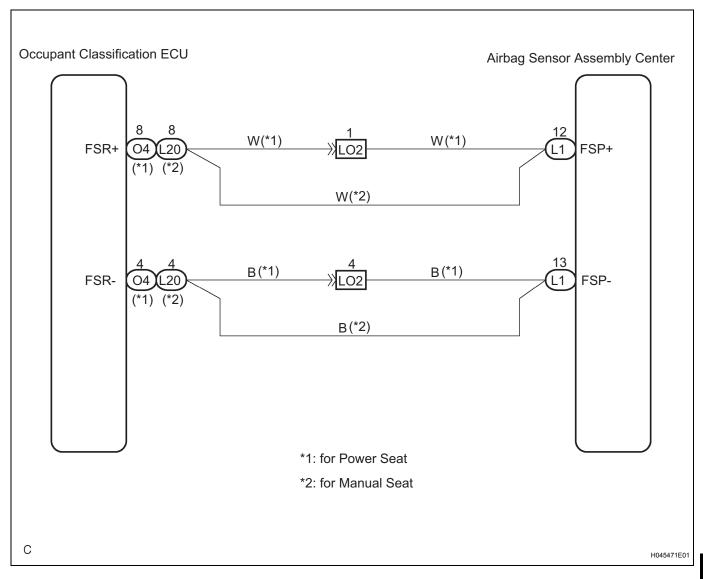
DESCRIPTION

The center airbag sensor assembly communication circuit consists of the occupant classification ECU and the center airbag sensor assembly.

DTC B1790 is recorded when a malfunction is detected in the center airbag sensor assembly communication circuit.

| DTC No. | DTC Detecting Condition | Trouble Area |
|---------|--|---|
| B1790 | The occupant classification ECU receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the center airbag sensor assembly communication circuit for 2 seconds. Center airbag sensor assembly malfunction Occupant classification ECU malfunction | Occupant classification ECU Center airbag sensor assembly Floor wire No.2 Front seat wire RH (for Power seat) |

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

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

1 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1790 is not output.

HINT:

Codes other than DTC B1790 may be output at this time, but they are not related to this check.

ok)

USE SIMULATION METHOD TO CHECK

NG

2 CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Check that the connectors are properly connected to the occupant classification ECU and the center airbag sensor assembly.

OK:

The connectors are connected.

NG

CONNECT CONNECTORS, THEN GO TO STEP 1

OK

3 PREPARE FOR INSPECTION

CAUTION:

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

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connectors from the center airbag sensor assembly.

- (d) Disconnect the connectors from the steering pad.
- (e) Disconnect the connectors from the front passenger airbag assembly.
- (f) Disconnect the connector from the driver side knee airbag assembly.
- (g) Disconnect the connectors from the front seat side airbag assembly LH and RH.
- (h) Disconnect the connectors from the curtain shield airbag LH and RH.
- (i) Disconnect the connectors from the front seat outer belt assembly LH and RH.

NEXT

4 CHECK VEHICLE CONDITION

(a) Check the passenger seat type.

Result:

A:

for Power seat

B:

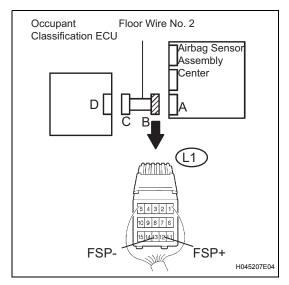
for Manual seat

В

Go to step 14



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



- (a) Disconnect the connector from the occupant classification ECU.
- (b) Connect the negative (-) terminal cable to the battery.
- (c) Turn the ignition switch on (IG).
- (d) Measure the voltage according to the value (s) in the table below.

Voltage

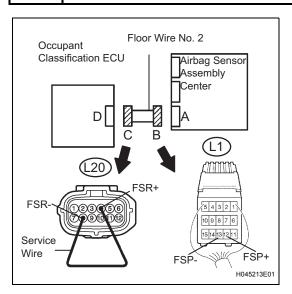
| Tester connection | Condition | Specified condition |
|-------------------------------|-------------------------|---------------------|
| L1-12 (FSP+) - Body ground | Ignition switch on (IG) | Below 1 V |
| L1-13 (FSP-) - Body ground | Ignition switch on (IG) | Below 1 V |

NG

REPAIR OR REPLACE FLOOR WIRE NO.2



6 CHECK FLOOR WIRE NO.2 (OPEN)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Using a service wire, connect L20-8 (FSR+) and L20-4 (FSR-) of connector "C".

NOTICE:

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

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

Resistance

| Tester connection | Condition | Specified condition |
|--------------------------------|-----------|---------------------|
| L1-12 (FSP+) - L1-13 (FSP-) | Always | Below 1 Ω |

NG

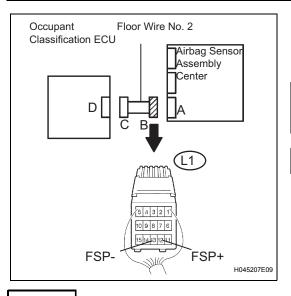
REPAIR OR REPLACE FLOOR WIRE NO.2



7

OK

CHECK FLOOR WIRE NO.2 (SHORT)



- (a) Disconnect the service wire from connector "C".
- (b) Measure the resistance according to the value(s) in the table below.

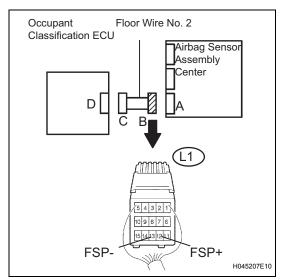
Resistance

| Tester connection | Condition | Specified condition |
|--------------------------------|-----------|------------------------|
| L1-12 (FSP+) - L1-13 (FSP-) | Always | 1 M Ω or Higher |

NG

REPAIR OR REPLACE FLOOR WIRE NO.2

8 CHECK FLOOR WIRE NO.2 (SHORT TO GROUND)



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

Resistance

| Tester connection | Condition | Specified condition |
|-------------------------------|-----------|------------------------|
| L1-12 (FSP+) - Body ground | Always | 1 M Ω or Higher |
| L1-13 (FSP-) - Body ground | Always | 1 M Ω or Higher |

NG >

REPAIR OR REPLACE FLOOR WIRE NO.2

ОК

9 RECHECK DTC

- (a) Connect the connectors to the occupant classification ECU and the center airbag sensor assembly.
- (b) Connect the intelligent tester to the DLC3.
- (c) Connect the negative (-) terminal cable to the battery.
- (d) Turn the ignition switch on (IG).
- (e) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (f) Clear the DTCs stored in the occupant classification ECU (See page RS-215). HINT:

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

- (g) Turn the ignition switch off.
- (h) Turn the ignition switch on (IG).
- Using the intelligent tester, check the DTCs of the occupant classification ECU (See page RS-215).
 OK:

DTC B1790 is not output.

HINT:

Codes other than DTC B1790 may be output at this time, but they are not related to this check.

NG

Go to step 10

OK

10 REPLACE OCCUPANT CLASSIFICATION ECU

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Replace the occupant classification ECU (See page RS-371).

HINT:

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

NEXT

11 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NEXT

12 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NEXT

13 RECHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).

HINT:

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

- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Using the intelligent tester, check the DTCs of the occupant classification ECU (See page RS-215).

OK:

DTC B1790 is not output.

HINT:

Codes other than DTC B1790 may be output at this time, but they are not related to this check.

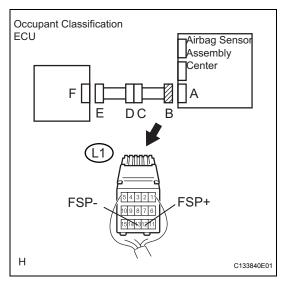


REPLACE CENTER AIRBAG SENSOR ASSEMBLY



END

14 CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT (TO B+)



- (a) Disconnect the connector from the occupant classification ECU.
- (b) Connect the negative (-) terminal cable to the battery.
- (c) Turn the ignition switch on (IG).
- (d) Measure the voltage according to the value(s) in the table below.

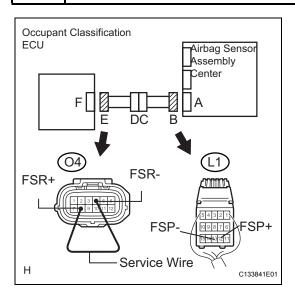
Voltage

| Tester connection | Condition | Specified condition |
|-------------------------------|-------------------------|---------------------|
| L1-12 (FSP+) - Body ground | Ignition switch on (IG) | Below 1 V |
| L1-13 (FSP-) - Body ground | Ignition switch on (IG) | Below 1 V |





15 CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT (OPEN)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Using a service wire, connect O4-8 (FSR+) and O4-4 (FSR-) of connector "E".

NOTICE:

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

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

Resistance

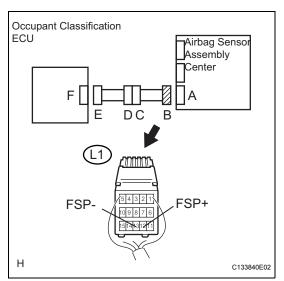
| Tester connection | Condition | Specified condition |
|--------------------------------|-----------|---------------------|
| L1-12 (FSP+) - L1-13 (FSP-) | Always | Below 1 Ω |

NG)

Go to step 24



16 CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT (SHORT)



- (a) Disconnect the service wire from connector "E".
- (b) Measure the resistance according to the value(s) in the table below.

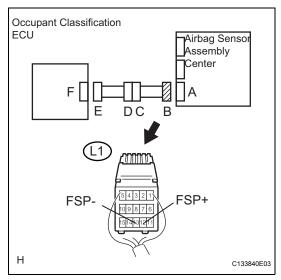
Resistance

| Tester connection | Condition | Specified condition |
|--------------------------------|-----------|------------------------|
| L1-12 (FSP+) - L1-13 (FSP-) | Always | 1 M Ω or Higher |

NG Go to step 25

ОК

17 CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT (TO GROUND)



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

Resistance

| Tester connection | Condition | Specified condition |
|-------------------------------|-----------|------------------------|
| L1-12 (FSP+) - Body ground | Always | 1 M Ω or Higher |
| L1-13 (FSP-) - Body ground | Always | 1 M Ω or Higher |

NG Go to step 26

OK

18 RECHECK DTC

- (a) Connect the connectors to the occupant classification ECU and the center airbag sensor assembly.
- (b) Connect the intelligent tester to the DLC3.
- (c) Connect the negative (-) terminal cable to the battery.
- (d) Turn the ignition switch on (IG).
- (e) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).



- (f) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (g) Turn the ignition switch off.
- (h) Turn the ignition switch on (IG).
- (i) Using the intelligent tester, check the DTCs of the occupant classification ECU (See page RS-215).

OK:

DTC B1790 is not output.

HINT:

Codes other than DTC B1790 may be output at this time, but they are not related to this check.

NG

Go to step 19

OK

USE SIMULATION METHOD TO CHECK

19 REPLACE OCCUPANT CLASSIFICATION ECU

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Replace the occupant classification ECU (See page RS-371).

HINT:

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

NEXT

20 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206)

OK:

The "COMPLETED" is displayed.

NEXT

21 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.15 lb)

NEXT

22 RECHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Using the intelligent tester, check the DTCs of the occupant classification ECU (See page RS-215).
 OK:

DTC B1790 is not output.

HINT:

Codes other than DTC B1790 may be output at this time, but they are not related to this check.

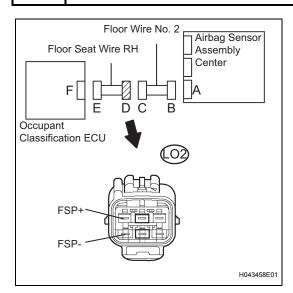


REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK

END

23 CHECK FRONT SEAT WIRE RH (TO B+)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) Terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the floor wire No. 2 connector from the front seat wire RH.
- (d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (e) Turn the ignition switch on (IG).
- (f) Measure the voltage according to the value(s) in the table below.

Voltage

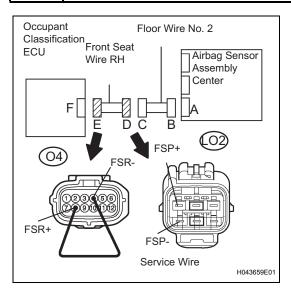
| Tester connection | Condition | Specified condition |
|-------------------------------|-------------------------|---------------------|
| LO2-1 (FSP+) - Body ground | Ignition switch on (IG) | Below 1 V |
| LO2-4 (FSP-) - Body ground | Ignition switch on (IG) | Below 1 V |

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

24 CHECK FRONT SEAT WIRE RH (OPEN)



(a) Disconnect the floor wire No. 2 connector from the front seat wire RH.

HINT:

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

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

Resistance

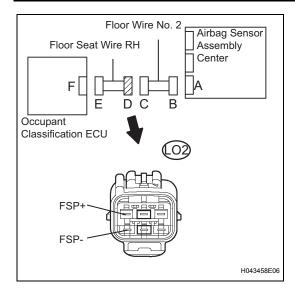
| Tester connection | Condition | Specified condition |
|--------------------------------|-----------|---------------------|
| LO2-1 (FSP+) - LO2-4 (FSP-) | Always | Below 1 Ω |

NG REPAIR OR REPLACE FRONT SEAT WIRE RH

ОК

REPAIR OR REPLACE FLOOR WIRE NO.2

25 CHECK FRONT SEAT WIRE RH (SHORT)



- (a) Disconnect the floor wire No. 2 connector from the front seat wire RH.
- (b) Measure the resistance according to the value(s) in the table below.

Resistance

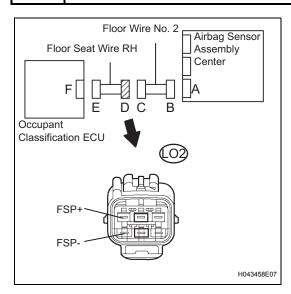
| Tester connection | Condition | Specified condition |
|--------------------------------|-----------|---------------------|
| LO2-1 (FSP+) - LO2-4 (FSP-) | Always | 1 MΩ or Higher |

NG REPAIR OR REPLACE FRONT SEAT WIRE RH

ОК

REPAIR OR REPLACE FLOOR WIRE NO.2

26 CHECK FRONT SEAT WIRE RH (TO GROUND)



- (a) Disconnect the floor wire No. 2 connector from the front seat wire RH.
- (b) Measure the resistance according to the value(s) in the table below.

