# PRECAUTION

(2005/12- )

**CAUTION:**

- **The vehicle is equipped with a Supplemental Restraint System (SRS), which consists of a steering pad, front passenger airbag, seat belt pretensioner, center airbag sensor and front airbag sensors. Failure to carry out service procedures in the correct sequence could cause SRS parts to unexpectedly deploy and possibly lead to serious injuries. Furthermore, if a mistake is made when servicing SRS parts, they may fail to operate when required. Before performing servicing (including installation/removal, inspection and replacement of parts), be sure to read the following precautions.**
- **Before starting work, wait at least 90 seconds after the ignition switch is turned OFF and after the cable of the negative (-) battery terminal is disconnected. (SRS parts are equipped with a backup power source. If work is started within 90 seconds of turning the ignition switch OFF and disconnecting the cable from the negative (-) battery terminal, SRS parts may deploy.)**
- **Do not expose SRS parts directly to hot air or flames.**

**NOTICE:**

- **Malfunction symptoms of SRS parts are difficult to confirm. DTCs are the most important source of information when troubleshooting. During troubleshooting, always confirm DTCs before disconnecting the cable from the negative (-) battery terminal.**
- **For minor collisions where SRS parts do not deploy, always inspect the SRS parts.**
- **Before repair work, remove airbag sensors as necessary if any kind of impact is likely to occur to an airbag sensor during the operation.**
- **Never use SRS parts from another vehicle. When replacing SRS parts, replace them with new ones.**
- **Never disassemble or attempt to repair SRS parts.**
- **If an SRS part has been dropped, or if there are any cracks, dents or other defects in the case, bracket or connector, replace the SRS part with a new one.**
- **Use an ohmmeter/voltmeter with high impedance (10 kΩ/V minimum) for troubleshooting the electrical circuits.**
- **Information labels are attached to the periphery of SRS parts. Follow the cautions and instructions on the labels.**
- **After work on the SRS is completed, perform the SRS warning light check (see page RS-39).**

- **When the cable is disconnected from the negative (-) battery terminal, the memory settings of each system will be cleared. Because of this, be sure to write down the settings of each system before starting work. When work is finished, reset the settings of each system as before. Never use a backup power supply from outside the vehicle to avoid erasing the memory in a system.**
- **If the vehicle is equipped with a mobile communication system, refer to the precautions in the INTRODUCTION section (see page IN-5).**
- **When disconnecting the cable from the negative (-) battery terminal, initialize the following system(s) after the cable is reconnected.**

| System Name | See procedure |
|---|---|
| Meter / Gauge System | IN-5 |

## 1. HANDLING PRECAUTIONS FOR AIRBAG SENSOR

HINT:

In this section, the center airbag sensor, front airbag sensor LH, and front airbag sensor RH are collectively referred to as the airbag sensors.

(a) Before replacement of the airbag sensor, wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal.

(b) When connecting or disconnecting an airbag sensor connector, ensure that all of the sensors are installed in the vehicle.

(c) Do not use the airbag sensors if they have been dropped.

(d) Do not disassemble the airbag sensors.

## 2. INSPECTION PROCEDURE FOR VEHICLE INVOLVED IN ACCIDENT

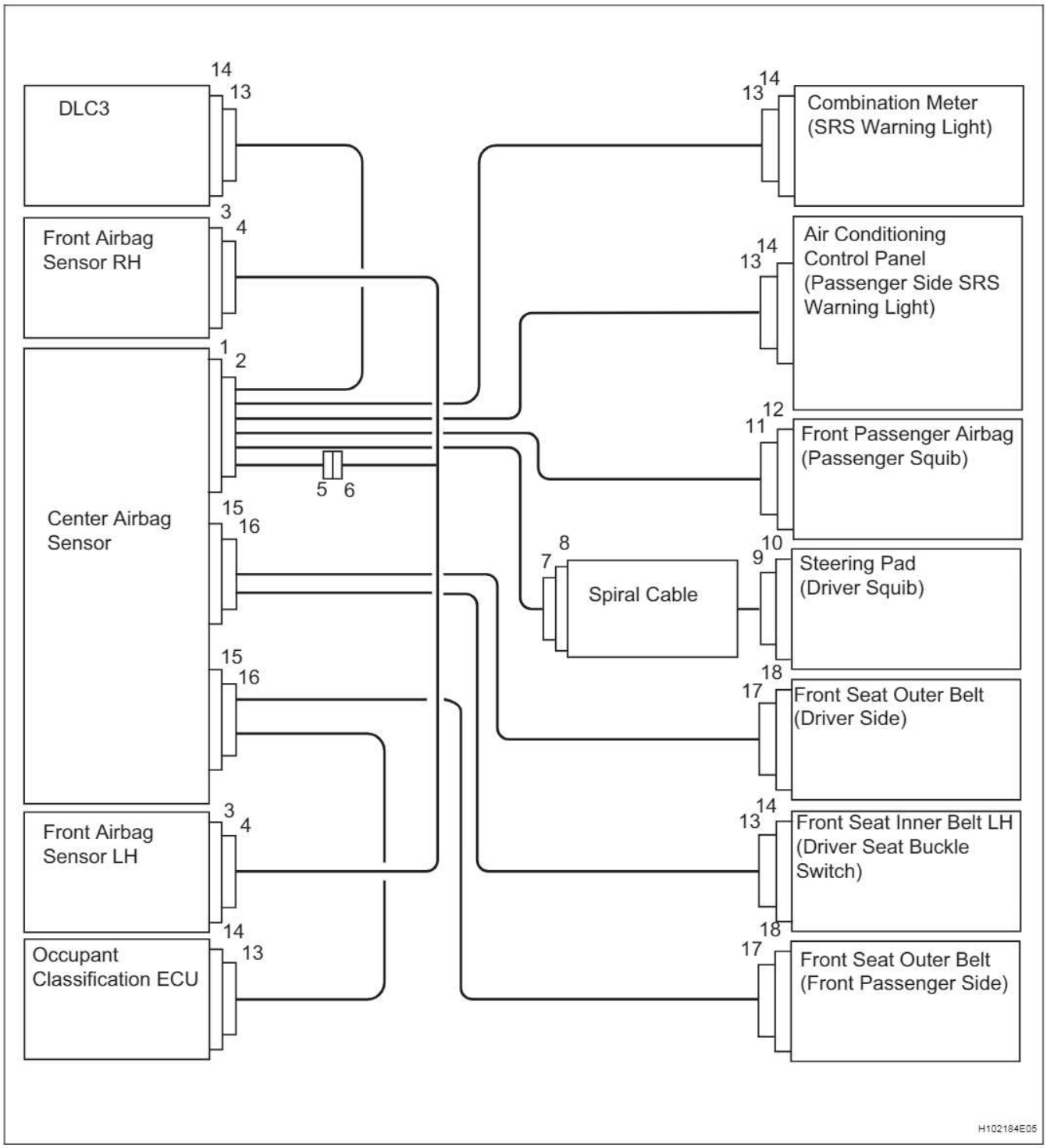
(a) When the airbag has not deployed, confirm the DTC by checking the SRS warning light. If there is any malfunction in the SRS, perform troubleshooting.

(b) When any of the airbags have deployed, replace the related airbag sensor and inspect its normal operation.

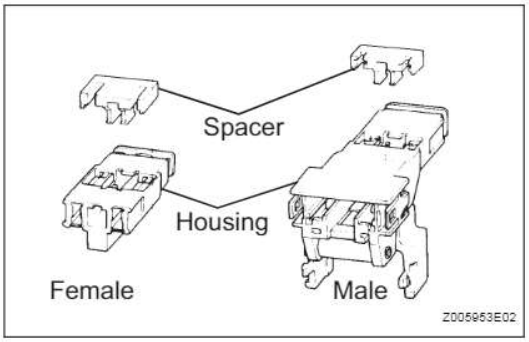
## 3. SRS CONNECTORS

HINT:

SRS connectors are located as shown in the following illustration.



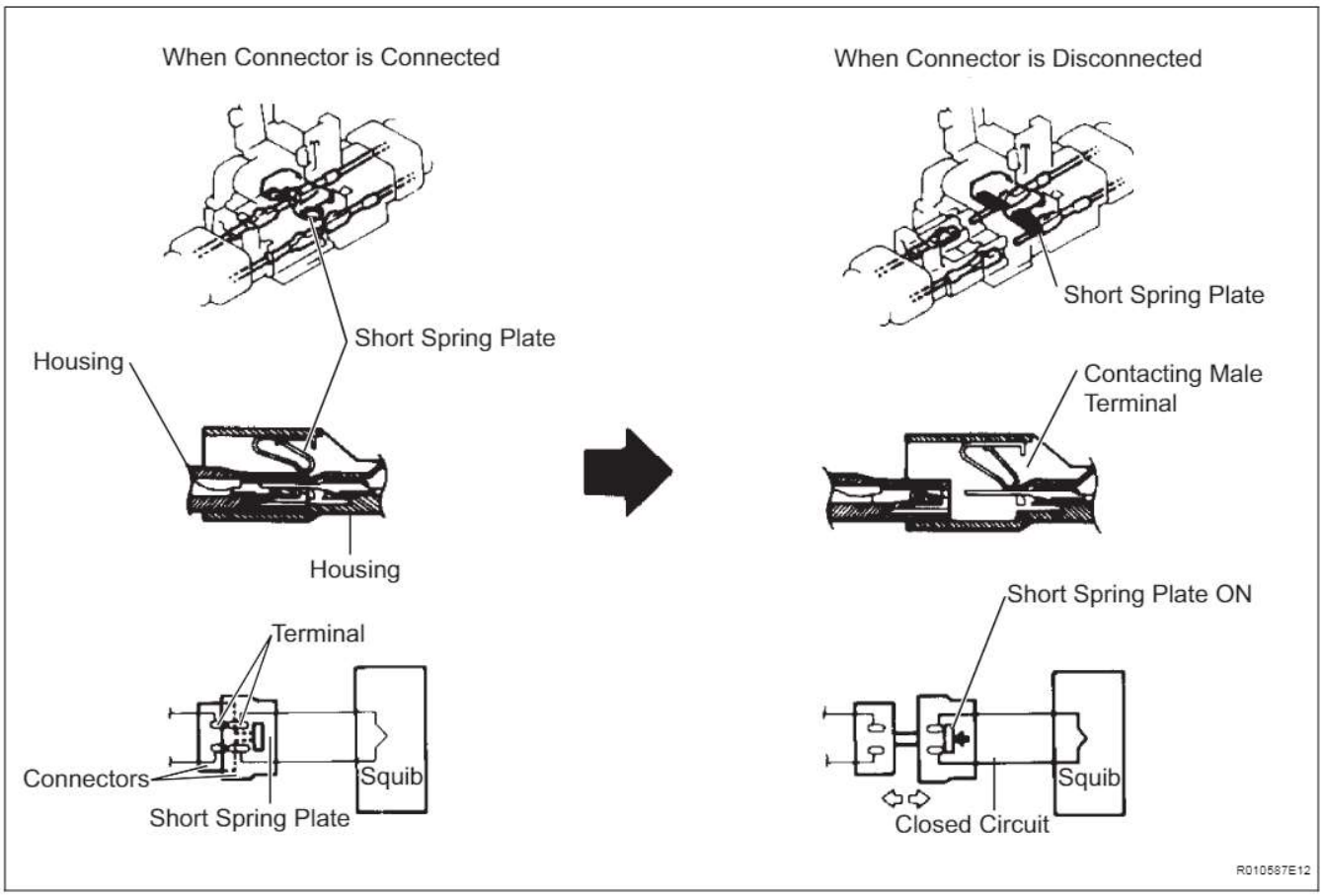

| Connector Type | Application |
|---|---|
| Terminal Twin-lock Mechanism | Connectors 2, 4, 5, 6, 7, 16 |
| Activation Prevention Mechanism | Connectors 2, 8, 10, 12, 16 |
| Half Connection Prevention Mechanism | Connectors 4, 6, 7 |
| Connector Lock Mechanism | Connectors 9, 11, 17 |



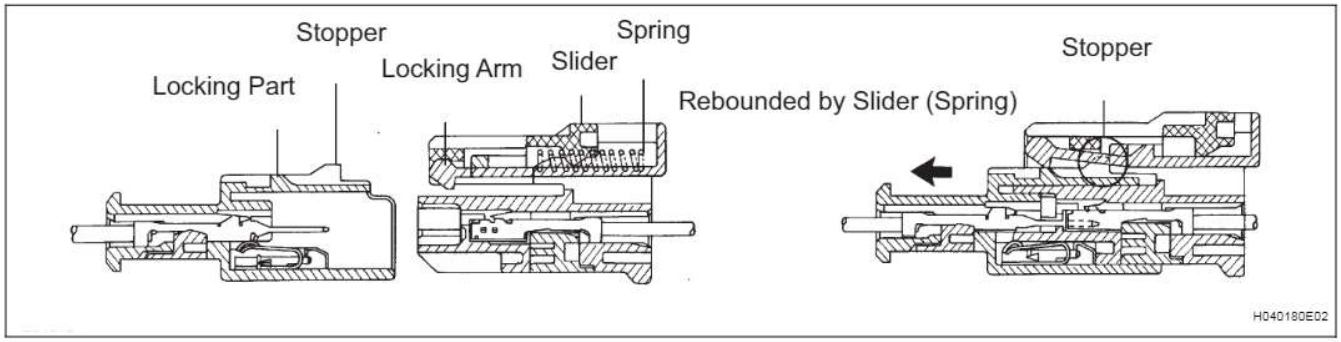

(a) All connectors in the SRS are yellow (to distinguish them from other connectors). Some connectors have special functions and are specially designed for the SRS. These connectors use durable gold-plated terminals, and are located as shown above to ensure high reliability.

(1) Terminal twin-lock mechanism:
Each connector has a two-piece component consisting of a housing and spacer. This design enables the terminal to be locked securely by 2 locking devices (the retainer and lance) to prevent terminals from becoming unseated.

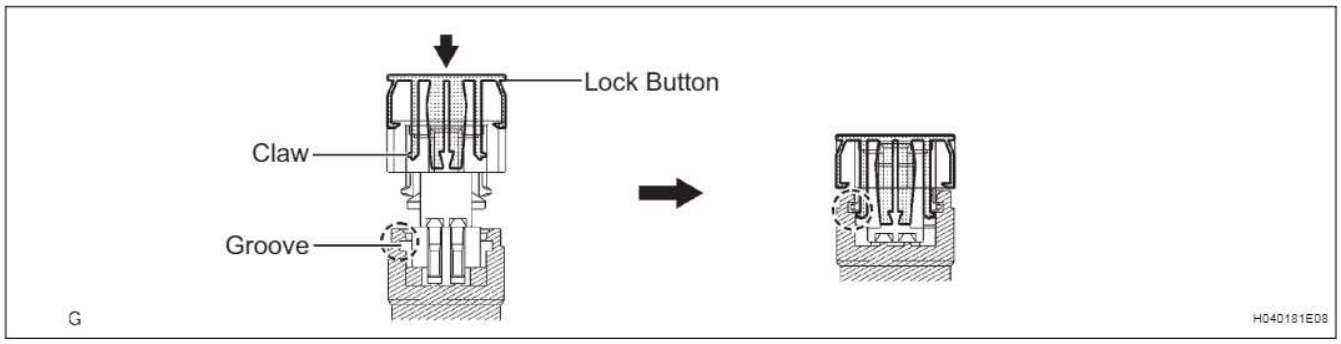
(2) Activation prevention mechanism:
Each connector contains a short spring plate. When the connector is disconnected, the short spring plate automatically connects the positive (+) terminal and negative (-) terminal of the squib.



(3) Half connection prevention mechanism:
If the connector is not completely connected, the connector is disconnected by the spring.

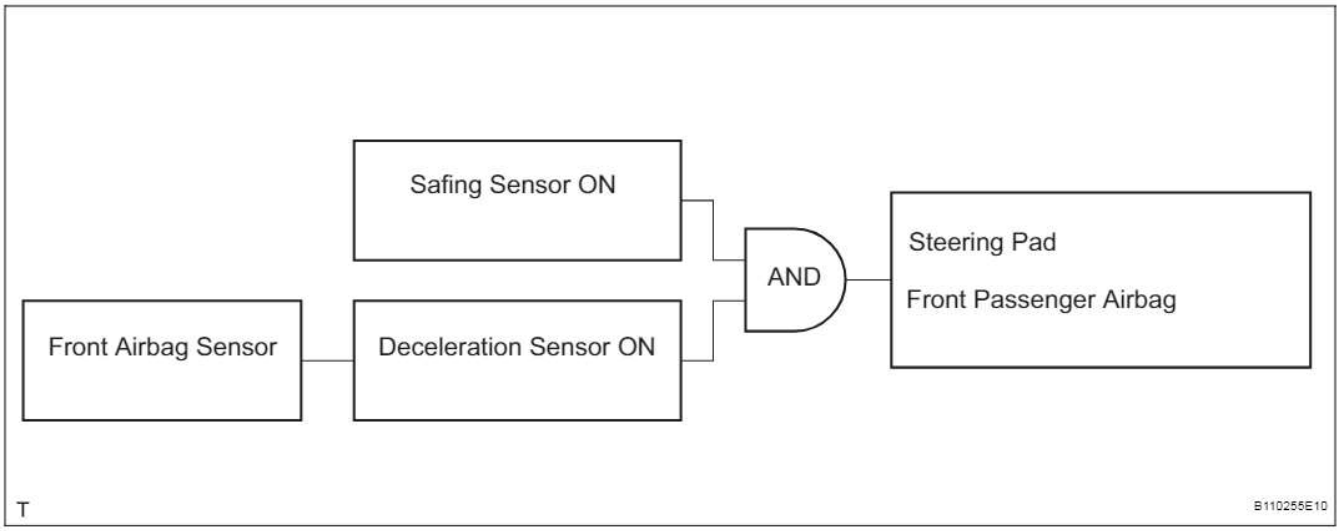



(4) Connector lock mechanism:
Locking the connector lock button connects the connector securely.



**4. DEPLOYMENT CONDITION**

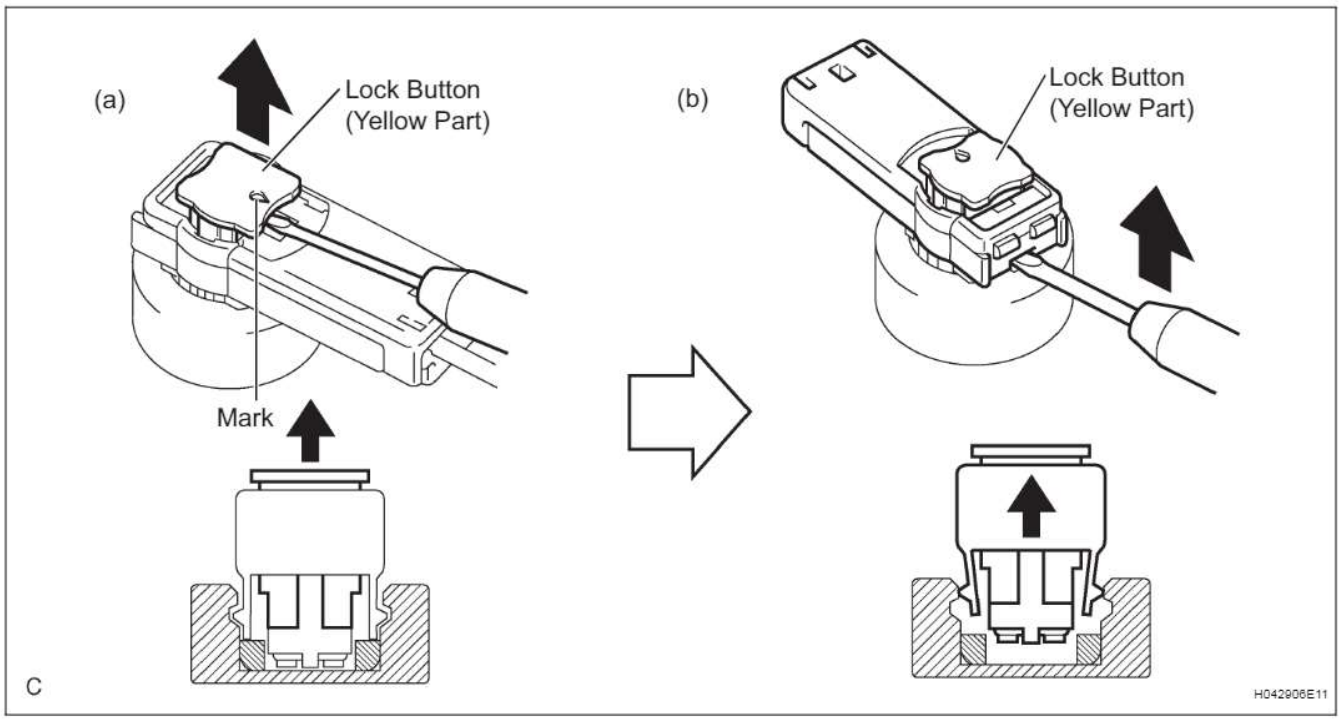
(a) When the vehicle is in a collision and the shock is greater than the specified value, the SRS is activated automatically. The safing sensor and deceleration sensor are built into the center airbag sensor. The safing sensor is designed to be turned on at a smaller deceleration rate than the deceleration sensor. The deceleration sensor determines whether or not SRS deployment is necessary based on signals from the front airbag sensor. Current flows to the squibs to deploy the SRS when the conditions shown in the illustration below are met.




**5. DISCONNECTION OF CONNECTOR FOR STEERING PAD, FRONT PASSENGER AIRBAG, FRONT SEAT OUTER BELT WITH PRETENSIONER (DRIVER SIDE AND FRONT PASSENGER SIDE)**

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

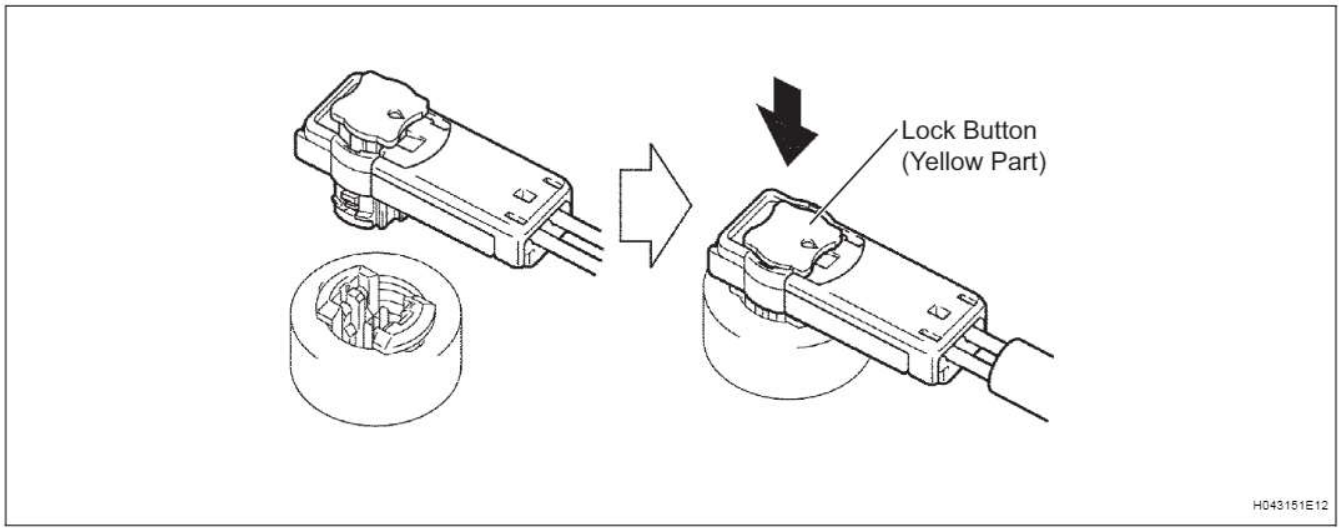
(b) Insert the screwdriver tip between the connector and base, and then raise the connector.




**6. CONNECTION OF CONNECTOR FOR STEERING PAD, FRONT PASSENGER AIRBAG, FRONT SEAT OUTER BELT WITH PRETENSIONER (DRIVER SIDE AND FRONT PASSENGER SIDE)**

(a) Connect the connector.

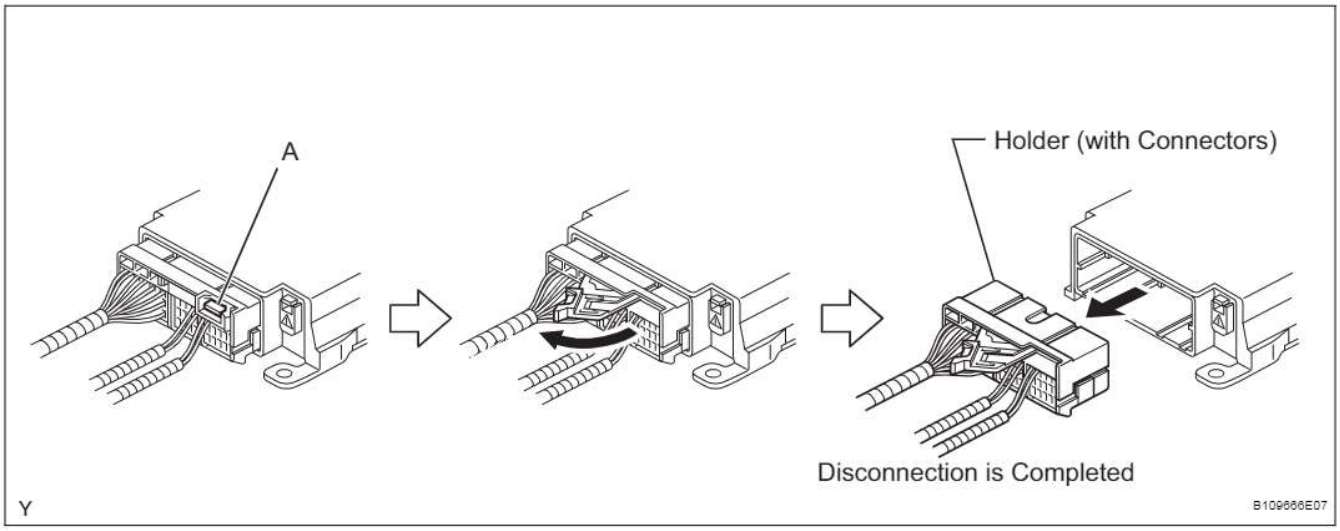
(b) Push the lever in to connect the holder (with connectors). Check that it locks and that a "click" sound is heard.



RS

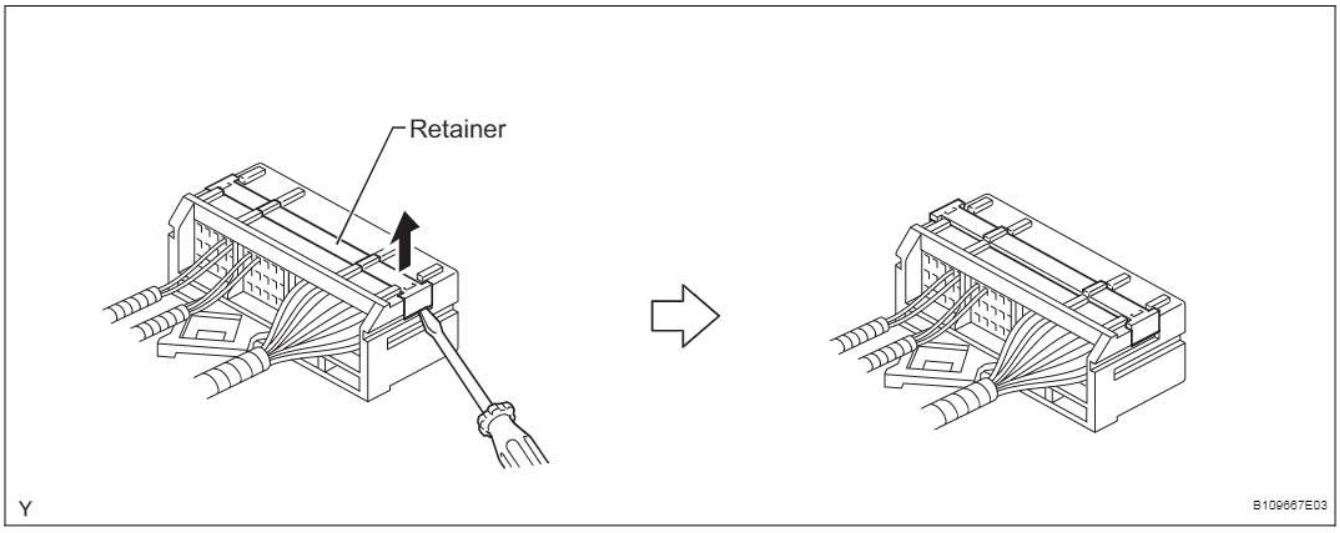
**7. DISCONNECTION OF CONNECTOR FOR CENTER AIRBAG SENSOR**

(a) Pull the lever by pushing the part labeled A and disconnect the holder (with connectors).

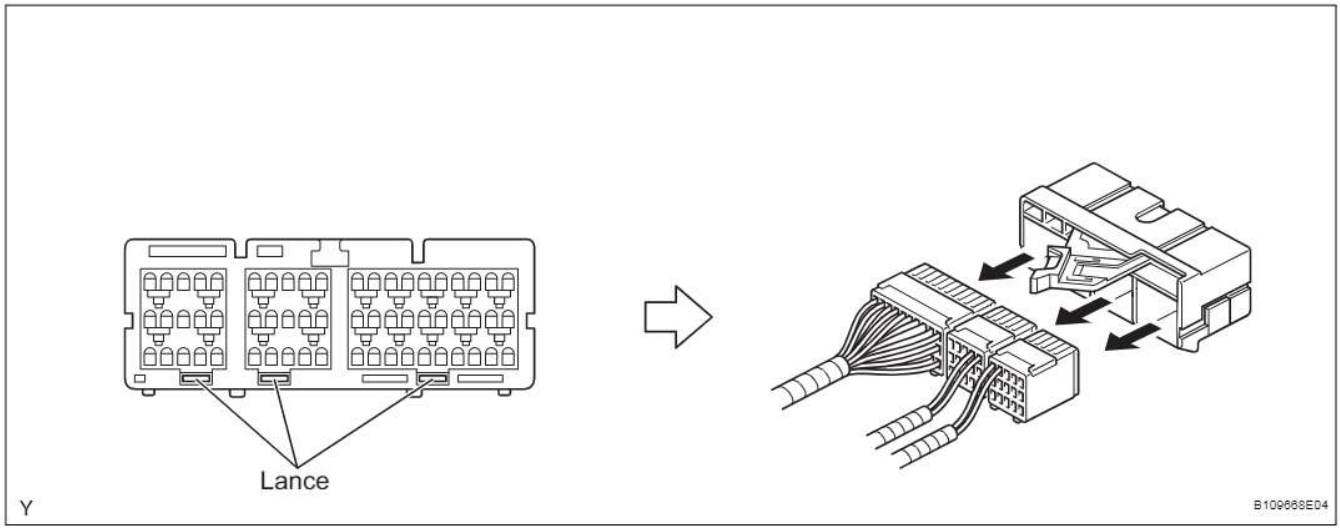


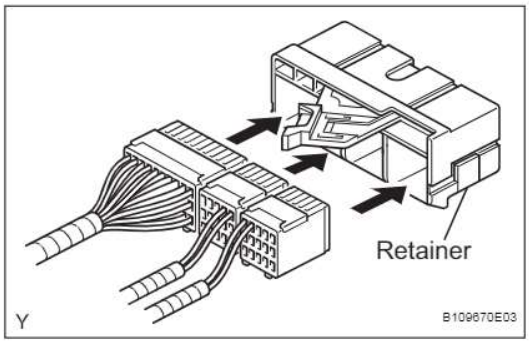

HINT:
If replacement of the holder is necessary, proceed to the next step.

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



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




(3) Install the connectors to a new holder. Check that they lock and that a "click" sound is heard.
(4) Lock the retainer.

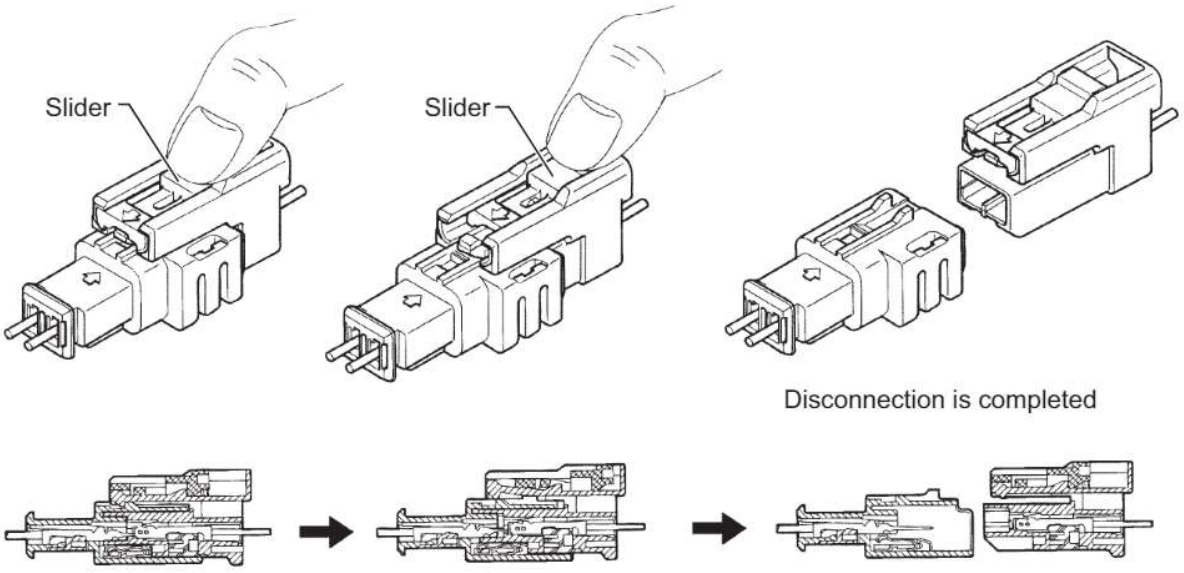
**8. CONNECTION OF CONNECTOR FOR CENTER AIRBAG SENSOR**

(a) Firmly insert the holder (with connectors) until it cannot be pushed any further.
HINT:
The holder slides when connected. Be sure not to hold the lever while connecting, as it may result in an insecure fit.
(b) Push the lever in to connect the holder (with connectors). Check that it locks and that a "click" sound is heard.

**9. DISCONNECTION OF CONNECTOR FOR FRONT PASSENGER AIRBAG**

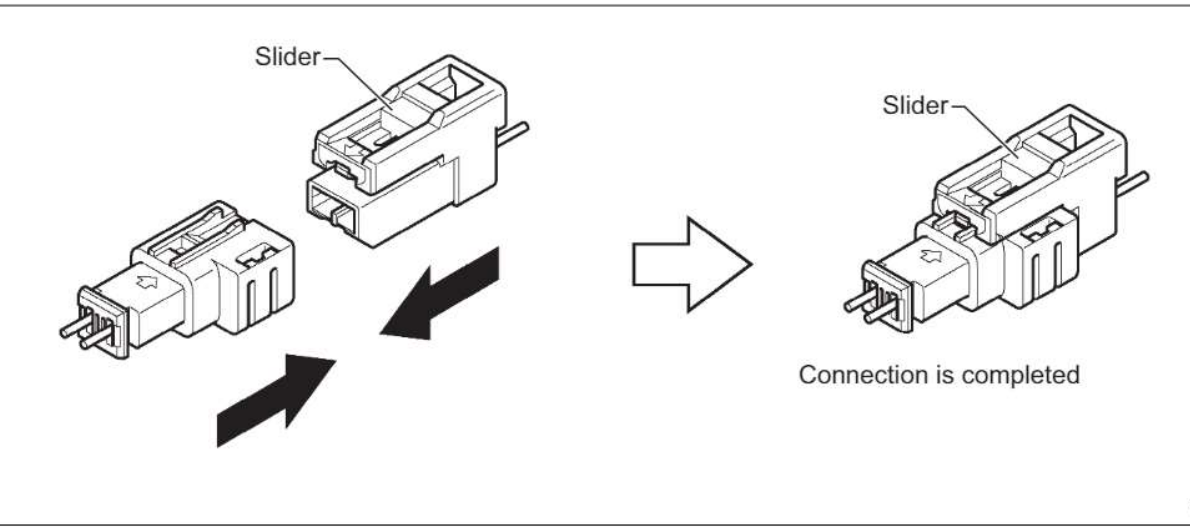
(a) Place a finger on the slider.
(b) Slide the slider to release the lock.

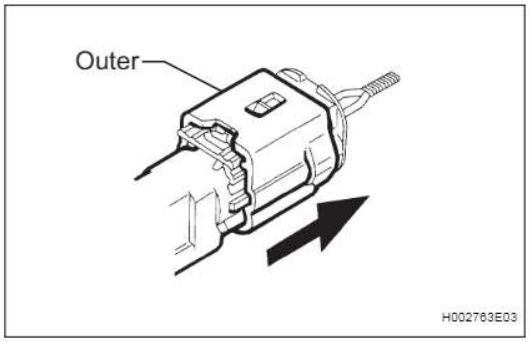
(c) Disconnect the connector.




**10. CONNECTION OF CONNECTOR FOR FRONT PASSENGER AIRBAG**

(a) Connect the connector as shown in the illustration. Check that it locks and that a "click" sound is heard.
HINT:
Do not touch the slider while it is moving.

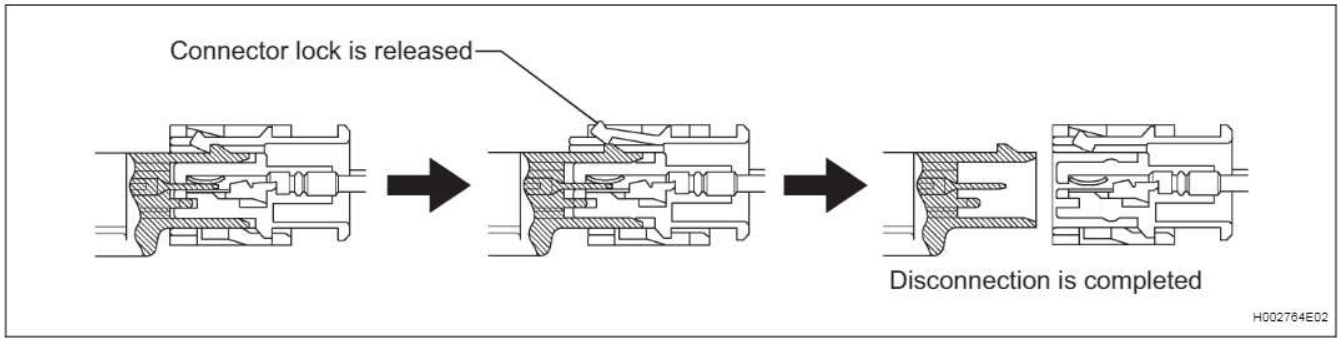





**11. DISCONNECTION OF CONNECTOR FOR FRONT AIRBAG SENSOR (LH AND RH)**

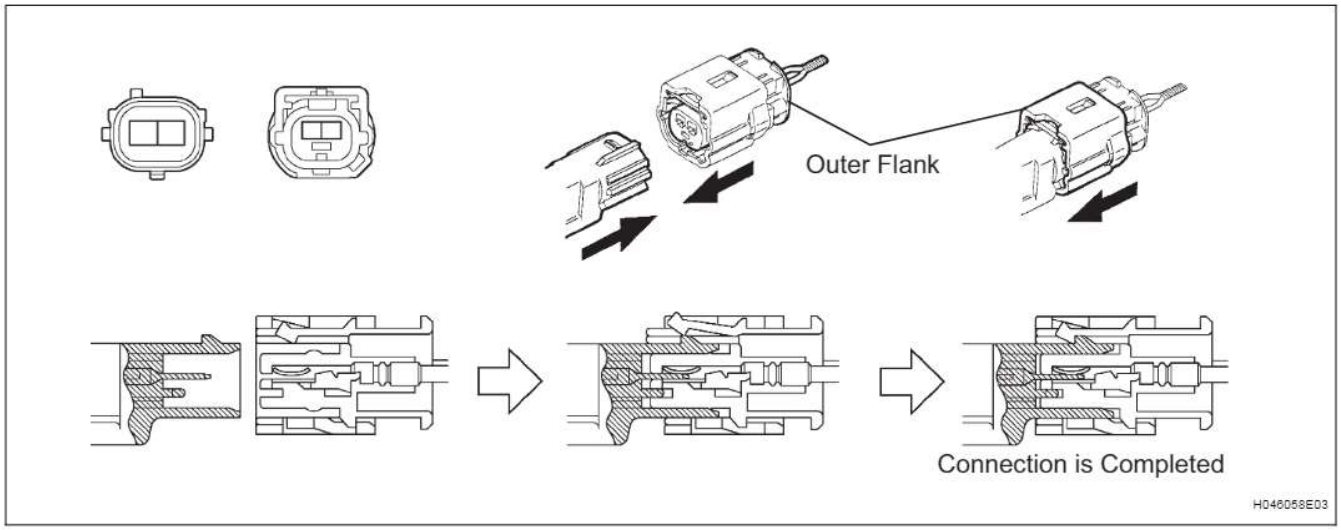
(a) Hold the sides of the outer flank and slide it as shown in the illustration to release the connector lock.