Resistance

| Tester connection | Condition | Specified condition |
|-------------------------------|-----------|------------------------|
| LO2-1 (FSP+) - Body ground | Always | 1 M Ω or Higher |
| LO2-4 (FSP-) - Body ground | Always | 1 M Ω or Higher |





REPAIR OR REPLACE FLOOR WIRE NO.2

DTC B1793 Occupant Classification Sensor Power Supply Circuit Malfunction

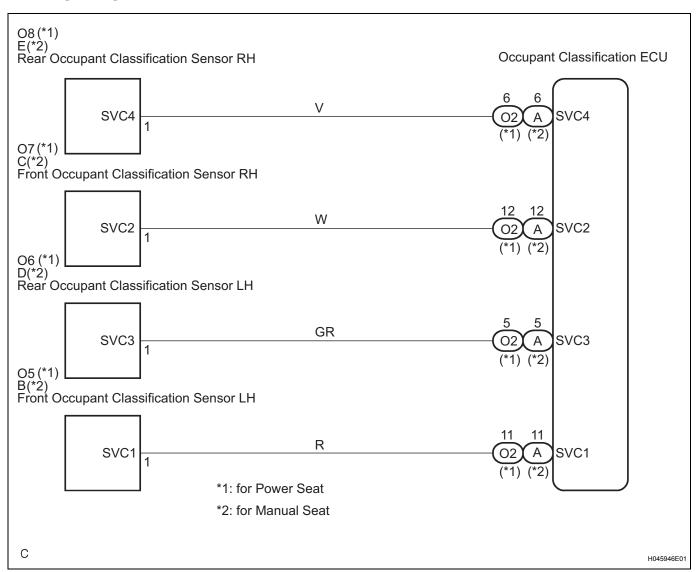
DESCRIPTION

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 Detecting Condition | Trouble Area |
|---------|---|---|
| B1793 | The occupant classification ECU receives a line short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the occupant classification sensor power supply circuit for 2 seconds. Occupant classification ECU malfunction | Front seat assembly RH (Occupant classification sensors) Front seat wire 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 under surface of seat cushion.
- In the above case, hold the seat so that it does not fall down. Holding the seat for a long period of time may cause a problem, such as seat rail deformation. Hold the seat only as necessary.

1 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.
- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1793 is not output.

HINT:

Codes other than DTC B1793 may be output at this time, but they are not related to this check.

ok)

USE SIMULATION METHOD TO CHECK

NG

CHECK CONNECTION OF CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Check that the connectors are properly connected to the occupant classification ECU and the occupant classification sensors.

OK:

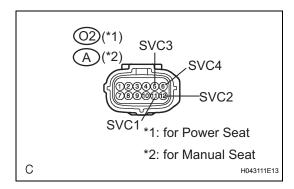
The connectors are connected.

NG

CONNECT CONNECTORS, THEN GO TO STEP 1

OK

3 CHECK FRONT SEAT WIRE RH (SHORT TO B+)



- (a) Disconnect the connectors from the occupant classification ECU and the 4 occupant classification sensors.
- (b) Connect the negative (-) terminal cable to the battery.
- (c) Turn the ignition switch on (IG).
- (d) Measure the voltage according to the value(s) in the table below.

Voltage

| Tester connection | Condition | Specified condition |
|------------------------------------|-------------------------|---------------------|
| O2-5 (SVC3) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| O2-6 (SVC4) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| O2-11 (SVC1) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| O2-12 (SVC2) - Body ground (*1) | Ignition switch on (IG) | Below 1 V |
| A-5 (SVC3) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |
| A-6 (SVC4) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |
| A-11 (SVC1) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |
| A-12 (SVC2) - Body ground (*2) | Ignition switch on (IG) | Below 1 V |

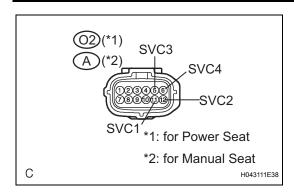
- *1: for Power seat
- *2: for Manual seat



REPAIR OR REPLACE FRONT SEAT WIRE RH



4 CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- c) Measure the resistance according to the value(s) in the table below.

Resistance

| Tester connection | Condition | Specified condition |
|------------------------------------|-----------|------------------------|
| O2-5 (SVC3) - Body ground (*1) | Always | 1 M Ω or Higher |
| O2-6 (SVC4) - Body ground (*1) | Always | 1 M Ω or Higher |
| O2-11 (SVC1) - Body ground (*1) | Always | 1 M Ω or Higher |
| O2-12 (SVC2) - Body ground (*1) | Always | 1 M Ω or Higher |

| Tester connection | Condition | Specified condition |
|-----------------------------------|-----------|------------------------|
| A-5 (SVC3) - Body ground (*2) | Always | 1 M Ω or Higher |
| A-6 (SVC4) - Body ground (*2) | Always | 1 M Ω or Higher |
| A-11 (SVC1) - Body ground (*2) | Always | 1 M Ω or Higher |
| A-12 (SVC2) - Body ground (*2) | Always | 1 M Ω or Higher |

*1: for Power seat

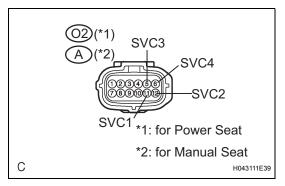
*2: for Manual seat

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH



5 CHECK FRONT SEAT WIRE RH (OPEN)



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

Resistance

| Tester connection | Condition | Specified condition |
|------------------------------------|-----------|---------------------|
| O2-5 (SVC3) - O6-1 (SVC3) (*1) | Always | Below 1 Ω |
| O2-6 (SVC4) - O8- 1 (SVC4) (*1) | Always | Below 1 Ω |
| O2-11 (SVC1) - O5-1 (SVC1) (*1) | Always | Below 1 Ω |
| O2-12 (SVC2) - O7-1 (SVC2) (*1) | Always | Below 1 Ω |
| A-5 (SVC3) - D-1 (SVC3) (*2) | Always | Below 1 Ω |
| A-6 (SVC4) - E-1 (SVC4) (*2) | Always | Below 1 Ω |
| A-11 (SVC1) - B-1 (SVC1) (*2) | Always | Below 1 Ω |
| A-12 (SVC2) - C-1 (SVC2) (*2) | Always | Below 1 Ω |

*1: for Power seat

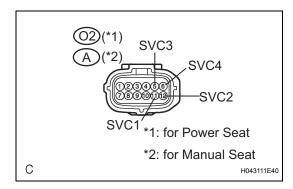
*2: for Manual seat

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

6 CHECK FRONT SEAT WIRE RH (SHORT)



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

Resistance

| Tester connection | Condition | Specified condition |
|-------------------------------------|-----------|------------------------|
| O2-5 (SVC3) - O2-6 (SVC4) (*1) | Always | 1 M Ω or Higher |
| O2-5 (SVC3) - O2-11 (SVC1) (*1) | Always | 1 M Ω or Higher |
| O2-5 (SVC3) - O2-12 (SVC2) (*1) | Always | 1 M Ω or Higher |
| O2-6 (SVC4) - O2-11 (SVC1) (*1) | Always | 1 M Ω or Higher |
| O2-6 (SVC4) - O2-12 (SVC2) (*1) | Always | 1 M Ω or Higher |
| O2-11 (SVC1) - O2-12 (SVC2) (*1) | Always | 1 M Ω or Higher |
| A-5 (SVC3) - A-6 (SVC4) (*2) | Always | 1 M Ω or Higher |
| A-5 (SVC3) - A-11 (SVC1) (*2) | Always | 1 M Ω or Higher |
| A-5 (SVC3) - A-12 (SVC2) (*2) | Always | 1 M Ω or Higher |
| A-6 (SVC4) - A-11 (SVC1) (*2) | Always | 1 M Ω or Higher |
| A-6 (SVC4) - A-12 (SVC2) (*2) | Always | 1 M Ω or Higher |
| A-11 (SVC1) - A-12 (SVC2) (*2) | Always | 1 MΩ or Higher |

^{*1:} for Power seat

NG

REPAIR OR REPLACE FRONT SEAT WIRE RH



7 CHECK DTC

- (a) Connect the connectors to the occupant classification ECU and the 4 occupant classification sensors.
- (b) Connect the negative (-) terminal cable to the battery.
- (c) Turn the ignition switch on (IG).
- (d) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (e) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (f) Turn the ignition switch off.
- (g) Turn the ignition switch on (IG).
- (h) Check the DTCs (See page RS-215). **OK:**

DTC B1793 is not output.

^{*2:} for Manual seat

HINT:

Codes other than DTC B1793 may be output at this time, but they are not related to this check.

ок 🗦

USE SIMULATION METHOD TO CHECK

NG

8 REPLACE OCCUPANT CLASSIFICATION ECU

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the occupant classification ECU (See page RS-215).

HINT:

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

NEXT

9 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NG)

Go to step 12

OK

10 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NG

Go to step 12

OK

11 CHECK DTC

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (c) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (d) Turn the ignition switch off.



- (e) Turn the ignition switch on (IG).
- (f) Check the DTCs (See page RS-215).

OK:

DTC B1793 is not output.

HINT:

Codes 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 ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the front seat assembly RH (See page SE-50 for power seat or SE-40 for manual seat).

NEXT

13 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NEXT

14 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

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

This circuit consists of the occupant classification ECU and the power source circuit (battery, fuse, wire harness).

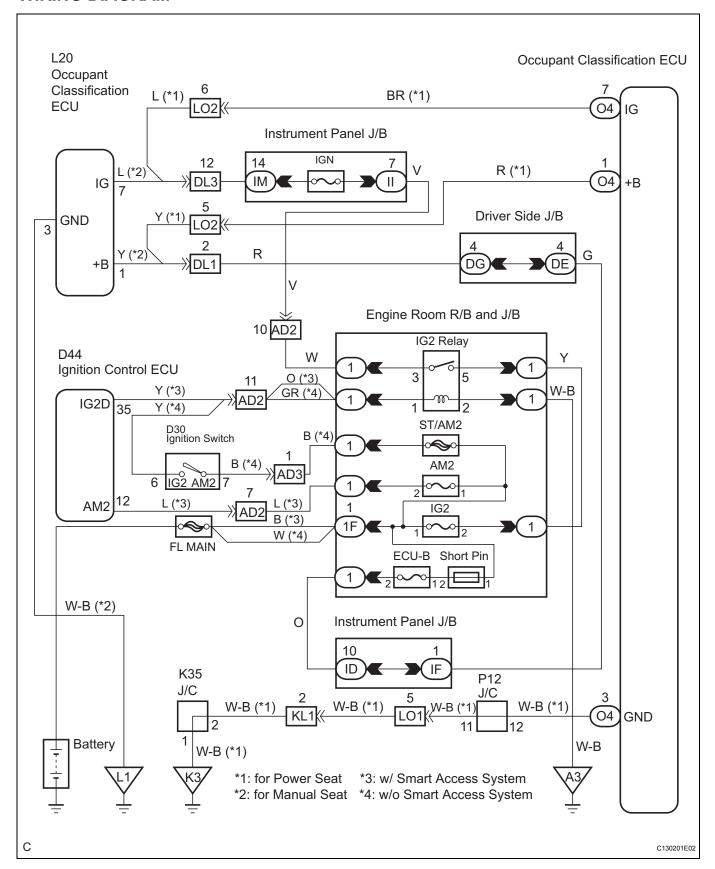
DTC B1794 is recorded when a malfunction is detected in the occupant classification ECU or the power source circuit.

HINT:

When DTC B1794 is output after switching the ignition switch off-on (IG)-off 50 times in a row when a malfunction occurs in the power circuit for the occupant classification system, the DTC is output again when a malfunction is detected even once after being cleared, unless the normal system code is input.

| DTC No. | DTC Detecting Condition | Trouble Area |
|---------|---|---|
| B1794 | The ignition switch is turned from off to on (IG), hold for 10 seconds or more, and back to off again 50 times in a row when a malfunction occurs in the circuit for the occupant classification system. Occupant classification ECU malfunction | Battery ECU-B Fuse Floor wire No. 2 Front seat wire RH (for Power seat) Occupant classification ECU |

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK BATTERY

(a) Measure the voltage of the battery.

Voltage:

11 to 14 V

NG

REPLACE BATTERY

ОК

2 CHECK FUSE

(a) Check the ECU-B fuse.

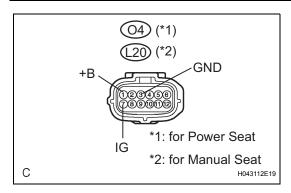
Resistance: Below 1 Ω

NG

REPLACE FUSE

OK

3 CHECK WIRE HARNESS (SOURCE VOLTAGE)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Disconnect the connector from the occupant classification ECU.
- (d) Connect the negative (-) terminal cable to the battery.
- (e) Turn the ignition switch on (IG).
- f) Measure the voltage and resistance according to the value(s) in the table below.

Standard

| Tester connection | Condition | Specified condition |
|-----------------------------------|-------------------------|---------------------|
| O4-1 (+B) - Body ground (*1) | Always | 10 to 14 V |
| O4-3 (GND) - Body ground (*1) | Always | Below 1 Ω |
| O4-7 (IG) - Body ground (*1) | Ignition switch on (IG) | 10 to 14 V |
| L20-1 (+B) - Body ground (*2) | Always | 10 to 14 V |
| L20-3 (GND) - Body ground (*2) | Always | Below 1 Ω |
| L20-7 (IG) - Body ground (*2) | Ignition switch on (IG) | 10 to 14 V |

*1: for Power seat

*2: for Manual seat

NG

REPAIR OR REPLACE WIRE HARNESS

4 CHECK DTC

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Connect the connector to the occupant classification ECU.
- (d) Connect the intelligent tester to the DLC3.
- (e) Connect the negative (-) terminal cable to the battery.
- (f) Turn the ignition switch on (IG).
- (g) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (h) Clear the DTCs stored in the occupant classification ECU (See page RS-215).

HINT:

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

- (i) Turn the ignition switch off.
- (j) Turn the ignition switch on (IG), and wait for at least 10 seconds.
- (k) Using the intelligent tester, check the DTCs of the occupant classification ECU (See page RS-215).

OK:

B1794 is not output.

HINT:

Codes other than DTC B1794 may be output at this time, but they are not related to this check.

NG

Go to step 5

OK

USE SIMULATION METHOD TO CHECK

5 REPLACE OCCUPANT CLASSIFICATION ECU

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Replace the occupant classification ECU (See page RS-371).

HINT:

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

NEXT

6 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.

- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform the "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.