(b) Disconnect the connector.
HINT:
Be sure to hold both outer flank sides. Holding the top and bottom will make disconnection difficult.



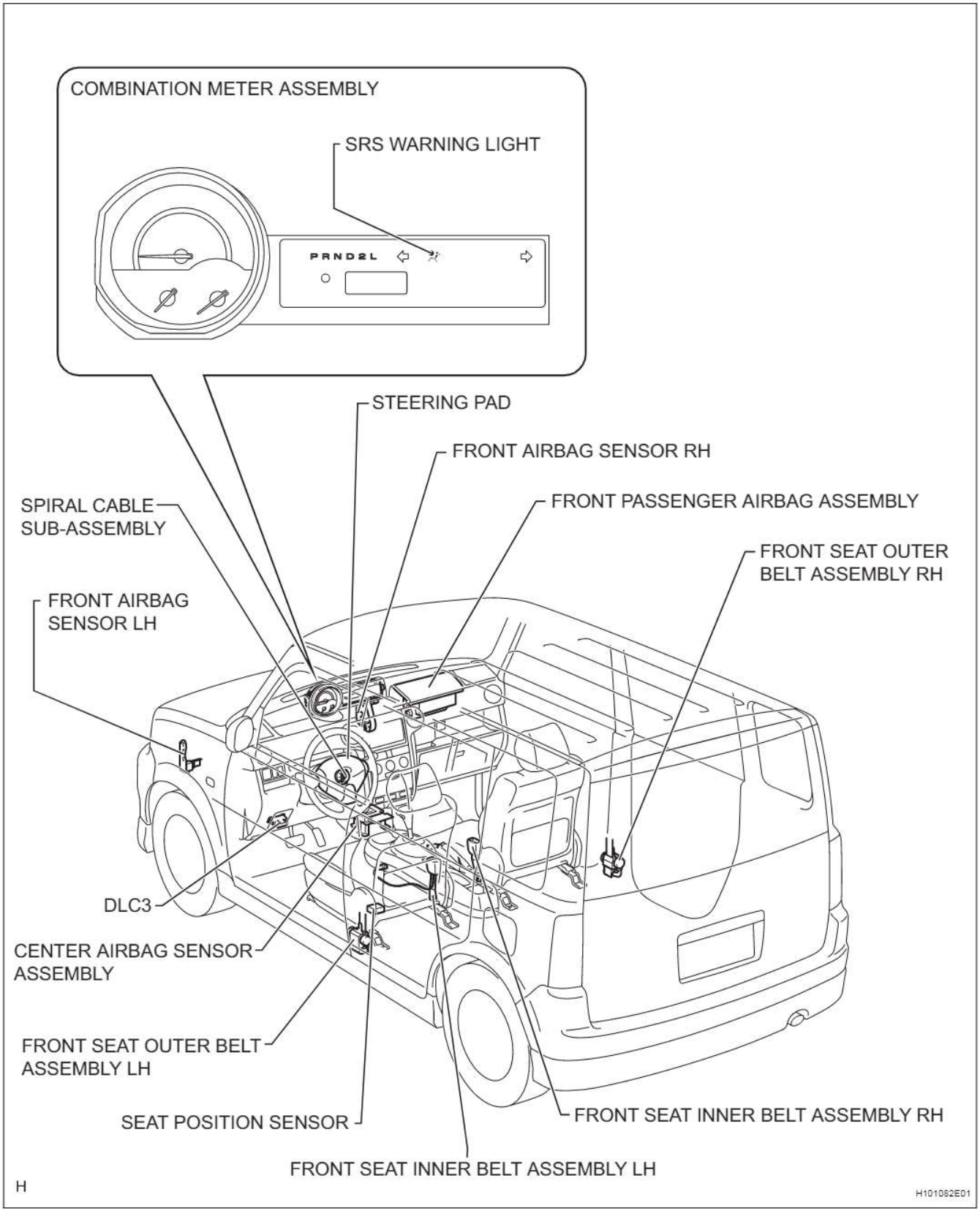

**12. CONNECTION OF CONNECTOR FOR FRONT AIRBAG SENSOR (LH AND RH)**

(a) Connect the connector as shown in the illustration. Check that it locks and that a "click" sound is heard.
HINT:
Do not hold the outer flank while it is moving.



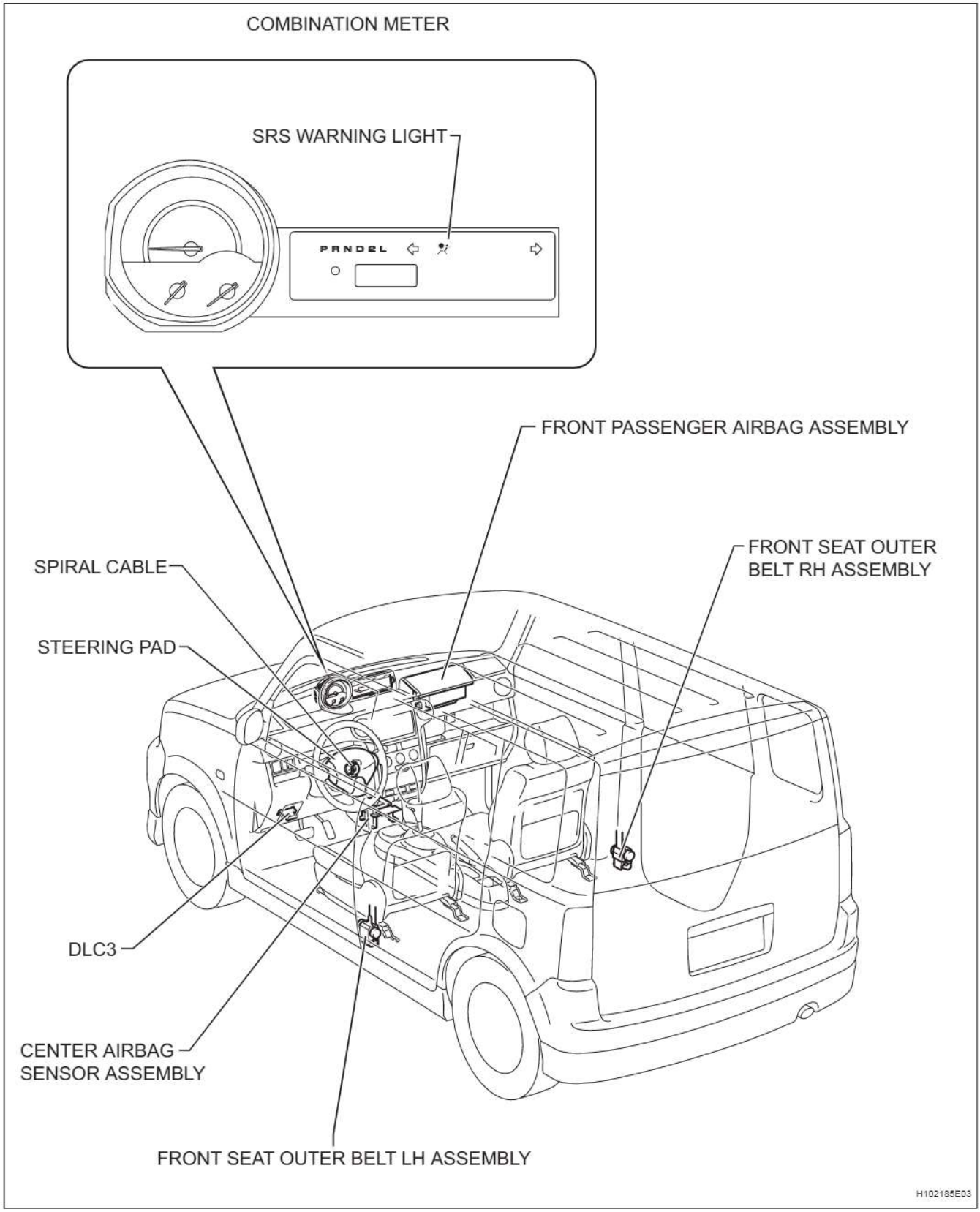
# PARTS LOCATION

(2005/07-2005/12)

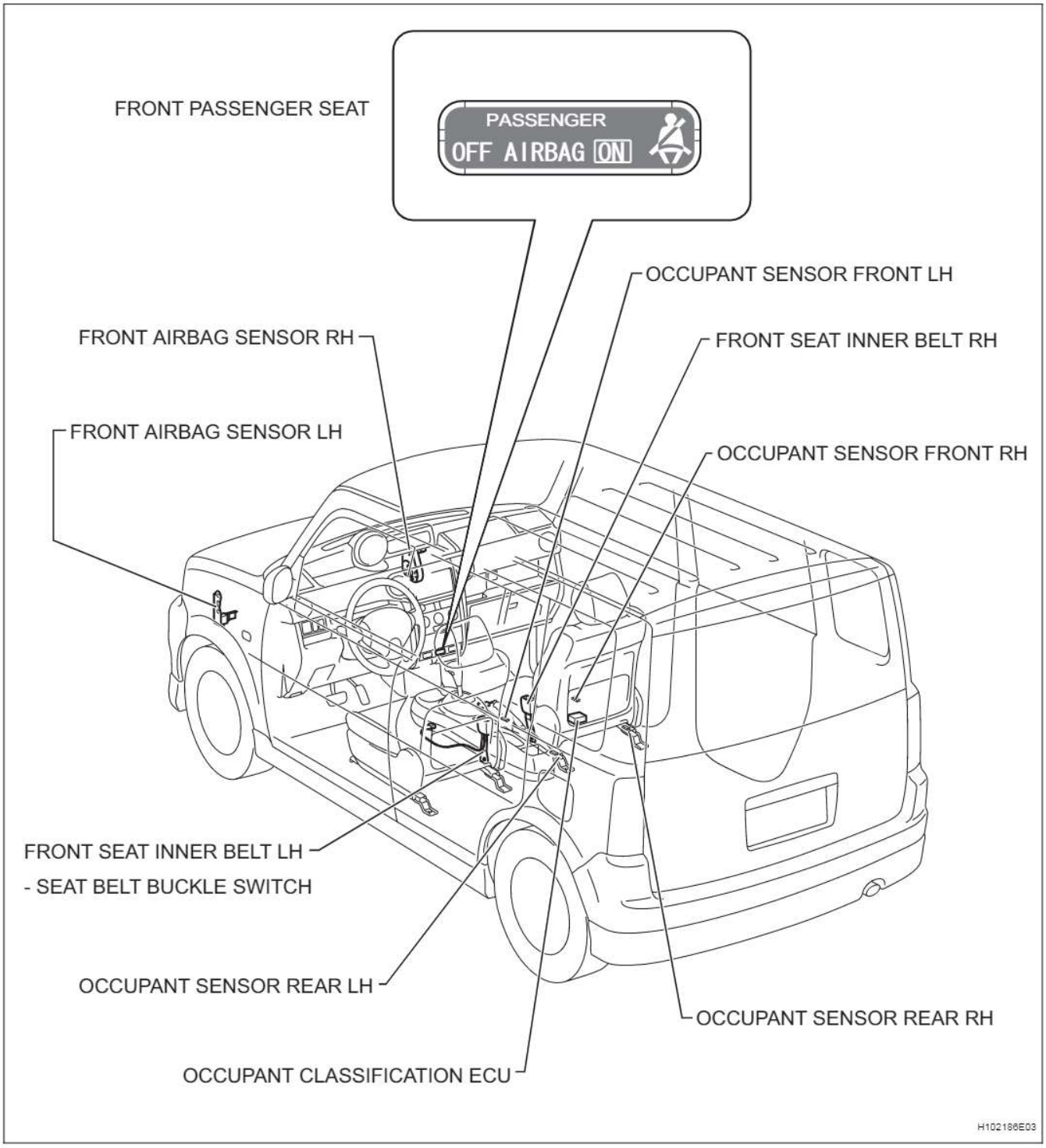


# PARTS LOCATION

(2005/12- )



RS


FRONT PASSENGER SEAT
PASSENGER
OFF AIRBAG ON
OCCUPANT SENSOR FRONT LH
FRONT AIRBAG SENSOR RH
FRONT SEAT INNER BELT RH
FRONT AIRBAG SENSOR LH
OCCUPANT SENSOR FRONT RH
FRONT SEAT INNER BELT LH
- SEAT BELT BUCKLE SWITCH
OCCUPANT SENSOR REAR LH
OCCUPANT SENSOR REAR RH
OCCUPANT CLASSIFICATION ECU
H102186E03

# SYSTEM DIAGRAM

(2005/07-2005/12)

**1. RELEASE METHOD OF ACTIVATION PREVENTION MECHANISM**

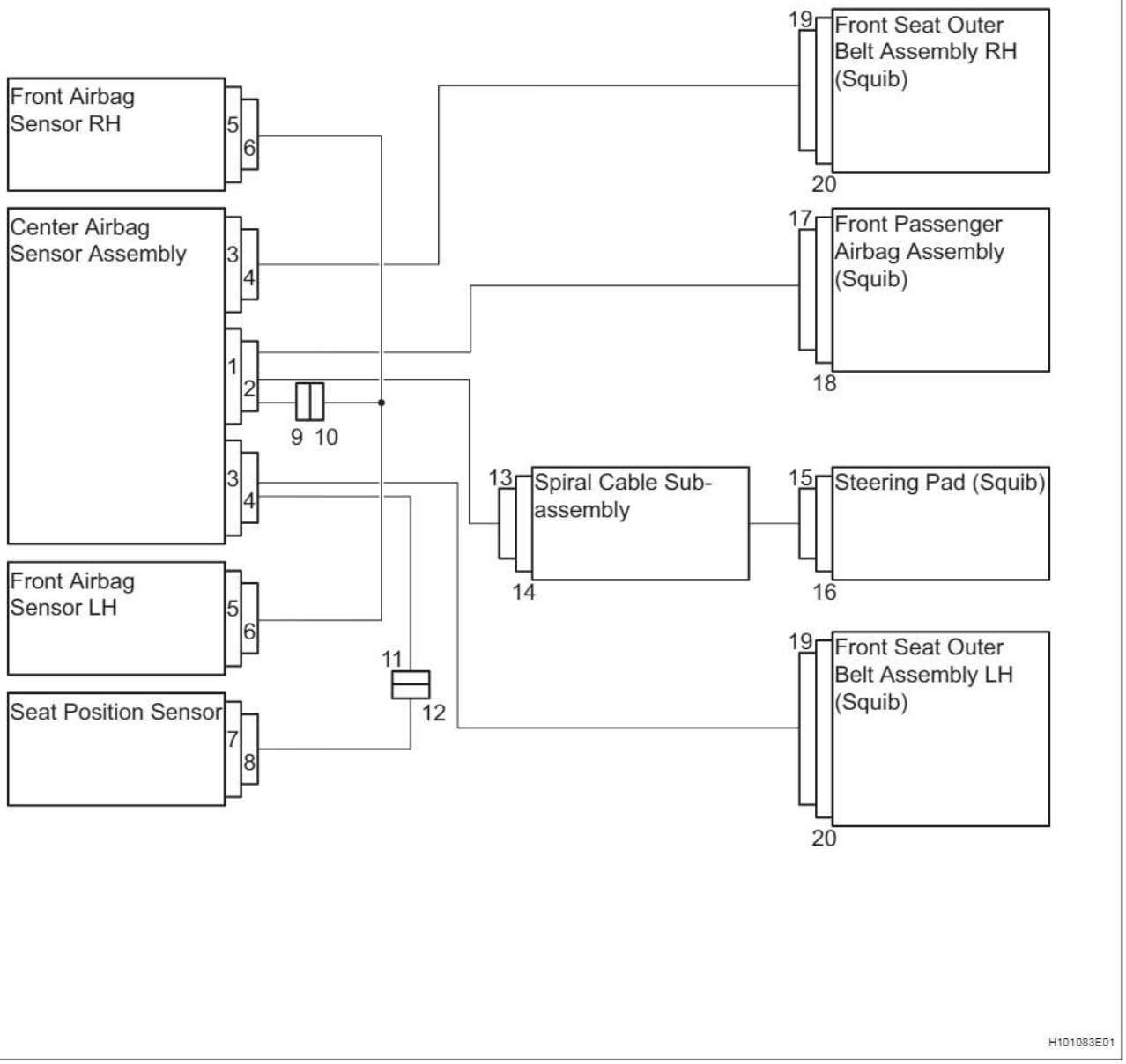
(a) The activation prevention mechanism is built into the connector for the squib circuit of the SRS. As explained in the troubleshooting section, insert a piece of paper that is the same thickness as the male terminal between the terminal and the short spring to release it (refer to illustration).

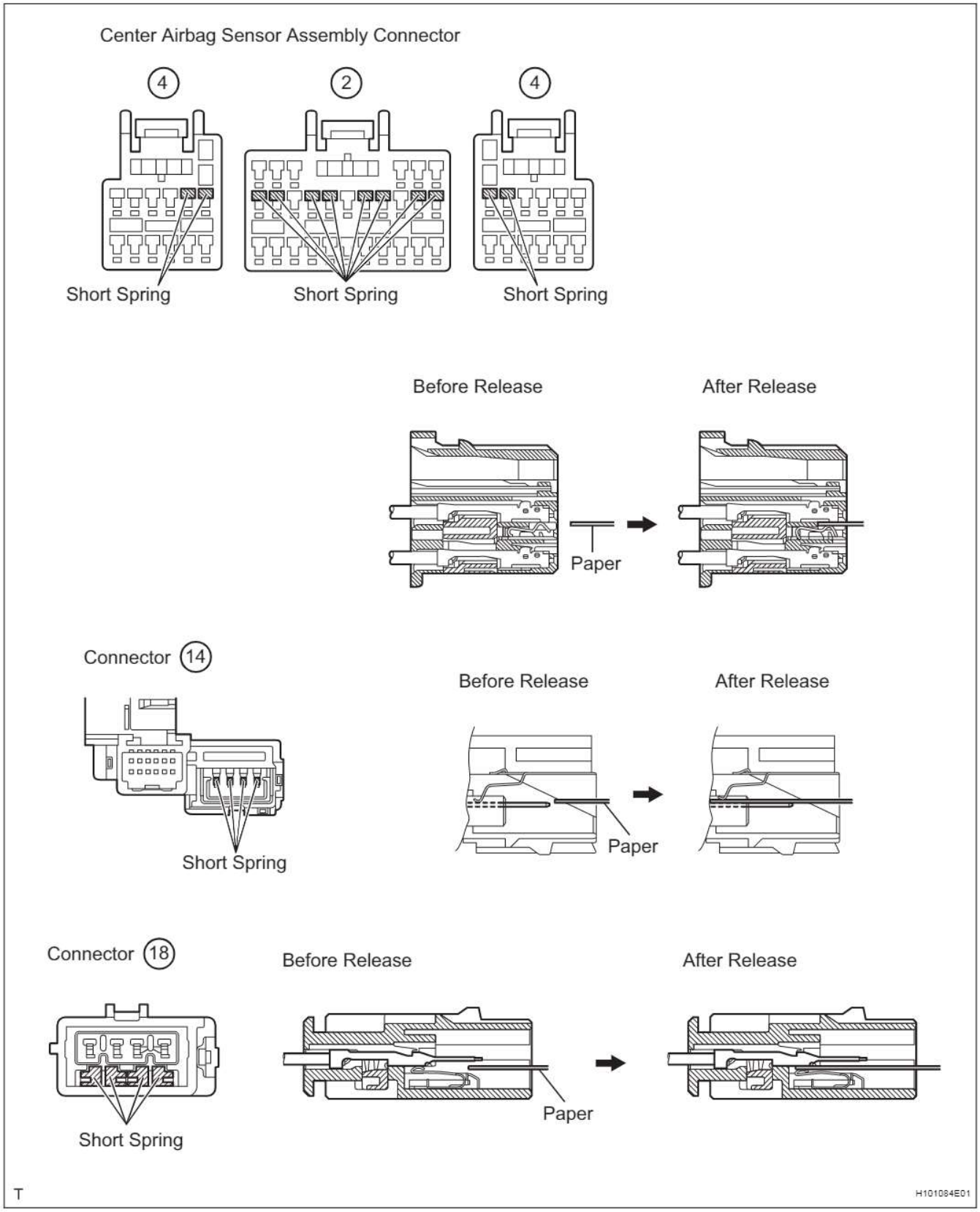
**CAUTION:**
**Never release the activation prevention mechanism on the squib connector.**

**NOTICE:**

- **Do not release the activation prevention mechanism unless specially directed by the troubleshooting procedure.**
- **To prevent the terminal and short spring from becoming damaged, always use a piece of paper that is the same thickness as the male terminals.**

RS


Front Airbag Sensor RH
5
6
Center Airbag Sensor Assembly
3
4
1
2
9 10
3
4
Front Airbag Sensor LH
5
6
11
12
Seat Position Sensor
7
8
19
Front Seat Outer Belt Assembly RH (Squib)
20
17
Front Passenger Airbag Assembly (Squib)
18
13
Spiral Cable Sub-assembly
14
15
Steering Pad (Squib)
16
19
Front Seat Outer Belt Assembly LH (Squib)
20
H101083E01


Center Airbag Sensor Assembly Connector
4
2
4
Short Spring
Short Spring
Short Spring
Before Release
After Release
Paper
Connector 14
Short Spring
Before Release
After Release
Paper
Connector 18
Short Spring
Before Release
After Release
Paper
T
H101084E01

# DTC CHECK / CLEAR

(2005/07-2005/12)

**1. CHECK DTC (USING SST (CHECK WIRE))**

(a) Check for DTCs (Present trouble code).

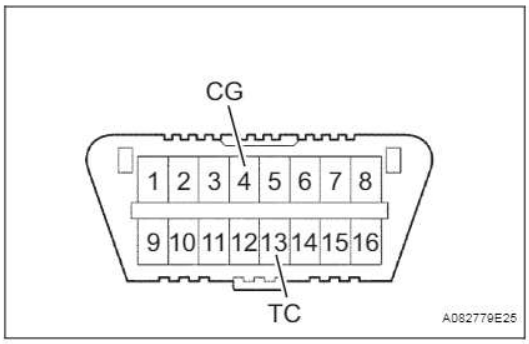
(1) Turn the ignition switch to the ON position, and wait for approximately 60 seconds.

(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 for DTCs (Past trouble code).

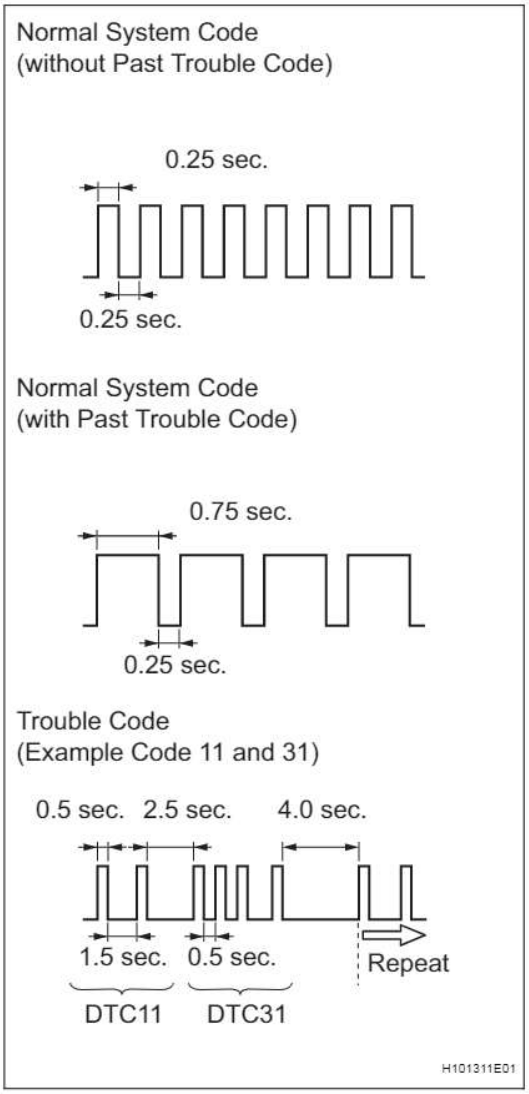
(1) Using SST, connect terminals TC and CG of the DLC3.

**SST 09843-18040**

**NOTICE:**

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

(2) Turn the ignition switch to the ON position, and wait for approximately 60 seconds.




(c) Read the DTCs.

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

- 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 center airbag sensor assembly, the light blinks only once per second.
- Trouble code indication:
  The first blinking pattern indicates the first DTC. 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-297).

**2. CLEAR DTC (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 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 to the ON position.
**SST 09843-18040**

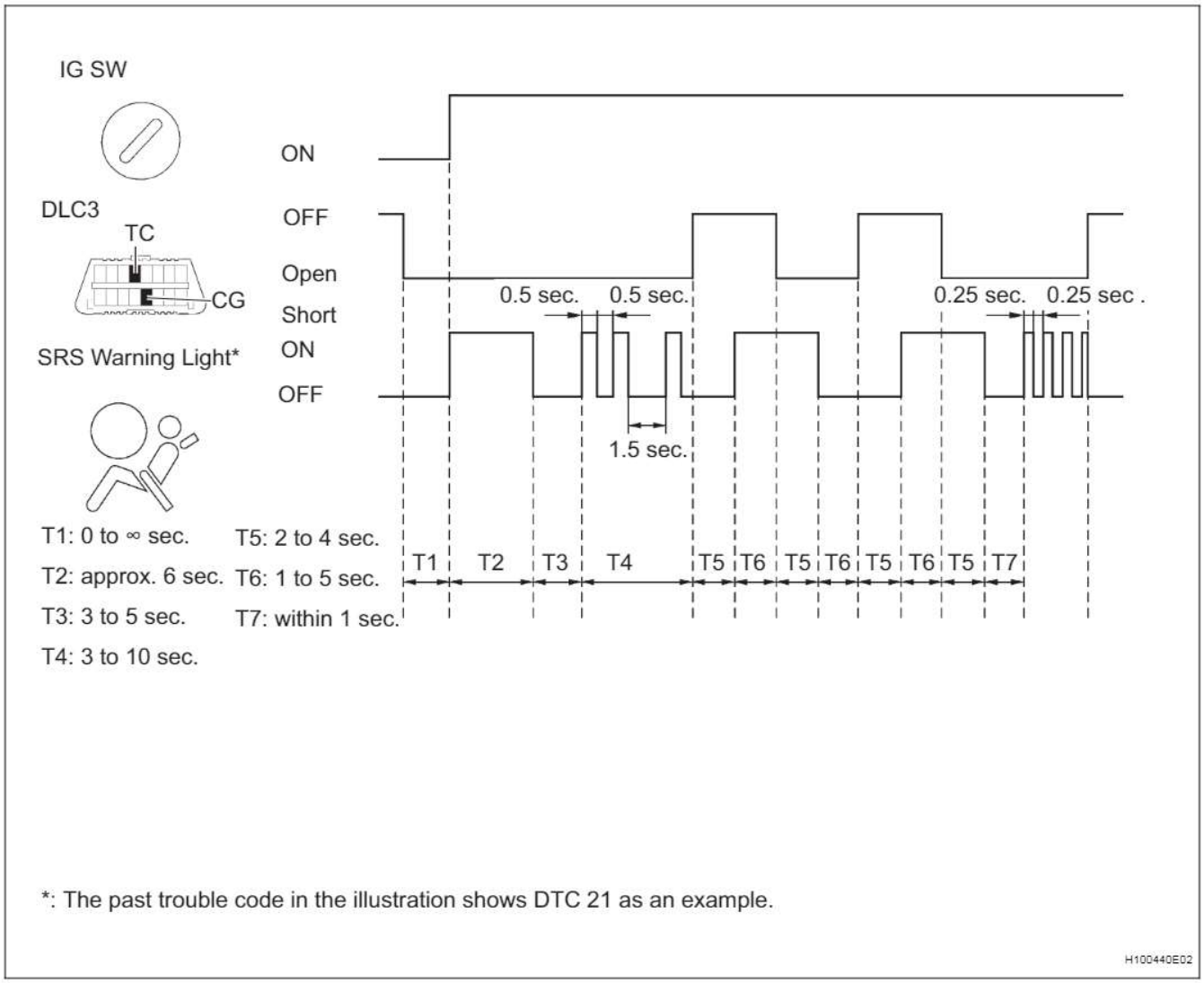
(3) Disconnect terminal TC of the DLC3 within 3 to 10 seconds after the DTCs are output, and check if the SRS warning light comes on after 3 seconds.

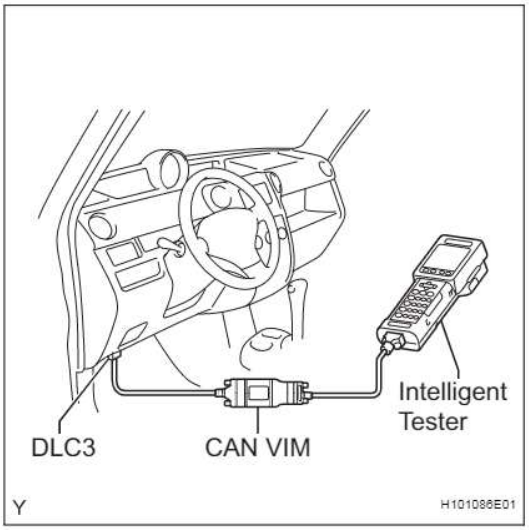
(4) Within 2 to 4 seconds after the SRS warning light comes on, connect terminals TC and CG of the DLC3.

(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.

(7) Check if the SRS warning light goes off 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. CHECK DTC (USING INTELLIGENT TESTER)**

(a) Check for DTCs.

(1) Connect the intelligent tester (with CAM VIM) to the DLC3.

(2) Turn the ignition switch to the ON position.

(3) Read the DTCs by following the directions on the tester's screen.

HINT:

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

**4. CLEAR DTC (USING INTELLIGENT TESTER)**

(a) Clear the DTCs.

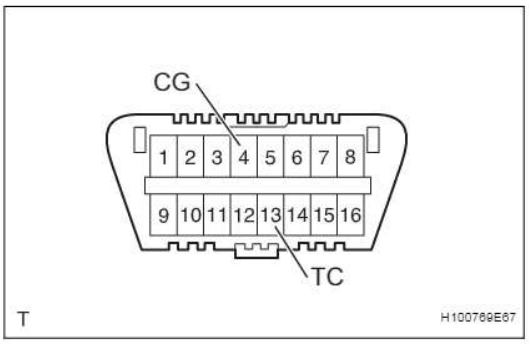
(1) Connect the intelligent tester (with CAM VIM) to the DLC3.

(2) Turn the ignition switch to the ON position.

(3) Erase the DTCs by following the directions on the tester's screen.

HINT:

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




## DTC CHECK / CLEAR

(2005/12- )

**1. CHECK DTC (USING SST CHECK WIRE)**

(a) Check for the DTCs (present trouble code).

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

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

**SST 09843-18040**

**NOTICE:**

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

(b) Check for the DTCs (past trouble code).

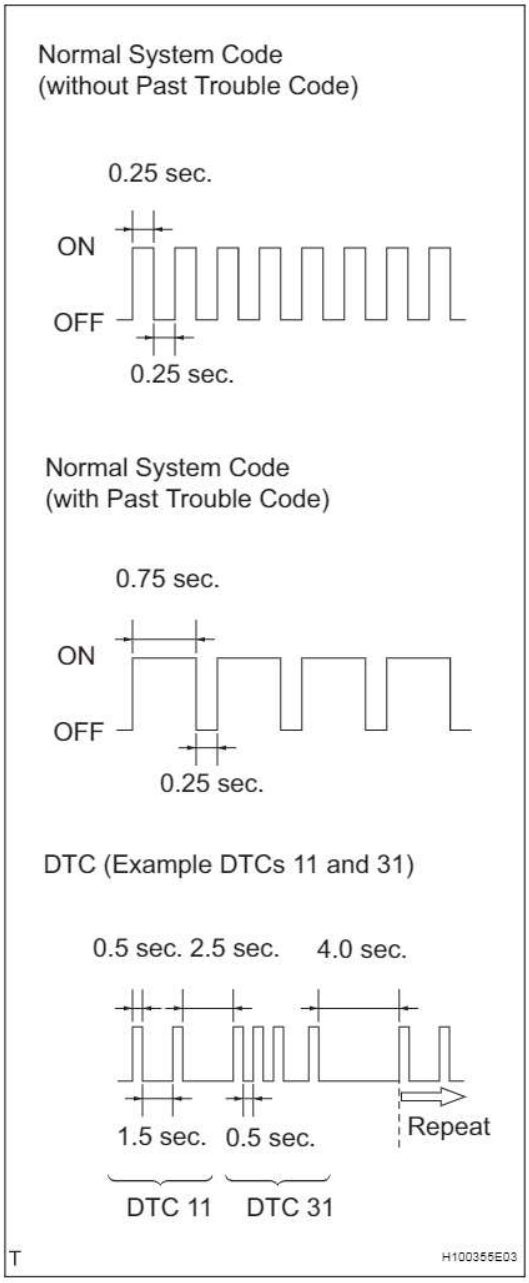
(1) Using SST, connect terminals 4 (CG) and 13 (TC) of the DLC3.

**SST 09843-18040**

**NOTICE:**

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

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




(c) Read the DTCs.

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

- 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 center airbag sensor, the light blinks once per second.
- DTC indication
  The first blinking pattern indicates the first DTC. If there is more than one DTC, a 2.5 second pause occurs between each blinking pattern. After all blinking patterns are shown, a 4.0 second pause occurs. Then all blinking patterns are 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, check the "TC terminal circuit" (see page RS-300).

**2. CLEAR DTC (USING SST CHECK WIRE)**

(a) When the ignition switch is turned OFF, the DTCs are erased.
HINT:
Depending on the DTC, the code may not be cleared by turning the ignition switch OFF. In this case, proceed to the next procedure.

(b) Using SST, connect terminals TC and CG of the DLC3, and then turn the ignition switch ON.
**SST 09843-18040**

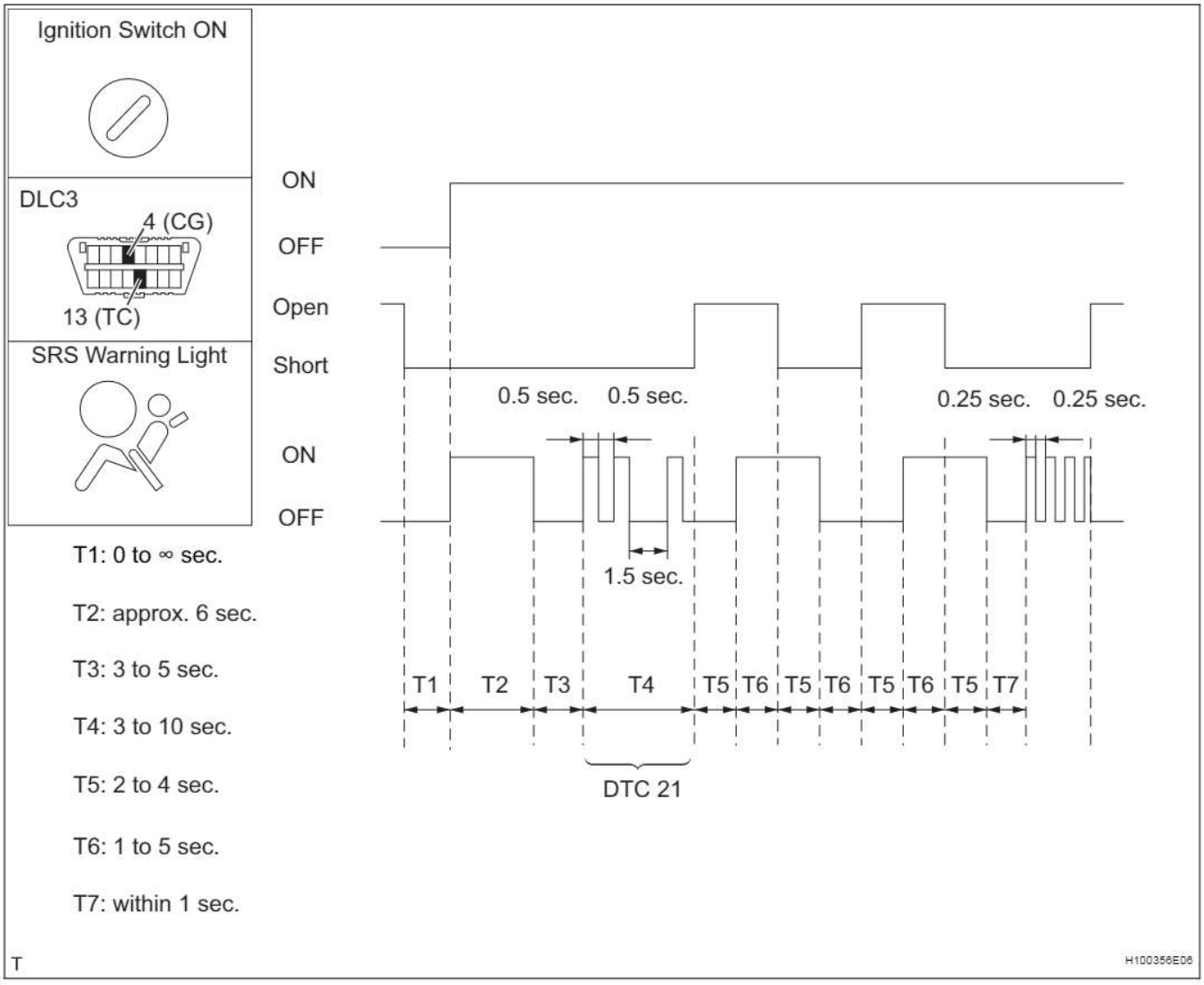
(c) After DTCs are output, disconnect terminal 13 (TC) of the DLC3 within 3 to 10 seconds. Check that the SRS warning light illuminates 3 seconds later.

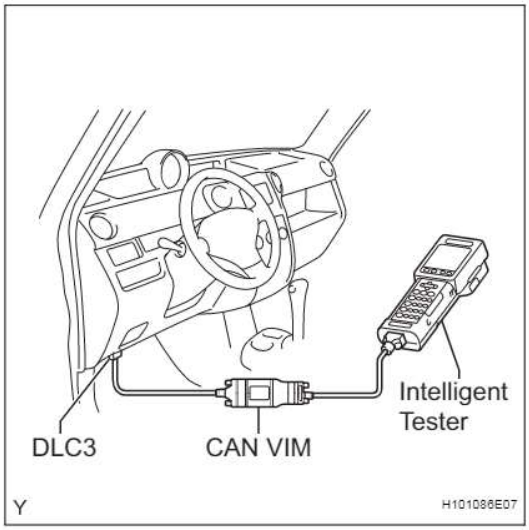
(d) After the SRS warning light illuminates, connect terminal 13 (TC) of the DLC3 within 2 to 4 seconds. Check that the SRS warning light turns off within 2 to 4 seconds.

(e) After the SRS warning light turns off, disconnect terminal 13 (TC) of the DLC3 within 2 to 4 seconds. Check that the SRS warning light illuminates within 2 to 4 seconds.

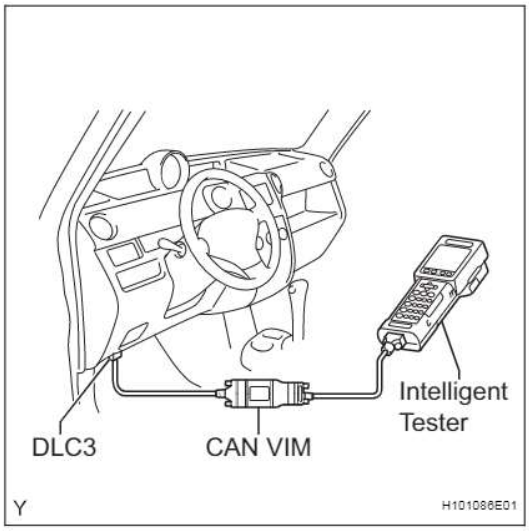
(f) After the SRS warning light illuminates, connect terminal 13 (TC) of the DLC3 within 2 to 4 seconds. Check that the SRS warning light turns off within 2 to 4 seconds. Also check that the normal system code is output within 1 second.
If DTCs are not erased, repeat this procedure until the codes are erased.

RS





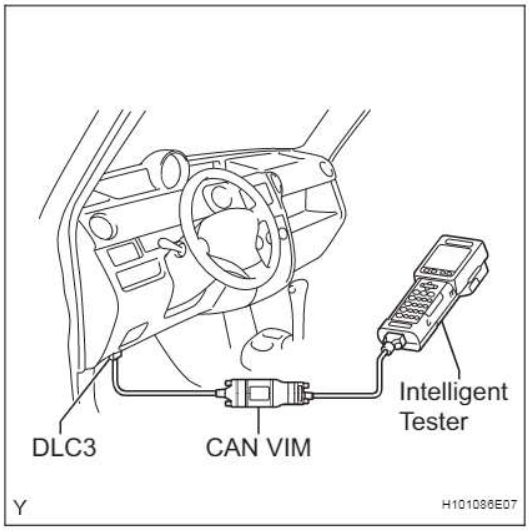

3. **CHECK FOR DTC (USING INTELLIGENT TESTER)**
   (a) Connect the intelligent tester (with CAN VIM) to the DLC3.
   (b) Turn the ignition switch ON.
   (c) Check for DTCs by following the prompts on the tester screen.
   HINT:
   Refer to the intelligent tester operator's manual for further details.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




## CHECK MODE PROCEDURE

(2005/07-2005/12)

1. **CHECK MODE (SIGNAL CHECK)**
   (a) Connect the intelligent tester (with CAN VIM) to the DLC3.
   (b) Turn the ignition switch ON.
   (c) Select the Signal Check, and check using the intelligent tester.
   HINT:
   - Check mode is more sensitive to malfunctions than normal mode.
   - If the normal system code is output in normal mode even when a sensor signal malfunction is suspected, perform the inspection in check mode.




## CHECK MODE PROCEDURE

(2005/12- )

1. **CHECK MODE (SIGNAL CHECK)**
   (a) Connect the intelligent tester (with CAN VIM) to the DLC3.
   (b) Turn the ignition switch ON.
   (c) Select the Signal Check, and perform the check using the intelligent tester.
   HINT:
   - Check mode is more sensitive to malfunctions than normal mode.
   - If the normal system code is output in normal mode even when a sensor signal malfunction is suspected, perform the inspection in check mode.

RS

# DATA LIST / ACTIVE TEST

## 1. READ DATA LIST

HINT:

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

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

(b) Turn the ignition switch ON.

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

**Center airbag sensor:**

| Item | Measurement Item / Range (Display) | Normal Condition | Diagnostic Note |
|---|---|---|---|
| Display Type Information | Display type identification information/ LR: Display is indicated by LH/RH DP: Display is indicated by Driver/ Passenger | DP / LR | - |
| Number of Past DTC | Number of past DTCs recorded/ Min.: 0, Max.: 255 | 0 | - |

# AIRBAG SYSTEM

## PRECAUTION

(2005/07-2005/12)

**CAUTION:**

- **The vehicle is equipped with a Supplemental Restraint System (SRS), which consists of a steering pad, front passenger airbag, seat belt pretensioner, center airbag sensor, front airbag sensor and seat position airbag sensor. Failure to carry out service procedures in the correct sequence could cause SRS parts to unexpectedly deploy and possibly lead to serious injuries. Furthermore, if a mistake is made when service SRS parts, they may fail to operate when required. Before performing servicing (including installation/removal, inspection and replacement of parts), be sure to read the following precautions.**
- **Before starting work, wait at least 90 seconds after the ignition switch is turned OFF and after the cable of the negative (-) battery terminal is disconnected. (SRS parts are equipped with a backup power source. If work is started within 90 seconds of turning the ignition switch OFF and disconnecting the cable from the negative (-) battery terminal, SRS parts may deploy.)**
- **Do not expose SRS parts directly to hot air or flames.**

**NOTICE:**

- **Malfunction symptoms of SRS parts are difficult to confirm. DTCs are the most important source of information when troubleshooting. During troubleshooting, always confirm DTCs before disconnecting the cable from the negative (-) battery terminal.**
- **For minor collisions where SRS parts do not deploy, always inspect the SRS parts.**
- **Before repair work, remove airbag sensors as necessary if any kind of impact is likely to occur to an airbag sensor during the operation.**
- **Never use SRS parts from another vehicle. When replacing SRS parts, replace them with new ones.**
- **Never disassemble or attempt to repair SRS parts.**
- **If an SRS part has been dropped, or if there are any cracks, dents or other defects in the case, bracket or connector, replace the SRS part with a new one.**
- **Use an ohmmeter/voltmeter with high impedance (10 kΩ/V minimum) for troubleshooting the electrical circuits.**
- **Information labels are attached to the periphery of SRS parts. Follow the cautions and instructions on the labels.**
- **After work on SRS parts is completed, perform the SRS warning light check (RS-37).**

- **When the cable is disconnected from the negative (-) battery terminal, the memory settings of each system will be cleared. Because of this, be sure to write down the settings of each system before starting work. When work is finished, reset the settings of each system as before. Never use a backup power supply from outside the vehicle to avoid erasing the memory in a system.**
- **If the vehicle is equipped with a mobile communication system, refer to the precautions in the INTRODUCTION section (see page IN-5).**

**1. HANDLING PRECAUTIONS FOR AIRBAG SENSOR**

HINT:

In this section, the center airbag sensor, front airbag sensor LH, and front airbag sensor RH are collectively referred to as the airbag sensors.

(a) Before replacement of the airbag sensor, wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal.

(b) When connecting or disconnecting an airbag sensor connector, ensure that all of the sensors are installed in the vehicle.

(c) Do not use the airbag sensors if they have been dropped.

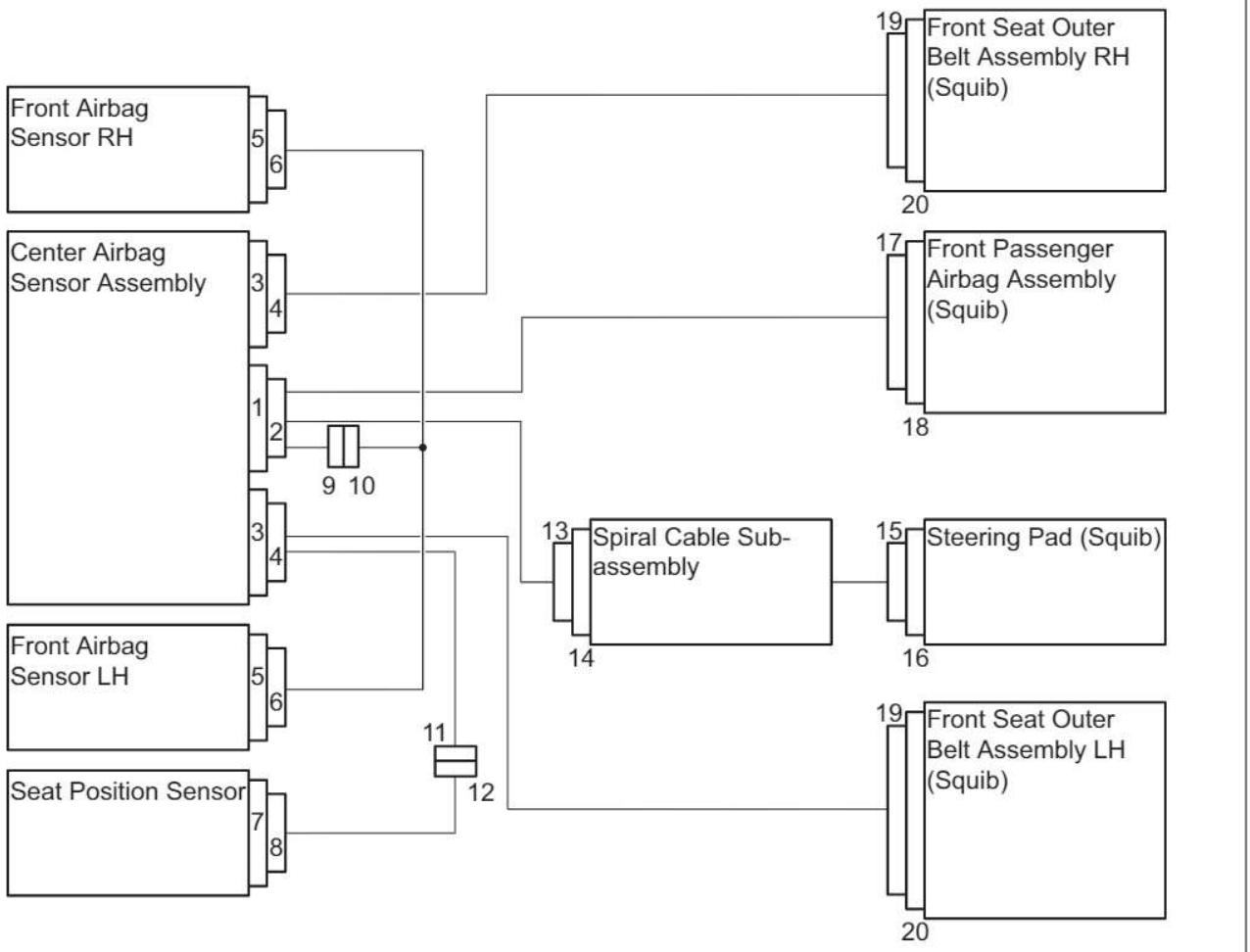
(d) Do not disassemble the airbag sensors.

**2. INSPECTION PROCEDURE FOR VEHICLE INVOLVED IN ACCIDENT**

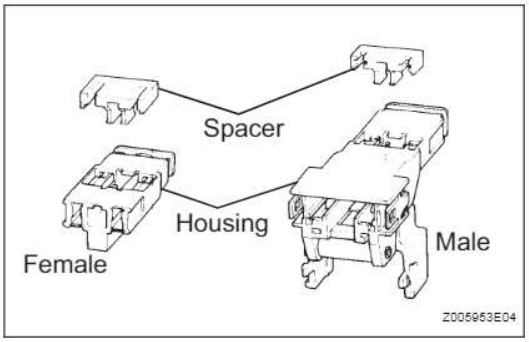
(a) When the airbag has not deployed, confirm the DTC by checking the SRS warning light. If there is any malfunction in the SRS, perform troubleshooting.

(b) When any of the airbags have deployed, replace the related airbag sensor and inspect its normal operation.

## 3. SRS CONNECTORS



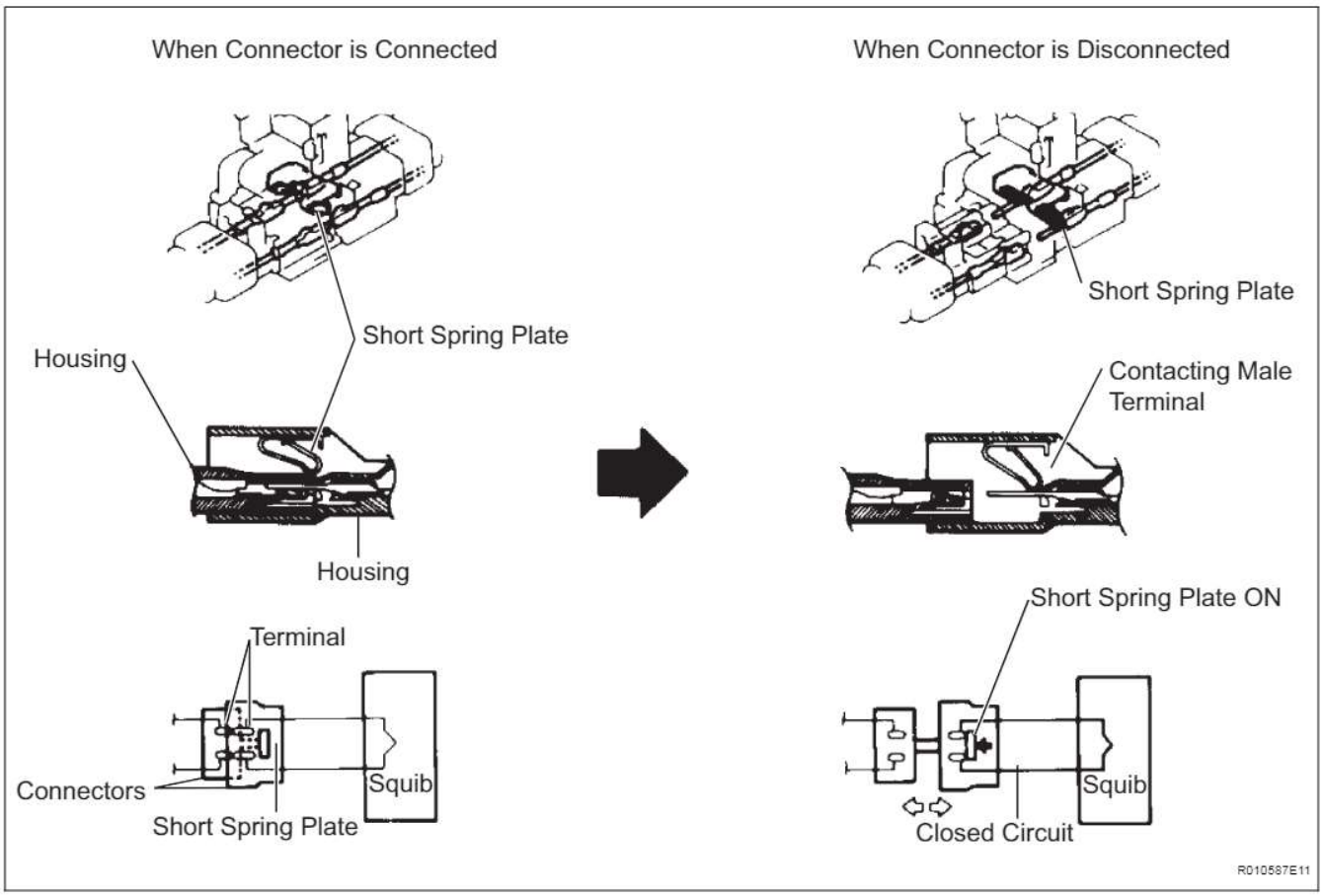

| Connector Type | Application |
|---|---|
| Terminal Twin-lock Mechanism | Connectors 2, 4, 6, 8, 10, 12, 13, 17, 20 |
| Activation Prevention Mechanism | Connectors 2, 4, 7, 14, 16, 18 |
| Electrical Connection Check Mechanism | Connectors 1, 2, 3, 4 |
| Half Connection Prevention Mechanism | Connectors10, 13 |
| Connector Lock Mechanism | Connector 15, 19 |
| Connector Position Assurance Mechanism | Connector 6 |

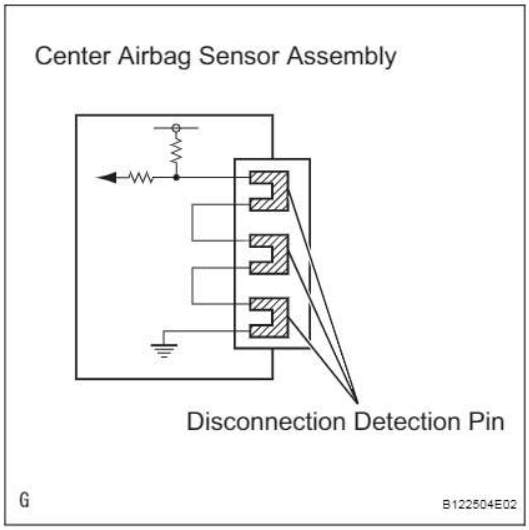



(a) All connectors in the SRS are yellow (to distinguish them from other connectors). Some connectors have special functions and are specially designed for the SRS. These connectors use durable gold-plated terminals, and are located as shown above to ensure high reliability.

(1) Terminal twin-lock mechanism:
Each connector has a two-piece component consisting of a housing and spacer. This design enables the terminal to be locked securely by 2 locking devices (the retainer and lance) to prevent terminals from becoming unseated.

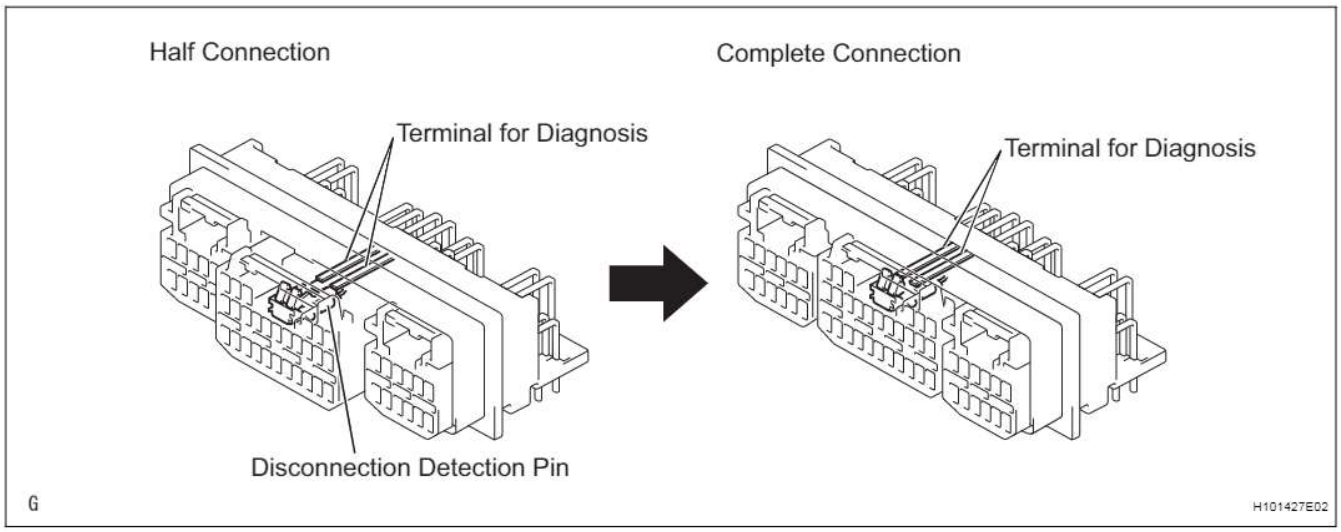
(2) Activation prevention mechanism:
Each connector contains a short spring plate. When the connector is disconnected, the short spring plate automatically connects the positive (+) terminal and negative (-) terminal of the squib.



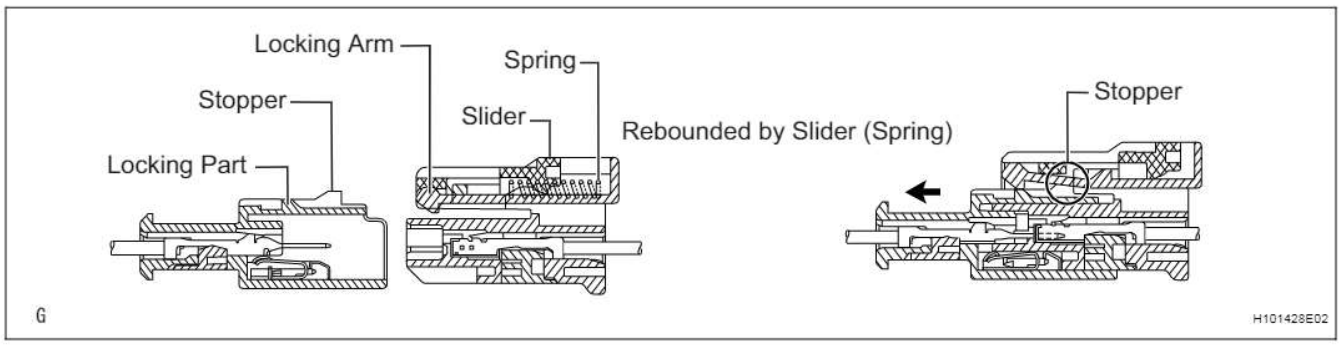



(3) Electrical connection check mechanism:
This mechanism electrically checks that the connectors are connected correctly and completely. The electrical connection check mechanism is designed so that the disconnection detection pin connects with the diagnosis terminals when the connector housing lock is locked.

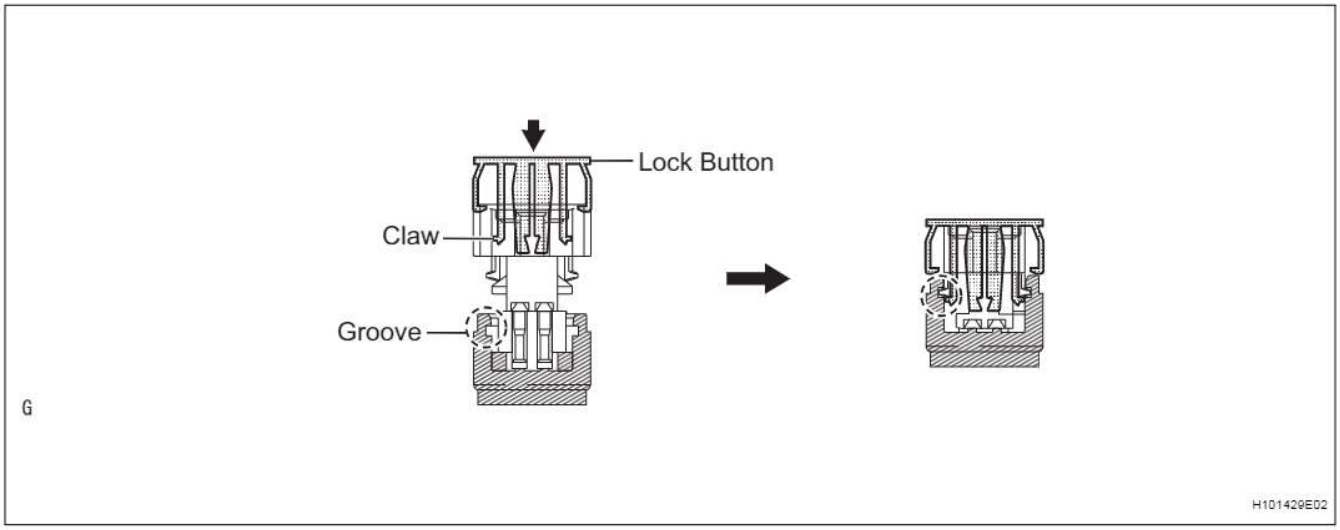
RS




(4) Half connection prevention mechanism:
If the connector is not completely connected, the connector is disconnected by the spring.



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




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

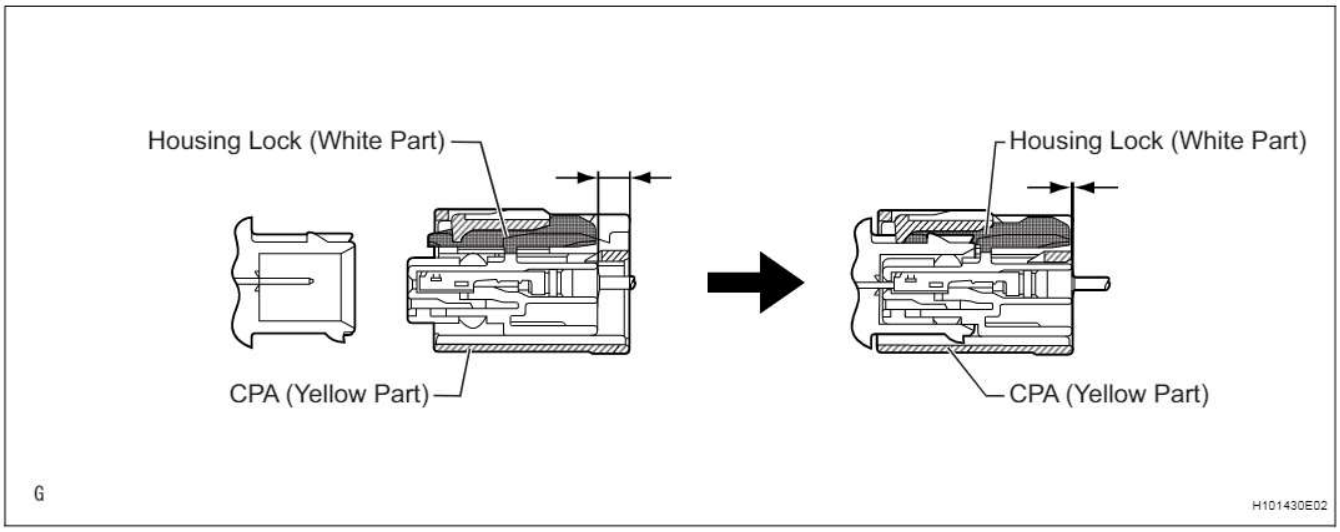
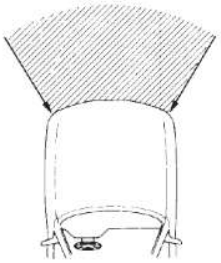
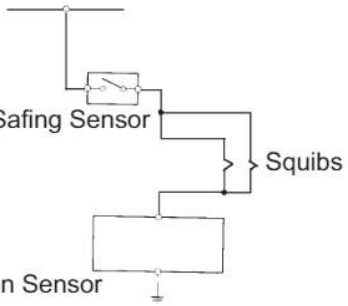


Fig.1



Power Source

Fig.2

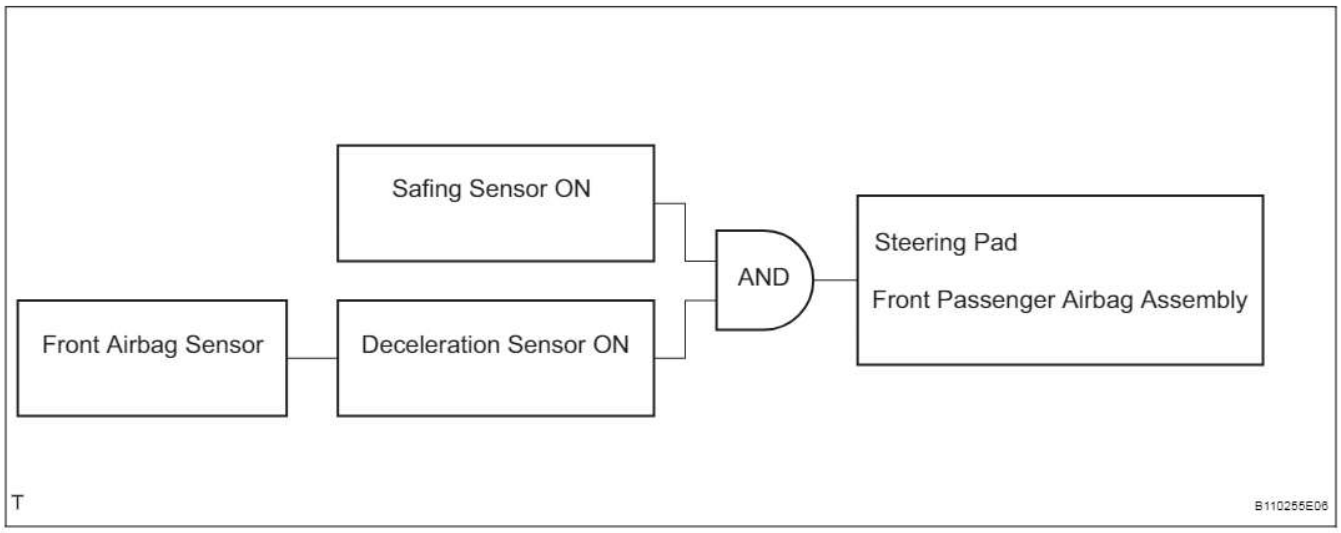



Z014034E04

(b) When the vehicle is involved in a frontal collision in the hatched area (Fig. 1) and the shock is larger than the predetermined level, the SRS is activated automatically. The safing sensor is designed to go on at a smaller deceleration rate than the airbag sensor. As illustrated in Fig. 2, ignition is caused when current flows to the squib, which happens when the safing sensor and the deceleration sensor go on simultaneously. When a deceleration force acts on the sensors, 2 squibs in the driver airbag and front passenger airbag ignite and generate gas. The gas discharging into the driver airbag and front passenger airbag rapidly increases the pressure inside the bags, breaking the steering pad and instrument panel. The deployment of the bags then ends, and the bags deflate as the gas is discharged through discharge holes at the bag's rear or side.

**4. DEPLOYMENT CONDITION**

(a) When the vehicle is in a collision and the shock is greater than the specified value, the SRS is activated automatically. The safing sensor and deceleration sensor are built into the center airbag sensor. The safing sensor is designed to be turned on at a smaller deceleration rate than the deceleration sensor. The deceleration sensor determines whether or not SRS deployment is necessary based on signals from the front airbag sensor. Current flows to the squibs to deploy the SRS when the conditions shown in the illustration below are met.




**5. DISCONNECTION OF STEERING PAD**

(a) Release the lock button (yellow part) of the connector using a screwdriver (Fig. 1).

(b) Insert the screwdriver tip between the connector and base, and then raise the connector (Fig. 2).

Fig. 1

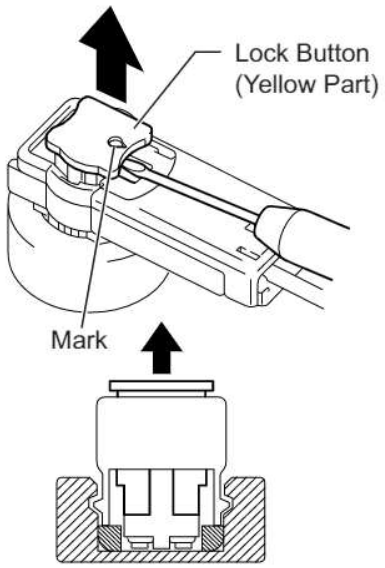
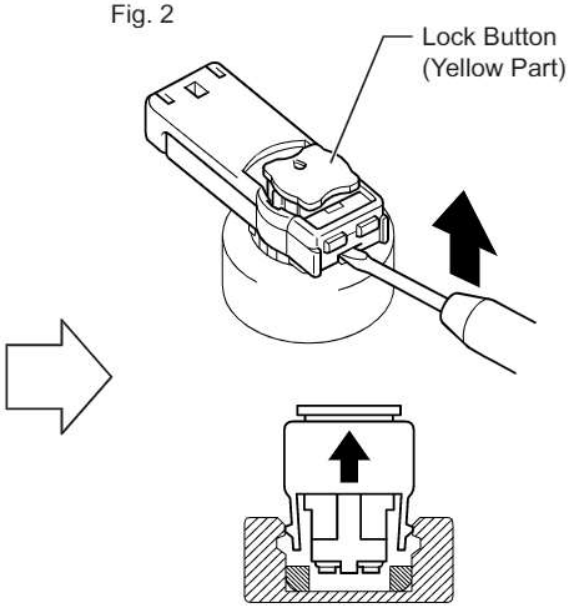



Fig. 2

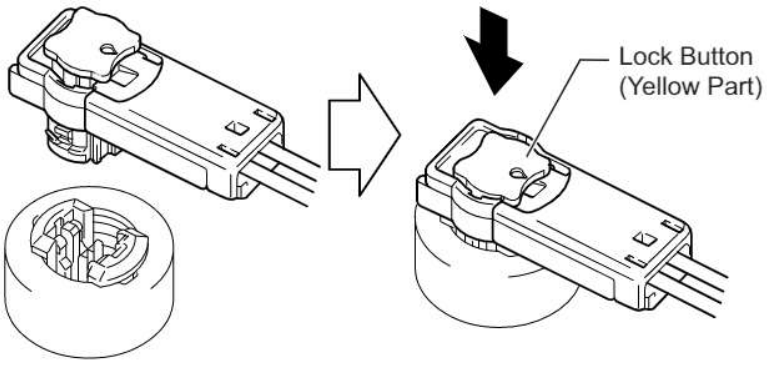



G H101431E02

**6. CONNECTION OF STEERING PAD**

(a) Connect the connector.

(b) Push the lock button in to connect the holder (with connectors). Check that it locks and that a "click" sound is heard.



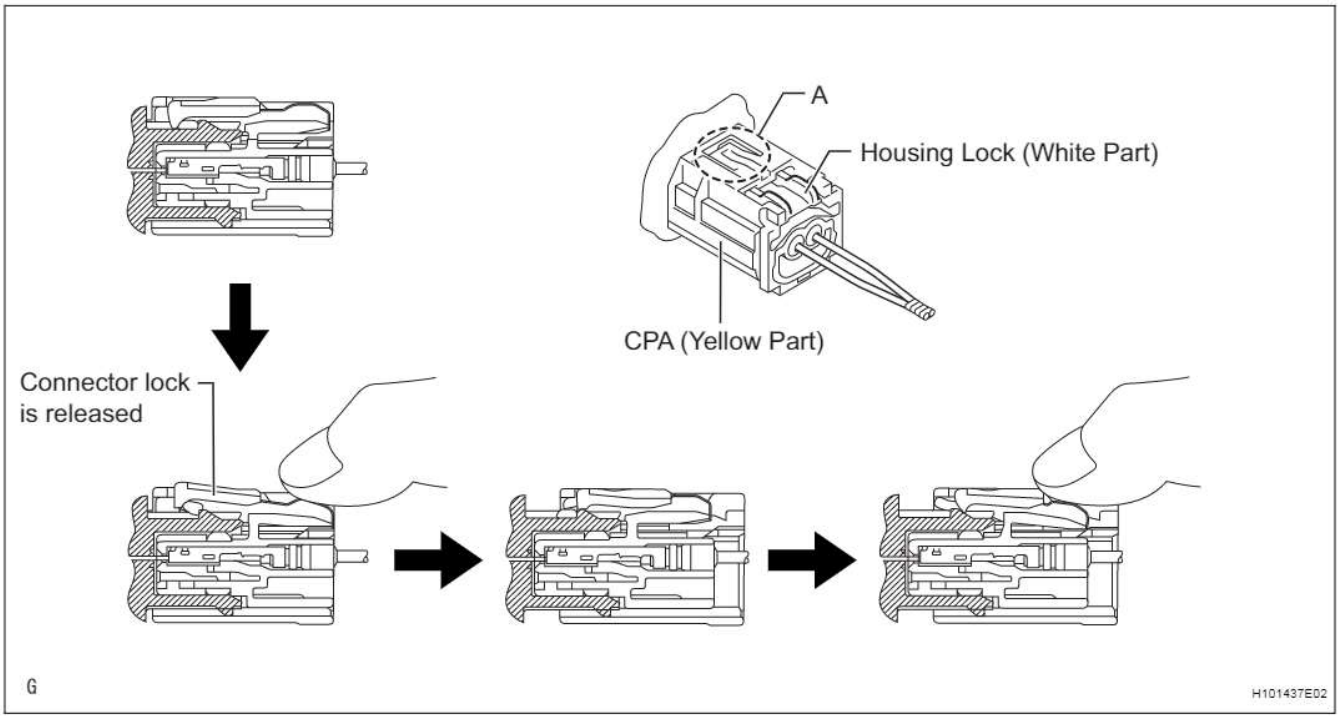

G H101432E02

**7. DISCONNECTION OF CONNECTOR FOR FRONT AIRBAG SENSOR**

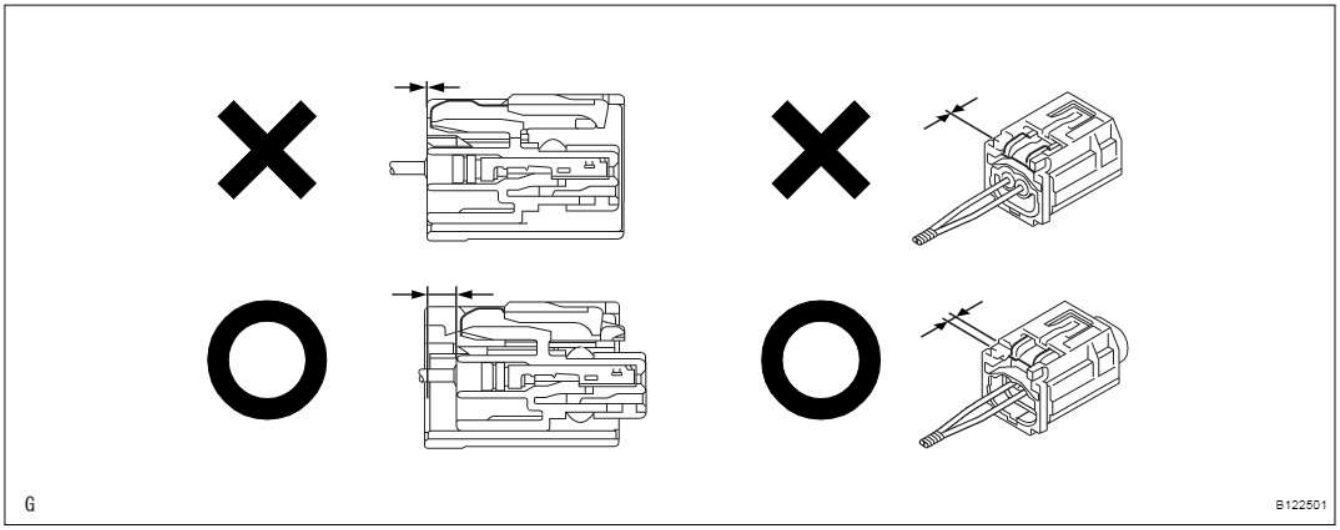
(a) Push down the housing lock (white part) and slide the CPA (yellow part) (at this time, the connector cannot be disconnected yet.)

(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.