7 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform the "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)



END

DTC B1795 Occupant Classification ECU Malfunction

DESCRIPTION

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

| DTC No. | DTC Detecting Condition | Trouble Area |
|---------|--|--|
| B1795 | Occupant classification ECU circuit malfunction The occupant classification ECU receives a short circuit to ground signal in the passenger side buckle switch circuit for 2 seconds. Occupant classification ECU malfunction | Front seat wire RH (for Power seat) Floor wire No.2 Front seat inner belt assembly RH Occupant classification ECU |

INSPECTION PROCEDURE

1 CHECK DTC

- (a) Turn the ignition switch on (IG), and wait for at least 10 seconds.
- (b) Check the DTCs (See page RS-215).

Result:

A:

DTC B1771 and B1795 are output.

B:

DTC B1795 is output.

HINT:

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

A > GO TO DTC (B1771)

В

2 CHECK FUSE

(a) Check the ECU-B fuse.

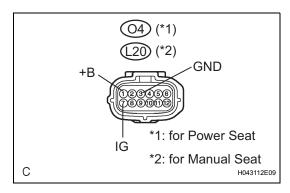
Resistance:

Below 1 Ω

NG REPLACE FUSE

OK

3 CHECK WIRE HARNESS (SOURCE VOLTAGE)



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Disconnect the connector from the occupant classification ECU.
- (d) Connect the negative (-) terminal cable to the battery.
- (e) Turn the ignition switch on (IG).
- (f) Measure the voltage according to the value(s) in the table below.

Voltage

| Tester connection | Condition | Specified condition |
|----------------------------------|-------------------------|---------------------|
| O4-1 (+B) - Body ground (*1) | Always | 10 to 14 V |
| O4-7 (IG) - Body ground (*1) | Ignition switch on (*1) | 10 to 14 V |
| L20-1 (+B) - Body ground (*2) | Always | 10 to 14 V |
| L20-7 (IG) - Body ground (*2) | Ignition switch on (*1) | 10 to 14 V |

*1: for Power seat

*2: for Manual seat

- (g) Turn the ignition switch off.
- (h) Measure the resistance according to the value(s) in the table below.

Resistance

| Tester connection | Condition | Specified condition |
|-----------------------------------|-----------|---------------------|
| O4-3 (GND) - Body ground (*1) | Always | Below 1 Ω |
| L20-3 (GND) - Body ground (*2) | Always | Below 1 Ω |

*1: for Power seat

*2: for Manual seat

NG

REPAIR OR REPLACE WIRE HARNESS

OK

REPLACE OCCUPANT CLASSIFICATION ECU

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the occupant classification ECU (See page RS-215).

HINT:

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



5 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NEXT

6 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

Sleep Operation Failure of Occupant Classifica-DTC B1796 tion ECU

DESCRIPTION

During sleep mode, the occupant classification ECU reads the condition of each sensor while the ignition switch is off.

In this mode, if occupant classification ECU detects an internal malfunction, DTC B1796 is output.

| DTC No. | DTC Detecting Condition | Trouble Area |
|---------|---|-----------------------------|
| B1796 | Occupant classification ECU malfunction | Occupant classification ECU |

INSPECTION PROCEDURE

1 **CHECK DTC**

- (a) Turn the ignition switch on (IG).
- (b) Clear the DTCs stored in memory (See page RS-215). HINT:

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

- (c) Turn the ignition switch off, and wait for at least 10 seconds.
- (d) Turn the ignition switch on (IG).
- (e) Check the DTCs (See page RS-215).

OK:

DTC B1796 is not output.

HINT:

Codes other than DTC B1796 may be output at this time, but they are not related to this check.



USE SIMULATION METHOD TO CHECK

NG

2 REPLACE OCCUPANT CLASSIFICATION ECU

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the occupant classification ECU (See page RS-371).

HINT:

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

NEXT

3 PERFORM ZERO POINT CALIBRATION

- - (a) Connect the negative (-) terminal cable to the battery.
 - (b) Connect the intelligent tester to the DLC3.
 - (c) Turn the ignition switch on (IG).



(d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETED" is displayed.

NEXT

4 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

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. It then informs a passenger of the front passenger airbag assembly condition (activated/not activated) by the passenger airbag ON/OFF indicator.

The table below shows the normal indication condition of the passenger airbag ON/OFF indicator and the front passenger seat condition.

| 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 |

INSPECTION PROCEDURE

CHECK SRS WARNING LIGHT

(a) Turn the ignition switch on (IG), and check the SRS warning light condition.

HINT:

If this trouble occurs, the SRS warning light is off. If it is on, a DTC is output. Troubleshoot for the output DTC.

The SRS warning light does not come on.

NG Go to step 9

OK

2 CHECK PASSENGER AIRBAG ON / OFF INDICATOR

- (a) Turn the ignition 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

- - (b) Connect the intelligent tester to the DLC3.

(a) Turn the ignition switch off.



RS-303 (c) Turn the ignition switch on (IG). (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206). OK: The "COMPLETE" is displayed. NG Go to step 5 PERFORM SENSITIVITY CHECK (a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206). Standard value: 27 to 33 kg (59.52 to 72.75 lb) NG Go to step 5 RETIGHTEN FRONT SEAT ASSEMBLY RH BOLT (a) Turn the ignition switch off. (b) Loosen the 4 installation bolts of the front seat assembly RH. Tighten the 4 installation bolts of the front seat assembly RH to the specified torque. Torque: 37 N*m (380 kgf*cm, 27 ft.*lbf)

NG

Go to step 8

OK

OK

OK

END

5

- 6 PERFORM ZERO POINT CALIBRATION
 - (a) Connect the intelligent tester to the DLC3.
 - (b) Turn the ignition switch on (IG).
 - (c) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

The "COMPLETE" is displayed.

NG

Go to step 8

OK

7 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NG

Go to step 8

OK

8 CHECK CONNECTORS

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Check 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 the connectors are not damaged or deformed.

OK:

The connectors are normal.

NG

REPAIR OR REPLACE CONNECTOR, THEN GO TO STEP 1

OK

9 CHECK DTC

- (a) Connect the connectors to the occupant classification ECU and the 4 occupant classification sensors.
- (b) Connect the negative (-) terminal cable to the battery.
- (c) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (d) Clear the DTCs stored in the center airbag sensor assembly (See page RS-34).
- (e) Clear the DTCs stored in the occupant classification ECU (See page RS-215).
- (f) Turn the ignition switch off.
- (g) Turn the ignition switch on (IG), and wait for at least 60 seconds.
- (h) Check the DTCs (See page RS-215).

OK:

DTC is not output.

NG

REPLACE CENTER AIRBAG SENSOR ASSEMBLY

RS

ОК

10 REPLACE OCCUPANT CLASSIFICATION ECU

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Replace the occupant classification ECU (See page RS-371).

HINT:

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

NEXT

11 PERFORM ZERO POINT CALIBRATION

- (a) Connect the negative (-) terminal cable to the battery.
- (b) Connect the intelligent tester to the DLC3.
- (c) Turn the ignition switch on (IG).
- (d) Using the intelligent tester, perform "Zero point calibration" (See page RS-206).

OK:

The "COMPLETE" is displayed.

NEXT

12 PERFORM SENSITIVITY CHECK

(a) Using the intelligent tester, perform "Sensitivity check" (See page RS-206).

Standard value:

27 to 33 kg (59.52 to 72.75 lb)

NEXT

END

REMOVAL

1. PRECAUTION

CAUTION:

Be sure to read the "PRECAUTION" thoroughly before servicing (See page RS-1).

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

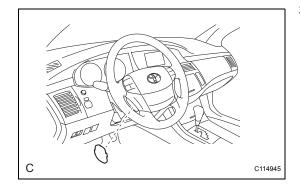
Wait for 90 seconds after disconnecting the cable to prevent the airbag working.

3. REMOVE STEERING WHEEL COVER LOWER NO.3

(a) Using a screwdriver, remove the steering wheel cover lower No.3.

HINT:

Tape up the screwdriver tip before use.

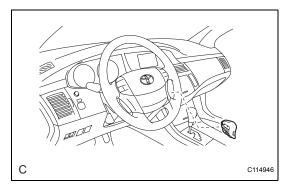


4. REMOVE STEERING WHEEL COVER LOWER NO.2

(a) Using a screwdriver, remove the steering wheel cover lower No.2.

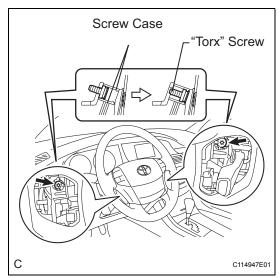
HINT:

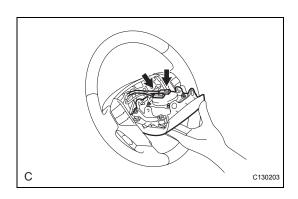
Tape up the screwdriver tip before use.

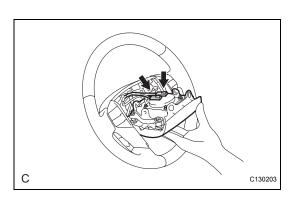


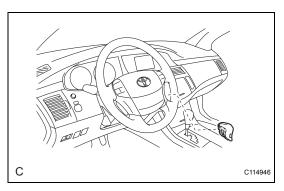
5. REMOVE STEERING PAD

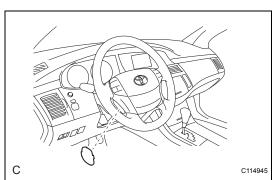
(a) Using a "torx" socket wrench (T30), loosen the 2 "torx" screws until the groove along the screw circumference catches on the screw case.











(b) Pull out the steering pad from the steering wheel assembly 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.

- (c) Disconnect the horn connector.
- (d) Disconnect the 2 connectors from the steering pad. **NOTICE:**

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

(e) Remove the steering pad.

INSTALLATION

1. INSTALL STEERING PAD

- (a) Support the steering pad with one hand as shown in the illustration.
- (b) Connect the 2 connectors to the steering pad. **NOTICE:**

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

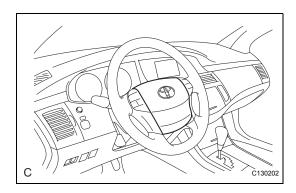
- (c) Connect the horn connector.
- (d) Confirm that the circumference groove of the "torx" screw fits in the screw case, and place the steering pad onto the steering wheel assembly.
- (e) Using a "torx" socket wrench (T30), tighten the 2 "torx" screws.

Torque: 8.8 N*m (90 kgf*cm, 78 in.*lbf)

2. INSTALL STEERING WHEEL COVER LOWER NO.2

(a) Install the steering wheel cover lower No.2.

- 3. INSTALL STEERING WHEEL COVER LOWER NO.3
 - (a) Install the steering wheel cover lower No.3.
- 4. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL



5. INSPECT STEERING PAD

- (a) With the steering pad installed on the vehicle, perform a visual check. If there are any defects as mentioned below, replace the steering pad with a new one:
 - Cuts, minute cracks or marked discoloration on the steering pad top surface or in the grooved portion.
- (b) Make sure that the horn sounds. HINT:

If the horn does not sound, inspect the horn system (See page HO-3).

6. PERFORM INITIALIZATION

(a) Perform initialization (See page IN-29). HINT:

Some systems need initialization when disconnecting the cable from the negative battery terminal.

7. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light (See page RS-28).

DISPOSAL

HINT:

When scrapping a vehicle equipped with the SRS or disposing of the steering pad, be sure to deploy the airbag first in accordance with the procedure described below. If any abnormality occurs with the airbag deployment, contact the SERVICE DEPT. of TOYOTA MOTOR SALES, U.S.A., INC.

CAUTION:

- Never dispose of a steering pad that has an undeployed airbag.
- The airbag produces an exploding sound when it is deployed, so perform the operation outdoors and where it will not create a nuisance to nearby residents.
- When deploying the airbag, always use the specified SST (SRS Airbag Deployment Tool). Perform the operation in a place away from electrical noise.
- When deploying the airbag, perform the operation at least 10 m (33 ft) away from the steering pad.
- The steering pad becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a steering pad with a deployed airbag.
- Do not apply water, etc. to a steering pad with a deployed airbag.
- Always wash your hands with water after completing the operation.
- 1. DISPOSE OF STEERING PAD (WHEN INSTALLED IN VEHICLE)

HINT:

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

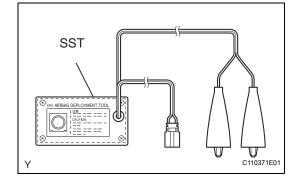
(a) Check the function of the SST.

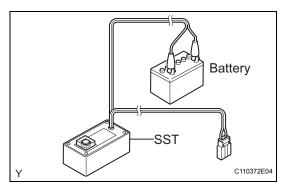
SST 09082-00700

CAUTION:

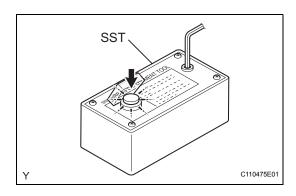
When deploying the airbag, always use the specified SST:

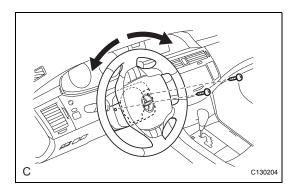
SRS Airbag Deployment Tool

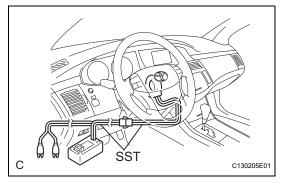




(1) Connect the SST to the battery. Connect the red clip of the SST to the battery positive (+) terminal and the black clip of the SST to the negative (-) terminal.







- (2) Check the function of the SST.

 Press the SST activation switch, and check that the LED of the SST activation switch comes on.

 CAUTION:
 - Do not connect the SST connector (yellow colored one) to the airbag.
 - If the LED comes on when the activation switch is not being pressed, SST malfunction is possible, so replace the SST with a new one.
- (3) Disconnect the SST from the battery.
- (b) Precaution (See page RS-1).
- (c) Disconnect the cable from the negative battery terminal.

CAUTION:

Wait for 90 seconds after disconnecting the cable to prevent the airbag working.

- (d) Remove the steering column cover lower.
 - (1) While turning the steering wheel assembly to the right and left, remove the 2 screws and steering column cover lower.

(e) Install the SST.

CAUTION:

Check that there is no looseness in the steering wheel assembly and steering pad.

(1) Disconnect the airbag connector (yellow colored one) from the spiral cable.

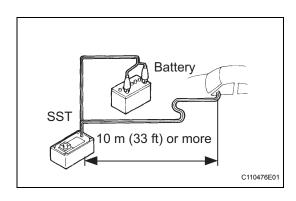
NOTICE:

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

(2) Connect the SST connector to the airbag connector of 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 the SST at least 10 m (33 ft) away from the vehicle front side window.
- (4) Maintaining enough clearance for the SST wire harness in the front side window, close all doors and windows of the vehicle.