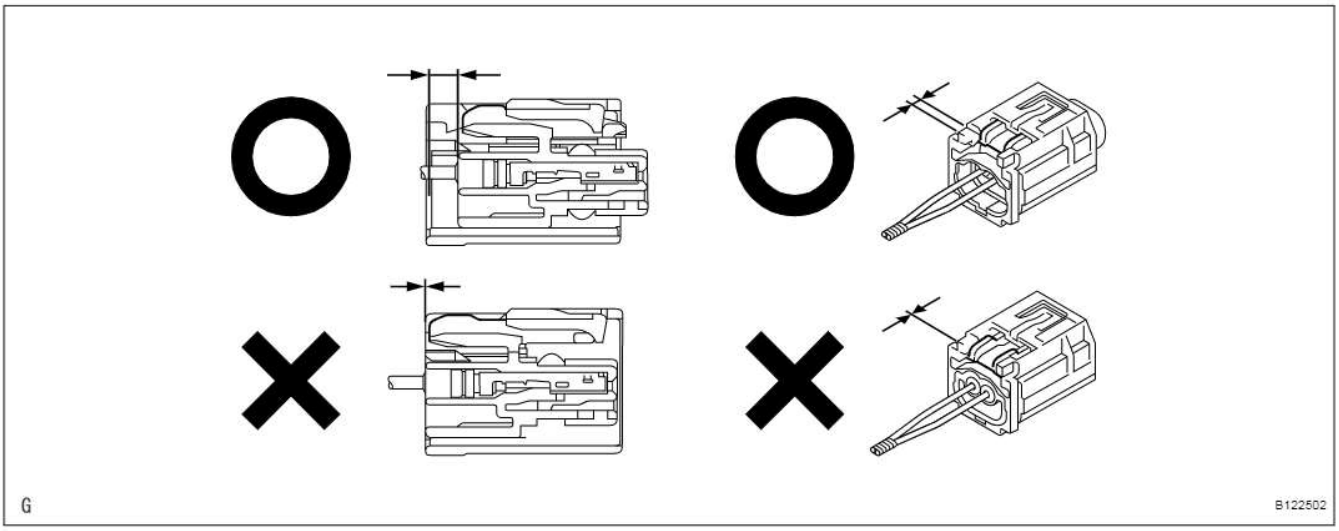

(c) After disconnecting the connector, check that the position of the housing lock (the white part) is as shown in the illustration.



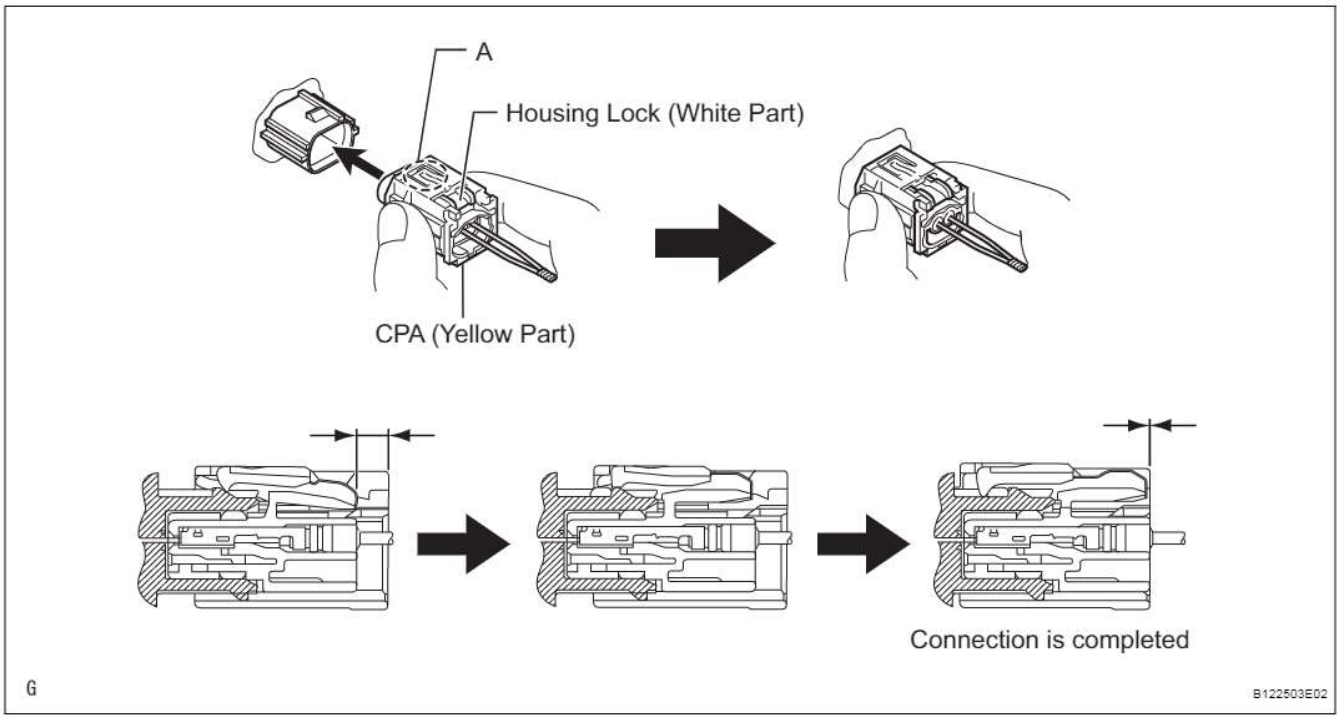
RS

**8. CONNECTION OF CONNECTOR FOR FRONT AIRBAG SENSOR**

(a) Before connecting the connectors, check that the position of the housing lock (the 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).



# DIAGNOSTIC TROUBLE CODE CHART

(2005/07-2005/12)



| DTC No. | Detection Item | Trouble Area | SRS Warning Light | See page |
|---|---|---|---|---|
| B0100/13 | Short in Driver Side Squib Circuit | - Steering pad (driver side squib)<br>- Spiral cable sub-assembly<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-59 |
| B0101/14 | Open in Driver Side Squib Circuit | - Steering pad (driver side squib)<br>- Spiral cable sub-assembly<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-65 |
| B0102/11 | Short to GND in Driver Side Squib Circuit | - Steering pad (driver side squib)<br>- Spiral cable sub-assembly<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-70 |
| B0103/12 | Short to B+ in Driver Side Squib Circuit | - Steering pad (driver side squib)<br>- Spiral cable sub-assembly<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-75 |
| B0105/53 | Short in Front Passenger Side Squib Circuit | - Front passenger airbag assembly (front passenger side squib)<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-80 |
| B0106/54 | Open in Front Passenger Side Squib Circuit | - Front passenger airbag assembly (front passenger side squib)<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-83 |
| B0107/51 | Short to GND in Front Passenger Side Squib Circuit | - Front passenger airbag assembly (front passenger side squib)<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-87 |
| B0108/52 | Short to B+ in Front Passenger Side Squib Circuit | - Front passenger airbag assembly (front passenger side squib)<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-91 |
| B0121/26 | Seat Belt Buckle Switch RH Circuit Malfunction | - Front seat inner belt assembly RH (seat belt buckle switch RH)<br>- Center airbag sensor assembly<br>- Floor wire | ON | RS-95 |

| DTC No. | Detection Item | Trouble Area | SRS Warning Light | See page |
|---|---|---|---|---|
| B0126/27 | Seat Belt Buckle Switch LH Circuit Malfunction | - Front seat inner belt assembly LH (seat belt buckle switch LH)<br>- Center airbag sensor assembly<br>- Floor wire | ON | RS-100 |
| B0130/63 | Short in Front Pretensioner Squib RH Circuit | - Seat belt pretensioner RH (front pretensioner squib RH)<br>- Center airbag sensor assembly<br>- Floor wire | Blinks | RS-105 |
| B0131/64 | Open in Front Pretensioner Squib RH Circuit | - Seat belt pretensioner RH (front pretensioner squib RH)<br>- Center airbag sensor assembly<br>- Floor wire | Blinks | RS-109 |
| B0132/61 | Short to GND in Front Pretensioner Squib RH Circuit | - Seat belt pretensioner RH (front pretensioner squib RH)<br>- Center airbag sensor assembly<br>- Floor wire | Blinks | RS-113 |
| B0133/62 | Short to B+ in Front Pretensioner Squib RH Circuit | - Seat belt pretensioner RH (front pretensioner squib RH)<br>- Center airbag sensor assembly<br>- Floor wire | Blinks | RS-117 |
| B0135/73 | Short in Front Pretensioner Squib LH Circuit | - Seat belt pretensioner LH (front pretensioner squib LH)<br>- Center airbag sensor assembly<br>- Floor wire | Blinks | RS-121 |
| B0136/74 | Open in Front Pretensioner Squib LH Circuit | - Seat belt pretensioner LH (front pretensioner squib LH)<br>- Center airbag sensor assembly<br>- Floor wire | Blinks | RS-125 |
| B0137/71 | Short to GND in Front Pretensioner Squib LH Circuit | - Seat belt pretensioner LH (front pretensioner squib LH)<br>- Center airbag sensor assembly<br>- Floor wire | Blinks | RS-129 |
| B0138/72 | Short to B+ in Front Pretensioner Squib LH Circuit | - Seat belt pretensioner LH (front pretensioner squib LH)<br>- Center airbag sensor assembly<br>- Floor wire | Blinks | RS-133 |
| B1100/31 | Center Airbag Sensor Assembly Malfunction | Center airbag sensor assembly | ON | RS-138 |
| B1153/25 | Seat Position Airbag Sensor Circuit Malfunction | - Seat positon sensor<br>- Center airbag sensor assembly<br>- Front seat inner belt assembly LH<br>- Floor wire | ON | RS-139 |

| DTC No. | Detection Item | Trouble Area | SRS Warning Light | See page |
|---|---|---|---|---|
| B1156/15 | Front Airbag Sensor RH Malfunction | - Front airbag sensor RH<br>- Center airbag sensor assembly<br>- Engine room main wire<br>- Instrument panel wire | ON | RS-150 |
| B1157/15 | Front Airbag Sensor RH Malfunction | - Front airbag sensor LH<br>- Center airbag sensor assembly<br>- Engine room main wire<br>- Instrument panel wire | ON | RS-150 |
| B1158/16 | Front Airbag Sensor LH Malfunction | - Steering pad (driver side squib, 2nd step)<br>- Spiral cable sub-assembly<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-159 |
| B1159/16 | Front Airbag Sensor LH Malfunction | - Steering pad (driver side squib, 2nd step)<br>- Spiral cable sub-assembly<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-159 |
| B1180/17 | Short in Driver Side Squib 2nd Step Circuit | - Steering pad (driver side squib, 2nd step)<br>- Spiral cable sub-assembly<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-167 |
| B1181/18 | Open in Driver Side Squib 2nd Step Circuit | - Steering pad (driver side squib, 2nd step)<br>- Spiral cable sub-assembly<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-173 |
| B1182/19 | Short to GND in Driver Side Squib 2nd Step Circuit | - Steering pad (driver side squib, 2nd step)<br>- Spiral cable sub-assembly<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-178 |
| B1183/22 | Short to B+ in Driver Side Squib 2nd Step Circuit | - Steering pad (driver side squib, 2nd step)<br>- Spiral cable sub-assembly<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-183 |
| B1185/57 | Short in Front Passenger Side Squib 2nd Step Circuit | - Front passenger airbag assembly (front passenger side squib, 2nd step)<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-188 |
| B1186/58 | Open in Front Passenger Side Squib 2nd Step Circuit | - Front passenger airbag assembly (front passenger side squib, 2nd step)<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-192 |

| DTC No. | Detection Item | Trouble Area | SRS Warning Light | See page |
|---|---|---|---|---|
| B1187/55 | Short to GND in Front Passenger Side Squib 2nd Step Circuit | - Front passenger airbag assembly (front passenger side squib, 2nd step)<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-196 |
| B1188/56 | Short to B+ in Front Passenger Side Squib 2nd Step Circuit | - Front passenger airbag assembly (front passenger side squib, 2nd step)<br>- Center airbag sensor assembly<br>- Instrument panel wire | ON | RS-200 |

# DIAGNOSTIC TROUBLE CODE CHART

(2005/12- )

## Airbag system:

| DTC No. | Detection Item | Trouble Area | See page |
|---|---|---|---|
| B1000/31 | Center Airbag Sensor Assembly Malfunction | 1. Center airbag sensor assembly | RS-137 |
| B1610/13 | Front Airbag Sensor RH Circuit Malfunction | 1. Front airbag sensor RH<br>2. Center airbag sensor<br>3. Instrument panel wire<br>4. Engine room main wire | RS-204 |
| B1615/14 | Front Airbag Sensor LH Circuit Malfunction | 1. Front airbag sensor LH<br>2. Center airbag sensor assembly<br>3. Instrument panel wire<br>4. Engine room main wire | RS-213 |
| B1650/32 | Occupant Classification System Malfunction | 1. Floor wire<br>2. Occupant classification system<br>3. Center airbag sensor assembly | RS-222 |
| B1653/35 | Seat Position Airbag Sensor Circuit Malfunction | 1. No. 2 foor wire<br>2. Seat position sensor<br>3. Center airbag sensor assembly | RS-228 |
| B1655/37 | Driver Side Seat Belt Buckle Switch Circuit Malfunction | 1. No. 2 floor wire<br>2. Front seat inner belt assembly LH (Driver side seat belt buckle switch)<br>3. Center airbag sensor assembly | RS-234 |
| B1660/43 | Passenger Airbag ON / OFF Indicator Circuit Malfunction | 1. Instrument panel wire<br>2. Front passenger seat belt warning light (Passenger airbag ON / OFF Indicator)<br>3. Center airbag sensor assembly | RS-240 |
| B1662/45 | Indicator Light Circuit Malfunction | 1. Combination meter (SRS warning light)<br>2. Center airbag sensor assembly<br>3. Cowl wire | RS-248 |
| B1800/51 | Short in Driver Side Squib Circuit | 1. Steering pad (driver squib)<br>2. Spiral cable<br>3. Center airbag center assembly<br>4. Instrument panel wire | RS-252 |
| B1801/51 | Open in Driver Side Squib Circuit | 1. Steering pad (driver squib)<br>2. Spiral cable<br>3. Center airbag sensor assembly<br>4. Instrument panel wire | RS-252 |
| B1802/51 | Short to GND in Driver Side Squib Circuit | 1. Steering pad (driver squib)<br>2. Spiral cable<br>3. Center airbag sensor assembly<br>4. Instrument panel wire | RS-252 |
| B1803/51 | Short to B+ in Driver Side Squib Circuit | 1. Steering pad (driver squib)<br>2. Spiral cable<br>3. Center airbag sensor assembly<br>4. Instrument panel wire | RS-252 |
| B1805/52 | Short in Front Passenger Side Squib Circuit | 1. Front passenger airbag assembly (Passenger squib)<br>2. Center airbag sensor assembly<br>3. Instrument panel wire | RS-257 |
| B1806/52 | Open in Front Passenger Side Squib Circuit | 1. Front passenger airbag assembly (Passenger squib)<br>2. Center airbag sensor assembly<br>3. Instrument panel wire | RS-257 |
| B1807/52 | Short to GND in Front Passenger Side Squib Circuit | 1. Front passenger airbag assembly (Passenger squib)<br>2. Center airbag sensor assembly<br>3. Instrument panel wire | RS-257 |

| DTC No. | Detection Item | Trouble Area | See page |
|---|---|---|---|
| B1808/52 | Short to B+ in Front Passenger Side Squib Circuit | 1. Front passenger airbag assembly (Passenger squib)<br>2. Center airbag sensor assembly<br>3. Instrument panel wire | RS-257 |
| B1810/53 | Short in Driver Side Squib 2nd Step Circuit | 1. Instrument panel wire<br>2. Spiral cable<br>3. Steering pad (Driver side squib 2nd step)<br>4. Center airbag sensor assembly | RS-261 |
| B1811/53 | Open in Driver Side Squib 2nd Step Circuit | 1. Instrument panel wire<br>2. Spiral cable<br>3. Steering pad (Driver side squib 2nd step)<br>4. Center airbag sensor assembly | RS-261 |
| B1812/53 | Short to GND in Driver Side Squib 2nd Step Circuit | 1. Instrument panel wire<br>2. Spiral cable<br>3. Steering pad (Driver side squib 2nd step)<br>4. Center airbag sensor assembly | RS-261 |
| B1813/53 | Short to B+ in Driver Side Squib 2nd Step Circuit | 1. Instrument panel wire<br>2. Spiral cable<br>3. Steering pad (Driver side squib 2nd step)<br>4. Center airbag sensor assembly | RS-261 |
| B1815/54 | Short in Front Passenger Side Squib 2nd Step Circuit | 1. Instrument panel wire<br>2. Instrument panel wire assembly<br>3. Front passenger airbag assembly (Front passenger side squib 2nd step)<br>4. Center airbag sensor assembly | RS-268 |
| B1816/54 | Open in Front Passenger Side Squib 2nd Step Circuit | 1. Instrument panel wire<br>2. Instrument panel wire assembly<br>3. Front passenger airbag assembly (Front passenger side squib 2nd step)<br>4. Center airbag sensor assembly | RS-268 |
| B1817/54 | Short to GND in Front Passenger Side Squib 2nd Step Circuit | 1. Instrument panel wire<br>2. Instrument panel wire assembly<br>3. Front passenger airbag assembly (Front passenger side squib 2nd step)<br>4. Center airbag sensor assembly | RS-268 |
| B1818/54 | Short to B+ in Front Passenger Side Squib 2nd Step Circuit | 1. Instrument panel wire<br>2. Instrument panel wire assembly<br>3. Front passenger airbag assembly (Front passenger side squib 2nd step)<br>4. Center airbag sensor assembly | RS-268 |
| B1900/73 | Short in Driver Side Front Pretensioner Squib Circuit | 1. Front seat outer belt LH assembly (Front pretensioner squib)<br>2. Center airbag sensor assembly<br>3. Floor wire | RS-273 |
| B1901/73 | Open in Driver Side Front Pretensioner Squib Circuit | 1. Front seat outer belt LH assembly (Front pretensioner squib)<br>2. Center airbag sensor assembly<br>3. Floor wire | RS-273 |

| DTC No. | Detection Item | Trouble Area | See page |
|---|---|---|---|
| B1902/73 | Short to GND in Driver Side Front Pretensioner Squib Circuit | 1. Front seat outer belt LH assembly (front pretensioner squib)<br>2. Center airbag sensor assembly<br>3. Floor wire | RS-273 |
| B1903/73 | Short to B+ in Driver Side Front Pretensioner Squib Circuit | 1. Front seat outer belt LH assembly (Front pretensioner squib)<br>2. Center airbag sensor assembly<br>3. Floor wire | RS-273 |
| B1905/74 | Short in Front Passenger Side Front Pretensioner Squib Circuit | 1. Front seat outer belt RH assembly (Front pretensioner squib RH)<br>2. Center airbag sensor assembly<br>3. No. 2 floor wire | RS-277 |
| B1906/74 | Open in Front Passenger Side Front Pretensioner Squib Circuit | 1. Front seat outer belt RH assembly (Front pretensioner squib RH)<br>2. Center airbag sensor assembly<br>3. No. 2 floor wire | RS-277 |
| B1907/74 | Short to GND in Front Passenger Side Front Pretensioner Squib Circuit | 1. Front seat outer belt RH assembly (Frontpretensioner squib RH)<br>2. Center airbag sensor assembly<br>3. No. 2 floor wire | RS-277 |
| B1908/74 | Short to B+ in Front Passenger Side Front Pretensioner Squib Circuit | 1. Front seat outer belt RH assembly (Front pretensioner squib RH)<br>2. Center airbag sensor assembly<br>3. No. 2 floor wire | RS-277 |

| DTC | B0100/13 | Short in Driver Side Squib Circuit |
|---|---|---|

## DESCRIPTION

The driver side squib circuit consists of the center airbag sensor assembly, the spiral cable sub-assembly and the steering pad.

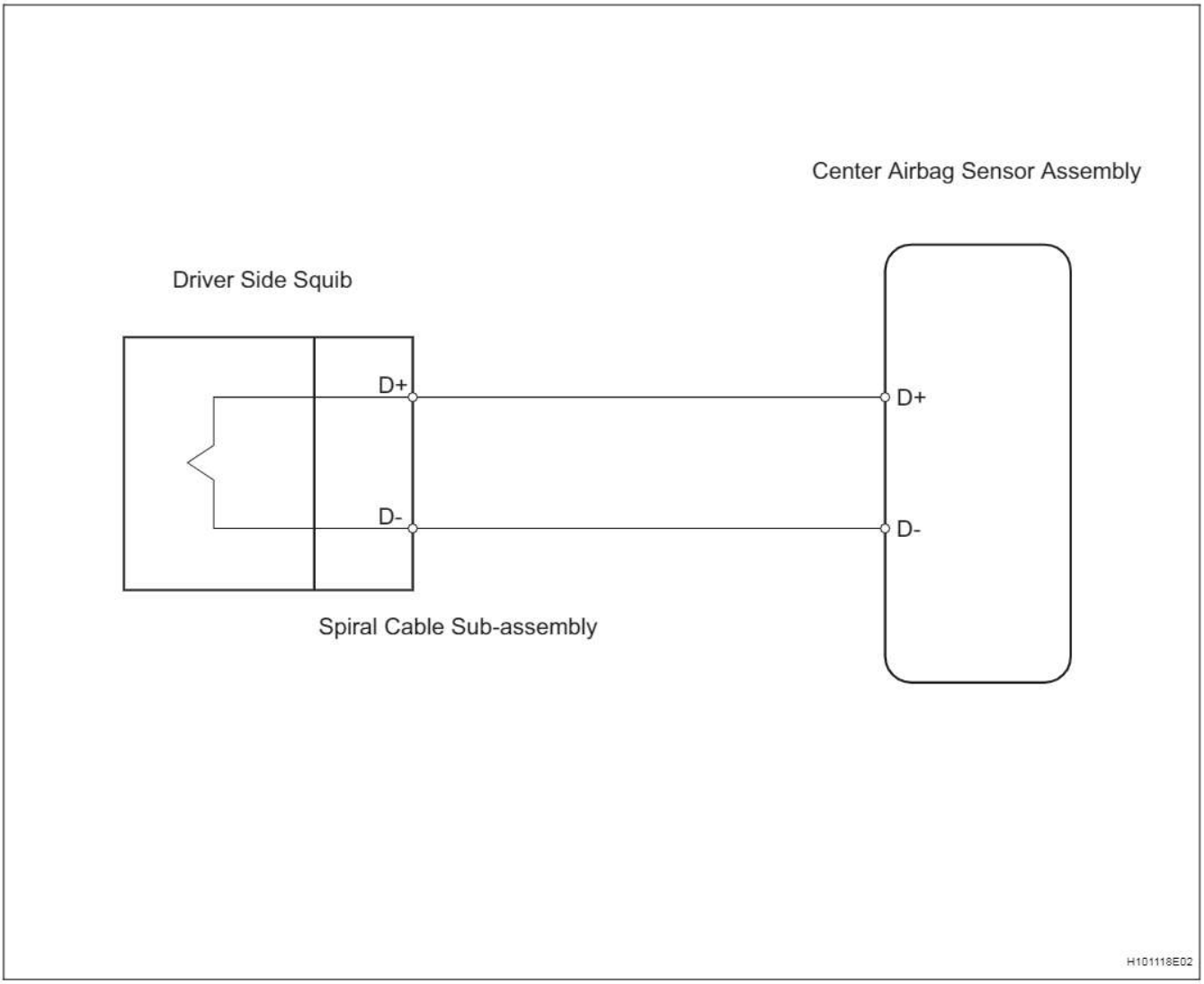
RS

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

DTC B0100/13 is recorded when a short circuit is detected in the driver side squib circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B100/13 | • Short circuit between D+ wire harness and D- wire harness of driver side squib<br>• Driver side squib malfunction<br>• Spiral cable sub-assembly malfunction<br>• Center airbag sensor assembly malfunction | • Steering pad (driver side squib)<br>• Spiral cable sub-assembly<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

| 1 | CHECK SPIRAL CABLE SUB-ASSEMBLY |
|---|---|

(a) Turn the ignition switch to LOCK.
(b) Disconnect the negative (-) battery terminal cable from the battery, and wait for at least 90 seconds.
(c) Disconnect the connectors from the steering pad.
(d) Check that the spiral cable connectors (on the steering pad) are not damaged.
**OK:**
**Lock button is not disengaged, or claw of lock is not deformed or damaged.**

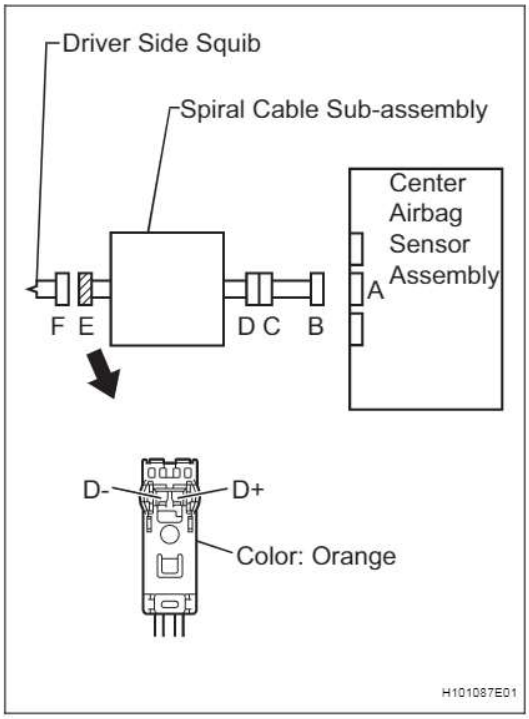
NG → **REPLACE SPIRAL CABLE SUB-ASSEMBLY**

OK

| 2 | CHECK DRIVER SIDE SQUIB CIRCUIT (CENTER AIRBAG SENSOR ASSEMBLY - STEERING PAD) |
|---|---|

(a) Disconnect the connector from the center airbag sensor assembly.
(b) Release the activation prevention mechanism built into connector "B" (see page RS-25).
(c) Measure the resistance according to the value(s) in the table below.
**Standard resistance**

| Tester Connection (Connector "E") | Specified Condition |
|---|---|
| D+ - D- | 1 MΩ or higher |




NG → **Go to step 5**

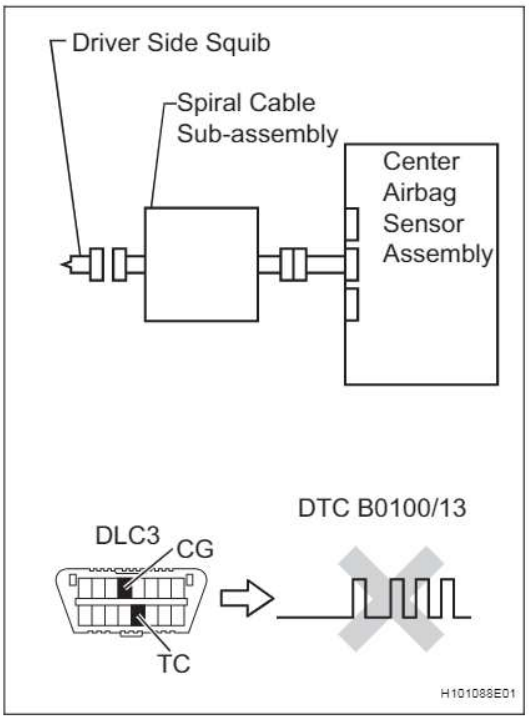
OK

| 3 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

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

RS

(b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(c) Turn the ignition switch ON position, and wait for at least 60 seconds.
(d) Clear the stored DTCs in the memory (see page RS-44).
(e) Turn the ignition switch to the LOCK position.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Check for the DTCs (see page RS-44).
**OK:**
**B0100/13 is not output.**
HINT:
Codes other than code B0100/13 may be output at this time, but they are not related to this check.

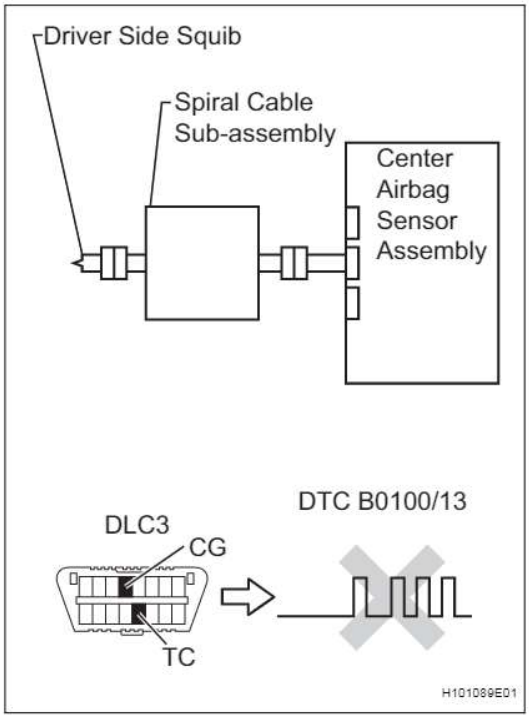



NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

| 4 | CHECK STEERING PAD (DRIVER SIDE SQUIB) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Connect the connectors to the steering pad.
(d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(e) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(f) Clear the stored DTCs in the memory (see page RS-44).
(g) Turn the ignition switch to the LOCK position.
(h) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(i) Check for the DTCs (see page RS-44).
**OK:**
**B0100/13 is not output.**
HINT:
Codes other than code B0100/13 may be output at this time, but they are not related to this check.

RS

| NG | REPLACE STEERING PAD |
|---|---|

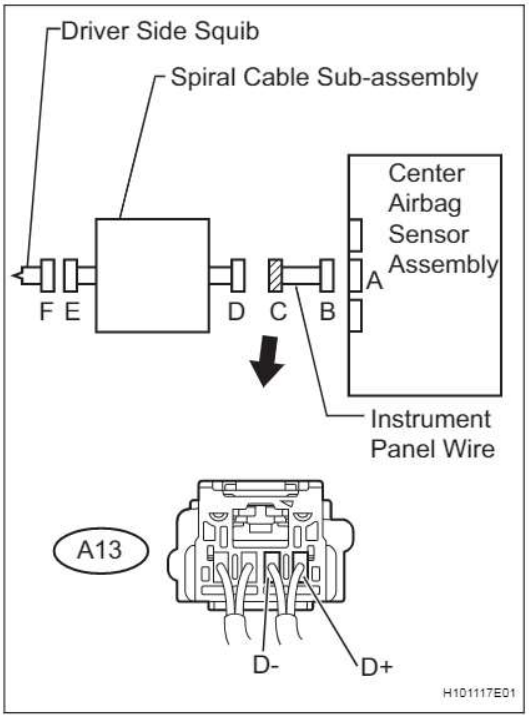
OK

| PROBLEM SYMPTOMS SIMULATION |
|---|

| 5 | CHECK INSTRUMENT PANEL WIRE |
|---|---|

(a) Disconnect the instrument panel wire connector from the spiral cable sub-assembly.
HINT:
The activation prevention mechanism of connector "B" has already been released.

RS




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

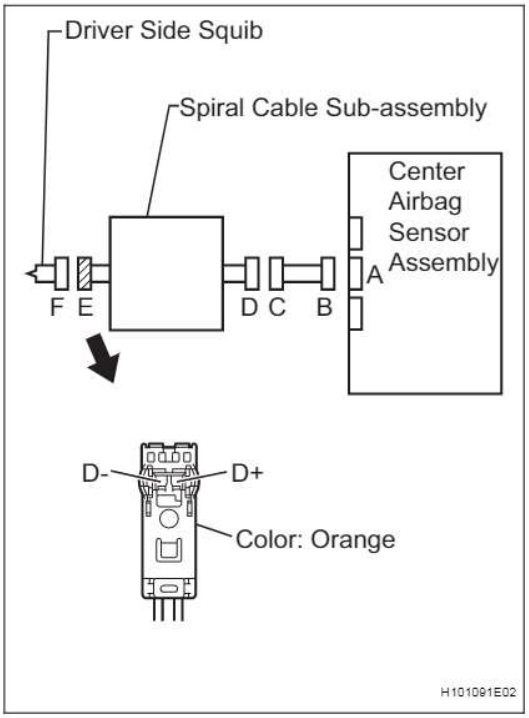
**Standard resistance**

| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| A13-1 (D+) - A13-2 (D-) | 1 MΩ or higher |

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

OK

## 6 CHECK SPIRAL CABLE SUB-ASSEMBLY




(a) Release the activation prevention mechanism built into connector "D" (see page RS-25).

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

**Standard resistance**

| Tester Connection (Connector "E") | Specified Condition |
|---|---|
| D+ - D- | 1 MΩ or higher |

NG → **REPLACE SPIRAL CABLE SUB-ASSEMBLY**

OK

PROBLEM SYMPTOMS SIMULATION

| DTC | B0101/14 | Open in Driver Side Squib Circuit |
|---|---|---|

## DESCRIPTION

The driver side squib circuit consists of the center airbag sensor assembly, the spiral cable sub-assembly and the steering pad.

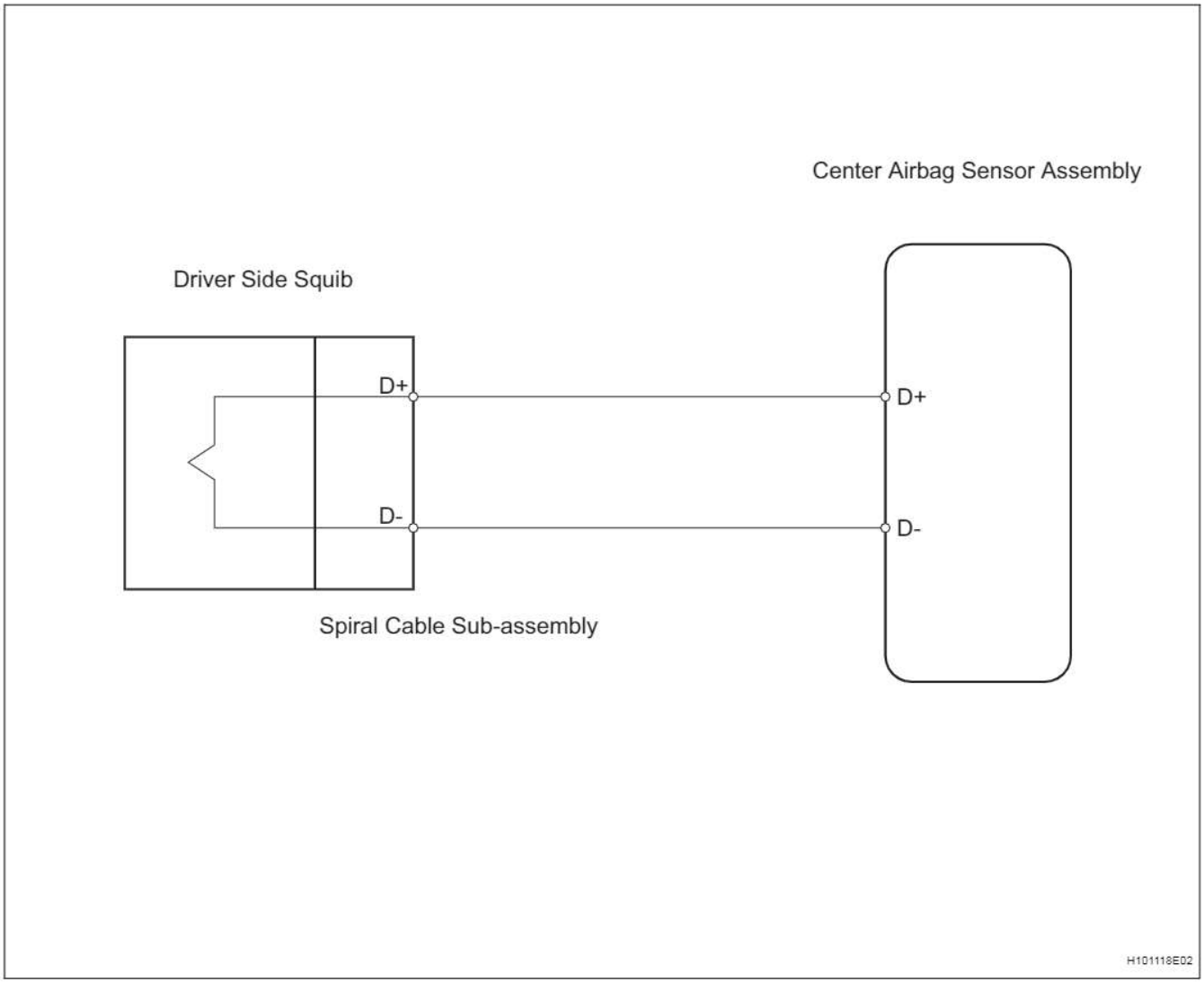
RS

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

DTC B0101/14 is recorded when an open circuit is detected in the driver side squib circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B0101/104 | • Open circuit in D+ wire harness or D- wire harness of driver side squib<br>• Driver side squib malfunction<br>• Spiral cable sub-assembly malfunction<br>• Center airbag sensor assembly | • Steering pad (driver side squib)<br>• Spiral cable sub-assembly<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



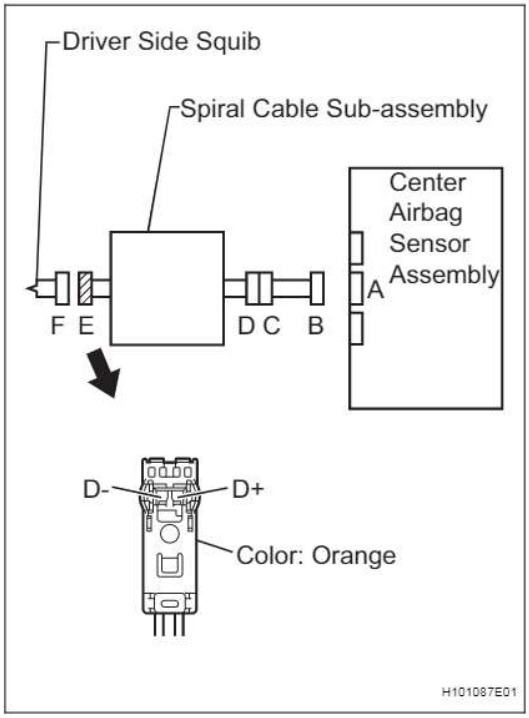
## INSPECTION PROCEDURE

| 1 | CHECK DRIVER SIDE SQUIB CIRCUIT (CENTER AIRBAG SENSOR ASSEMBLY - STEERING PAD) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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 and the steering pad.
(d) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester Connection (Connector "E") | Specified Condition |
|---|---|
| D+ - D- | Below 1 Ω |

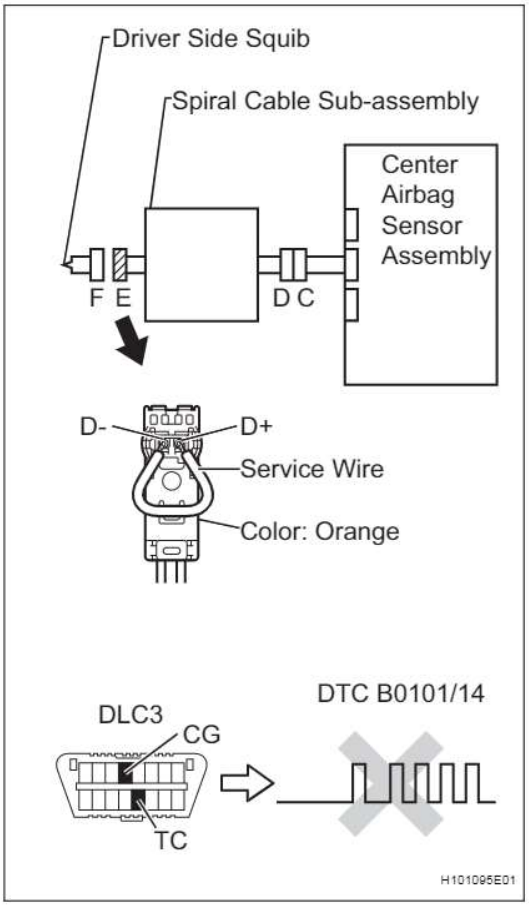



NG → Go to step 4

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

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




(b) Using a service wire, connect terminals D+ and D- of connector "E".

**NOTICE:**

- **Twist the end of the service wire in order to insert to the connector.**
- **Do not forcibly insert the twisted service wire into the terminals of the connector when connecting.**

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

(d) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(e) Clear the stored DTCs in the memory (see page RS-44).

(f) Turn the ignition switch to the LOCK position.

(g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(h) Check the DTCs (see page RS-44).

**OK:**

**DTC B0101/14 is not output.**

HINT:

Codes other than code B0101/14 may be output at this time, but they are not related to this check.

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

| 3 | CHECK STEERING PAD |
|---|---|

(a) Turn the ignition switch to the LOCK position.

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

(c) Disconnect the service wire from the connector "E".

(d) Connect the steering pad connectors.

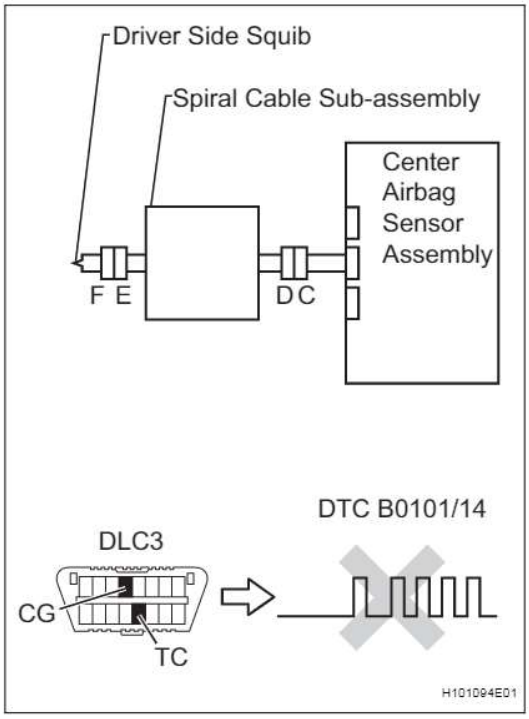
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(g) Clear the stored DTCs in the memory (see page RS-44).

(h) Turn the ignition switch to the LOCK position.

(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(j) Check for the DTCs (see page RS-44).
**OK:**
**DTC B0101/14 is not output.**
HINT:
Codes other than code B0101/14 may be output at this time, but they are not related to this check.

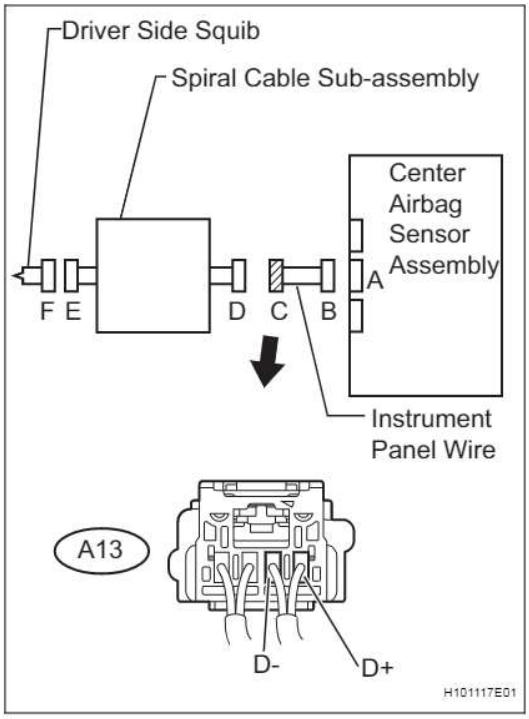
RS

NG → **REPLACE STEERING PAD**

OK

**PROBLEM SYMPTOMS SIMULATION**

| 4 | CHECK INSTRUMENT PANEL WIRE |
|---|---|




(a) Disconnect the instrument panel wire connector from the spiral cable sub-assembly.
(b) Measure the resistance according to the value(s) in the table below.
**Standard resistance**

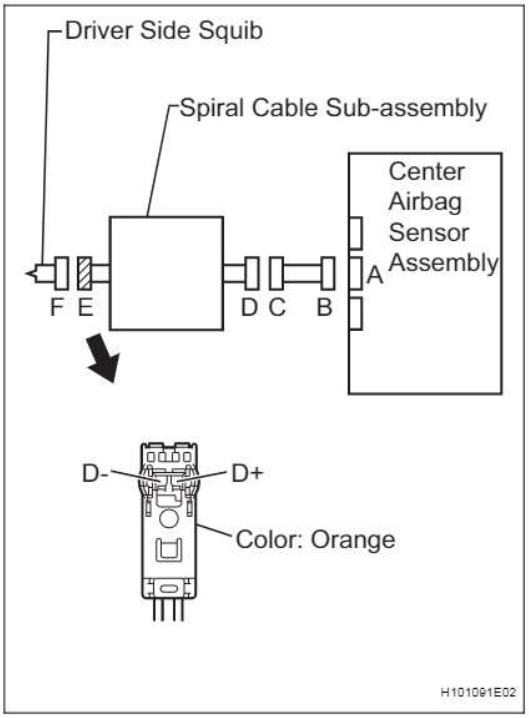
| Tester Connection (Connector "E") | Specified Condition |
|---|---|
| A13-1 (D+) - A13-2 (D-) | Below 1 Ω |

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

OK

| 5 | CHECK SPIRAL CABLE SUB-ASSEMBLY |
|---|---|

RS




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

**Standard resistance**

| Tester Connection (Connector "E") | Specified Condition |
|---|---|
| D+ - D- | Below 1 Ω |

NG → REPLACE SPIRAL CABLE SUB-ASSEMBLY

OK

PROBLEM SYMPTOMS SIMULATION

| DTC | B0102/11 | Short to GND in Driver Side Squib Circuit |
|---|---|---|

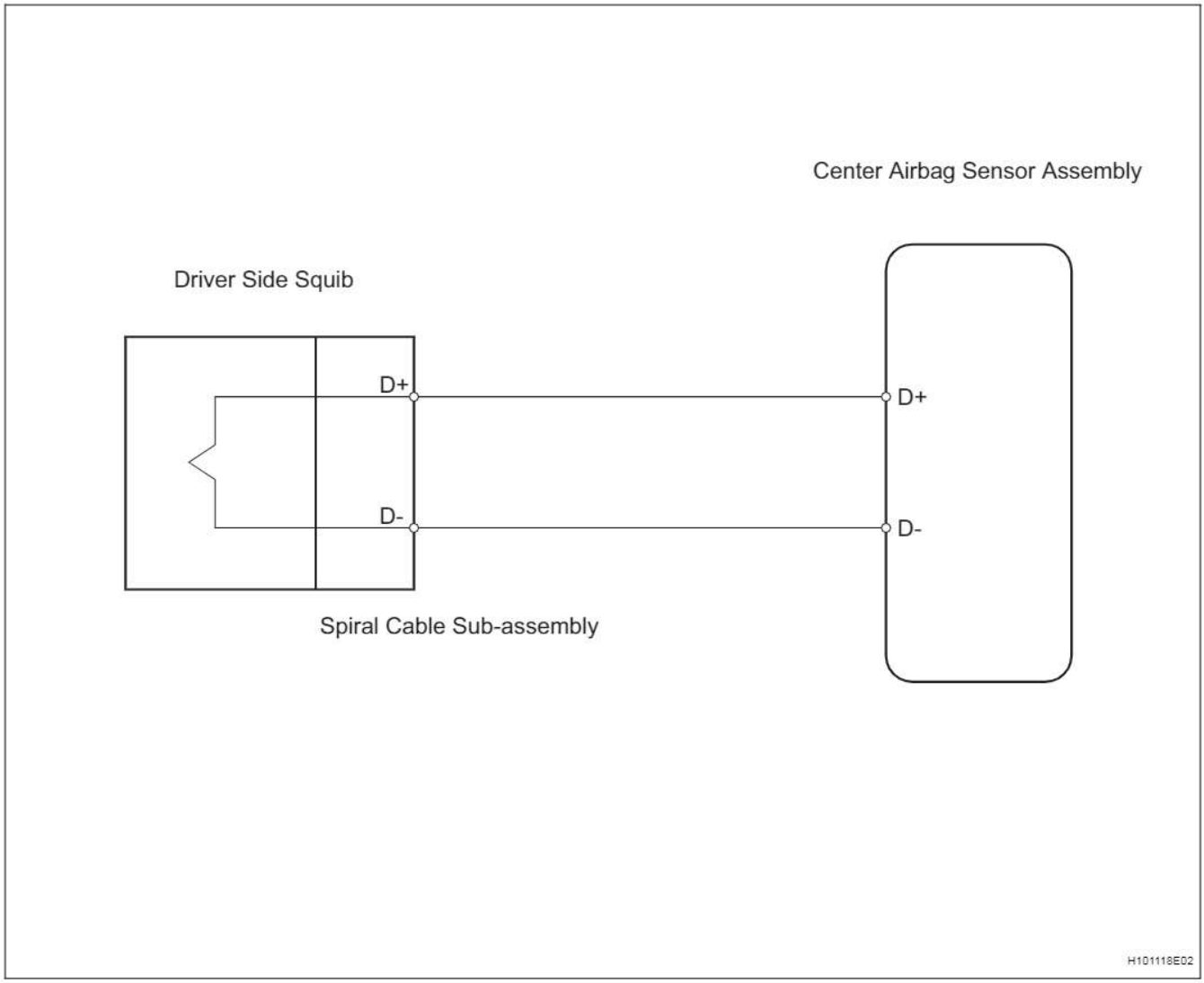
## DESCRIPTION

The driver side squib circuit consists of the center airbag sensor assembly, the spiral cable sub-assembly and the steering pad.
This circuit instructs the SRS to deploy when deployment conditions are met.
DTC B0102/11 is recorded when a short to ground is detected in the driver side squib circuit.



| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B0102/11 | • Short circuit in driver side squib wire harness (to ground)<br>• Driver side squib malfunction<br>• Spiral cable sub-assembly malfunction<br>• Center airbag sensor assembly malfunction | • Steering pad (driver side squib)<br>• Spiral cable sub-assembly<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

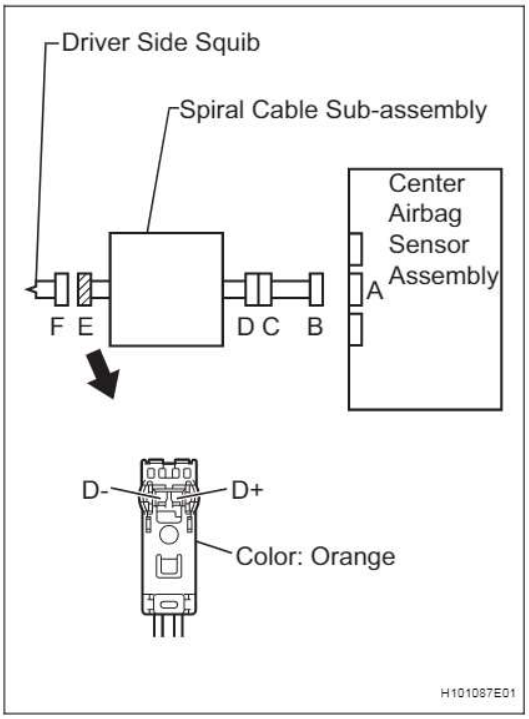
| 1 | CHECK DRIVER SIDE SQUIB CIRCUIT (CENTER AIRBAG SENSOR ASSEMBLY - STEERING PAD) |
|---|---|

RS

(a) Turn the ignition switch to the LOCK position.
(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 and the steering pad.
(d) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester Connection (Connector "E") | Specified Condition |
|---|---|
| D+ - Body ground | 1 MΩ or higher |
| D- - Body ground | |

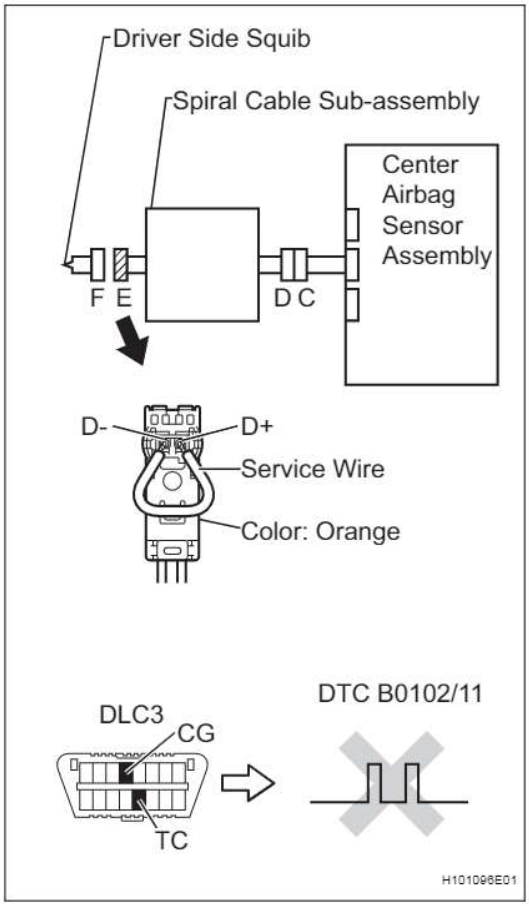



NG → Go to step 4

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

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




(b) Using a service wire, connect terminals D+ and D- of connector "E".

**NOTICE:**

- **Twist the end of the service wire in order to insert to the connector.**
- **Do not forcibly insert the twisted service wire into the terminals of the connector when connecting.**

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

(d) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(e) Clear the stored DTCs in the memory (see page RS-44).

(f) Turn the ignition switch to the LOCK position.

(g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(h) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0102/11 is not output.**

HINT:

Codes other than codes B0102/11 may be output at this time, but they are not related to this check.

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

| 3 | CHECK STEERING PAD (DRIVER SIDE SQUIB) |
|---|---|

(a) Turn the ignition switch to the LOCK position.

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

(c) Disconnect the service wire from the connector "E".

(d) Connect the connectors to the steering pad.

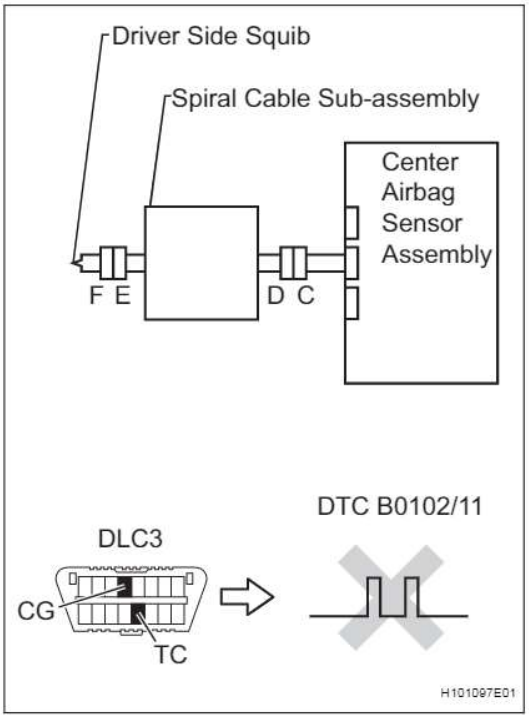
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(g) Clear the stored DTCs in the memory (see page RS-44).

(h) Turn the ignition switch to the LOCK position.

(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.



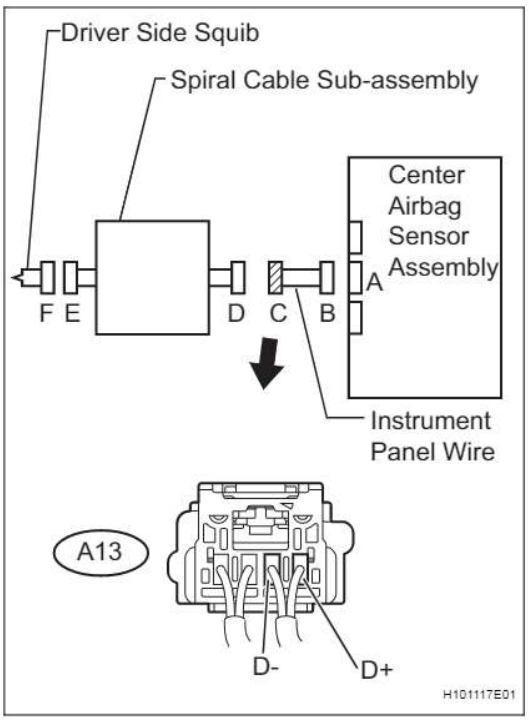

(j) Check for the DTCs (see page RS-44).
**OK:**
**DTC B0102/11 is not output.**
HINT:
Codes other than code B0102/11 may be output at this time, but they are not related to this check.

NG → **REPLACE STEERING PAD**

OK

**PROBLEM SYMPTOMS SIMULATION**

**4 CHECK INSTRUMENT PANEL WIRE**



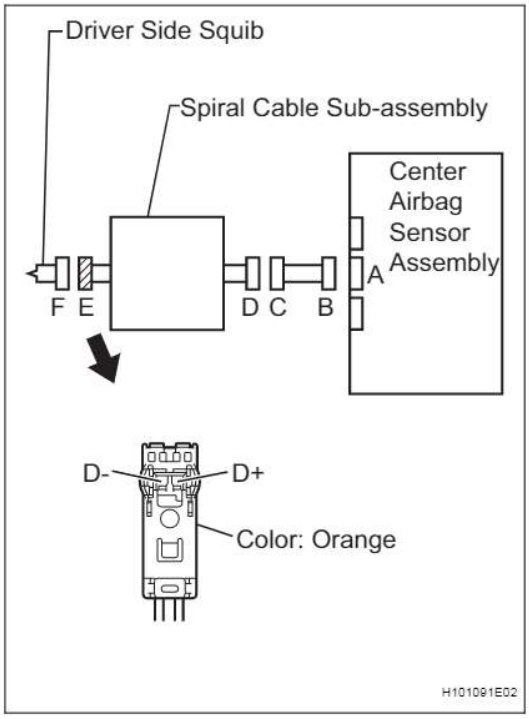

(a) Disconnect the instrument panel wire connector from the spiral cable sub-assembly.
(b) Measure the resistance according to value(s) in the table below.
**Standard resistance**

| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| A13-1 (D+) - Body ground | 1 MΩ or higher |
| A13-2 (D-) - Body ground | |

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

OK

| 5 | CHECK SPIRAL CABLE SUB-ASSEMBLY |
|---|---|




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

**Standard resistance**

| Tester Connection (Connector "E") | Specified Condition |
|---|---|
| D+ - Body ground | 1 MΩ or higher |
| D- - Body ground | |

NG → REPLACE SPIRAL CABLE SUB-ASSEMBLY

OK

PROBLEM SYMPTOMS SIMULATION

| DTC | B0103/12 | Short to B+ in Driver Side Squib Circuit |
|---|---|---|

## DESCRIPTION

The driver side squib circuit consists of the center airbag sensor assembly, the spiral cable sub-assembly and the steering pad.

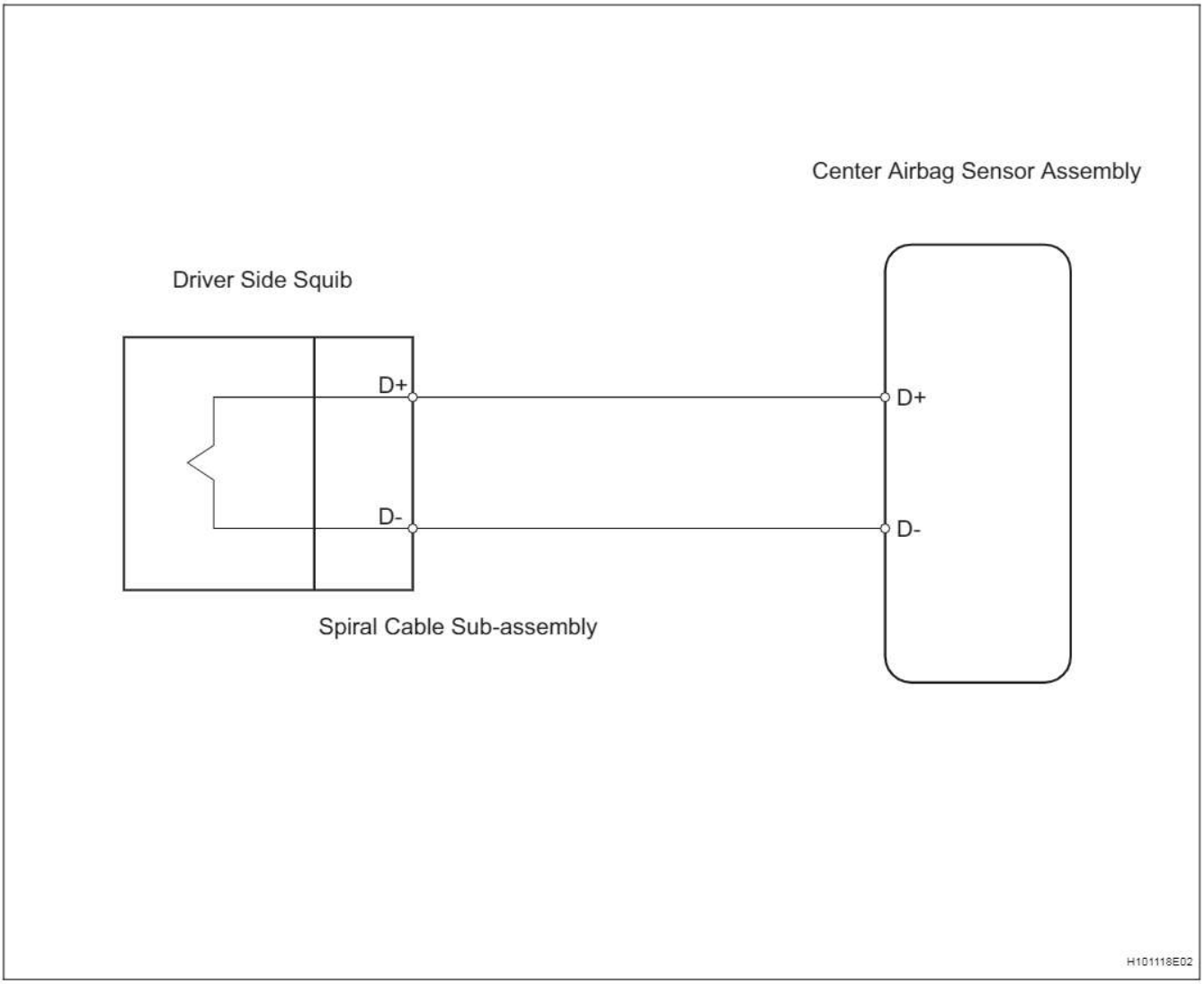
RS

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

DTC B0103/12 is recorded when a short to B+ is detected in the driver side squib.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B0103/12 | • Short circuit in driver squib wire harness (to B+)<br>• Driver side squib malfunction<br>• Spiral cable sub-assembly malfunction<br>• Center airbag sensor assembly malfunction | • Steering pad (driver squib)<br>• Spiral cable sub-assembly<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



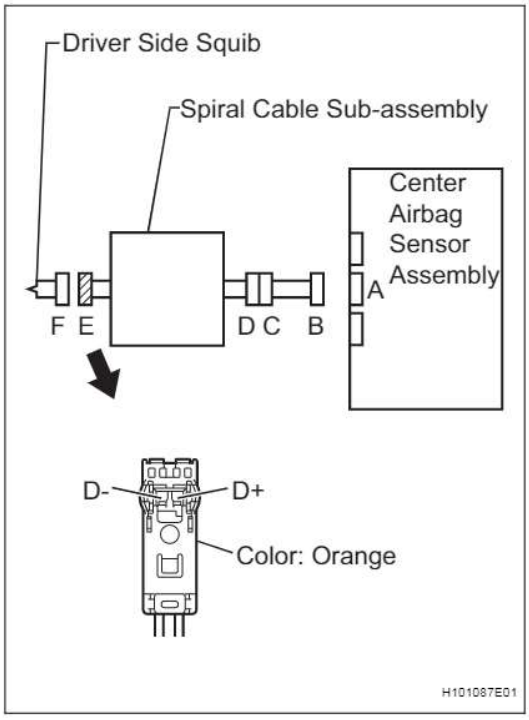
## INSPECTION PROCEDURE

| 1 | CHECK DRIVER SIDE SQUIB CIRCUIT (CENTER AIRBAG SENSOR ASSEMBLY - STEERING PAD) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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 and the steering pad.
(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 (Connector "E") | Condition | Specified Condition |
|---|---|---|
| D+ - Body ground | Ignition switch ON | Below 1 V |
| D- - Body ground | | |

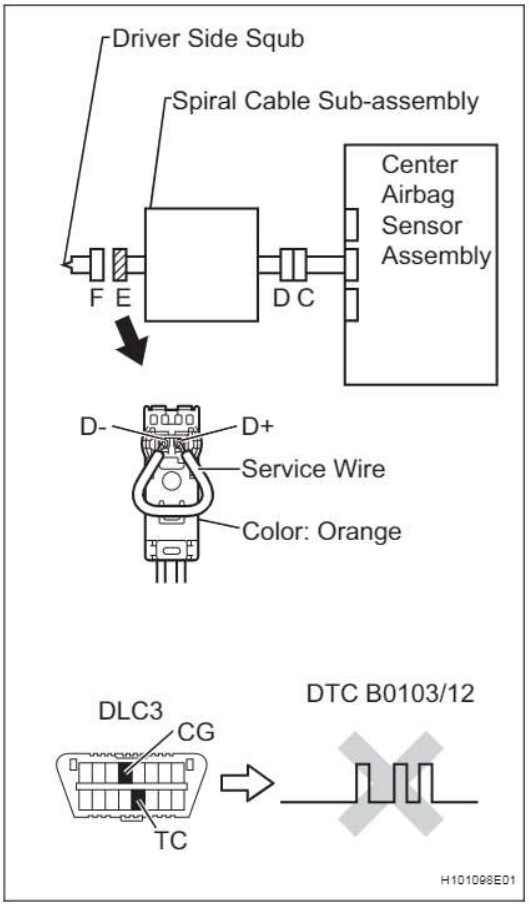



NG → Go to step 4

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at lest 90 seconds.
(c) Connect the connector to the center airbag sensor assembly.




(d) Using a service wire, connect terminals D+ and D- of connector "E".

**NOTICE:**

- **Twist the end of the service wire in order to insert to the connector.**
- **Do not forcibly insert the twisted service wire into the terminals of the connector when connecting.**

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

(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(g) Clear the stored DTCs in the memory (see page RS-44).

(h) Turn the ignition switch to the LOCK position.

(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(j) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0103/12 is not output.**

HINT:

Codes other than code B0103/12 may be output at this time, but they are not related to this check.

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

| 3 | CHECK STEERING PAD (DRIVER SIDE SQUIB) |
|---|---|

(a) Turn the ignition switch to the LOCK position.

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

(c) Disconnect the service wire from the connector "E".

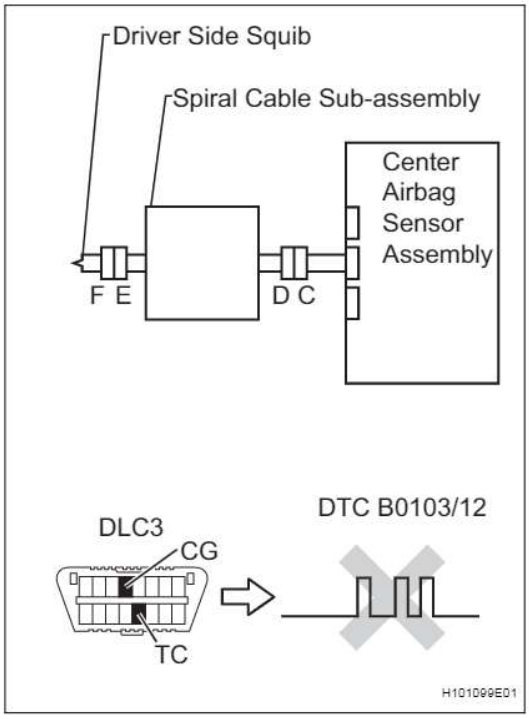
(d) Connect the connectors to the steering pad.

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

(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(g) Clear the stored DTCs in the memory.

(h) Turn the ignition switch to the LOCK position.




(i) Check for the DTCs (see page RS-44).
**OK:**
**B0103/12 is not output.**
HINT:
Codes other than code B0103/12 may be output at this time, but they are not related to this check.

RS

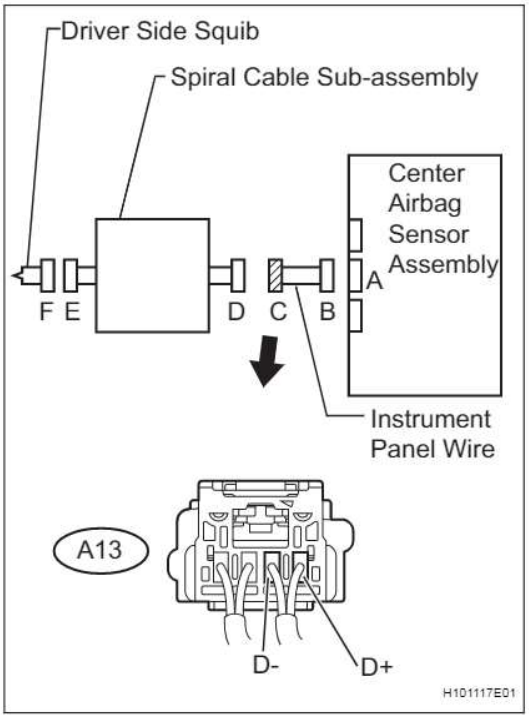
NG → **REPLACE STEERING PAD**

OK

**PROBLEM SYMPTOMS SIMULATION**

| 4 | CHECK INSTRUMENT PANEL WIRE |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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 spiral cable sub-assembly.
(d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.




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

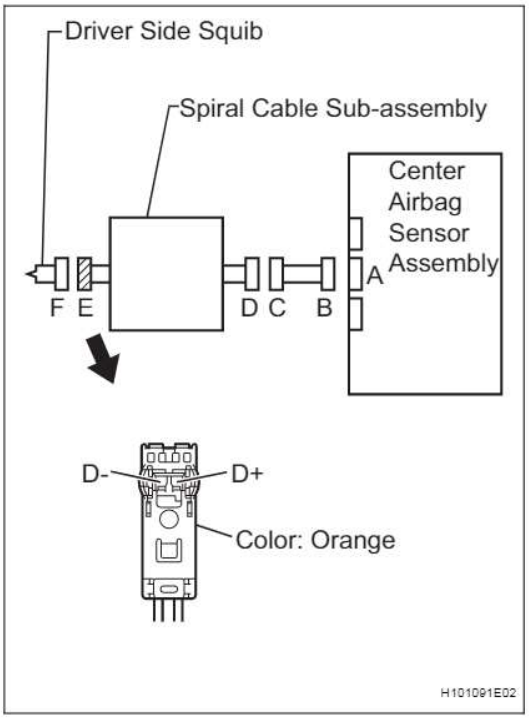
**Standard voltage**

| Tester Connection (Connector "C") | Condition | Specified Condition |
|---|---|---|
| A13-1 (D+) - Body ground | Ignition switch ON | Below 1 V |
| A13-2 (D-) - Body ground | | |

NG → REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

## 5 CHECK SPIRAL CABLE SUB-ASSEMBLY




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

**Standard voltage**

| Tester Connection (Connector "E") | Condition | Specified Condition |
|---|---|---|
| D+ - Body ground | Ignition switch ON | Below 1 V |
| D- - Body ground | | |

NG → REPLACE SPIRAL CABLE SUB-ASSEMBLY

OK

## PROBLEM SYMPTOMS SIMULATION

| DTC | B0105/53 | Short in Front Passenger Side Squib Circuit |
|---|---|---|

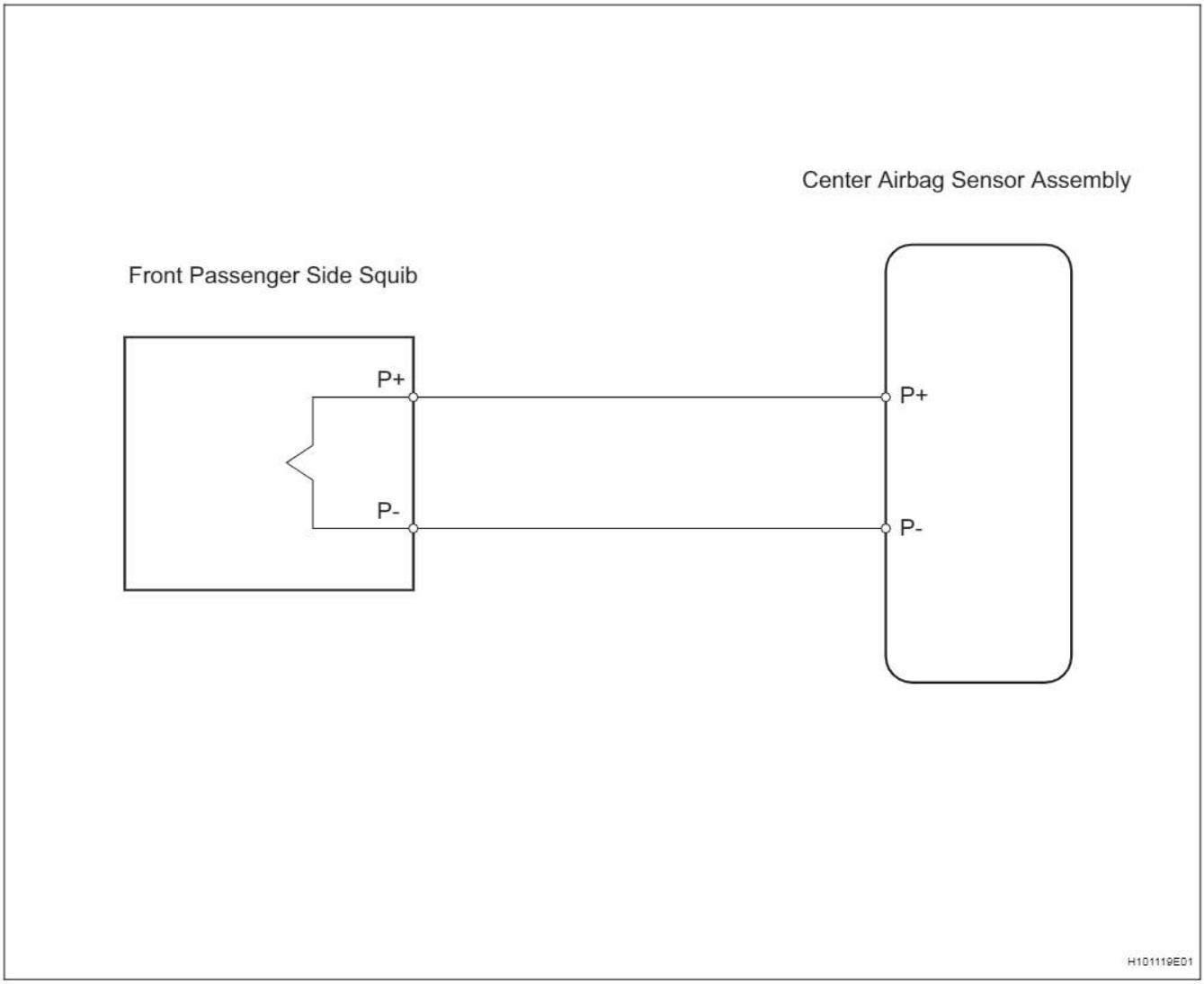
## DESCRIPTION

The front passenger side squib circuit consists of the center airbag sensor assembly and the front passenger airbag assembly.
This circuit instructs the SRS to deploy when deployment conditions are met.
DTC B0105/53 is recorded when a short circuit is detected in the front passenger side squib circuit.



| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B0105/53 | • Short circuit between P+ wire harness and P- wire harness of front passenger side squib<br>• Front passenger side squib malfunction<br>• Center airbag sensor assembly malfunction | • Front passenger airbag assembly (front passenger side squib)<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

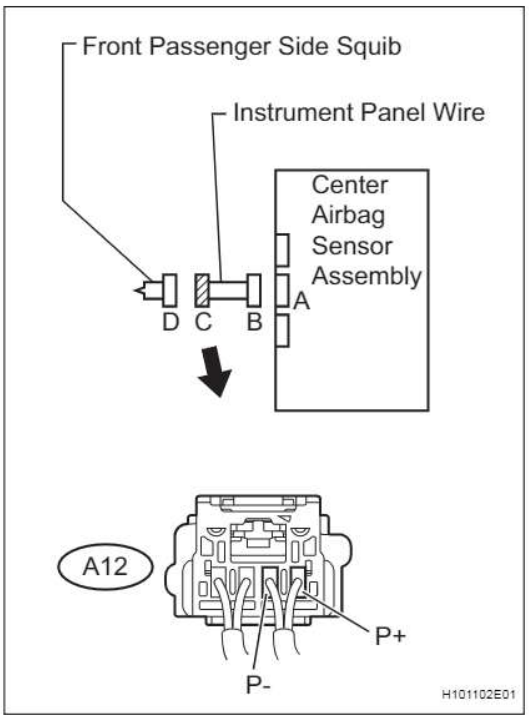
| 1 | CHECK INSTRUMENT PANEL WIRE (FRONT PASSENGER SIDE SQUIB CIRCUIT) |
|---|---|

RS

(a) Turn the ignition switch to the LOCK position.
(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 and the front passenger airbag assembly.
(d) Release the activation prevention mechanism built into connector "B" (see page RS-25).
(e) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| A12-1 (P+) - A12-2 (P-) | 1 MΩ or higher |

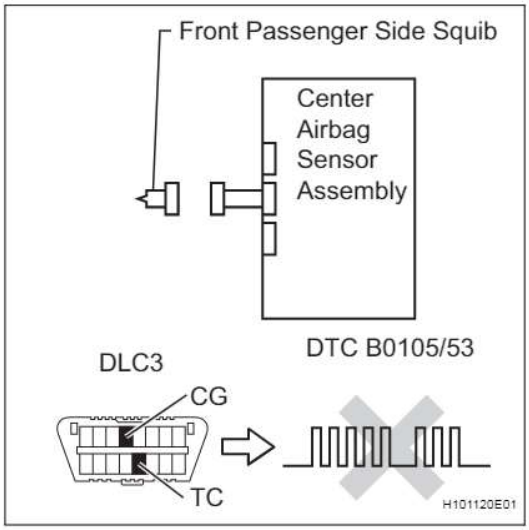



NG → **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

(a) Connect the connector 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 to the ON position, and wait for at least 60 seconds.
(d) Clear the stored DTCs in the memory (see page RS-44).
(e) Turn the ignition switch to the LOCK position.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(g) Check for the DTCs (see page RS-44).
**OK:**
**DTC B0105/53 is not output.**
HINT:
Codes other than code B0105/53 may be output at this time, but they are not related to this check.