NOTICE:

Take care not to damage the SST wire harness.

- (5) Connect the red clip of the SST to the battery positive (+) terminal and the black clip of the SST to the 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 steering pad becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a steering pad with a deployed airbag.
- Do not apply water, etc. to a steering pad with a deployed airbag.
- Always wash your hands with water after completing the operation.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.

2. DISPOSE OF STEERING PAD (WHEN NOT INSTALLED IN VEHICLE) 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.

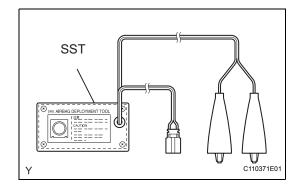
(a) Check the function of the SST.

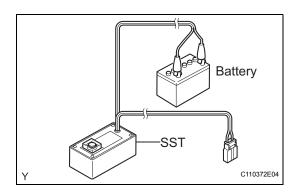
SST 09082-00700

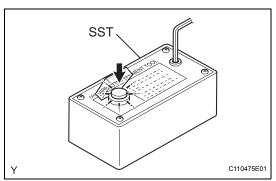
CAUTION:

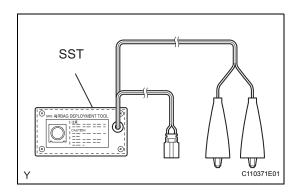
When deploying the airbag, always use the specified SST:

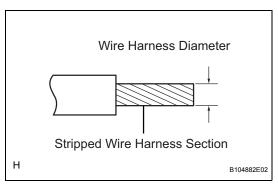
SRS Airbag Deployment Tool











(1) Connect the SST to the battery. Connect the red clip of the SST to the battery positive (+) terminal and the black clip of the SST to the negative (-) terminal.

- (2) Check the function of the SST.

 Press the SST activation switch, and check that the LED of the SST activation switch comes on.

 CAUTION:
 - Do not connect the SST connector (yellow colored one) to the airbag.
 - If the LED comes on when the activation switch is not being pressed, SST malfunction is possible, so replace the SST with a new one.
- (3) Disconnect the SST from the battery.
- (b) Remove the steering pad (See page RS-303). **CAUTION:**
 - When removing the steering pad, work must be started 90 seconds after the ignition switch is turned off and the negative (-) terminal cable is disconnected from the battery.
 - When storing the steering pad, keep the airbag deployment side facing upward.
- (c) Using a service-purpose wire harness for the vehicle, tie down the steering pad to the disc wheel. Wire harness:

Stripped wire harness section

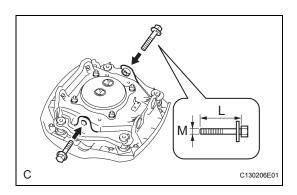
1.25 mm² or more (0.0019 in.² or more) CAUTION:

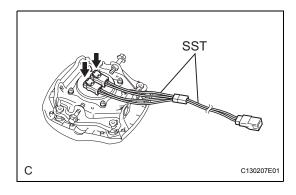
If the wire harness is too thin or an alternative object is used to tie down the steering pad, it may be snapped by the shock when the airbag is deployed. Always use a wire harness for vehicle use with an area of at least 1.25 mm² (0.0019 in.²).

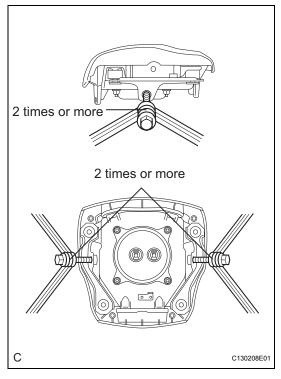
HINT:

To calculate the area of the stripped wire harness section:

Area = $3.14 \times (Diameter)^2$ divided by 4







(1) Install the 2 bolts with washers into the 2 bolt holes on 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:

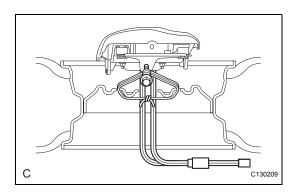
- Tighten the bolts by hand until they become difficult to turn.
- · Do not tighten the bolts excessively.
- (2) After connecting the SST below to each other, connect them to the steering pad.

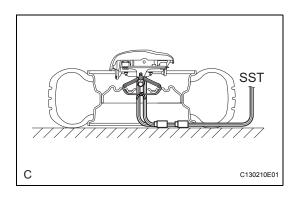
SST 09082-00802 (09082-10801, 09082-30801)

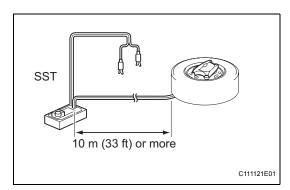
(3) Using 3 wire harnesses, wind wire harness at least 2 times each around each of the bolts installed on the left and right sides of the steering pad.

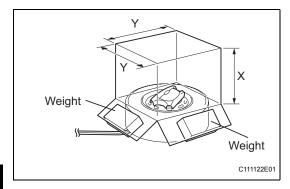
CAUTION:

- Tightly wind the wire harness around the bolts so that there is no slack.
- Make sure that the wire harness is tight.
 If there is slack in the wire harness, the steering pad may become loose due to the shock when the airbag is deployed.









(4) Face the airbag deployment side of the steering pad upward on top of a tire and wheel set. Separately tie the left and right sides of the steering pad to the disc wheel through the hub nut holes. Position the SST connector so that it hangs downward through the hub hole of the disc wheel.

CAUTION:

- Make sure that the wire harness is tight. If there is slack in the wire harness, the steering pad may become loose due to the shock when the airbag is deployed.
- Always tie down the steering pad with the airbag deployment side facing upward.

NOTICE:

The disc wheel will be damaged by the airbag deployment, so use an extra disc wheel.

(d) Install the SST.

CAUTION:

Place the disc wheel on level ground.

(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 disc wheel.

(2) Move the SST at least 10 m (33 ft) away from the airbag tied down to the tire.

- (e) Cover the steering pad (Using a cardboard box).
 - (1) Cover the steering pad with the cardboard box.
 - (2) Place weights on the cardboard box in 4 places totalling at least 190 N (19 kg, 43 lb).

Cardboard box size:

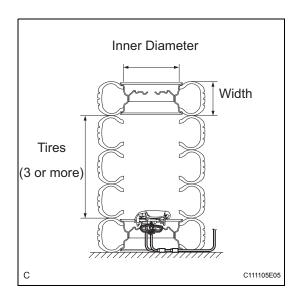
Must exceed the following dimensions

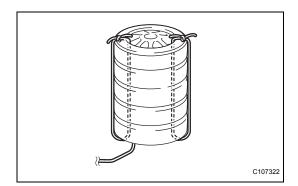
X:

460 mm (18.11 in.)

Y:

650 mm (25.59 in.)





NOTICE:

- When the dimension Y of the cardboard box exceeds the diameter of the disc wheel with tire which the steering pad is tied to, X should be the following size.
 X = 460 mm (18.11 in.) + width of tire
- If a cardboard box which is smaller than the specified size is used, the cardboard box will be broken by the shock from the airbag deployment.
- (f) Cover the steering pad (Using tires).
 - (1) Place at least 3 tires without disc wheels on the tire with disc wheel which the steering pad is tied to.
 - (2) Place the tire with a disc wheel on top of them. **Tire size:**

Must exceed the following dimensions Width:

185 mm (7.28 in.)

Inner diameter:

360 mm (14.17 in.)

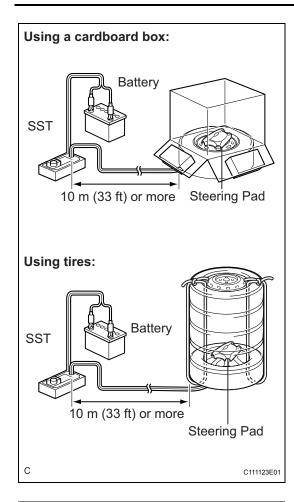
CAUTION:

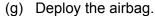
Do not use tires with disc wheels except for on the top and bottom.

NOTICE:

- The tires may be damaged by the airbag deployment, so use an extra tire.
- 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 harness is tight. Looseness in the wire harness results in the tires coming free due to the shock when the airbag is deployed.





- (1) Connect the red clip of the SST to the battery positive (+) terminal and the black clip of the SST to the negative (-) terminal.
- (2) Check that no one is within a 10 m (33 ft) radius of the disc wheel which the steering pad is tied to
- (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 steering pad.

CAUTION:

- The steering pad becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a steering pad with a deployed airbag.
- Do not apply water, etc. to a steering pad with a deployed airbag.
- Always wash your hands with water after completing the operation.
- (1) Remove the steering pad from the disc wheel.
- (2) Place the steering pad in a plastic bag, tie it tightly and dispose of it as other general part disposal.

INSPECTION

1. INSPECT SPIRAL CABLE

 (a) If there are any defects as mentioned below, replace the spiral cable with a new one:
 Scratches, cracks, dents or chips on the connector or the spiral cable.

INSTALLATION

1. INSTALL STEERING ANGLE SENSOR (w/ VSC) (See page BC-260)

2. INSTALL SPIRAL CABLE

- (a) Check that the front wheels are facing straight ahead.
- (b) Set the turn signal switch to the neutral position. **NOTICE:**

If it is not in the neutral position, the pin of the turn signal switch may snap.

(c) Install the spiral cable.

NOTICE:

When replacing the spiral cable with a new one, remove the lock pin before installing the steering wheel assembly.

(d) Connect the connectors to the spiral cable. **NOTICE:**

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

- 3. INSTALL STEERING COLUMN COVER (See page SR-46)
- 4. INSTALL STEERING COLUMN COVER LOWER (See page SR-46)

5. ADJUST SPIRAL CABLE

C130211E02

- (a) Check that the ignition switch is off.
- (b) Check that the battery negative (-) terminal is disconnected.

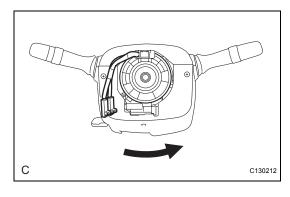
CAUTION:

After removing the terminal, wait for at least 90 seconds before starting the operation.

(c) Rotate the spiral cable counterclockwise slowly by hand until it feels firm.

NOTICE:

Do not turn the spiral cable by the airbag wire harness.



: Claw

С

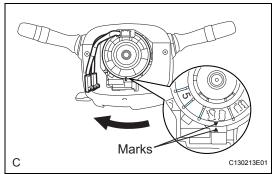
(d) Rotate the spiral cable clockwise approximately 2.5 turns to align the marks.NOTICE:

Do not turn the spiral cable by the airbag wire harness.

HINT:

The spiral cable will rotate approximately 2.5 turns to both the left and right from the center.

6. INSTALL STEERING WHEEL ASSEMBLY (See page SR-46)





- 7. INSPECT STEERING WHEEL CENTER POINT
- 8. INSTALL STEERING PAD (See page RS-305)
- 9. INSTALL STEERING WHEEL COVER LOWER NO.2 (See page RS-305)
- 10. INSTALL STEERING WHEEL COVER LOWER NO.3 (See page RS-305)
- 11. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
- 12. INSPECT STEERING PAD (See page RS-305)
- 13. PERFORM INITIALIZATION
 - (a) Perform initialization (See page IN-29).
 HINT:
 Some systems need initialization when disconnecting the cable from the negative battery terminal.
- 14. INSPECT SRS WARNING LIGHT
 - (a) Inspect the SRS warning light (See page RS-28).

REMOVAL

1. PRECAUTION

CAUTION:

Be sure to read the "PRECAUTION" thoroughly before servicing (See page RS-1).

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

Wait for 90 seconds after disconnecting the cable to prevent the airbag working.

- 3. REMOVE FRONT DOOR SCUFF PLATE LH (See page IR-12)
- 4. REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH (See page IR-12)
- 5. REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP LH
- 6. REMOVE INSTRUMENT PANEL FINISH LOWER PANEL LH (See page IP-12)

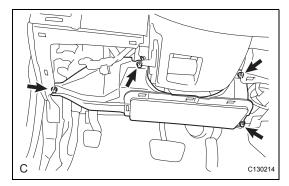


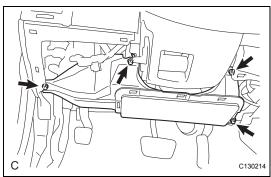
- (a) Remove the 4 bolts and the driver side knee airbag assembly.
- (b) Disconnect the connector from the driver side knee airbag assembly.

NOTICE:

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

INSPECT DRIVER SIDE KNEE AIRBAG ASSEMBLY





INSTALLATION

- 1. INSTALL DRIVER SIDE KNEE AIRBAG ASSEMBLY
 - (a) Connect the connector to the driver side knee airbag assembly.

NOTICE:

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

(b) Install the driver side knee airbag assembly with the 4 bolts.

Torque: 10 N*m (102 kgf*cm, 7 ft.*lbf)

- 2. INSTALL INSTRUMENT PANEL FINISH LOWER PANEL LH
- 3. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH
- 4. INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH
- 5. INSTALL FRONT DOOR SCUFF PLATE LH
- 6. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

7. PERFORM INITIALIZATION

(a) Perform initialization (See page IN-29).
HINT:
Some systems need initialization when
disconnecting the cable from the negative battery
terminal.

8. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light (See page RS-28).

DISPOSAL

HINT:

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

CAUTION:

- Never dispose of a driver side knee airbag assembly that has an undeployed airbag.
- The airbag produces an exploding sound when it is deployed, so perform the operation outdoors and where it will not create a nuisance to nearby residents.
- When deploying the airbag, always use the specified SST (SRS Airbag Deployment Tool). Perform the operation in a place away from electrical noise.
- When deploying the airbag, perform the operation at least 10 m (33 ft) away from the driver side knee airbag assembly.
- The driver side knee airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a driver side knee airbag assembly with a deployed airbag.
- Do not apply water, etc. to a driver side knee airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.
- 1. DISPOSE OF DRIVER SIDE KNEE AIRBAG ASSEMBLY (WHEN INSTALLED IN VEHICLE) HINT:

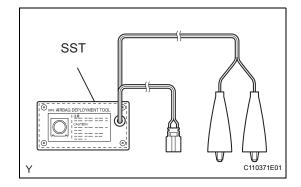
Prepare a battery as the power source to deploy the airbag.