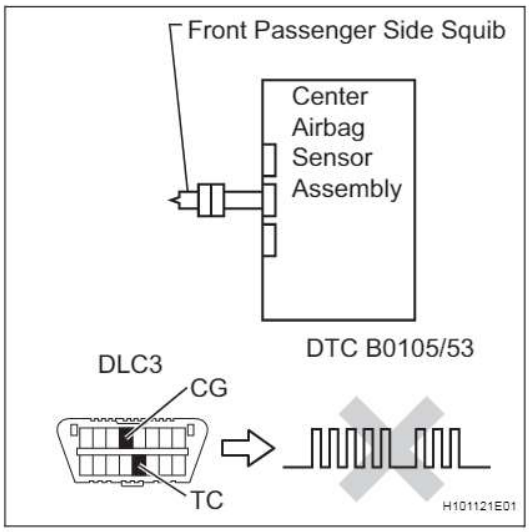
RS

NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

| 3 | CHECK FRONT PASSENGER AIRBAG ASSEMBLY (FRONT PASSENGER SIDE SQUIB) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Connect the connector to the front passenger airbag assembly.
(d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(e) Clear the stored DTCs in the memory (see page RS-44).
(f) Turn the ignition switch to the LOCK position.
(g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(h) Check for the DTCs (see page RS-44).
**OK:**
**DTC B0105/53 is not output.**
HINT:
Codes other than code B0105/53 may be output at this time, but they are not related to this check.




NG → **REPLACE FRONT PASSENGER AIRBAG ASSEMBLY**

OK

**PROBLEM SYMPTOMS SIMULATION**

| DTC | B0106/54 | Open in Front Passenger Side Squib Circuit |
|---|---|---|

## DESCRIPTION

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

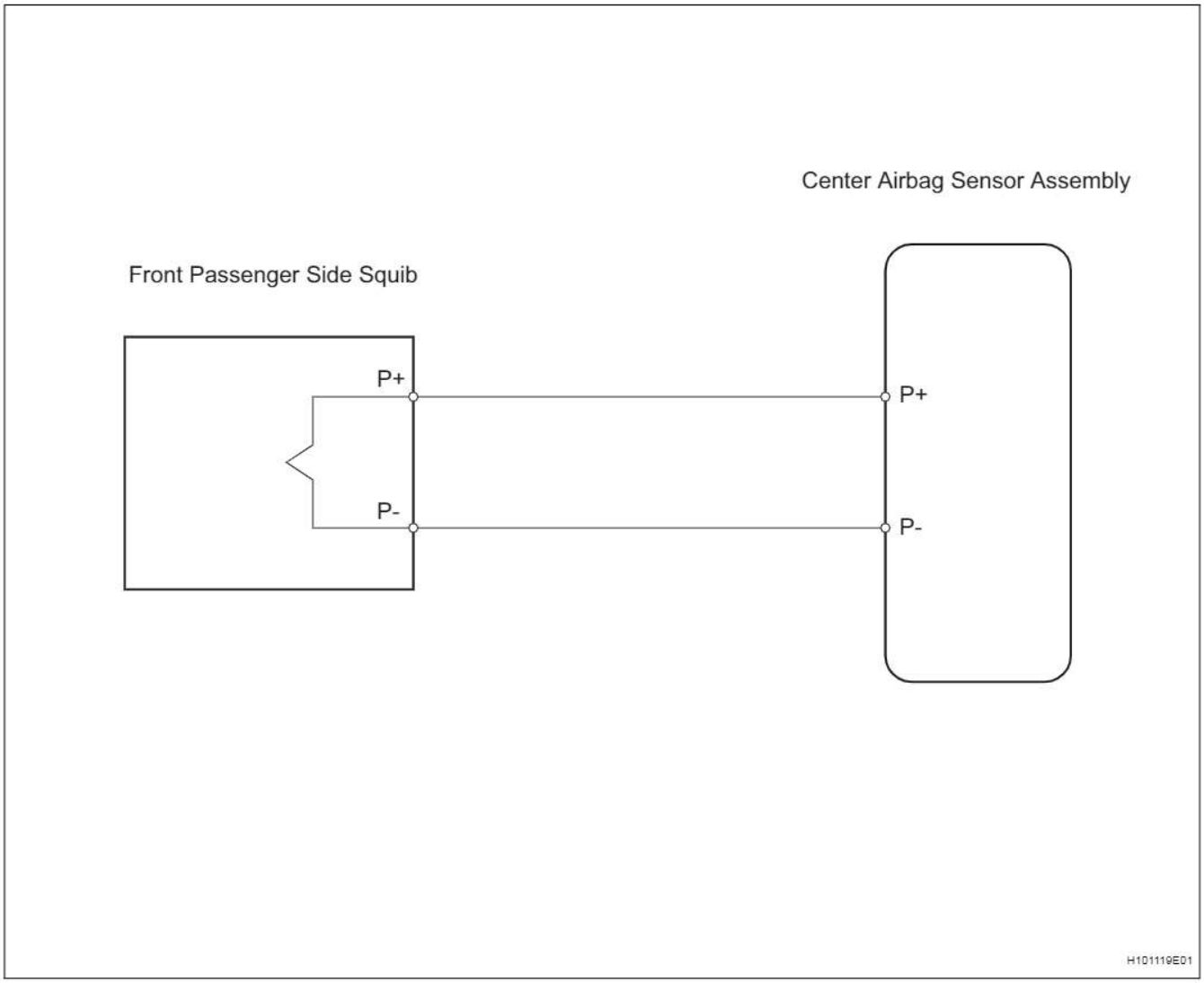
RS

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

DTC B0106/54 is recorded when an open circuit is detected in the front passenger side squib circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B0106/54 | • Open circuit in P+ wire harness or P- wire harness of front passenger side squib<br>• Front passenger side squib<br>• Center airbag sensor assembly circuit | • Front passenger airbag assembly (front passenger side squib)<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



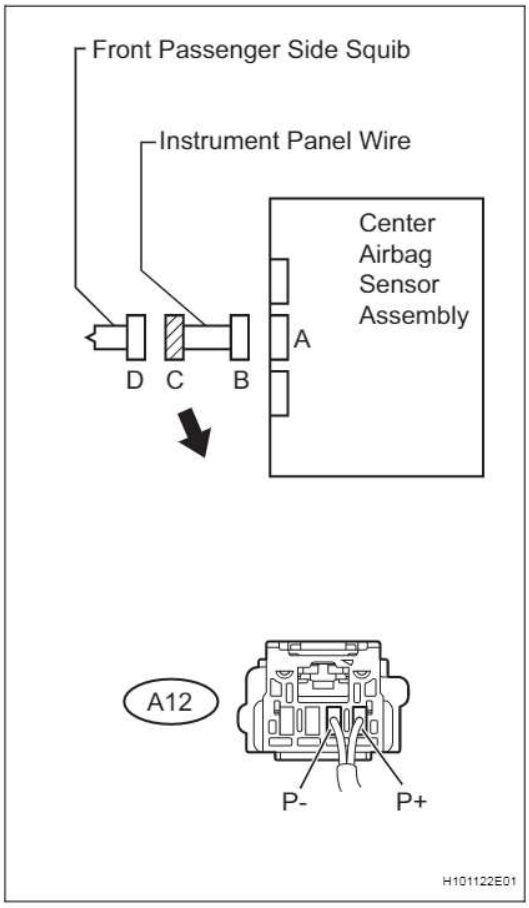
## INSPECTION PROCEDURE

| 1 | CHECK INSTRUMENT PANEL WIRE (FRONT PASSENGER SIDE SQUIB CIRCUIT) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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 and the front passenger airbag assembly.
(d) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| A12-1 (P+) - A12-2 (P-) | Below 1 Ω |

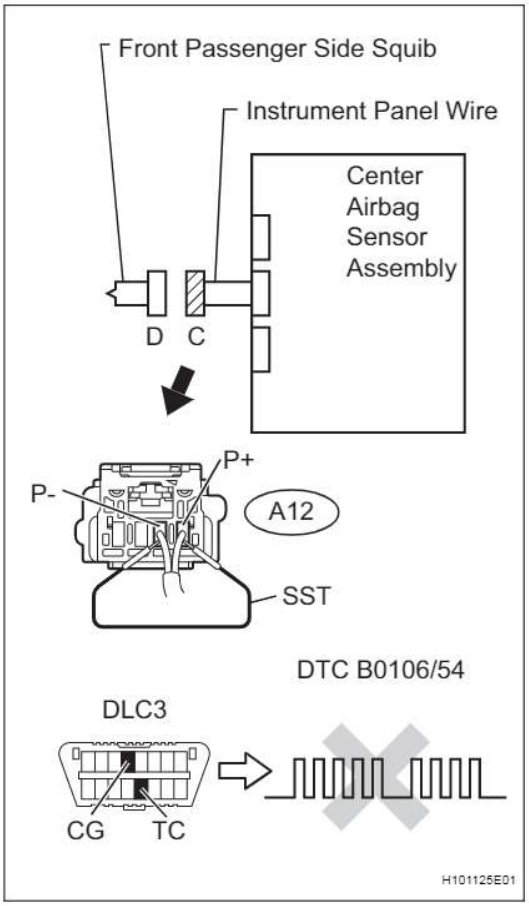



NG → REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

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




(b) Using SST, connect terminals P+ and P- of connector "C".
**SST 09843-18040**

**NOTICE:**
**Do not forcibly insert SST into the terminals of the connector when connecting.**

(c) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(d) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(e) Clear the stored DTCs in the memory (see page RS-44).
(f) Turn the ignition switch to the LOCK position.
(g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(h) Check for the DTCs (see page RS-44).

**OK:**
**DTC B0106/54 is not output.**

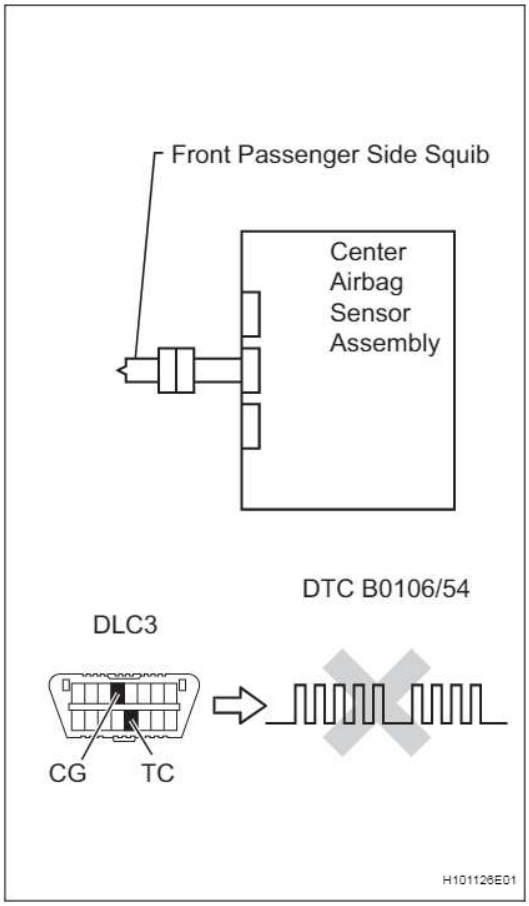
HINT:
Codes other than code B0106/54 may be output at this time, but they are not related to this check.

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

| 3 | CHECK FRONT PASSENGER AIRBAG ASSEMBLY (FRONT PASSENGER SIDE SQUIB) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Disconnect the SST from the connector "C".
(d) Connect the connector to the front passenger airbag assembly.
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Clear the stored DTCs in the memory (see page RS-44).
(h) Turn the ignition switch to the LOCK position.
(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(j) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0106/54 is not output.**

HINT:

Codes other than code B0106/54 may be output at this time, but they are not related to this check.

RS

NG → **REPLACE FRONT PASSENGER AIRBAG ASSEMBLY**

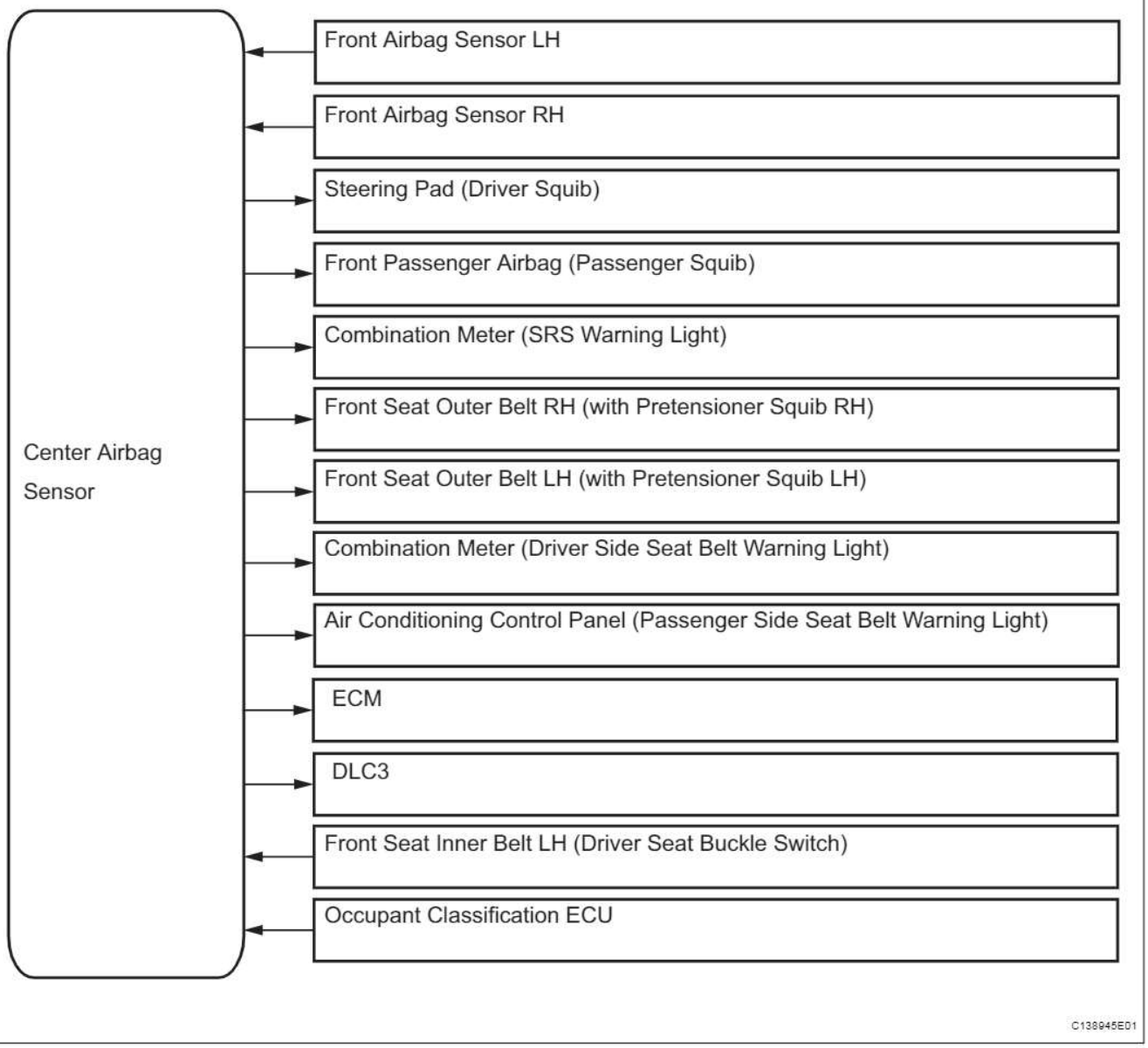
OK

**PROBLEM SYMPTOMS SIMULATION**

# SYSTEM DIAGRAM

(2005/12- )

RS



# SYSTEM DESCRIPTION

(2005/07-2005/12)

## 1. SUPPLEMENTAL RESTRAINT SYSTEM

(a) In the Supplemental Restraint System, the center airbag sensor assembly installed on the floor under the A/C unit determines whether or not to deploy the SRS airbag, and activates the seat belt pretensioner by receiving the information signal of the collision impact from each sensor. The driver airbag and front passenger airbag deploy in the 2nd step. The center airbag sensor assembly controls the 2nd step deployment of the airbags around the driver's seat according to the collision impact force, seat position and seat belt ON / OFF. The center airbag sensor assembly controls the 2nd step of the airbags around the passenger seat according to the collision impact force, seat position and seat belt ON / OFF. When the system has trouble, the SRS warning light on the combination meter assembly comes on and blinks to inform the driver of the trouble.

| DTC | B0107/51 | Short to GND in Front Passenger Side Squib Circuit |
|---|---|---|

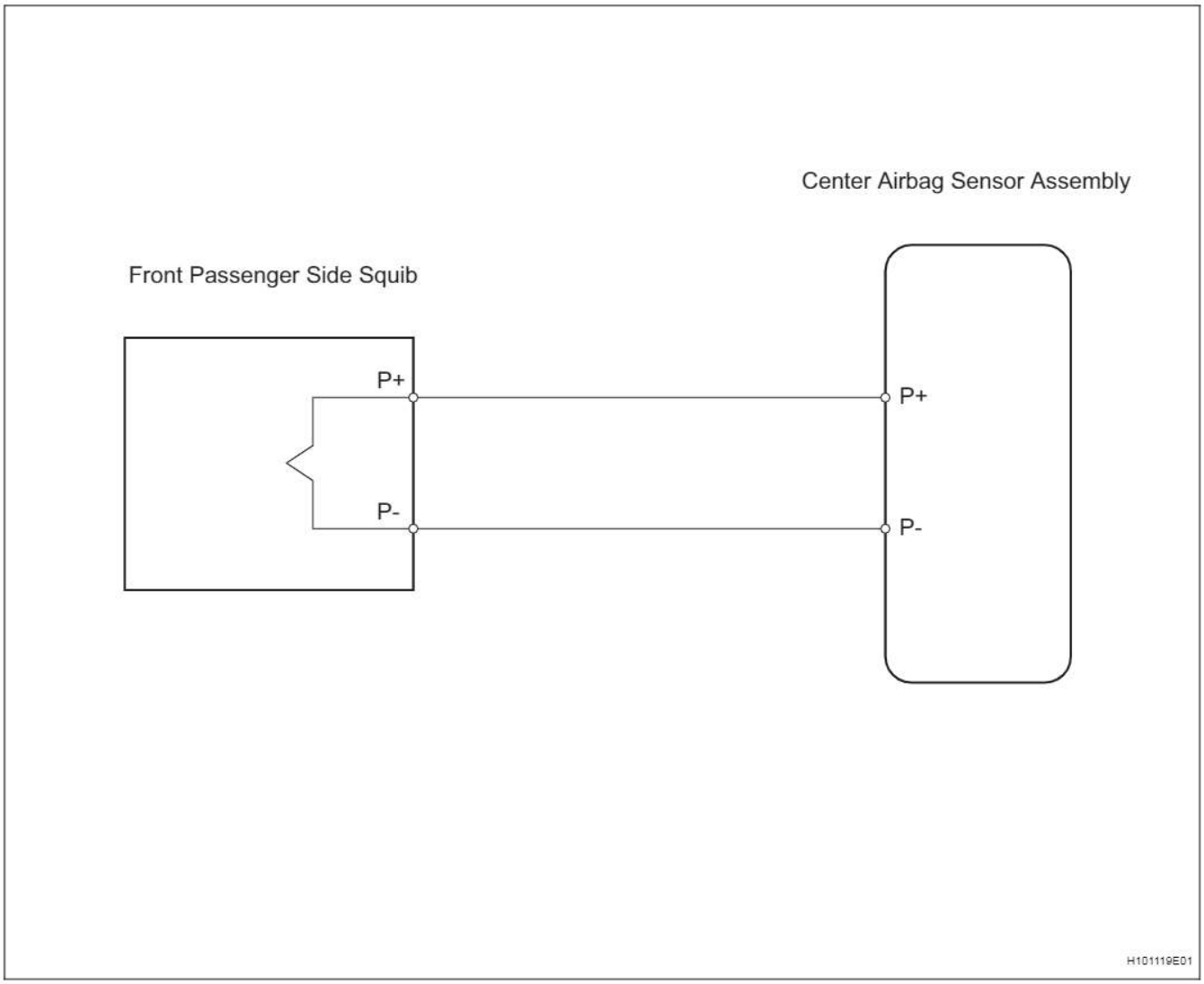
## DESCRIPTION

RS

The front passenger side squib circuit consists of the center airbag sensor assembly and the front passenger airbag assembly.
This circuit instructs the SRS to deploy when deployment conditions are met.
DTC B0107/51 is recorded when a short to ground is detected in the front passenger side squib circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B0107/51 | • Short circuit in front passenger squib wire harness (to +B)<br>• Front passenger side squib malfunction<br>• Center airbag sensor assembly malfunction | • Front passenger airbag assembly (front passenger side squib)<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



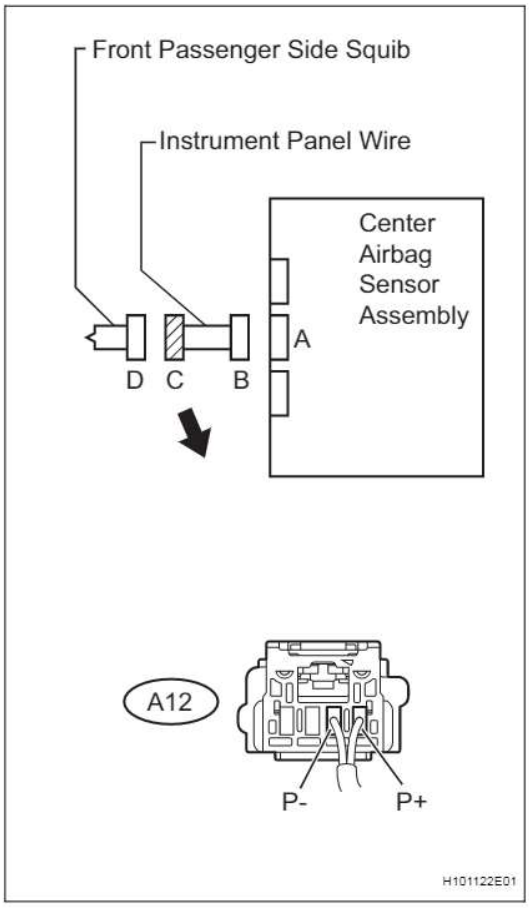
## INSPECTION PROCEDURE

| 1 | CHECK INSTRUMENT PANEL WIRE (FRONT PASSENGER SIDE SQUIB CIRCUIT) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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 and the front passenger airbag assembly.
(d) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| A12-1 (P+) - Body ground | 1 MΩ or higher |
| A12-2 (P-) - Body ground | |

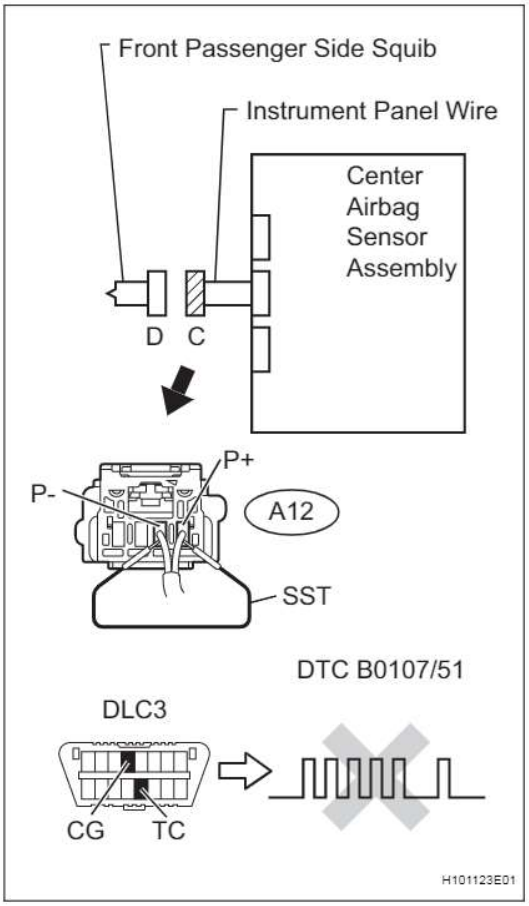



NG → REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

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




(b) Using SST, connect terminals P+ and P- of connector "C".
**SST 09843-18030**

**NOTICE:**
**Do not forcibly insert SST into the terminals of the connector when connecting.**

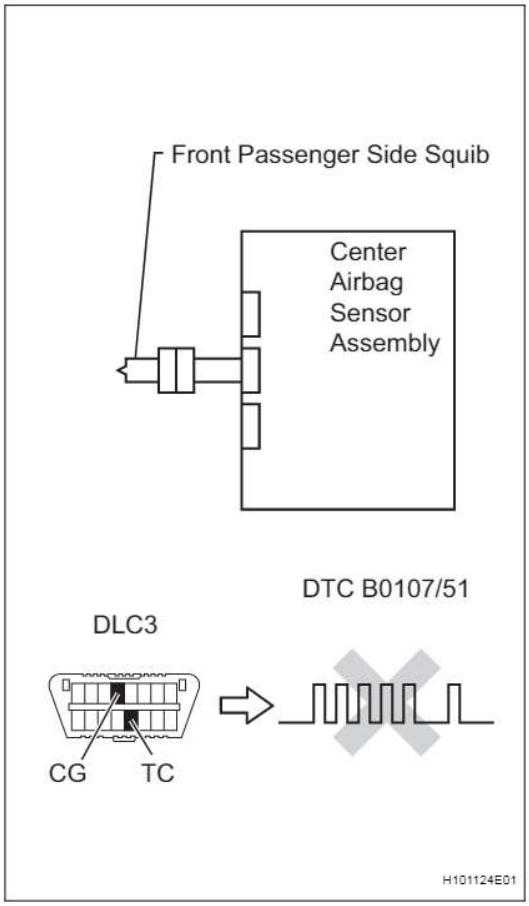
(c) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(d) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(e) Clear the stored DTCs in the memory (see page RS-44).
(f) Turn the ignition switch to the LOCK position.
(g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(h) Check for the DTCs (see page RS-44).
**OK:**
**DTC B0107/51 is not output.**
HINT:
Codes other than code B0107/51 may be output at this time, but they are not related to this check.

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

| 3 | CHECK FRONT PASSENGER AIRBAG ASSEMBLY |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Disconnect the SST from the connector "C".
(d) Connect the connector to the front passenger airbag assembly.
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Clear the stored DTCs in the memory (see page RS-44).
(h) Turn the ignition switch to the LOCK position.
(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(j) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0107/51 is not output.**

HINT:

Codes other than code B0107/51 may be output at this time, but they are not related to this check.

RS

NG → **REPLACE FRONT PASSENGER AIRBAG ASSEMBLY**

OK

**PROBLEM SYMPTOMS SIMULATION**

| DTC | B0108/52 | Short to B+ in Front Passenger Side Squib Circuit |
|---|---|---|

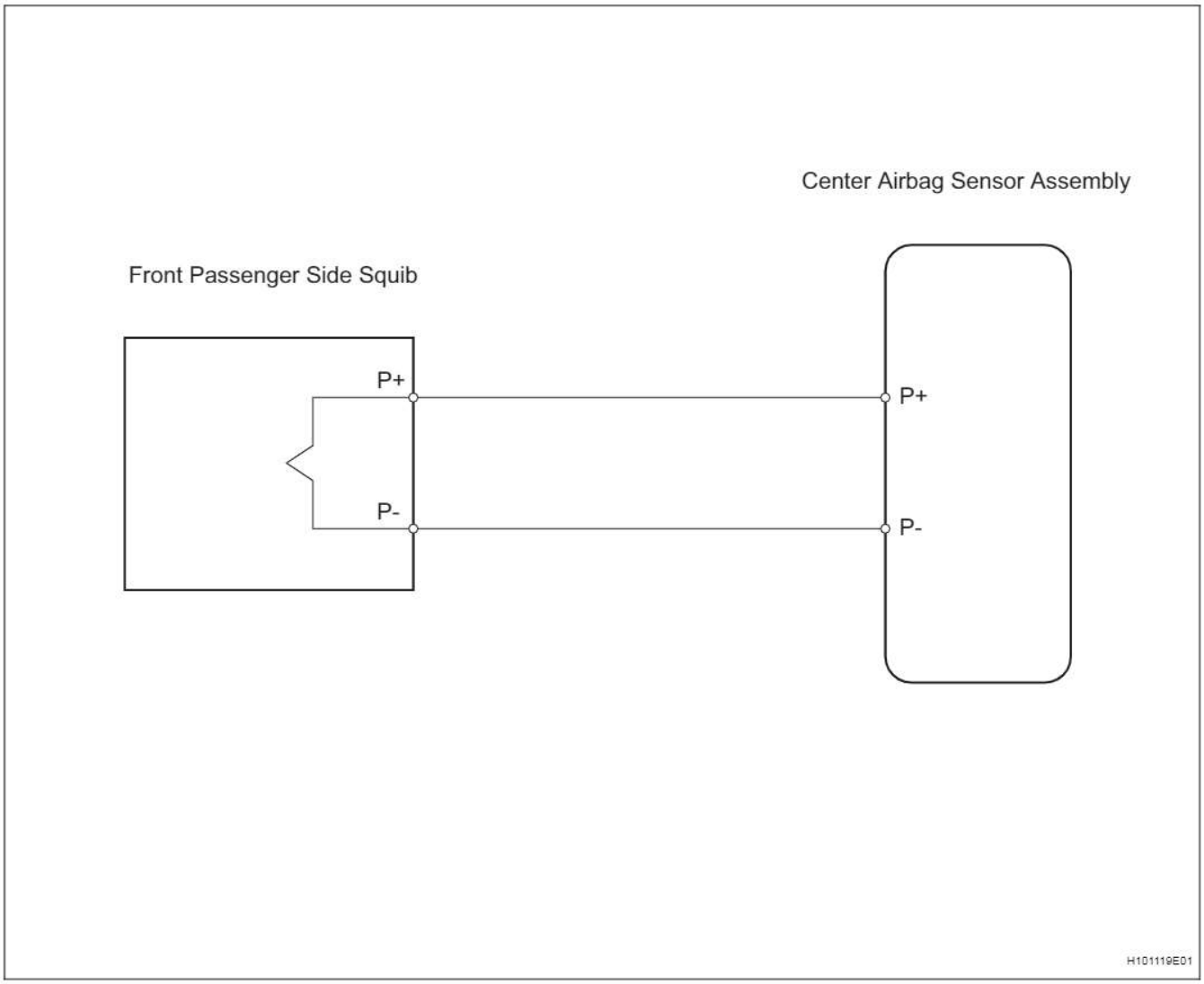
## DESCRIPTION

RS

The front passenger side squib consists of the center airbag sensor assembly and the front passenger airbag assembly.
This circuit instructs the SRS to deploy when deployment conditions are met.
DTC B0108/52 is recorded when a short to B+ is detected in the front passenger side squib circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B0108/52 | • Short circuit in front passenger side squib wire harness (to B+)<br>• Front passenger side squib malfunction<br>• Center airbag sensor assembly malfunction | • Front passenger airbag assembly (front passenger side squib)<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



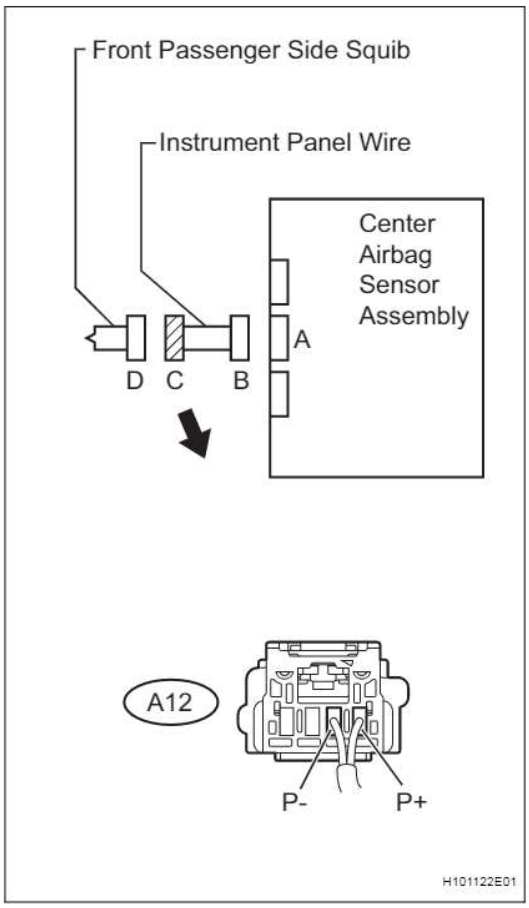
## INSPECTION PROCEDURE

| 1 | CHECK INSTRUMENT PANEL WIRE (FRONT PASSENGER SIDE SQUIB CIRCUIT) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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 and the front passenger airbag assembly.
(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 (Connector "C") | Condition | Specified Condition |
|---|---|---|
| A12-1 (P+) - Body ground | Ignition switch ON | Below 1 V |
| A12-2 (P-) - Body ground | | |



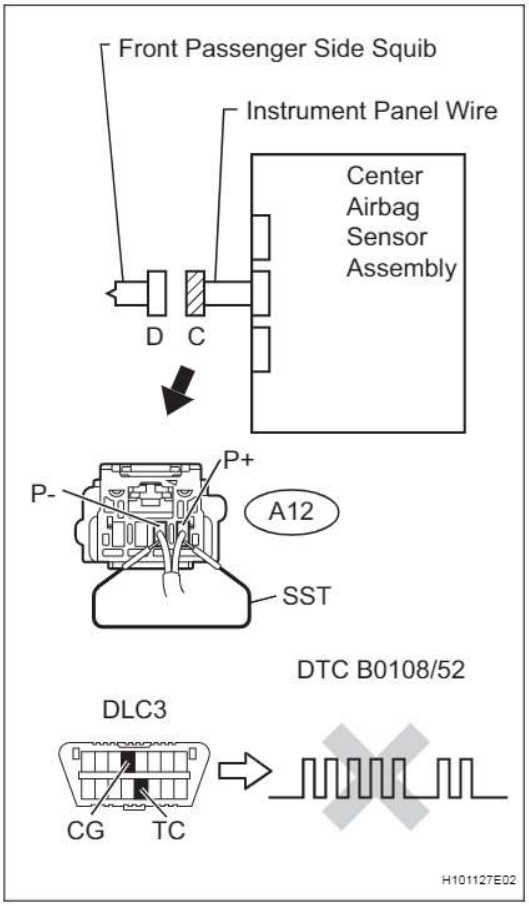

NG → **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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.

RS




(d) Using SST, connect the terminals P+ and P- of connector "C".
**SST 09843-18040**

**NOTICE:**
**Do not forcibly insert SST into the terminals of the connector when connecting.**

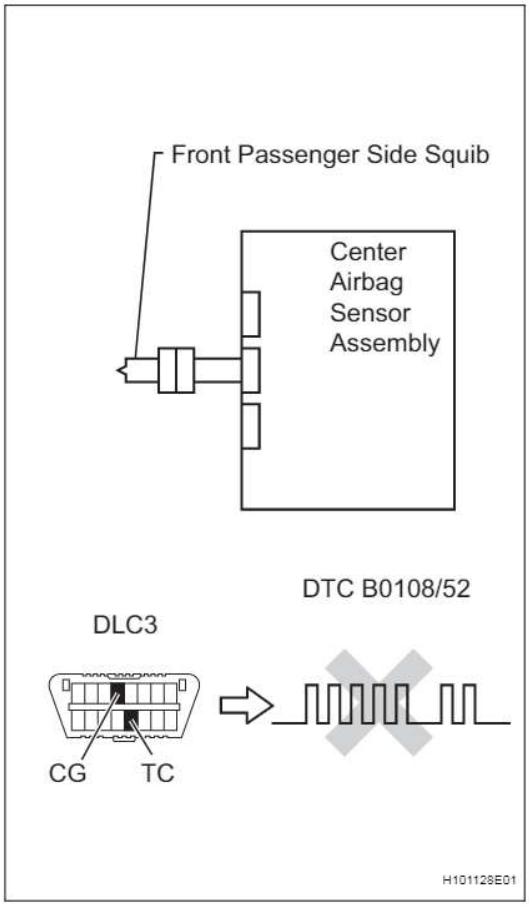
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Clear the stored DTCs in the memory (see page RS-44).
(h) Turn the ignition switch to the LOCK position.
(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(j) Check for the DTCs (see page RS-44).
**OK:**
**DTC B0108/52 is not output.**
HINT:
Codes other than code B0108/52 may be output at this time, but they are not related to this check.

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

| 3 | CHECK FRONT PASSENGER AIRBAG ASSEMBLY |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Disconnect the SST from the connector "C".
(d) Connect the connector to the front passenger airbag assembly.
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Clear the stored DTCs in the memory (see page RS-44).
(h) Turn the ignition switch to the LOCK position.
(i) Turn the ignition switch to the ON position, and wait at least 60 seconds.




(j) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0108/52 is not output.**

HINT:

Codes other than code B0108/52 may be output at this time, but they are not related to this check.

RS

NG → **REPLACE FRONT PASSENGER AIRBAG ASSEMBLY**

OK

**PROBLEM SYMPTOMS SIMULATION**

RS

# OCCUPANT CLASSIFICATION SYSTEM

## PRECAUTION

**1. INSPECTION PROCEDURE FOR VEHICLE INVOLVED IN ACCIDENT**

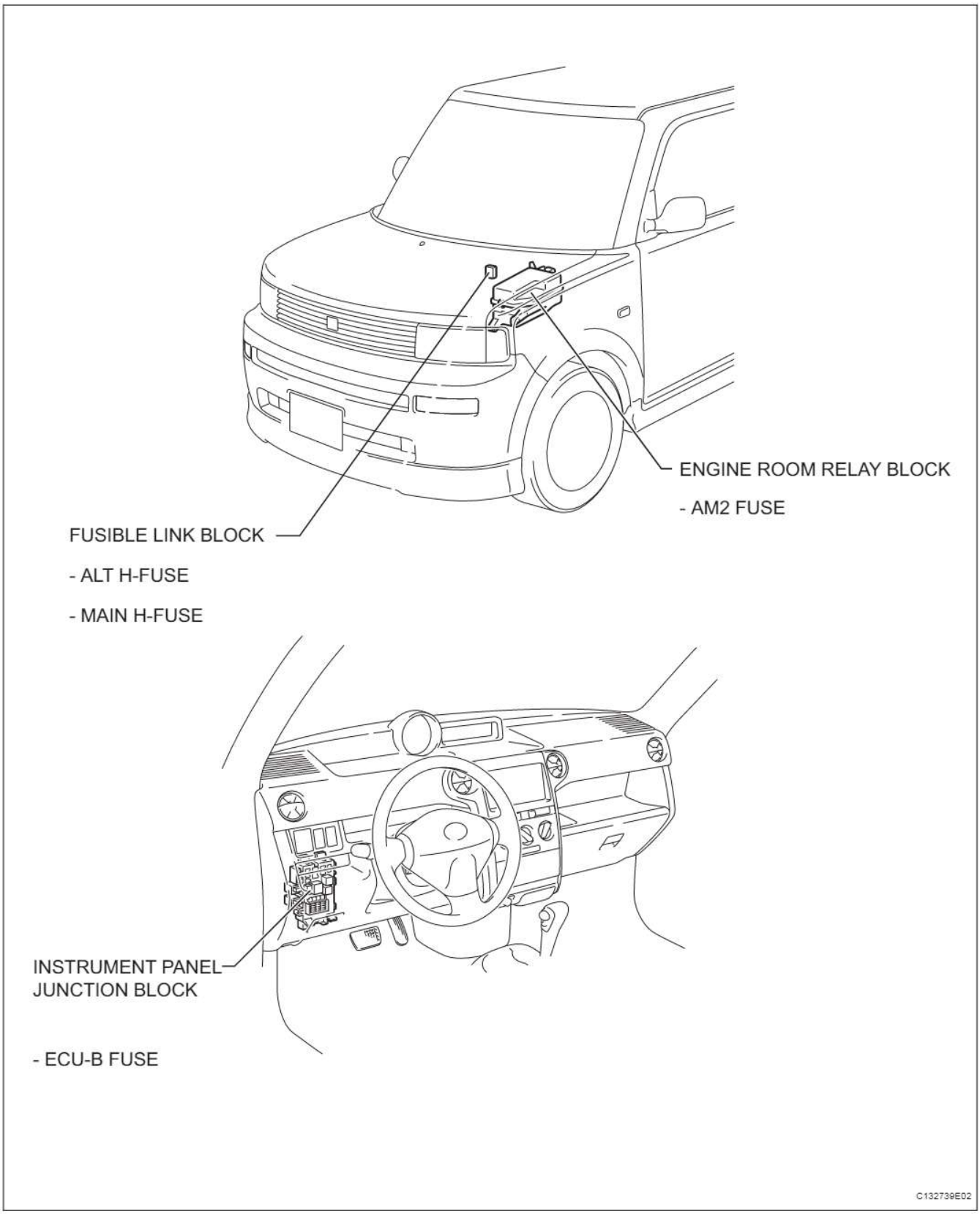
(a) Perform zero point calibration and the sensitivity check if any of the following conditions occur.

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

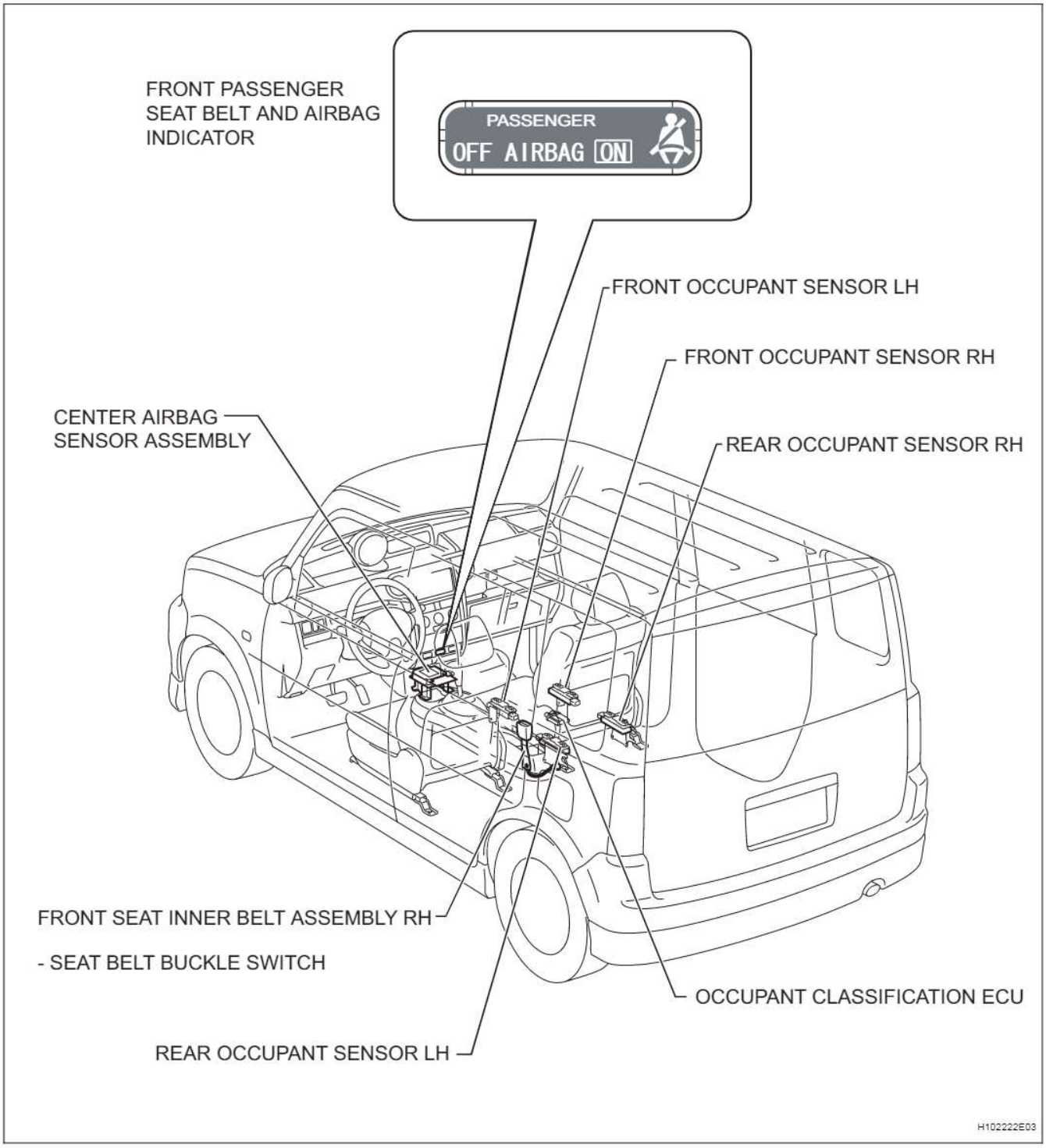
**NOTICE:**

**When a vehicle which has been in an accident 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.**

# PARTS LOCATION



RS


FRONT PASSENGER SEAT BELT AND AIRBAG INDICATOR
PASSENGER
OFF AIRBAG ON
FRONT OCCUPANT SENSOR LH
FRONT OCCUPANT SENSOR RH
CENTER AIRBAG SENSOR ASSEMBLY
REAR OCCUPANT SENSOR RH
FRONT SEAT INNER BELT ASSEMBLY RH
- SEAT BELT BUCKLE SWITCH
OCCUPANT CLASSIFICATION ECU
REAR OCCUPANT SENSOR LH
H102222E03

| DTC | B0121/26 | Seat Belt Buckle Switch RH Circuit Malfunction |
|---|---|---|

## DESCRIPTION

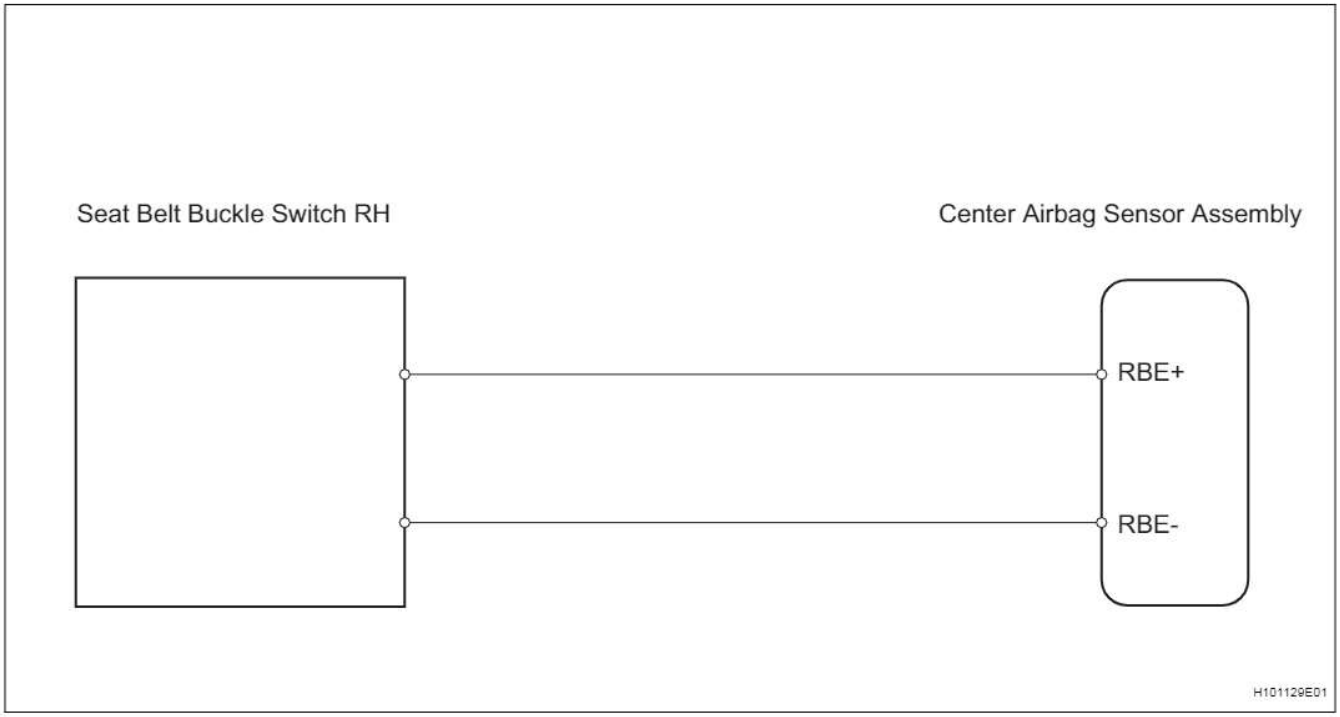
The seat belt buckle switch RH circuit consists of the center airbag sensor assembly and the front seat inner belt assembly RH (seat belt buckle switch RH).

RS

DTC B0121/26 is recorded when a malfunction is detected in the seat belt buckle switch RH circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B0121/26 | • Short circuit in seat belt buckle switch RH wire harness (to ground)<br>• Short circuit in seat belt buckle switch RH wire harness (to B+)<br>• Open circuit in RBE+ wire harness or RBE- wire harness of front seat inner belt RH<br>• Seat belt buckle switch RH malfunction<br>• Center airbag sensor assembly | • Front seat inner belt assembly RH (seat belt buckle switch RH)<br>• Center airbag sensor assembly<br>• Floor wire |

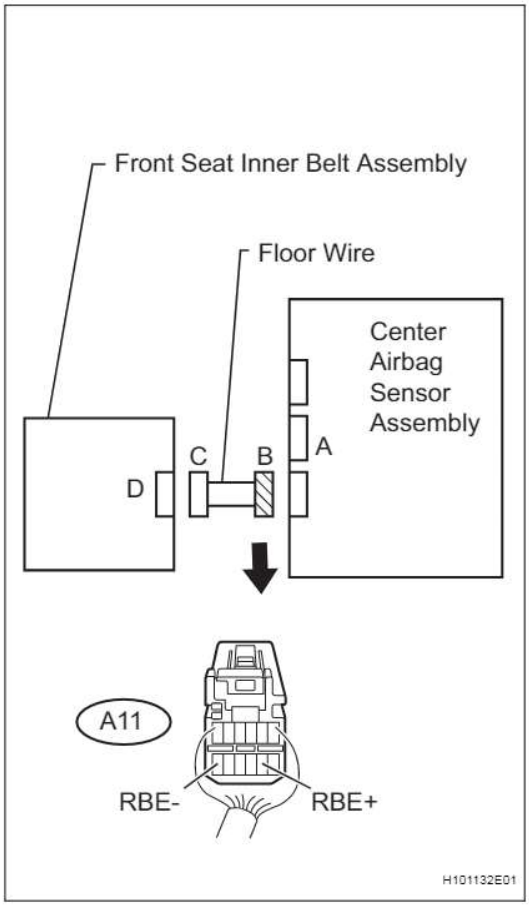
## WIRING DIAGRAM




## INSPECTION PROCEDURE

| 1 | CHECK FLOOR WIRE (TO B+) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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 and the front seat inner belt assembly RH.
(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 (Connector "B") | Condition | Specified Condition |
|---|---|---|
| A11-8 (RBE+) - Body ground | Ignition switch ON | Below 1 V |
| A11-12 (RBE-) - Body ground | | |

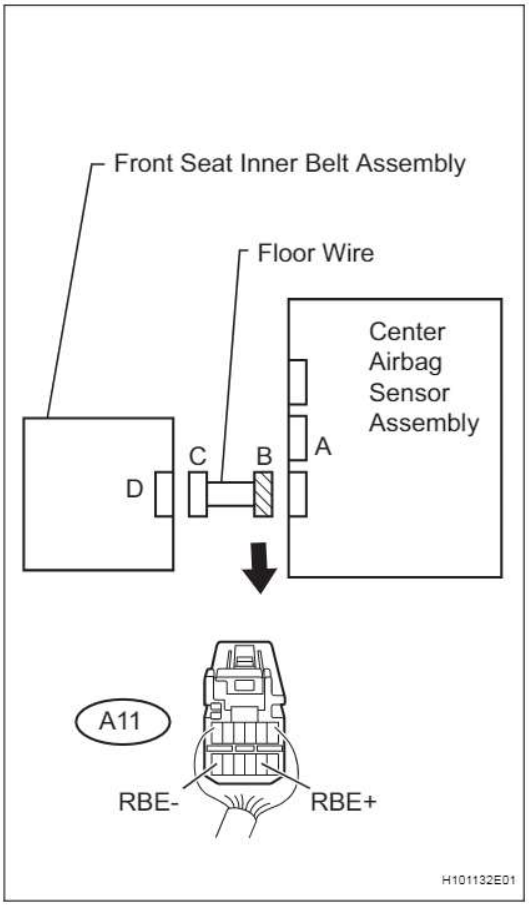
RS

NG → REPAIR OR REPLACE FLOOR WIRE

OK

| 2 | CHECK FLOOR WIRE (TO GROUND) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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**

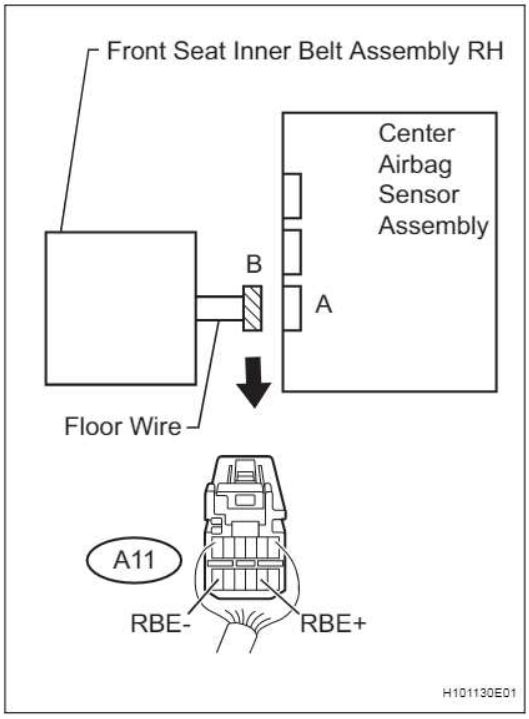
| Tester Connection (Connector "B") | Specified Condition |
|---|---|
| A11-8 (RBE+) - Body ground | 1 MΩ or higher |
| A11-12 (RBE-) - Body ground | |

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

| 3 | CHECK FRONT SEAT INNER BELT ASSEMBLY RH |
|---|---|

(a) Connect the connector to the front seat inner belt assembly RH.
(b) Unfasten the seat belt from the front seat inner belt RH.




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

**Standard resistance**

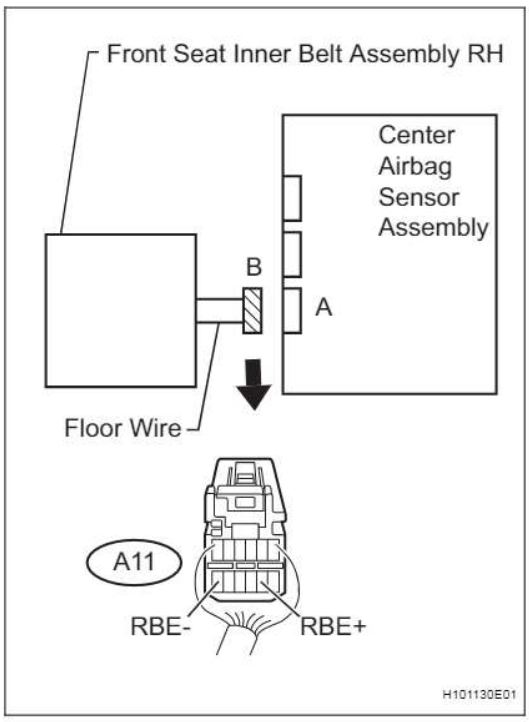
| Tester Connection (Connector "B") | Specified Condition |
|---|---|
| A11-8 (RBE+) - A11-12 (RBE-) | 100 to 500 Ω |

NG → **REPLACE FRONT SEAT INNER BELT ASSEMBLY RH**

RS

OK

| 4 | CHECK FRONT SEAT INNER BELT ASSEMBLY RH |
|---|---|




(a) Fasten the seat belt to the front seat inner belt RH.

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

**Standard resistance**

| Tester Connection (Connector "B") | Specified Condition |
|---|---|
| A11-8 (RBE+) - A11-12 (RBE-) | 1.0 to 1.6 kΩ |

NG → **REPLACE FRONT SEAT INNER BELT ASSEMBLY RH**

OK

RS

| 5 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

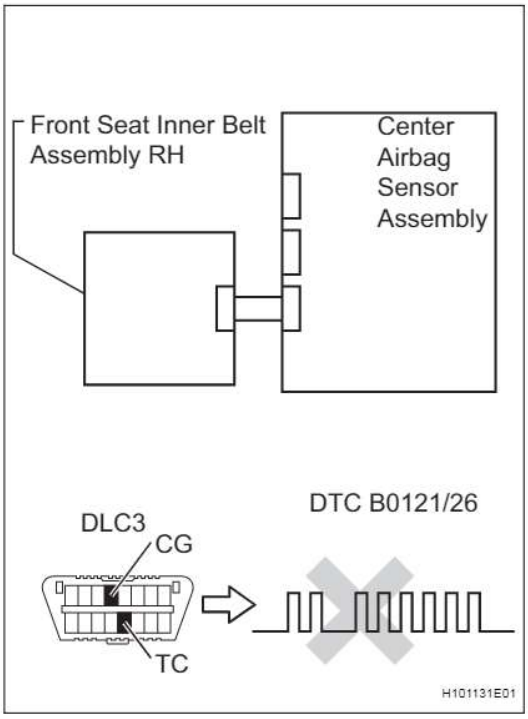
(a) Connect the connector to the center airbag sensor assembly.
(b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(c) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(d) Clear the stored DTCs in the memory (see page RS-44).
(e) Turn the ignition switch to the LOCK position.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Check for the DTCs (see page RS-44).

**OK:**

**B0121/26 is not output.**

HINT:

Codes other than code B0121/26 may be output at this time, but they are not related to this check.




NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

**PROBLEM SYMPTOMS SIMULATION**

| DTC | B0126/27 | Seat Belt Buckle Switch LH Circuit Malfunction |
|---|---|---|

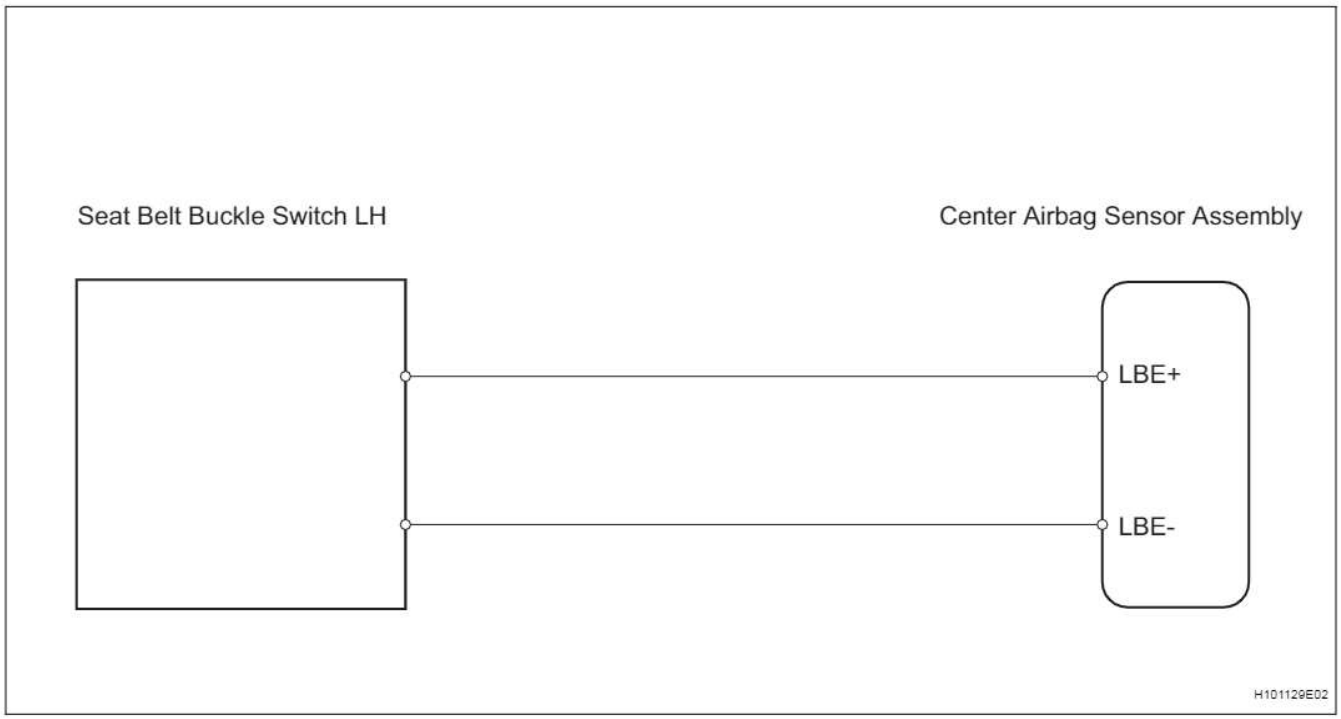
## DESCRIPTION

The seat belt buckle switch LH circuit consists of the center airbag sensor assembly and the front seat inner belt assembly LH (seat belt buckle switch LH).
DTC B0126/27 is recorded when a malfunction is detected in the seat belt buckle switch LH circuit.



| DTC No. | DTC detection Condition | Trouble Area |
|---|---|---|
| B0126/27 | • Short circuit in front seat inner belt assembly LH wire harness (to ground)<br>• Short circuit in front seat inner belt assembly LH wire harness (to B+)<br>• Open circuit in LBE+ wire harness or LBE- wire harness of front seat inner belt assembly LH<br>• Front seat inner belt assembly LH assembly<br>• Center airbag sensor assembly | • front seat inner belt assembly LH (seat belt buckle switch LH)<br>• Center airbag sensor assembly<br>• Floor wire |

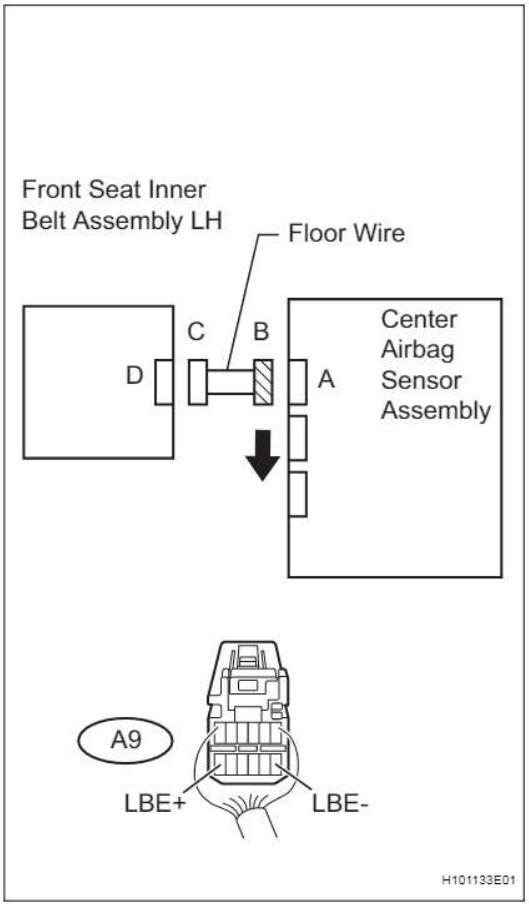
## WIRING DIAGRAM




## INSPECTION PROCEDURE

| 1 | CHECK FLOOR WIRE (TO B+) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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 and the front seat inner belt assembly LH.
(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**

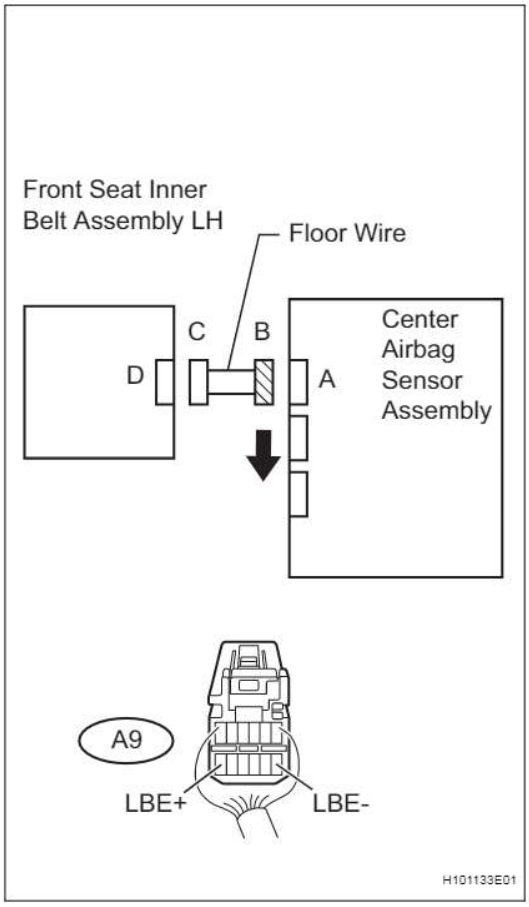
| Tester Connection (Connector "B") | Condition | Specified Condition |
|---|---|---|
| A9-11 (LBE+) - Body ground | Ignition switch ON | Below 1 V |
| A9-7 (LBE-) - Body ground | | |

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

| 2 | CHECK FLOOR WIRE (TO GROUND) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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 (Connector "B") | Specified Condition |
|---|---|
| A9-11 (LBE+) - Body ground | 1 MΩ or higher |
| A9-7 (LBE-) - Body ground | |

RS

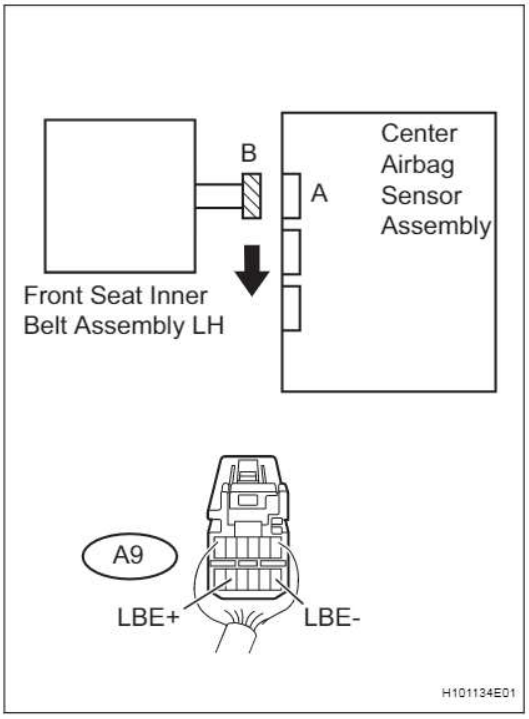
NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

| 3 | CHECK FRONT SEAT INNER BELT ASSEMBLY |
|---|---|

(a) Connect the connector to the front seat inner belt assembly LH.
(b) Unfasten the seat belt from the front seat inner belt LH.

RS




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

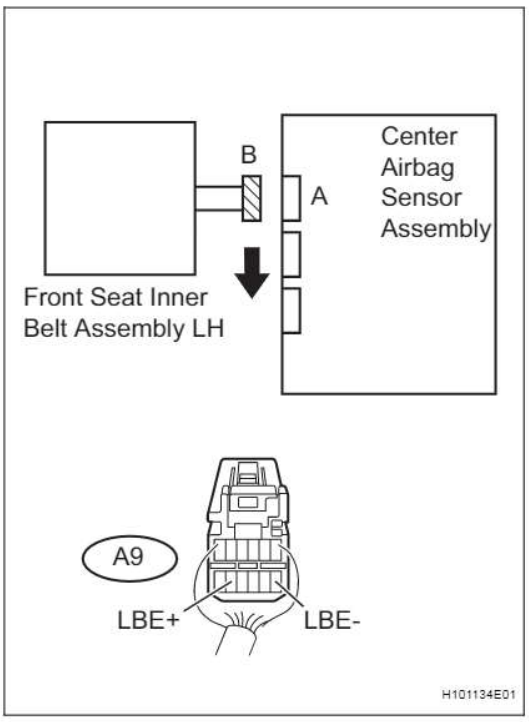
**Standard resistance**

| Tester Connection (Connector "B") | Specified Condition |
|---|---|
| A9-11 (LBE+) - A)-7 (LBE-) | 100 to 500 Ω |

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

OK

## 4 CHECK FRONT SEAT INNER BELT ASSEMBLY LH




(a) Fasten the seat belt to the front seat inner belt LH.

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

**Standard resistance**

| Tester Connection (Connector "B") | Specified Condition |
|---|---|
| A9-11 (LBE+) - A)-7 (LBE-) | 1.0 to 1.6 kΩ |

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

OK

| 5 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

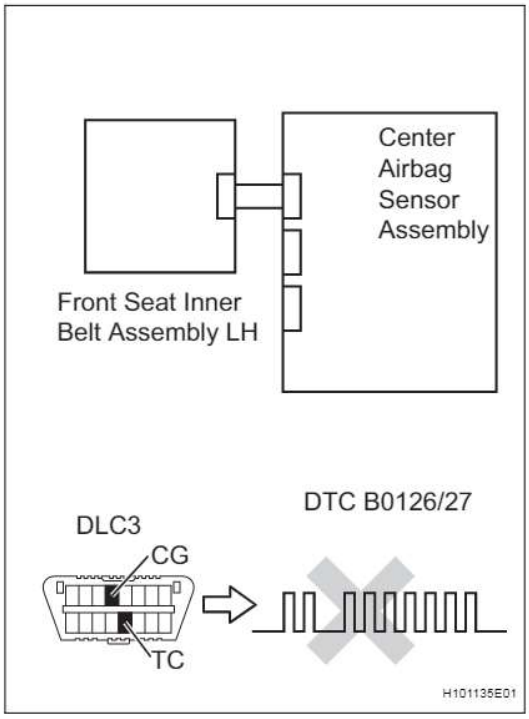
(a) Connect the connector to the center airbag sensor assembly.
(b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(c) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(d) Clear the stored DTCs in the memory (see page RS-44).
(e) Turn the ignition switch to the LOCK position.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0126/27 is not output.**

HINT:

Codes other than code B0126/27 may be output at this time, but they are not related to this check.




NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

| PROBLEM SYMPTOMS SIMULATION |
|---|

| DTC | B0130/63 | Short in Front Pretensioner Squib RH Circuit |
|---|---|---|

## DESCRIPTION

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

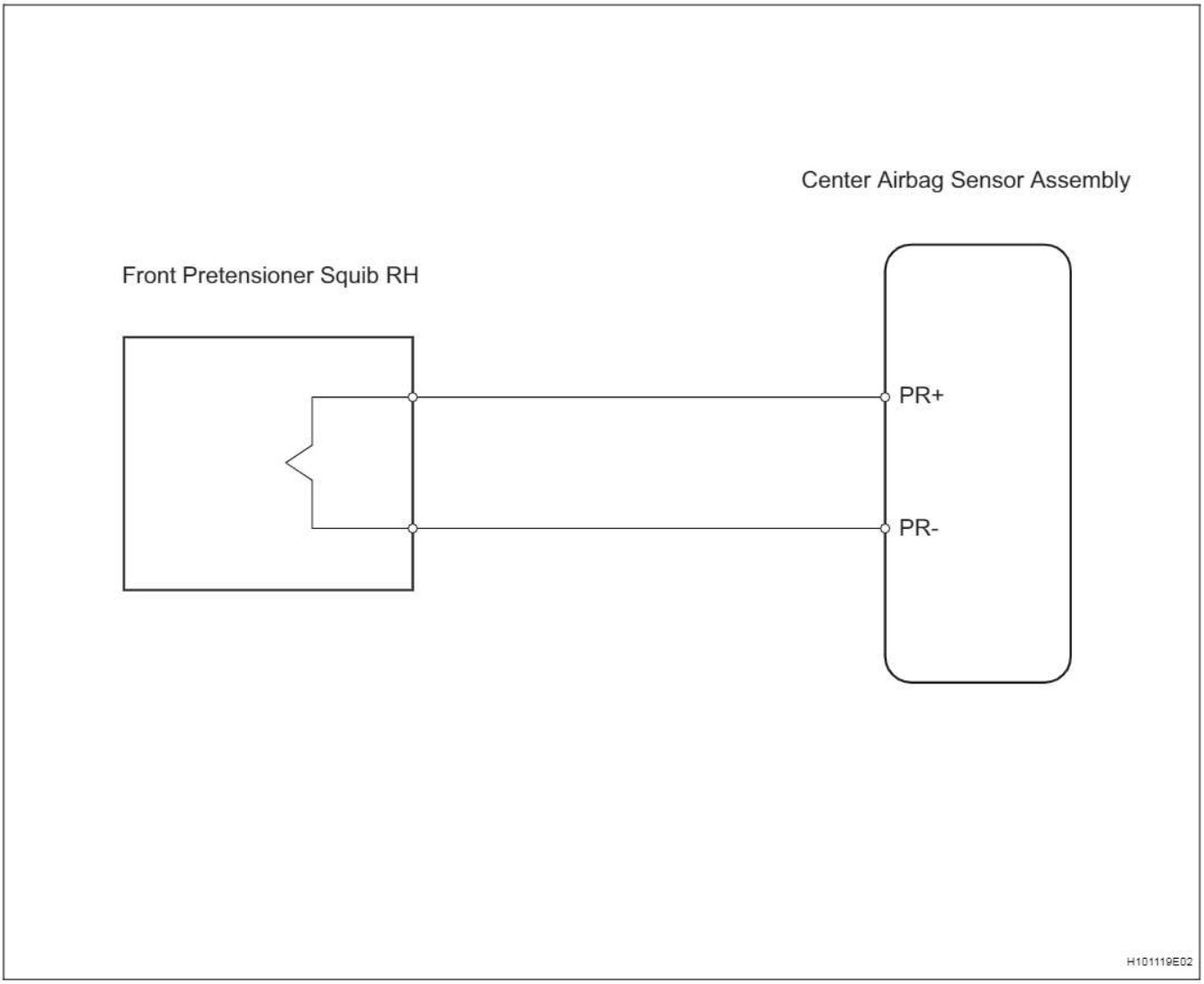
RS

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

DTC B0130/63 is recorded when a short circuit is detected in the front pretensioner squib RH circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B0130/63 | • Short circuit between PR+ wire harness and PR- wire harness of front pretensioner squib RH<br>• Front pretensioner squib RH malfunction<br>• Center airbag sensor assembly malfunction | • Front seat outer belt assembly RH (front pretensioner squib RH)<br>• Center airbag sensor assembly<br>• Floor wire |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

| 1 | CHECK FLOOR WIRE |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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) Check that the floor wire connector (on the front seat outer belt assembly RH side) is not damaged.
**OK:**
**Lock button is not disengaged, or claw of lock is not deformed or damaged.**

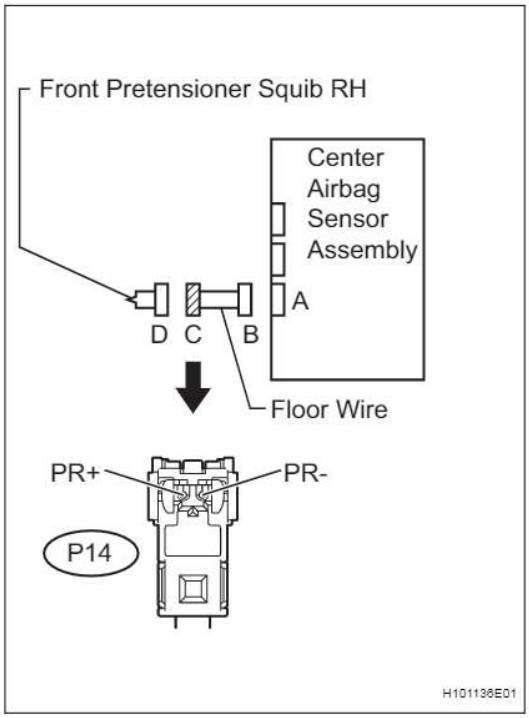
NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

| 2 | CHECK FLOOR WIRE (FRONT PRETENSIONER SQUIB RH CIRCUIT) |
|---|---|

(a) Disconnect the connectors from the center airbag sensor assembly.
(b) Release the activation prevention mechanism built into connector "B" (see page RS-25).
(c) Measure the resistance according to the value(s) in the table below.
**Standard resistance**

| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| P14-1 (PR+) - P14-2 (PR-) | 1 MΩ or higher |




NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

| 3 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

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

RS

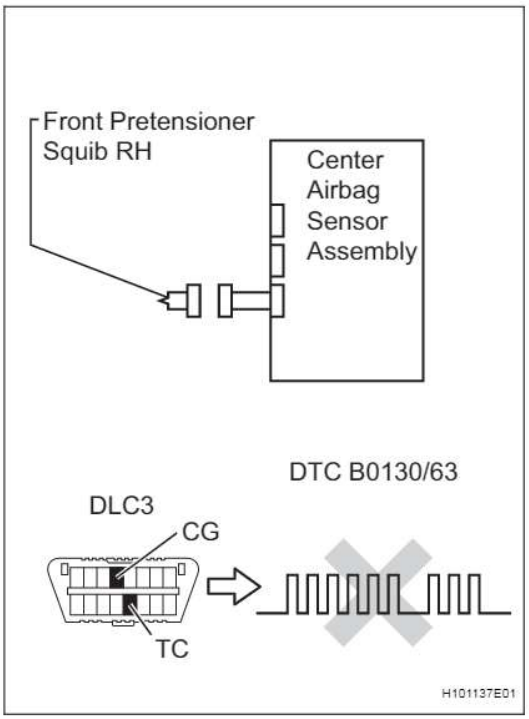
(b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(c) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(d) Clear the stored DTCs in the memory (see page RS-44).
(e) Turn the ignition switch to the LOCK position.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0130/63 is not output.**

HINT:

Codes other than code B0130/62 may be output at this time, but they are not related to this check.

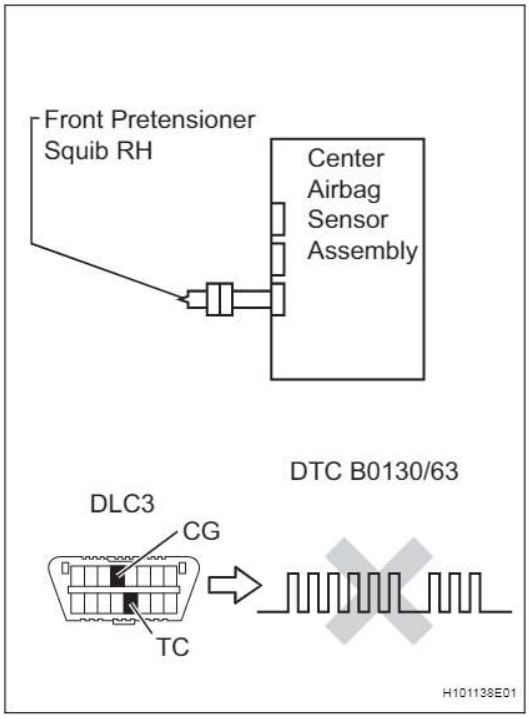



NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

| 4 | CHECK FRONT SEAT OUTER BELT ASSEMBLY RH |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Connect the connector to the front seat outer belt assembly RH.
(d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(e) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(f) Clear the stored DTCs in the memory (see page RS-44).
(g) Turn the ignition switch to the LOCK position.
(h) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(i) Check for the DTCs (see page RS-44).
**OK:**
**DTC B0130/63 is not output.**
HINT:
Codes other than code B0130/63 may be output at this time, but they are not related to this check.