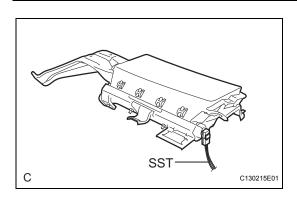
- (a) Check the function of the SST (See page RS-306).
- (b) Precaution (See page RS-1).
- (c) Disconnect the cable from the negative battery terminal.

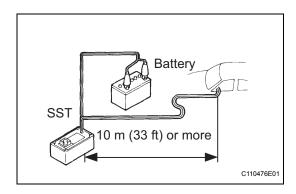
CAUTION:

Wait for 90 seconds after disconnecting the cable to prevent the airbag working.

- (d) Remove the front door scuff plate LH (See page IR-12).
- (e) Remove the cowl side trim sub-assembly LH (See page IR-12).
- (f) Remove the front door weatherstrip LH (See page IR-12).
- (g) Remove the instrument panel finish lower panel LH (See page IP-12).
- (h) Remove the driver side knee airbag assembly (See page RS-320).







- Install the SST.
 - (1) Connect the SST connector to the driver side knee airbag assembly.

SST 09082-00700, 09082-00770 NOTICE:

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

(2) Install the driver side knee airbag assembly. **NOTICE:**

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

- (3) Move the SST at least 10 m (33 ft) away from the vehicle front side window.
- (4) Maintaining enough clearance for the SST wire harness in the front side window, close all doors and windows of the vehicle.

NOTICE:

Take care not to damage the SST wire harness.

- (5) Connect the red clip of the SST to the battery positive (+) terminal and the black clip of the SST to the negative (-) terminal.
- (i) 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:

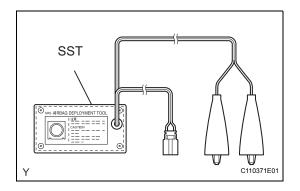
- When deploying the airbag, make sure that no one is near the vehicle.
- The driver side knee airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a driver side knee airbag assembly with a deployed airbag.
- Do not apply water, etc. to a driver side knee airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

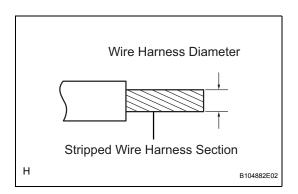
HINT:

The airbag is deployed as the LED of the SST activation switch comes on.

- 2. DISPOSE OF DRIVER SIDE KNEE AIRBAG
 ASSEMBLY (WHEN NOT INSTALLED IN VEHICLE)
 NOTICE:
 - When disposing of the driver side knee airbag assembly, never use the customer's vehicle to deploy the airbag.
 - Be sure to follow the procedure detailed below when deploying the airbag.







HINT:

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

- (a) Check the function of the SST (See page RS-306).
- (b) Remove the driver side knee airbag assembly (See page RS-319).

CAUTION:

- When removing the driver side knee airbag assembly, work must be started 90 seconds after the ignition switch is tuned off and the negative (-) terminal cable is disconnected from the battery.
- When storing the driver side knee airbag assembly, keep the airbag deployment side facing upward.
- (c) Using a service-purpose wire harness for the vehicle, tie down the driver side knee airbag assembly to the tire.

Wire harness:

Stripped wire harness section

1.25 mm² or more (0.0019 in.² or more) CAUTION:

If the wire harness is too thin or an alternative object is used to tie down the driver side knee airbag assembly, it may be snapped by the shock when the airbag is deployed. Always use a wire harness for vehicle use with an area of at least 1.25 mm² (0.0019 in.²).

HINT:

To calculate the area of the stripped wire harness section:

Area = $3.14 \times (Diameter)^2$ divided by 4

(1) Position the driver side knee airbag assembly inside the tire with the airbag deployment side facing inside.

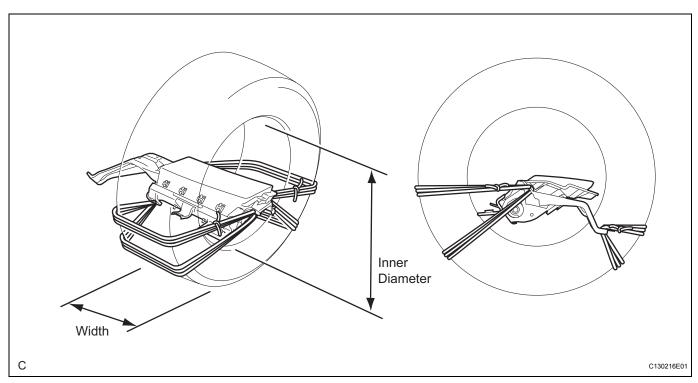
Tire size:

Must exceed the following dimensions Width:

185 mm (7.28 in.)

Inner diameter:

360 mm (14.17 in.)



CAUTION:

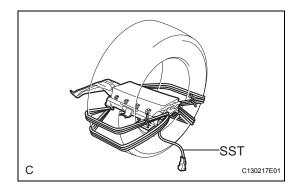
- Make sure that the wire harness is tight.
 If there is slack in the wire harness, the driver side knee airbag assembly may become loose due to the shock when the airbag is deployed.
- Always tie down the driver side knee airbag assembly with the airbag deployment side facing inside the tire.

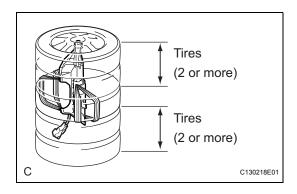
NOTICE:

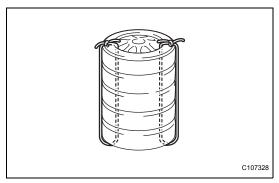
The tire will be damaged by the airbag deployment, so use an extra tire.

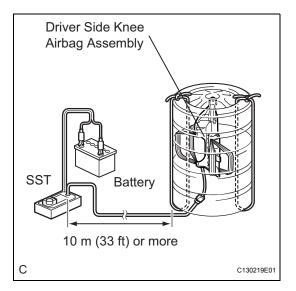
- (d) Install the SST.
 - (1) Connect the SST connector to the driver side knee airbag assembly.

SST 09082-00770









- (e) Place the tires.
 - (1) Place at least 2 tires under the tire which the driver side knee airbag assembly is tied to.
 - (2) Place at least 2 tires over the tire which the driver side knee airbag assembly is tied to. 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 harness is tight. Looseness in the wire harness results in the tires coming free due to the shock when the airbag is deployed.

- (f) Install the 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.

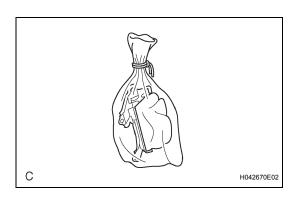
- (2) Move the SST at least 10 m (33 ft) away from the airbag tied down to the tires.
- (g) Deploy the airbag.
 - (1) Connect the red clip of the SST to the battery positive (+) terminal and the black clip of the SST to the negative (-) terminal.
 - (2) Check that no one is within a 10 m (33 ft) radius of the tire which the driver side knee airbag assembly is tied to.
 - (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 driver side knee airbag assembly. **CAUTION:**
 - The driver side knee airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
 - Use gloves and safety glasses when handling a driver side knee airbag assembly with a deployed airbag.
 - Do not apply water, etc. to a driver side knee airbag assembly with a deployed airbag.
 - Always wash your hands with water after completing the operation.
 - (1) Remove the driver side knee airbag assembly from the tire.
 - (2) Place the driver side knee airbag assembly in a plastic bag, tie it tightly and dispose of it as other general part disposal.

REMOVAL

1. PRECAUTION

CAUTION:

Be sure to read the "PRECAUTION" thoroughly before servicing (See page RS-1).

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

Wait for 90 seconds after disconnecting the cable to prevent the airbag working.

- 3. REMOVE FRONT DOOR SCUFF PLATE RH (See page IR-12)
- 4. REMOVE COWL SIDE TRIM SUB-ASSEMBLY RH (See page IR-12)
- 5. REMOVE FRONT DOOR WEATHERSTRIP RH
- REMOVE INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY NO.2 (See page IP-11)
- 7. REMOVE INSTRUMENT PANEL FINISH LOWER PANEL RH (See page IP-11)
- 8. DISCONNECT FRONT PASSENGER AIRBAG ASSEMBLY CONNECTOR
 - (a) Disconnect the connector.

NOTICE:

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

9. REMOVE INSTRUMENT PANEL SAFETY PAD SUB-ASSEMBLY

HINT:

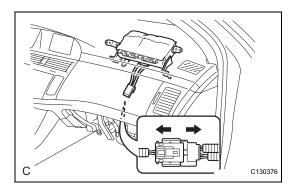
Refer to the procedures up to "REMOVE INSTRUMENT PANEL SAFETY PAD SUB-ASSEMBLY" (See page IP-8).

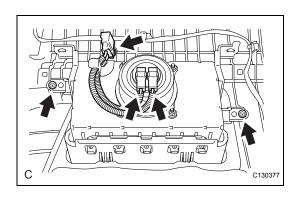
- 10. REMOVE SIDE DEFROSTER NOZZLE DUCT NO.2 (See page IP-16)
- 11. REMOVE HEATER TO REGISTER DUCT NO.3 (See page IP-16)
- 12. REMOVE INSTRUMENT PANEL ASSEMBLY
 - (a) Remove the clip.
 - (b) Disconnect the 2 connectors from the front passenger airbag assembly.

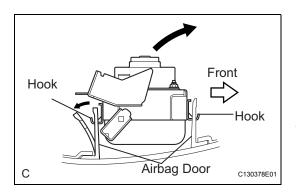
NOTICE:

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

- 13. REMOVE FRONT PASSENGER AIRBAG ASSEMBLY
 - (a) Remove the 2 screws.







- (b) Release the rear side airbag door from the hook by slightly deflecting it and roll the front passenger airbag assembly forward.
- (c) Release the front side airbag door from the other hook and remove the front passenger airbag assembly.

14. INSPECT FRONT PASSENGER AIRBAG ASSEMBLY

INSTALLATION

- I. INSTALL FRONT PASSENGER AIRBAG ASSEMBLY
- 2. INSTALL INSTRUMENT PANEL WIRE ASSEMBLY
 - (a) Connect the 2 connectors to the front passenger airbag assembly.

NOTICE:

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

- (b) Install the clip.
- 3. INSTALL HEATER TO REGISTER DUCT NO.3
- 4. INSTALL SIDE DEFROSTER NOZZLE DUCT NO.2
- 5. INSTALL INSTRUMENT PANEL SAFETY PAD SUB-ASSEMBLY

HINT:

Refer to procedures from "INSTALL INSTRUMENT PANEL SAFETY PAD SUB-ASSEMBLY" (See page IP-17).



(a) Connect the connector.

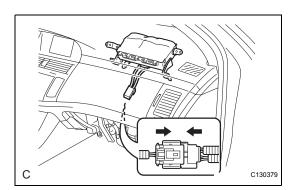
NOTICE:

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

- 7. INSTALL INSTRUMENT PANEL FINISH LOWER PANEL RH
- 8. INSTALL INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY NO.2
- 9. INSTALL FRONT DOOR WEATHERSTRIP RH
- 10. INSTALL COWL SIDE TRIM SUB-ASSEMBLY RH
- 11. INSTALL FRONT DOOR SCUFF PLATE RH
- 12. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
- 13. INSPECT STEERING PAD
- 14. PERFORM INITIALIZATION
 - (a) Perform initialization (See page IN-29). HINT:

Some systems need initialization when disconnecting the cable from the negative battery terminal.

- 15. INSPECT SRS WARNING LIGHT
 - (a) Inspect the SRS warning light (See page RS-28).



DISPOSAL

HINT:

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

CAUTION:

- Never dispose of a front passenger airbag assembly that has an undeployed airbag.
- The airbag produces an exploding sound when it is deployed, so perform the operation outdoors and where it will not create a nuisance to nearby residents.
- When deploying the airbag, always use the specified SST (SRS Airbag Deployment Tool). Perform the operation in a place away from electrical noise.
- When deploying the airbag, perform the operation at least 10 m (33 ft) away from the front passenger airbag assembly.
- The front passenger airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front passenger airbag assembly with a deployed airbag.
- Do not apply water, etc. to a front passenger airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.
- 1. DISPOSE OF FRONT PASSENGER AIRBAG ASSEMBLY (WHEN INSTALLED IN VEHICLE) HINT:

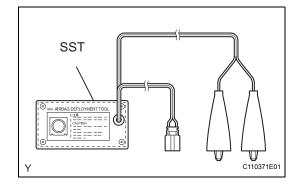
Prepare a battery as the power source to deploy the airbag.

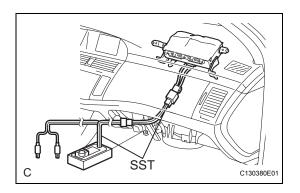
- (a) Check the function of the SST (See page RS-306).
- (b) Precaution (See page RS-1).
- (c) Disconnect the cable from the negative battery terminal.

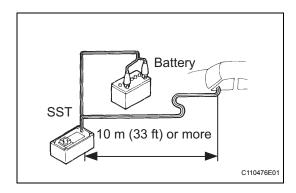
CAUTION:

Wait for 90 seconds after disconnecting the cable to prevent the airbag working.

- (d) Remove the front door scuff plate RH (See page IR-12).
- (e) Remove the cowl side trim sub-assembly RH (See page IR-12).
- (f) Remove the front door weatherstrip RH (See page IR-12).
- (g) Remove the instrument panel under cover sub-assembly (See page IP-11).
- (h) Remove the instrument panel finish lower panel RH (See page IP-11).







- (i) Install the SST.
 - (1) Disconnect the connector.

NOTICE:

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

(2) Connect the SST connector to the instrument panel wire assembly.

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 the SST at least 10 m (33 ft) away from the vehicle front side window.
- (4) Maintaining enough clearance for the SST wire harness in the front side window, close all doors and windows of the vehicle.

NOTICE:

Take care not to damage the SST wire harness.

- (5) Connect the red clip of the SST to the battery positive (+) terminal and the black clip of the SST to the negative (-) terminal.
- (i) 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:

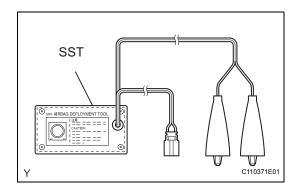
- When deploying the airbag, make sure that no one is near the vehicle.
- The front passenger airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front passenger airbag assembly with a deployed airbag.
- Do not apply water, etc. to a front passenger airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

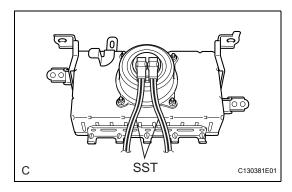
HINT:

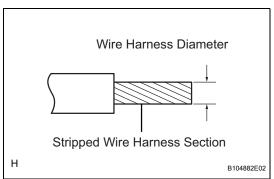
The airbag is deployed as the LED of the SST activation switch comes on.

- 2. DISPOSE OF FRONT PASSENGER AIRBAG
 ASSEMBLY (WHEN NOT INSTALLED IN VEHICLE)
 - When disposing of the front passenger airbag assembly, 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 the function of the SST (See page RS-306).
- (b) Remove the front passenger airbag assembly (See page RS-328).

CAUTION:

- When removing the front passenger airbag assembly, work must be started 90 seconds after the ignition switch is turned off and the negative (-) terminal cable is disconnected from the battery.
- When storing the front passenger airbag assembly, keep the airbag deployment side facing upward.
- (c) Install the SST.

After connecting the SST below to each other, connect them to the front passenger airbag assembly.

SST 09082-00802 (09082-10801, 09082-30801)

(d) Using a service-purpose wire harness for the vehicle, tie down the front passenger airbag assembly to the tire.

Wire harness:

Stripped wire harness section

1.25 mm² or more (0.0019 in.² or more) CAUTION:

If the wire harness is too thin or an alternative object is used to tie down the front passenger airbag assembly, it may be snapped by the shock when the airbag is deployed. Always use a wire harness for vehicle use with an area of at least 1.25 mm² (0.0019 in.²).

HINT:

To calculate the area of the stripped wire harness section:

Area = $3.14 \times (Diameter)^2$ divided by 4

(1) Position the front passenger airbag assembly inside the tire with the airbag deployment side facing inside.

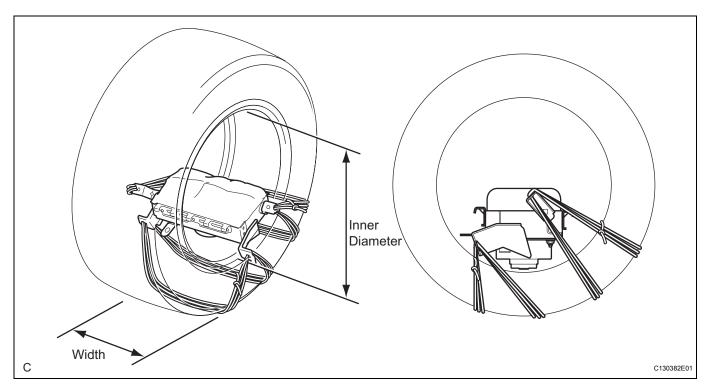
Tire size:

Must exceed the following dimensions Width:

185 mm (7.28 in.)

Inner diameter:

360 mm (14.17 in.)



CAUTION:

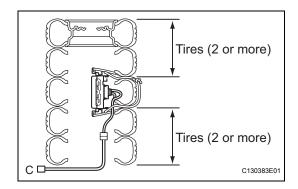
- Make sure that the wire harness is tight.
 If there is slack in the wire harness, the front passenger airbag assembly may become loose due to the shock when the airbag is deployed.
- Always tie down the front passenger airbag assembly with the airbag deployment side facing inside the tire.

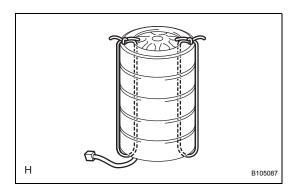
NOTICE:

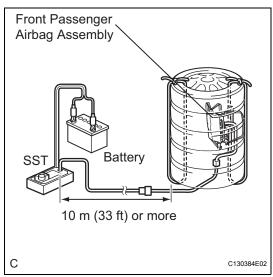
The tire will be damaged by the airbag deployment, so use an extra tire.

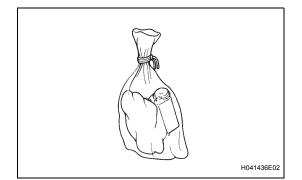
- (e) Place the tires.
 - (1) Place at least 2 tires under the tire which the front passenger airbag assembly is tied to.
 - (2) Place at least 2 tires over the tire which the front passenger airbag assembly is tied to. The top tire should have a disc wheel installed. NOTICE:

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 harness is tight. Looseness in the wire harness results in the tires coming free due to the shock when the airbag is deployed.

- (f) Install the 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.

- (2) Move the SST at least 10 m (33 ft) away from the airbag tied down to the tires.
- (g) Deploy the airbag.
 - (1) Connect the red clip of the SST to the battery positive (+) terminal and the black clip of the SST to the negative (-) terminal.
 - (2) Check that no one is within a 10 m (33 ft) radius of the tire which the front passenger airbag assembly is tied to.
 - (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 passenger airbag assembly. **CAUTION:**
 - The front passenger airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
 - Use gloves and safety glasses when handling a front passenger airbag assembly with a deployed airbag.
 - Do not apply water, etc. to a front passenger airbag assembly with a deployed airbag.
 - Always wash your hands with water after completing the operation.
 - (1) Remove the front passenger airbag assembly from the tire.

(2) Place the front passenger airbag assembly in a plastic bag, tie it tightly and dispose of it as other general part disposal.

REMOVAL

HINT:

- Use the same procedures for the RH side and LH side.
- · The procedures listed below are for the LH side.

1. PRECAUTION

CAUTION:

Be sure to read the "PRECAUTION" thoroughly before servicing (See page RS-1).

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

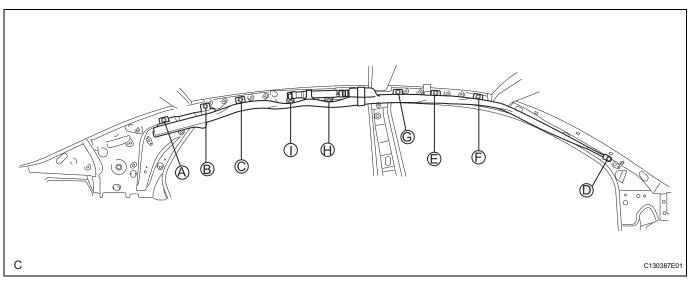
Wait for 90 seconds after disconnecting the cable to prevent the airbag working.

3. REMOVE ROOF HEADLINING ASSEMBLY HINT:

Refer to the procedures up to "REMOVE ROOF HEADLINING ASSEMBLY" (See page IR-11).

4. REMOVE CURTAIN SHIELD AIRBAG ASSEMBLY LH

- (a) Remove the curtain shield airbag assembly LH in order shown in the illustration.
 - (1) Remove the 9 bolts in order of A to I.



(b) Disconnect the connector from the curtain shield airbag assembly LH.

NOTICE:

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

INSTALLATION

HINT:

- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.
- 1. INSTALL CURTAIN SHIELD AIRBAG ASSEMBLY LH NOTICE:

Do not twist the curtain shield airbag assembly LH when installing it.

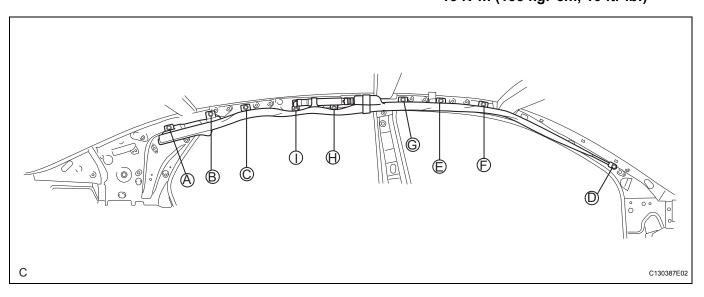
(a) Connect the connector to the curtain shield airbag assembly LH.

NOTICE:

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

- (b) Install the curtain shield airbag assembly LH in the order shown in the illustration.
 - (1) Install the 9 bolts in order of A to I.

Torque: Bolt D 11 N*m (112 kgf*cm, 8 ft.*lbf) Bolt A, B, C, E, F, G, H, I 13 N*m (133 kgf*cm, 10 ft.*lbf)



2. INSTALL ROOF HEADLINING ASSEMBLY HINT:

Refer to the procedures from "INSTALL ROOF HEADLINING ASSEMBLY" (See page IR-19).

3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

4. PERFORM INITIALIZATION

(a) Perform initialization (See page IN-29). HINT:

Some systems need initialization when disconnecting the cable from the negative battery terminal.

5. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light (See page RS-28).

DISPOSAL

HINT:

- Use the same procedures for the RH side and LH side.
- · The procedures listed below are for the LH side.
- When scrapping a vehicle equipped with the SRS or disposing of the curtain shield airbag assembly, be sure to deploy the airbag first in accordance with the procedure described below. If any abnormality occurs with the airbag deployment, contact the SERVICE DEPT. of TOYOTA MOTOR SALES, U.S.A., INC.

CAUTION:

- Never dispose of a curtain shield airbag assembly that has an undeployed airbag.
- The airbag produces an exploding sound when it is deployed, so perform the operation outdoors and where it will not create a nuisance to nearby residents.
- When deploying the airbag, always use the specified SST (SRS Airbag Deployment Tool). Perform the operation in a place away from electrical noise.
- When deploying the airbag, perform the operation at least 10 m (33 ft) away from the curtain shield airbag assembly.
- The curtain shield airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a curtain shield airbag assembly with a deployed airbag.
- Do not apply water, etc. to a curtain shield airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.
- 1. DISPOSE OF CURTAIN SHIELD AIRBAG ASSEMBLY (WHEN INSTALLED IN VEHICLE)

HINT

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

- (a) Check the function of the SST (See page RS-306).
- (b) Precaution (See page RS-1).
- (c) Disconnect the cable from the negative battery terminal.

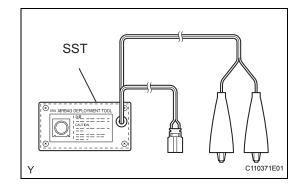
CAUTION:

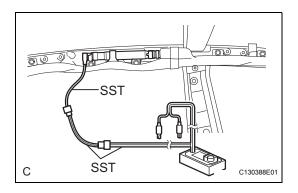
Wait for 90 seconds after disconnecting the cable to prevent the airbag working.

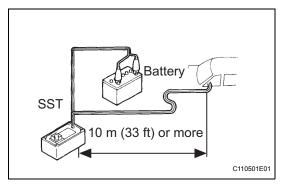
- (d) Remove the roof headlining assembly. HINT:
 - Refer to the procedures up to "REMOVE ROOF HEADLINING ASSEMBLY" (See page IR-11).
- (e) Install the SST.
 - (1) Disconnect the connector from the curtain shield airbag assembly.

NOTICE:

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







(2) After connecting the SST below to each other, connect them to the curtain shield airbag assembly.

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 the 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 doors and windows of the vehicle.

NOTICE:

Take care not to damage the SST wire harness.

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

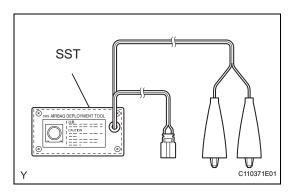
CAUTION:

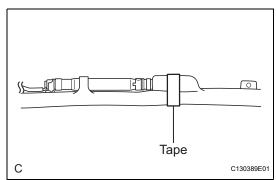
- When deploying the airbag, make sure that no one is near the vehicle.
- The curtain shield airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a curtain shield airbag assembly with a deployed airbag.
- Do not apply water, etc. to a curtain shield airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

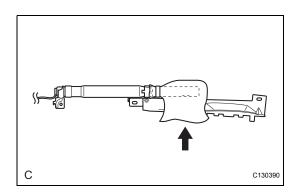
HINT:

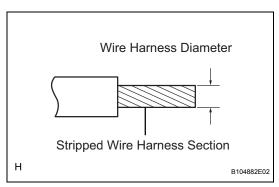
The airbag is deployed as the LED of the SST activation switch comes on.

- 2. DISPOSE OF CURTAIN SHIELD AIRBAG ASSEMBLY (WHEN NOT INSTALLED IN VEHICLE)
 NOTICE:
 - When disposing of the curtain shield airbag assembly, never use the customer's vehicle to deploy the airbag.
 - Be sure to follow the procedure detailed below when deploying the airbag.









HINT:

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

- (a) Check the function of the SST (See page RS-306).
- (b) Remove the curtain shield airbag assembly (See page RS-338).

CAUTION:

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

(c) Remove the tape from the curtain shield airbag assembly.

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

(e) Using a service-purpose wire harness for the vehicle, tie down the curtain shield airbag assembly to the tire.

Wire harness:

Stripped wire harness section

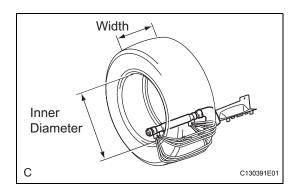
1.25 mm² or more (0.0019 in.² or more)

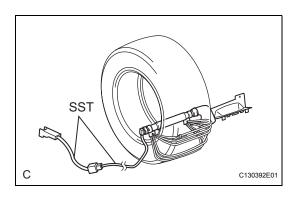
If the wire harness is too thin or an alternative object is used to tie down the curtain shield airbag assembly, it may be snapped by the shock when the airbag is deployed. Always use a wire harness for vehicle use with an area of at least 1.25 mm² (0.0019 in.²).

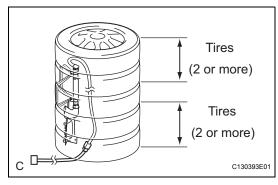
HINT:

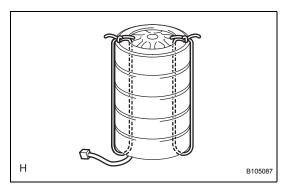
To calculate the area of the stripped wire harness section:

Area = $3.14 \times (Diameter)^2$ divided by 4









(1) Position the curtain shield airbag assembly 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:

The tire will be damaged by the airbag deployment, so use an extra tire.

- (f) Install the SST.
 - After connecting the SST below to each other, connect them to the curtain shield airbag assembly.

SST 09082-00802 (09082-10801, 09082-20801)

(g) Place the tires.

CAUTION:

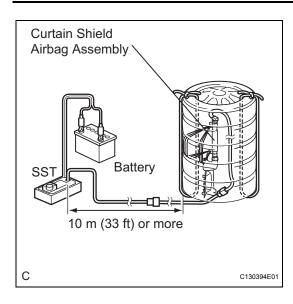
Do not face the deployment direction of the curtain shield airbag assembly toward the ground.

- (1) Place at least 2 tires under the tire which the curtain shield airbag assembly is tied to.
- (2) Place at least 2 tires over the tire which the curtain shield airbag assembly is tied to. 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 harness is tight. Looseness in the wire harness results in the tires coming free due to the shock when the airbag is deployed.





- (h) Install the 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

- (2) Move the SST at least 10 m (33 ft) away from the airbag tied down to the tires.
- (i) Deploy the airbag.
 - Connect the red clip of the SST to the battery positive (+) terminal and the black clip of the SST to the negative (-) terminal.
 - (2) Check that no one is within a 10 m (33 ft) radius of the tire which the curtain shield airbag assembly is tied to.
 - (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.

- (j) Dispose of the curtain shield airbag assembly. **CAUTION:**
 - The curtain shield airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
 - Use gloves and safety glasses when handling a curtain shield airbag assembly with a deployed airbag.
 - Do not apply water, etc. to a curtain shield airbag assembly with a deployed airbag.
 - Always wash your hands with water after completing the operation.
 - (1) Remove the curtain shield airbag assembly from the tire.
 - (2) Place the curtain shield airbag assembly in a plastic bag, tie it tightly and dispose of it as other general part disposal.

1. PRECAUTION CAUTION:

Be sure to read the "PRECAUTION" thoroughly before servicing (See page RS-1).

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

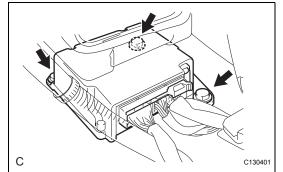
CAUTION:

Wait for 90 seconds after disconnecting the cable to prevent the airbag working.

- 3. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (See page IP-12)
- 4. REMOVE CONSOLE PANEL SUB-ASSEMBLY UPPER (See page IP-13)
- 5. REMOVE CONSOLE BOX ASSEMBLY (See page IP13)
- 6. REMOVE CONSOLE BOX FRONT (See page IP-14)
- 7. REMOVE CONSOLE BOX DUCT NO.1



- (a) Disconnect the holder (with connectors) from the center airbag sensor assembly.
- (b) Remove the 3 bolts and the center airbag sensor assembly.



- 1. INSTALL CENTER AIRBAG SENSOR ASSEMBLY
 - (a) Check that the ignition switch is off.
 - (b) Check that the battery negative (-) terminal is disconnected.

CAUTION:

After disconnecting the negative battery terminal, wait for at least 90 seconds before starting the operation.

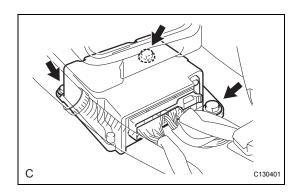
(c) Temporarily install the center airbag sensor assembly with the 3 bolts.

NOTICE:

- If the center airbag sensor assembly 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 center airbag sensor assembly, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.
- (d) Tighten the 3 bolts to the specified torque. Torque: 17.5 N*m (179 kgf*cm, 13 ft.*lbf)
- (e) Check that there is no looseness in the installation parts of the center airbag sensor assembly.
- (f) Connect the holder (with connectors) to the center airbag sensor assembly.
- (g) Check that the water-proof sheet is properly set.
- 2. INSTALL CONSOLE BOX DUCT NO.1
- 3. INSTALL CONSOLE BOX FRONT
- 4. INSTALL CONSOLE BOX ASSEMBLY
- 5. INSTALL CONSOLE PANEL SUB-ASSEMBLY UPPER
- 6. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY
- 7. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
- 8. PERFORM INITIALIZATION
 - (a) Perform initialization (See page IN-29). HINT:

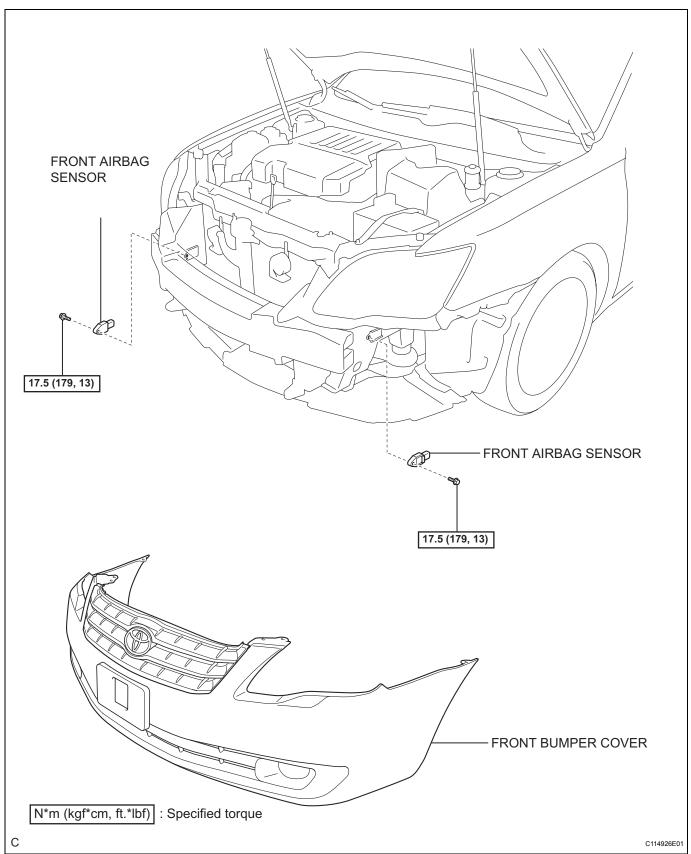
Some systems need initialization when disconnecting the cable from the negative battery terminal.

- 9. INSPECT SRS WARNING LIGHT
 - (a) Inspect the SRS warning light (See page RS-28).



FRONT AIRBAG SENSOR

COMPONENTS



ON-VEHICLE INSPECTION

- INSPECT FRONT AIRBAG SENSOR (VEHICLE NOT INVOLVED IN COLLISION)
 - (a) Perform a diagnostic system check (See page RS-28).
- 2. INSPECT FRONT AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS NOT DEPLOYED)
 - (a) Perform a diagnostic system check (See page RS-28).
 - (b) When the front bumper of the vehicle or its area is damaged, check if there is any damage to the front airbag sensor. If any of the front airbag sensor have defects as mentioned below, replace it 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:

Be sure to follow the correct removal and installation procedures.

- 3. INSPECT FRONT AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS DEPLOYED)
 - (a) Replace the front airbag sensor.

CAUTION:

Be sure to follow the correct removal and installation procedures.

HINT:

The front airbag sensor on the impacted side should be replaced after the steering pad, front passenger airbag assembly or driver side knee airbag assembly has deployed.

HINT:

- · Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.

1. PRECAUTION

CAUTION:

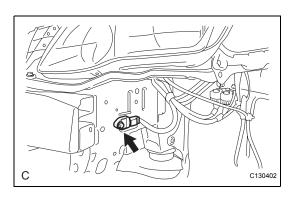
Be sure to read the "PRECAUTION" thoroughly before servicing (See page RS-1).

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

Wait for 90 seconds after disconnecting the cable to prevent the airbag working.

- 3. REMOVE FRONT BUMPER COVER (See page ET-2)
- 4. REMOVE FRONT AIRBAG SENSOR
 - (a) Disconnect the connector from the front airbag sensor (LH).
 - (b) Remove the bolt and the front airbag sensor (LH).



HINT:

- Use the same procedures for the RH side and LH side.
- · The procedures listed below are for the LH side.

1. INSTALL FRONT AIRBAG SENSOR

- (a) Check that the ignition switch is off.
- (b) Check that the battery negative (-) terminal is disconnected.

CAUTION:

After disconnecting the negative battery terminal, wait for at least 90 seconds before starting the operation.

- (c) Install the front airbag sensor (LH) with the bolt.

 Torque: 17.5 N*m (179 kgf*cm, 13 in.*lbf)

 NOTICE:
 - If the front airbag sensor (LH) has been dropped, or there are any cracks, dents or other defects in the case or connector, replace it with a new one.
 - When installing the front airbag sensor (LH), be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.
- (d) Check that there is no looseness in the installation parts of the front airbag sensor (LH).
- (e) Connect the connector to the front airbag sensor (LH).
- 2. INSTALL FRONT BUMPER COVER (See page ET-4)
- 3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

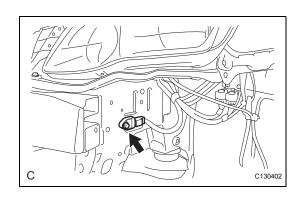
4. PERFORM INITIALIZATION

(a) Perform initialization (See page IN-29). HINT:

Some systems need initialization when disconnecting the cable from the negative battery terminal.

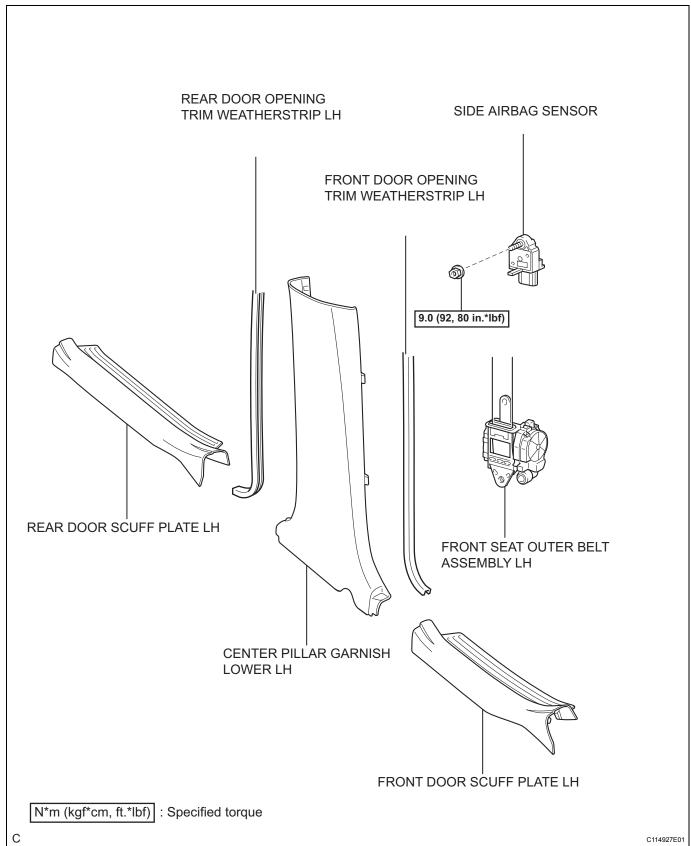
5. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light (See page RS-28).



SIDE AIRBAG SENSOR

COMPONENTS



ON-VEHICLE INSPECTION

- 1. INSPECT SIDE AIRBAG SENSOR (VEHICLE NOT INVOLVED IN COLLISION)
 - (a) Perform a diagnostic system check (See page RS-28).
- 2. INSPECT SIDE AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS NOT DEPLOYED)
 - (a) Perform a diagnostic system check (See page RS-28).
 - (b) When the center pillar of the vehicle or its area is 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:

Be sure to follow the correct removal and installation procedures.

- 3. INSPECT SIDE AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS DEPLOYED)
 - (a) Replace the side airbag sensor.

CAUTION:

Be sure to follow the correct removal and installation procedures.

HINT:

The side airbag sensor on the impacted side should be replaced after the front seat airbag assembly and curtain shield airbag assembly have deployed.

HINT:

- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.
- 1. PRECAUTION

CAUTION:

Be sure to read the "PRECAUTION" thoroughly before servicing (See page RS-1).

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

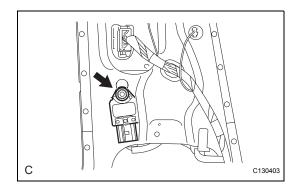
CAUTION:

Wait for 90 seconds after disconnecting the cable to prevent the airbag working.

- 3. REMOVE FRONT DOOR SCUFF PLATE LH (See page IR-12)
- 4. REMOVE REAR DOOR SCUFF PLATE LH (See page IR-12)
- 5. REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP LH
- 6. REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP LH
- 7. REMOVE CENTER PILLAR GARNISH LOWER LH (See page IR-13)
- 8. REMOVE FRONT SEAT OUTER BELT ASSEMBLY LH (See page SB-13)

9. REMOVE SIDE AIRBAG SENSOR LH

- (a) Disconnect the connector from the side airbag sensor LH.
- (b) Remove the nut and the side airbag sensor LH.



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 LH

- (a) Check that the ignition switch is off.
- (b) Check that the battery negative (-) terminal is disconnected.

CAUTION:

After disconnecting the negative battery terminal, wait for at least 90 seconds before starting the operation.

- (c) Install the side airbag sensor LH with the nut.

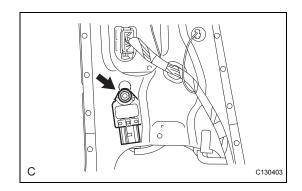
 Torque: 9.0 N*m (92 kgf*cm, 80 in.*lbf)

 NOTICE:
 - If the side airbag sensor LH has been dropped, or there are any cracks, dents or other defects in the case or connector, replace it with a new one.
 - When installing the side airbag sensor LH, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.
- (d) Check that there is no looseness in the installation parts of the side airbag sensor LH.
- (e) Connect the connector to the side airbag sensor LH.
- 2. INSTALL FRONT SEAT OUTER BELT ASSEMBLY (See page SB-13)
- 3. INSTALL CENTER PILLAR GARNISH LOWER LH
- 4. INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP LH
- 5. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH
- 6. INSTALL REAR DOOR SCUFF PLATE LH
- 7. INSTALL FRONT DOOR SCUFF PLATE LH
- 8. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
- 9. PERFORM INITIALIZATION
 - (a) Perform initialization (See page IN-29).

Some systems need initialization when disconnecting the cable from the negative battery terminal.

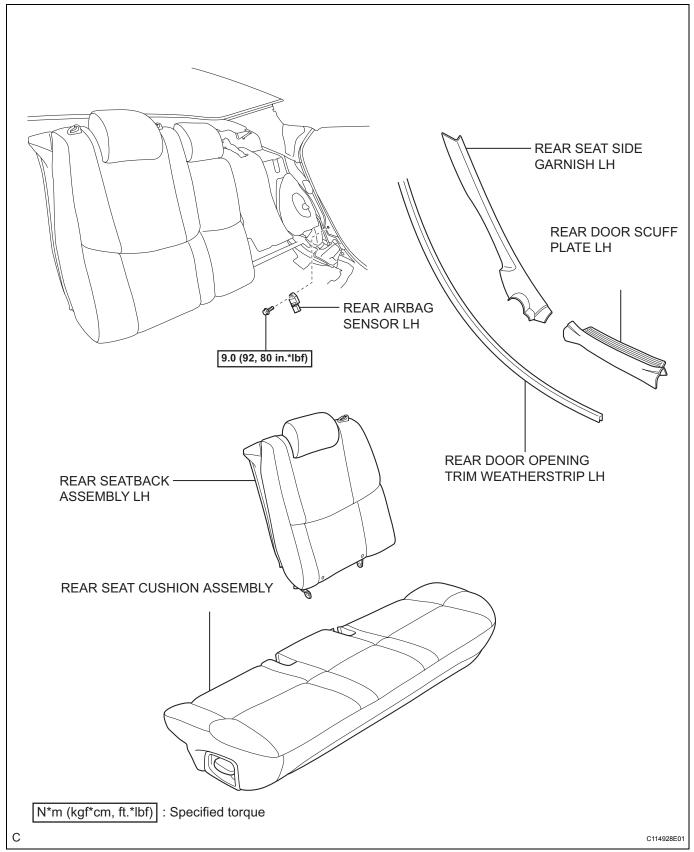
10. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light (See page RS-28).



REAR AIRBAG SENSOR

COMPONENTS



ON-VEHICLE INSPECTION

- 1. INSPECT REAR AIRBAG SENSOR (VEHICLE NOT INVOLVED IN COLLISION)
 - (a) Perform a diagnostic system check (See page RS-28).
- 2. INSPECT REAR AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS NOT DEPLOYED)
 - (a) Perform a diagnostic system check (See page RS-28).
 - (b) When the quarter panel of the vehicle or its area 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:

Be sure to follow the correct removal and installation procedures.

- 3. INSPECT REAR AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS DEPLOYED)
 - (a) Replace the rear airbag sensor.

CAUTION:

Be sure to follow the correct removal and installation procedures.

HINT:

The rear airbag sensor on the impacted side should be replaced after the curtain shield airbag assembly has deployed.

HINT:

- Use the same procedures for the RH side and LH side.
- The procedures listed below are for the LH side.
- 1. PRECAUTION

CAUTION:

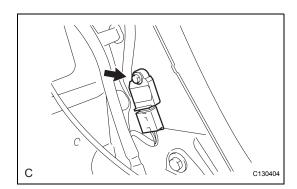
Be sure to read the "PRECAUTION" thoroughly before servicing (See page RS-1).

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

Wait for 90 seconds after disconnecting the cable to prevent the airbag working.

- 3. REMOVE REAR SEAT CUSHION ASSEMBLY (See page SE-68)
- 4. REMOVE REAR SEAT ASSEMBLY LH (See page SE-68)
- 5. REMOVE REAR DOOR SCUFF PLATE LH (See page IR-12)
- 6. REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP LH
- 7. REMOVE REAR SEAT SIDE GARNISH LH
- 8. REMOVE REAR AIRBAG SENSOR LH
 - (a) Disconnect the connector from the rear airbag sensor LH.
 - (b) Remove the bolt and the rear airbag sensor LH.



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) Check that the ignition switch is off.
- (b) Check that the battery negative (-) terminal is disconnected.

CAUTION:

After disconnecting the negative battery terminal, wait for at least 90 seconds before starting the operation.

- (c) Install the rear airbag sensor LH with the bolt.

 Torque: 9.0 N*m (92 kgf*cm, 80 in.*lbf)

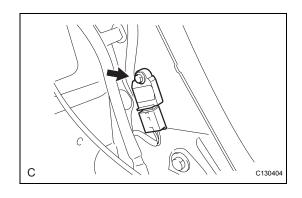
 CAUTION:
 - If the rear airbag sensor LH has been dropped, or there are any cracks, dents or other defects in the case or connector, replace it with a new one.
 - When installing the rear airbag sensor LH, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.
- (d) Check that there is no looseness in the installation parts of the rear airbag sensor LH.
- (e) Connect the connector to the rear airbag sensor LH.
- 2. INSTALL REAR SEAT SIDE GARNISH LH
- 3. INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP LH
- 4. INSTALL REAR DOOR SCUFF PLATE LH
- 5. INSTALL REAR SEATBACK ASSEMBLY LH (See page SE-77)
- 6. INSTALL REAR SEAT CUSHION ASSEMBLY
- 7. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

8. PERFORM INITIALIZATION

(a) Perform initialization (See page IN-29). HINT:

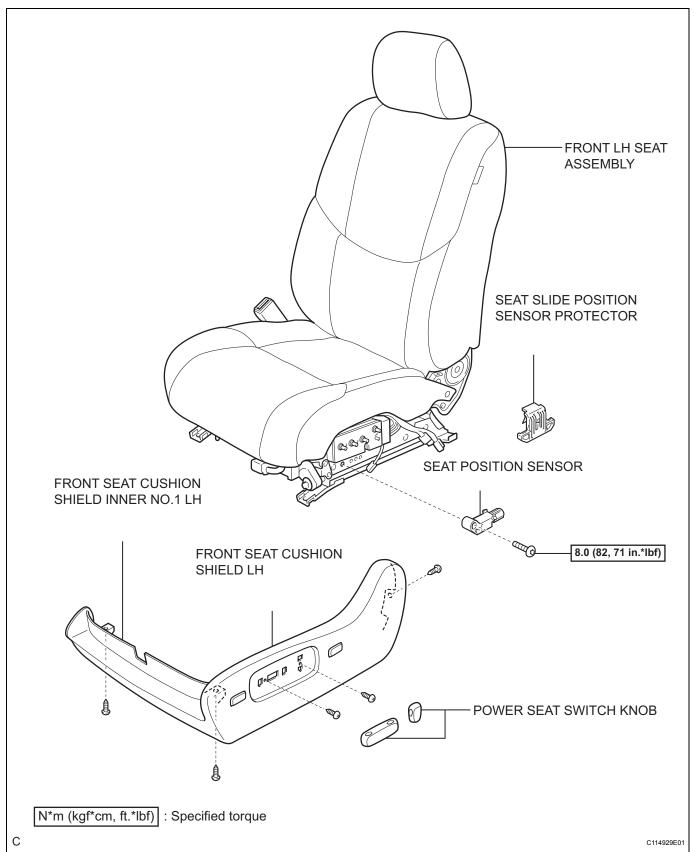
Some systems need initialization when disconnecting the cable from the negative battery terminal.

- 9. INSPECT SRS WARNING LIGHT
 - (a) Inspect the SRS warning light (See page RS-28).



SEAT POSITION SENSOR

COMPONENTS



ON-VEHICLE INSPECTION

- 1. INSPECT SEAT POSITION SENSOR (VEHICLE NOT INVOLVED IN COLLISION)
 - (a) Perform a diagnostic system check (See page RS-28).
- 2. INSPECT SEAT POSITION SENSOR (VEHICLE INVOLVED IN COLLISION)
 - (a) Perform a diagnostic system check (See page RS-28).
 - (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:

Be sure to follow the correct removal and installation procedures.

1. PRECAUTION CAUTION:

Be sure to read the "PRECAUTION" thoroughly before servicing (See page RS-1).

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

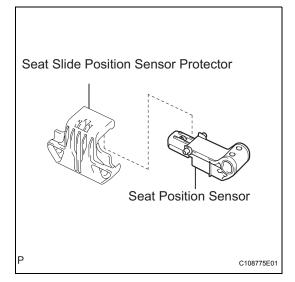
CAUTION:

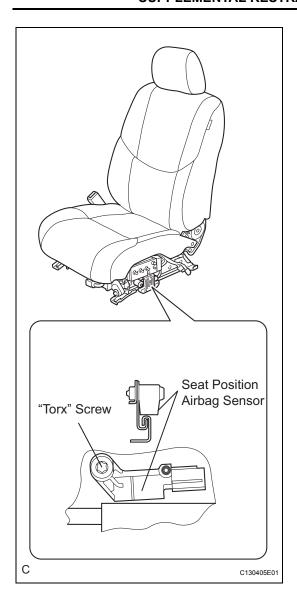
Wait for 90 seconds after disconnecting the cable to prevent the airbag working.

- 3. REMOVE FRONT SEAT ASSEMBLY (See page SE-51)
- 4. REMOVE RECLINING POWER SEAT SWITCH KNOB (See page SE-51)
- 5. REMOVE SLIDE AND VERTICAL POWER SEAT SWITCH KNOB (See page SE-51)
- 6. REMOVE FRONT SEAT CUSHION SHIELD INNER NO.1 LH (See page SE-52)
- 7. REMOVE SEAT SLIDE POSITION SENSOR PROTECTOR
 - (a) Remove the seat slide position sensor protector from the seat position sensor.

8. REMOVE SEAT POSITION SENSOR

(a) Disconnect the connector from the seat position sensor.





(b) Using a "torx" socket wrench (T30), remove the "torx" screw and the seat position sensor.

- 1. INSTALL SEAT POSITION SENSOR
 - (a) Check that the ignition switch is off.
 - (b) Check that the battery negative (-) terminal is disconnected.

CAUTION:

After disconnecting the negative battery terminal, wait for at least 90 seconds before starting the operation.

(c) Using a feeler gauge 1 mm (0.039 in.), 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 it 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 a clearance between the seat position sensor and the seat rail is within 0.6 mm (0.023 in.) to 2 mm (0.079 in.).

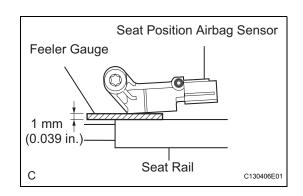
(d) Using a "torx" socket wrench, tighten the "torx" screw to install the seat position sensor.

Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)

- (e) Make sure that a clearance between the seat position sensor and the seat rail is within 0.6 mm (0.023 in.) to 2 mm (0.079 in.).
- (f) Check that there is no looseness in the installation parts of the seat position sensor.
- (g) Connect the connector to the seat position sensor.
- 2. INSTALL SEAT SLIDE POSITION SENSOR PROTECTOR
- 3. INSTALL FRONT SEAT CUSHION SHIELD INNER NO.1 LH
- 4. INSTALL SLIDE AND VERTICAL POWER SEAT SWITCH KNOB
- 5. INSTALL RECLINING POWER SEAT SWITCH KNOB
- 6. INSTALL FRONT SEAT ASSEMBLY (See page SE-63)
- 7. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL
- 8. PERFORM INITIALIZATION
 - (a) Perform initialization (See page IN-29). HINT:

Some systems need initialization when disconnecting the cable from the negative battery terminal.

9. INSPECT CHECK POWER SEAT FUNCTION



10. INSPECT SEAT HEATER OPERATION

11. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light (See page RS-28).

OCCUPANT CLASSIFICATION ECU

COMPONENTS



ON-VEHICLE INSPECTION

- 1. INSPECT OCCUPANT CLASSIFICATION ECU (VEHICLE NOT INVOLVED IN COLLISION)
 - (a) Perform a diagnostic system check (See page RS-212).
- 2. INSPECT OCCUPANT CLASSIFICATION ECU (VEHICLE INVOLVED IN COLLISION)
 - (a) Perform a diagnostic system check (See page RS-212).
 - (b) Even if the airbag was not deployed, check if there is any damage to the occupant classification ECU. If there are any defects as mentioned below, replace the occupant classification ECU with a new one:
 - Cracks, dents or chips on the case.
 - Cracks or other damage to the connector.

CAUTION:

Be sure to follow the correct removal and installation procedures.

1. PRECAUTION CAUTION:

Be sure to read the "PRECAUTION" thoroughly before servicing (See page RS-200).

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

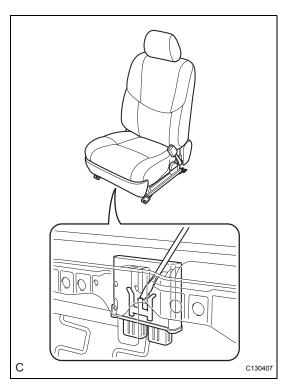
CAUTION:

Wait for 90 seconds after disconnecting the cable to prevent the airbag working.

3. REMOVE FRONT RH SEAT ASSEMBLY (See page SE-40)



- (a) Disconnect the 2 connectors from the occupant classification ECU.
- (b) Using a screwdriver, remove the occupant classification ECU.



- 1. INSTALL OCCUPANT CLASSIFICATION ECU
 - (a) Check that the ignition switch is off.
 - (b) Check that the battery negative (-) terminal is disconnected.

CAUTION:

After disconnecting the negative battery terminal, wait for at least 90 seconds before starting the operation.

- (c) Install the occupant classification ECU.
- (d) Connect the 2 connectors to the occupant classification ECU.

NOTICE:

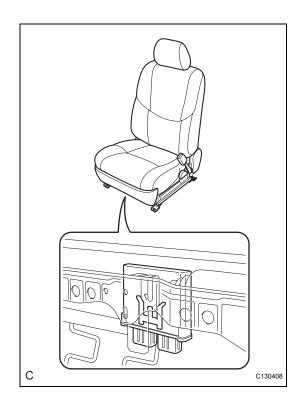
- If the occupant classification ECU has been dropped, or there are any cracks, dents or other defects in the case or connector, replace it with a new one.
- When installing the occupant classification ECU, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.
- 2. INSTALL FRONT RH SEAT ASSEMBLY (See page SE-42)
- 3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

4. PERFORM INITIALIZATION

(a) Perform initialization (See page IN-29). HINT:

Some systems need initialization when disconnecting the cable from the negative battery terminal.

- 5. INSPECT CHECK POWER SEAT FUNCTION
- 6. INSPECT SEAT HEATER OPERATION
- 7. INSPECT SRS WARNING LIGHT
 - (a) Inspect the SRS warning light (See page RS-28).



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 occur.
 - The occupant classification ECU is replaced.
 - Accessories (seatback tray and seat cover, etc.) are installed.
 - The front passenger seat is removed from the vehicle.
 - The passenger airbag ON/OFF indicator ("OFF") comes on when the front passenger seat is not occupied.
 - The vehicle is brought to the workshop for repair due to an accident or a collision.

NOTICE:

When an accident vehicle is brought into the workshop for repair, check the flatness of the body side that is equipped with the passenger seat. If the flatness is not within +- 3.0 mm (0.118 in.), adjust it to the specified range.

2. EXPRESSIONS OF IGNITION SWITCH

The type of ignition switch used on this model differs according to the specifications of the vehicle. The expressions listed in the table below are used in this section.

| Switch Type | | Ignition Switch (position) | Engine Switch (condition) |
|-------------|-------------------------|----------------------------|---------------------------|
| Expression | Ignition Switch off | LOCK | Off |
| | Ignition Switch on (IG) | ON | On (IG) |
| | Ignition Switch on(ACC) | ACC | On (ACC) |
| | Engine Start | START | Start |

PARTS LOCATION