RS

NG → **REPLACE FRONT SEAT OUTER BELT ASSEMBLY RH**

OK

**PROBLEM SYMPTOMS SIMULATION**

| DTC | B0131/64 | Open in Front Pretensioner Squib RH Circuit |
|---|---|---|

## DESCRIPTION

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

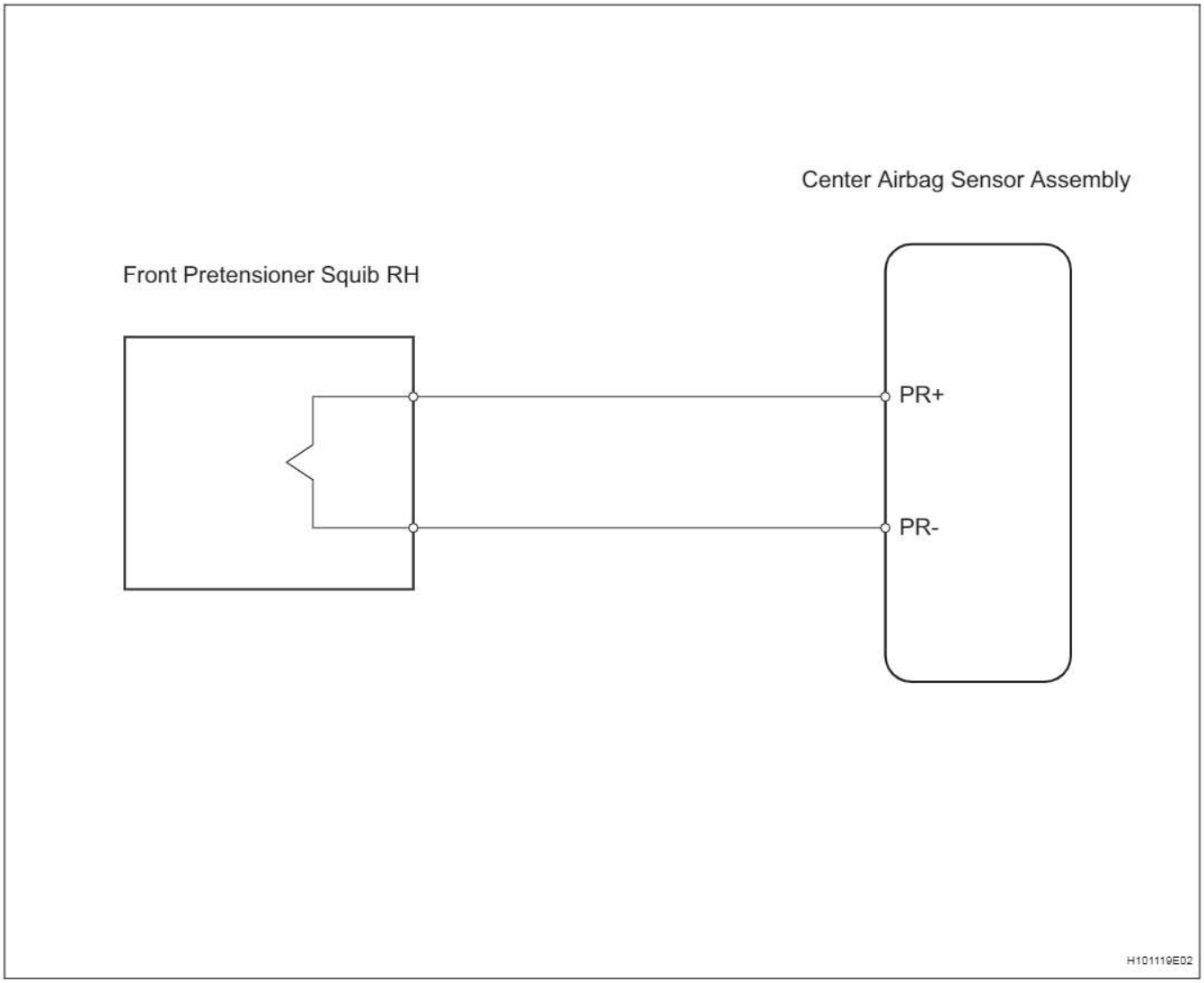
RS

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

DTC B0131/64 is recorded when an open circuit is detected in the front pretensioner squib RH circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B0131/64 | • Open circuit in PR+ wire harness or PR- wire harness of front pretensioner squib RH<br>• Front pretensioner squib RH malfunction<br>• Center airbag sensor assembly | • Front seat outer belt assembly RH (front pretensioner squib RH)<br>• Center airbag sensor assembly<br>• Floor wire |

## WIRING DIAGRAM



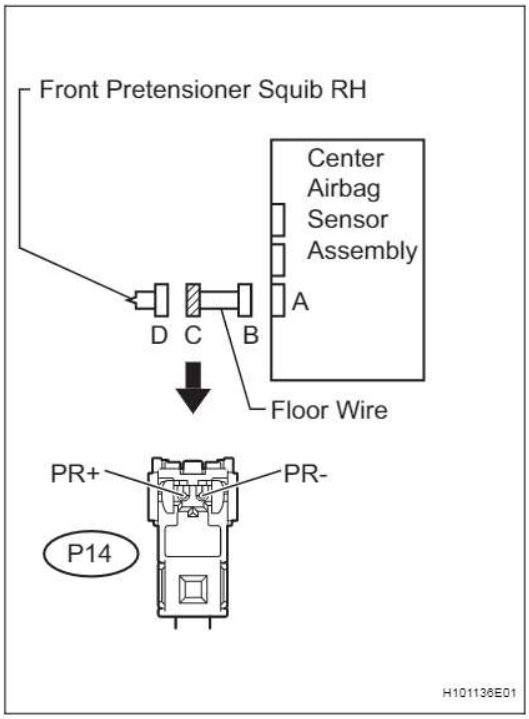
## INSPECTION PROCEDURE

| 1 | CHECK FLOOR WIRE (FRONT PRETENSIONER SQUIB RH CIRCUIT) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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 and the front seat outer belt assembly RH.
(d) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| P14-1 (PR+) - P14-2 (PR) | Below 1 Ω |

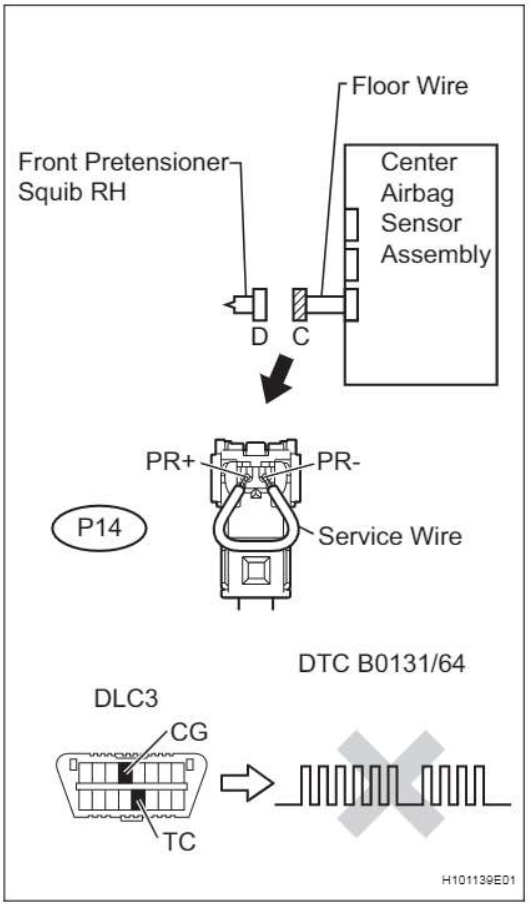



NG → REPAIR OR REPLACE FLOOR WIRE

OK

| 2 | REPLACE CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

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




(b) Using a service wire, connect terminals PR+ and PR- of connector "C".

**NOTICE:**

- **Twist the end of the service wire in order to insert to the connector.**
- **Do not forcibly insert the twisted service wire into the terminals of the connector when connecting.**

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

(d) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(e) Clear the stored DTCs in the memory (see page RS-44).

(f) Turn the ignition switch to the LOCK position.

(g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(h) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0131/64 is not output.**

HINT:

Codes other than code B0131/64 may be output at this time, but they are not related to this check.

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

| 3 | CHECK FRONT SEAT OUTER BELT ASSEMBLY RH (FRONT PRETENSIONER SQUIB RH) |
|---|---|

(a) Turn the ignition switch to the LOCK position.

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

(c) Disconnect the service wire from the connector "C".

(d) Connect the connector to the front seat outer belt assembly RH.

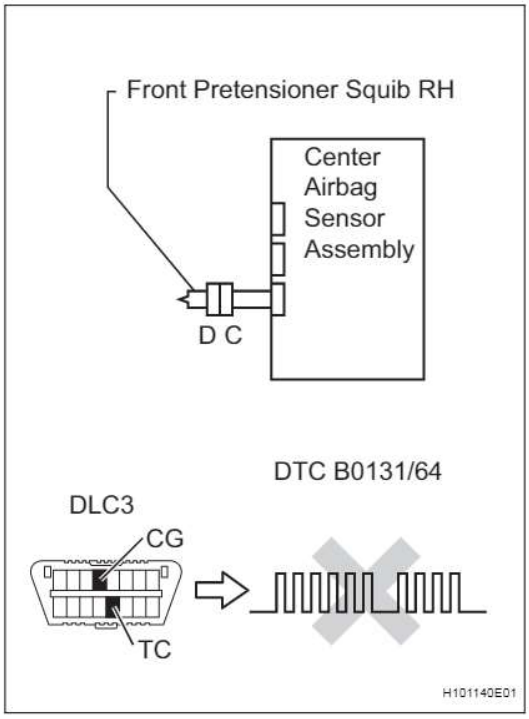
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(g) Clear the stored DTCs in the memory (see page RS-44).

(h) Turn the ignition switch to the LOCK position.

(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(j) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0131/64 is not output.**

HINT:

Codes other than code B0131/64 may be output at this time, but they are not related to this check.

RS

**NG** → **REPLACE FRONT SEAT OUTER BELT ASSEMBLY RH**

**OK**

**PROBLEM SYMPTOMS SIMULATION**

| DTC | B0132/61 | Short to GND in Front Pretensioner Squib RH Circuit |
|---|---|---|

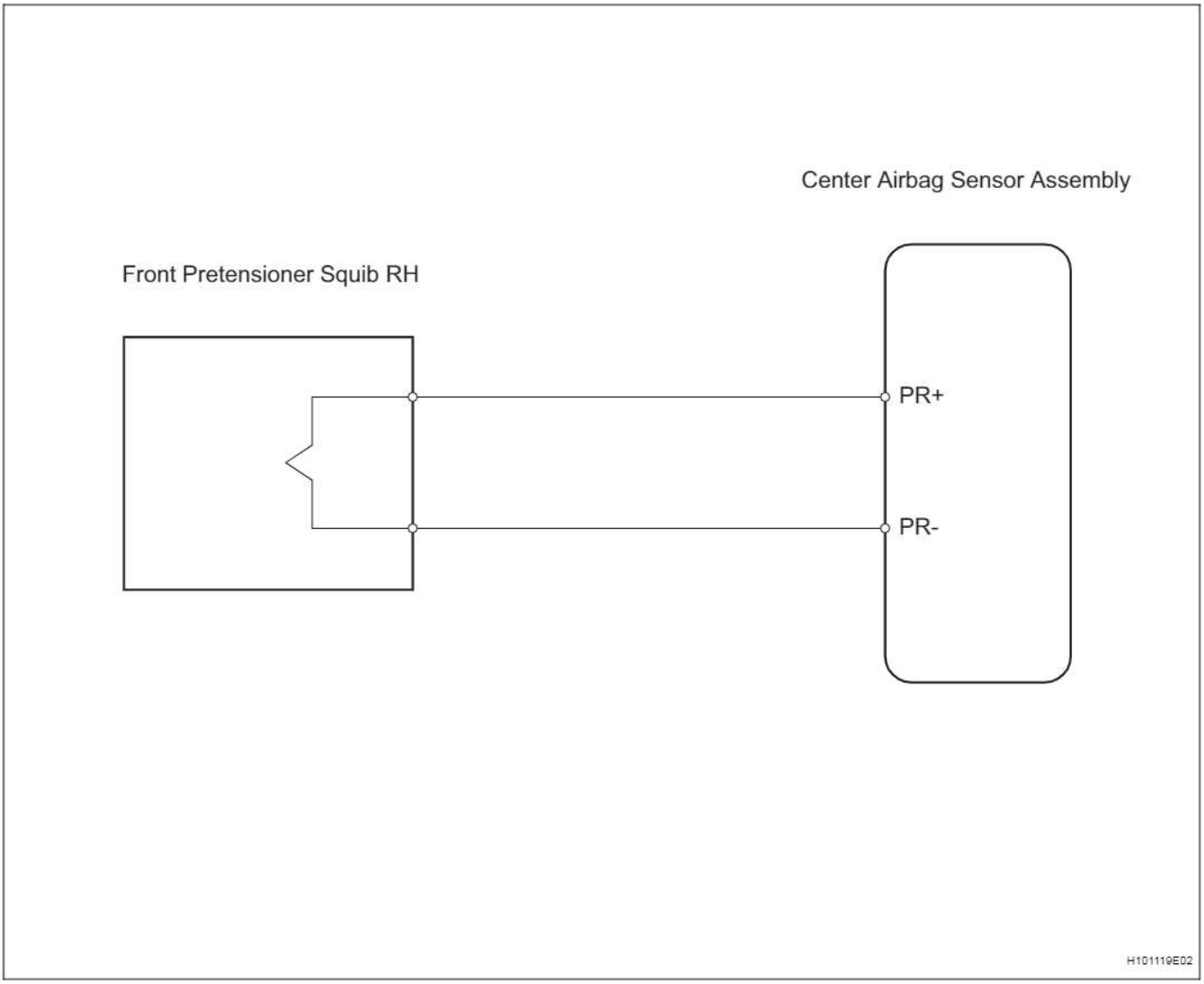
## DESCRIPTION

RS

The front pretensioner RH circuit consists of the center airbag sensor assembly and the front seat outer belt assembly RH (seat belt pretensioner RH).
This circuit instructs the SRS to deploy when deployment conditions are met.
DTC B0132/61 is recorded when a short to ground is detected in the front pretensioner squib RH circuit.

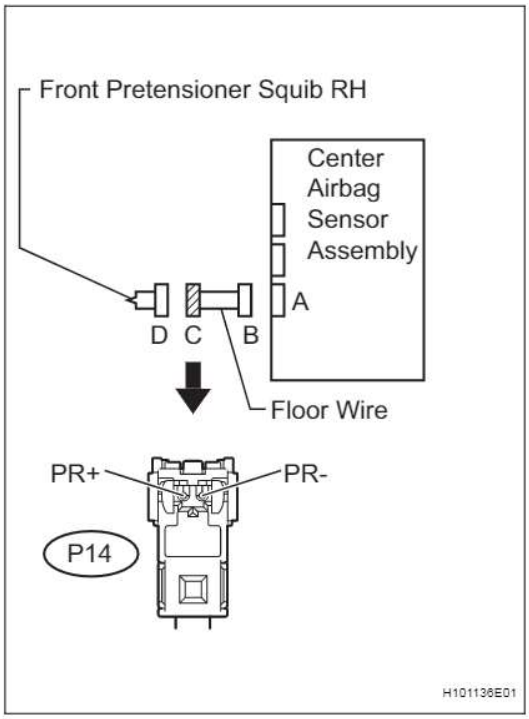
| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B0132/61 | • Short circuit in front pretensioner squib wire harness (to ground)<br>• Front pretensioner squib RH malfunction<br>• Center airbag sensor assembly | • Front seat belt outer assembly RH (front pretensioner squib RH)<br>• Center airbag sensor assembly<br>• Floor wire |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

| 1 | CHECK FLOOR WIRE (FRONT PRETENSIONER SQUIB RH CIRCUIT) |
|---|---|




(a) Turn the ignition switch to the LOCK position.
(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 and the front seat outer belt assembly RH.
(d) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester Connection (Connection "C") | Specified Condition |
|---|---|
| P14-1 (PR+) - Body ground | 1 MΩ or higher |
| P14-2 (PR-) - Body ground | |

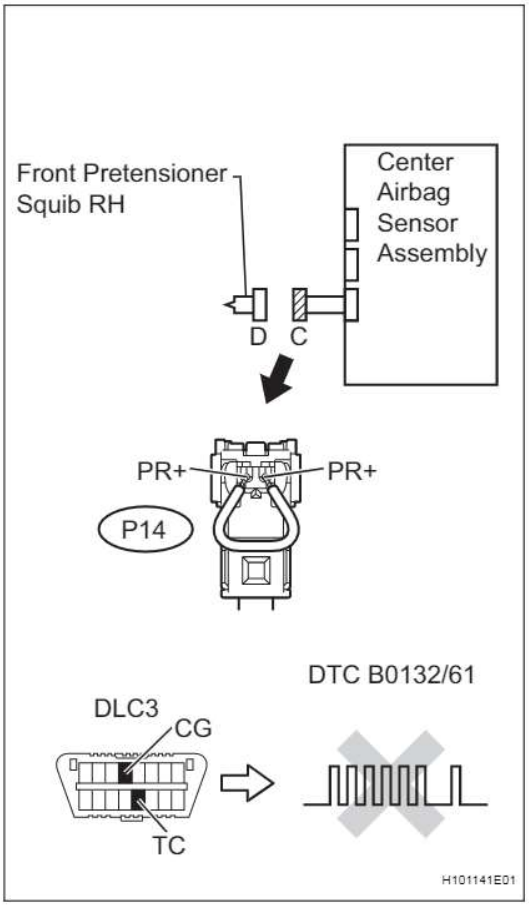
NG → REPAIR OR REPLACE FLOOR WIRE

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

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

RS




(b) Using a service wire, connect terminals PR+ and PR- of connector "C".

**NOTICE:**

- **Twist the end of the service wire in order to insert to the connector.**
- **Do not forcibly insert the twisted service wire into the terminals of the connector when connecting.**

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

(d) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(e) Clear the stored DTCs in the memory (see page RS-44).

(f) Turn the ignition switch to the LOCK position.

(g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(h) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0132/61 is not output.**

HINT:

Codes other than code B0132/61 may be output at this time, but they are not related to this check.

NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

| 3 | CHECK FRONT SEAT OUTER BELT ASSEMBLY RH |
|---|---|

(a) Turn the ignition switch to the LOCK position.

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

(c) Disconnect the service wire from the connector "C".

(d) Connect the connector to the front seat outer belt assembly RH.

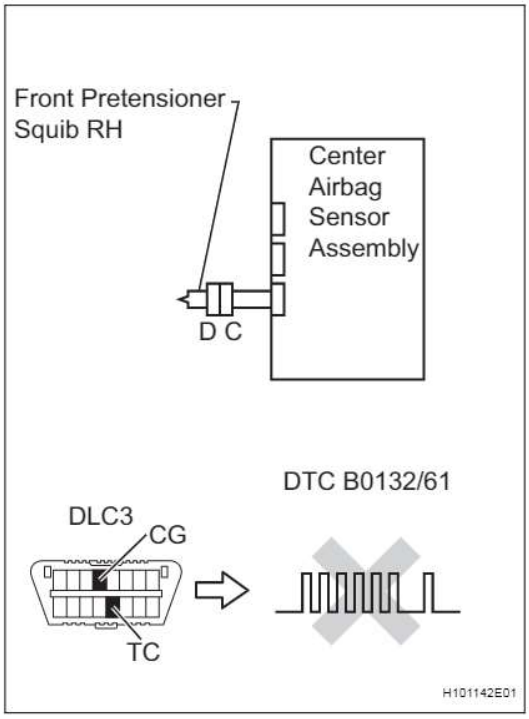
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(g) Clear the stored DTCs in the memory (see page RS-44).

(h) Turn the ignition switch to the LOCK position.

(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(j) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0132/61 is not output.**

HINT:

Codes other than code B0132/61 may be output at this time, but they are not related to this check.

RS

NG → **REPLACE FRONT SEAT OUTER BELT ASSEMBLY RH**

OK

**PROBLEM SYMPTOMS SIMULATION**

| DTC | B0133/62 | Short to B+ in Front Pretensioner Squib RH Circuit |
|---|---|---|

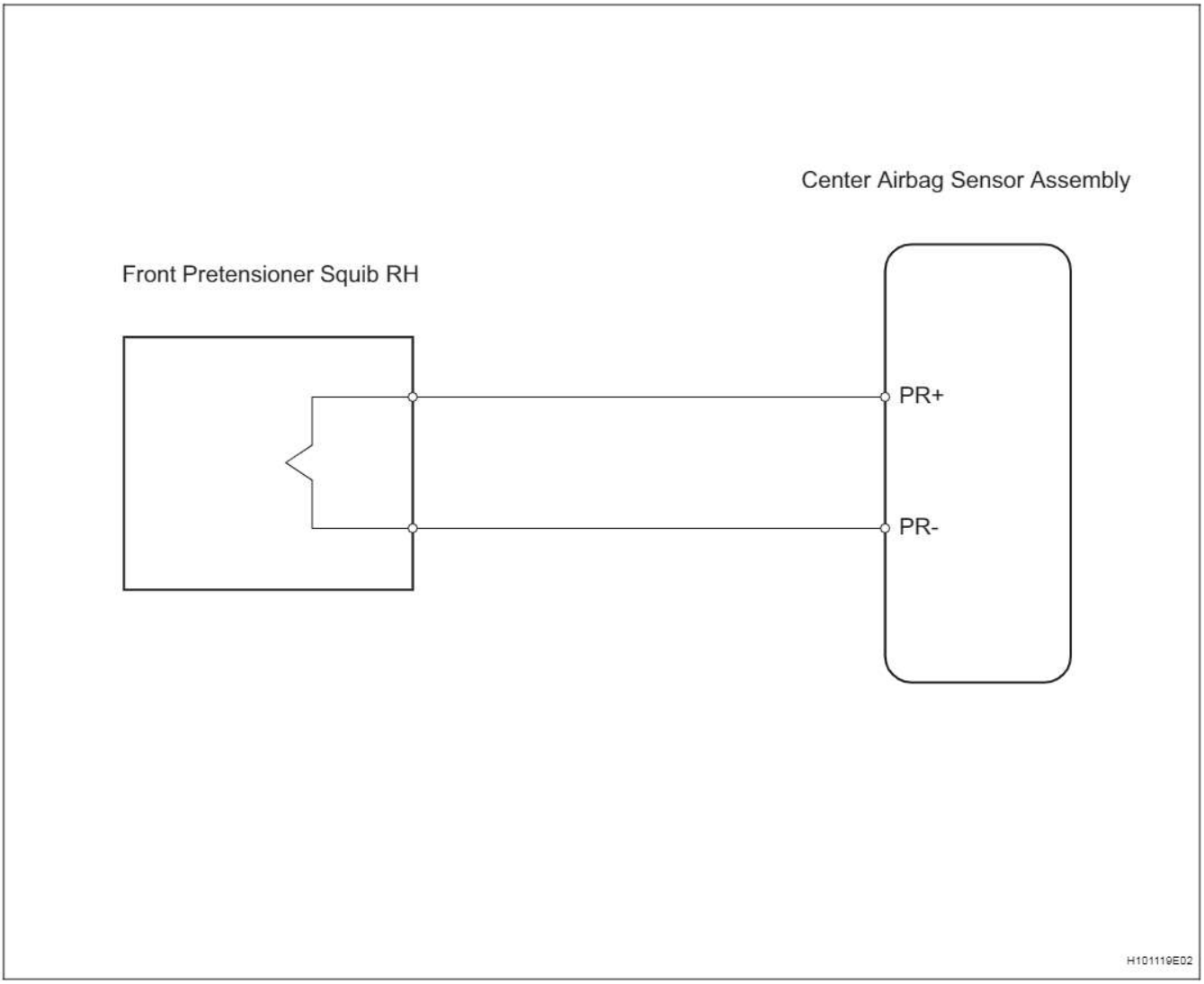
## DESCRIPTION

RS

The front pretensioner squib RH circuit consists of the center airbag sensor assembly and the front seat outer belt assembly RH (seat belt pretensioner RH).
This circuit instructs the SRS to deploy when deployment conditions are met.
DTC B0133/62 is recorded when a short to B+ is detected in the front pretensioner squib RH circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B0133/62 | • Short circuit in front pretensioner squib RH wire harness (to +B)<br>• Front pretensioner squib RH malfunction<br>• Center airbag sensor assembly | • Front seat outer belt assembly RH (front pretensioner assembly RH)<br>• Center airbag sensor assembly<br>• Floor wire |

## WIRING DIAGRAM



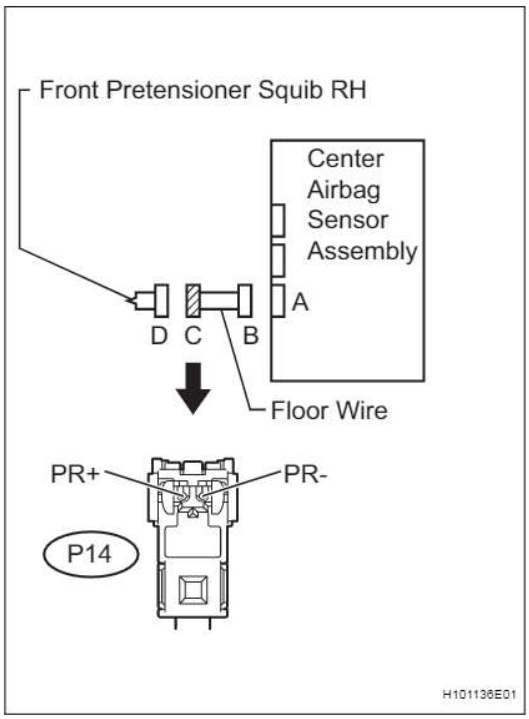
## INSPECTION PROCEDURE

| 1 | CHECK FLOOR WIRE (FRONT PRETENSIONER SQUIB RH) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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 and the front seat outer belt assembly RH.
(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 (Connector "C") | Condition | Specified Condition |
|---|---|---|
| P14-1 (PR+) - Body ground | Ignition switch ON | Below 1 V |
| P14-2 (PR-) - Body ground | | |

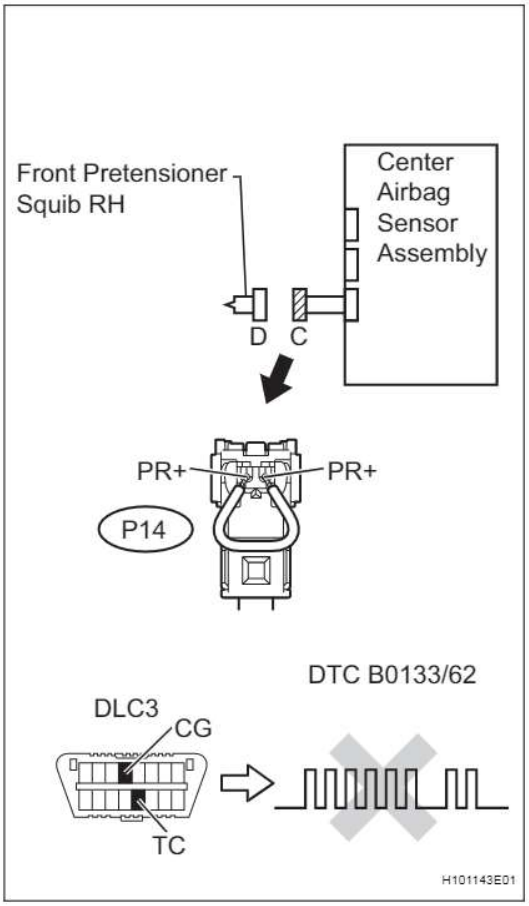



NG → REPAIR OR REPLACE FLOOR WIRE

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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) Using a service wire, connect terminals PR+ and PR- of connector "C".

**NOTICE:**

- **Twist the end of the service wire in order to insert to the connector.**
- **Do not forcibly insert the twisted service wire into the terminals of the connector when connecting.**

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

(f) Turn the ignition switch to the ON position, and wait for at least 2 seconds.

(g) Clear the stored DTCs in the memory (see page RS-44).

(h) Turn the ignition switch to the LOCK position.

(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(j) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0133/62 is not output.**

HINT:

Codes other than code B0133/62 may be output at this time, but they are not related to this check.

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

| 3 | CHECK FRONT SEAT OUTER BELT ASSEMBLY RH (FRONT PRETENSIONER SQUIB RH) |
|---|---|

(a) Turn the ignition switch to the LOCK position.

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

(c) Disconnect the service wire from the connector "C".

(d) Connect the connector to the front seat outer belt assembly RH.

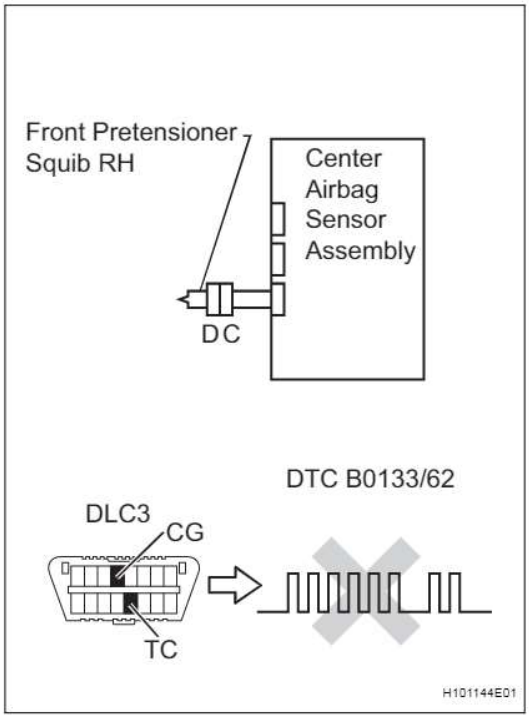
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(g) Clear the stored DTCs in the memory (see page RS-44).

(h) Turn the ignition switch to the LOCK position.

(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(j) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0133/62 is not output.**

HINT:

Codes other than code B0133/62 may be output at this time, but they are not related to this check.

RS

NG → **REPLACE FRONT SEAT OUTER BELT ASSEMBLY RH**

OK

**PROBLEM SYMPTOMS SIMULATION**

| DTC | B0135/73 | Short in Front Pretensioner Squib LH Circuit |
|---|---|---|

## DESCRIPTION

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

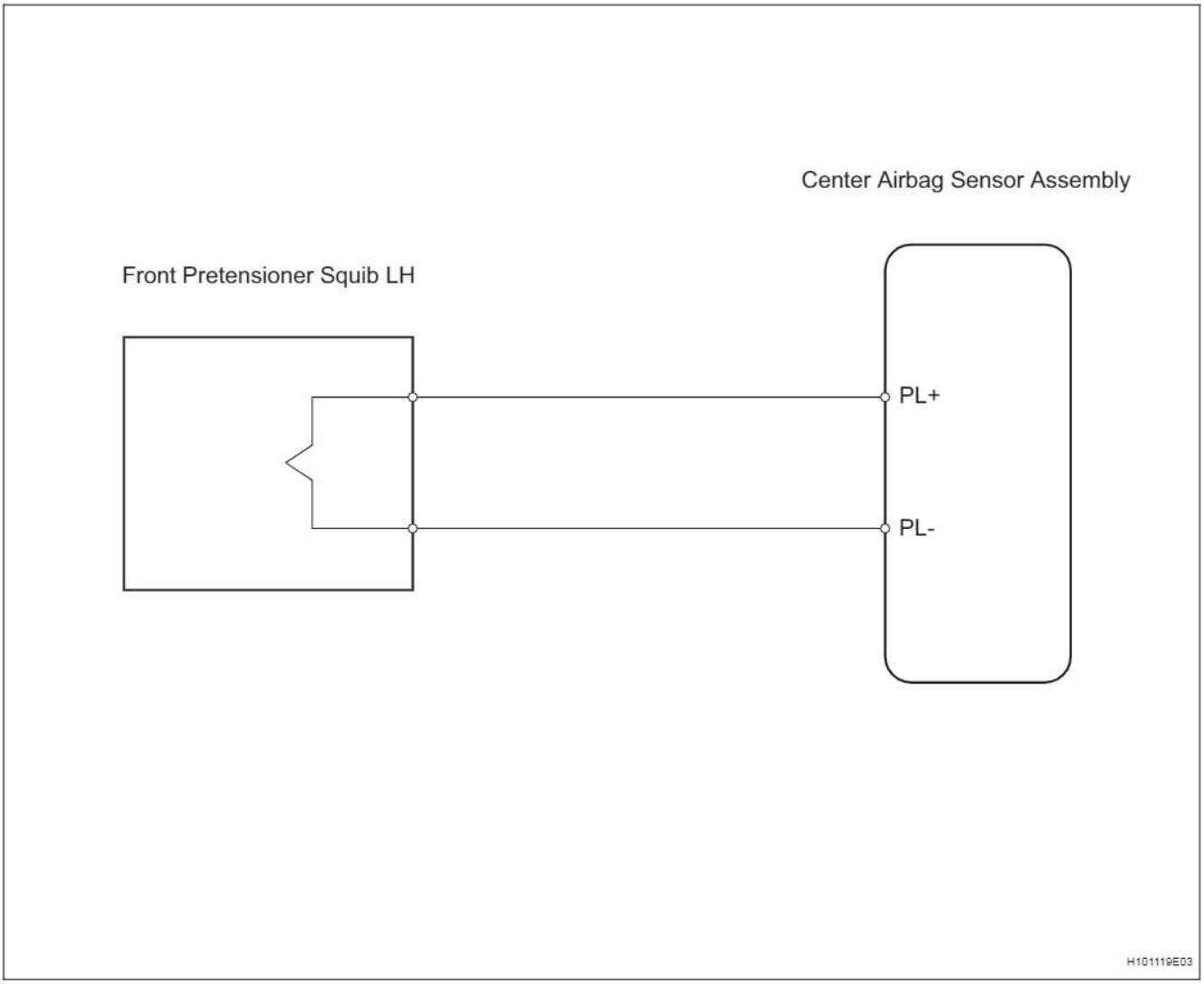
RS

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

DTC 0135/73 is recorded when a short circuit is detected in the front pretensioner squib LH circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B0135/73 | • Short circuit between PL+ wire harness and PL- wire harness of front pretensioner squib LH<br>• Front pretensioner squib LH malfunction<br>• Center airbag sensor assembly malfunction | • Front seat outer belt assembly LH (front pretensioner squib LH)<br>• Center airbag sensor assembly<br>• Floor wire |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

| 1 | CHECK FLOOR WIRE |
|---|---|

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

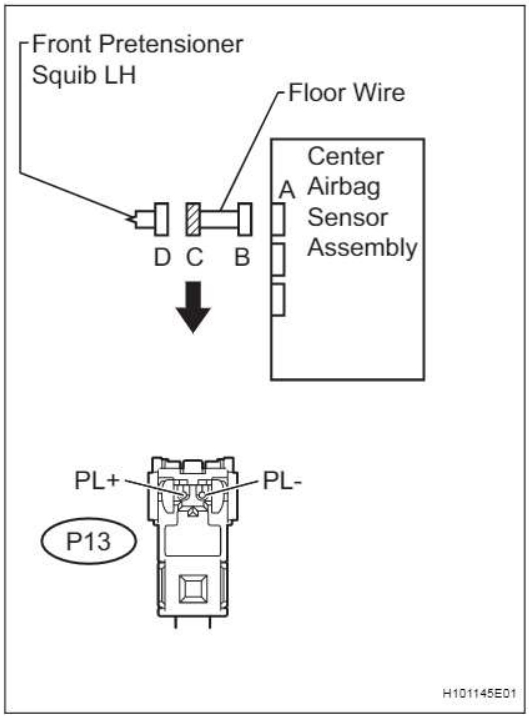
NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

| 2 | CHECK FLOOR WIRE (FRONT PRETENSIONER SQUIB LH CIRCUIT) |
|---|---|

(a) Disconnect the connector from the center airbag sensor assembly.
(b) Release the activation mechanism built into connector "B" (see page RS-25).
(c) Measure the resistance according to the value(s) in the table below.
**Standard resistance**

| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| P13-1 (PL+) - P13-2 (PL-) | 1 MΩ or higher |




NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

| 3 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

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

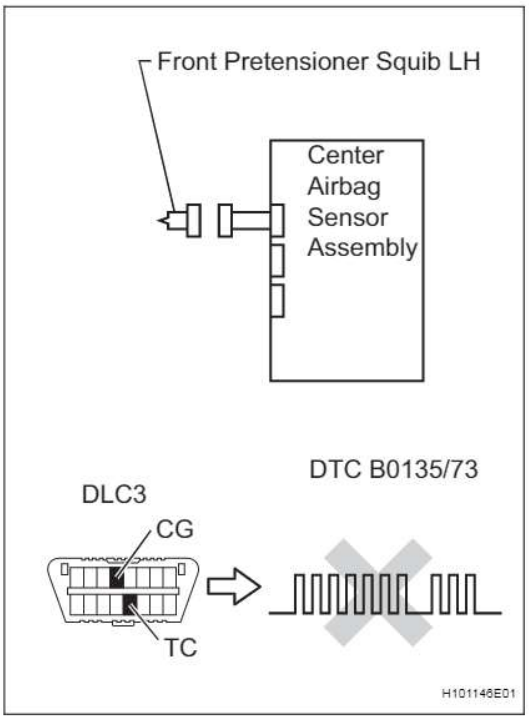
(b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(c) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(d) Clear the stored DTCs in the memory (see page RS-44).
(e) Turn the ignition switch to the LOCK position.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0135/73 is not output.**

HINT:

Codes other than code B0135/73 may be output at this time, but they are not related to this check.

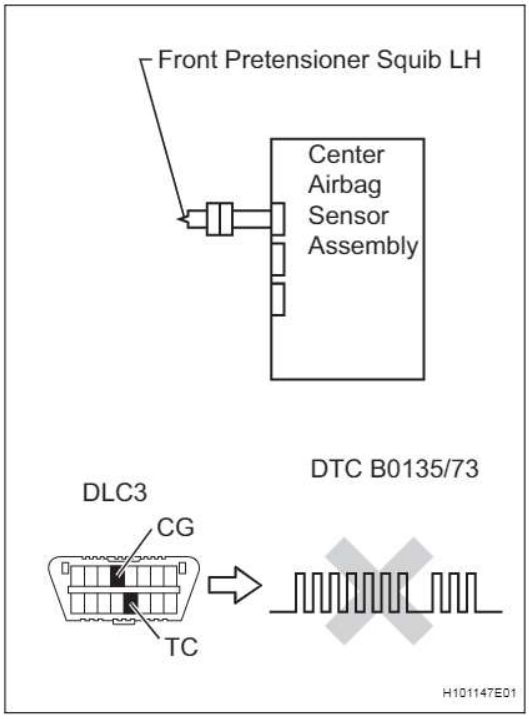



NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

| 4 | CHECK FRONT SEAT OUTER BELT ASSEMBLY LH (FRONT PRETENSIONER SQUIB LH) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Connect the connector to the front seat outer belt assembly LH.
(d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(e) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(f) Clear the stored DTCs in the memory (see page RS-44).
(g) Turn the ignition switch to the LOCK position.
(h) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(i) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0135/73 is not output.**

HINT:

Codes other than code B0135/73 may be output at this time, but they are not related to this check.

RS

NG → **REPLACE FRONT SEAT OUTER BELT ASSEMBLY LH**

OK

**PROBLEM SYMPTOMS SIMULATION**

| DTC | B0136/74 | Open in Front Pretensioner Squib LH Circuit |
|---|---|---|

## DESCRIPTION

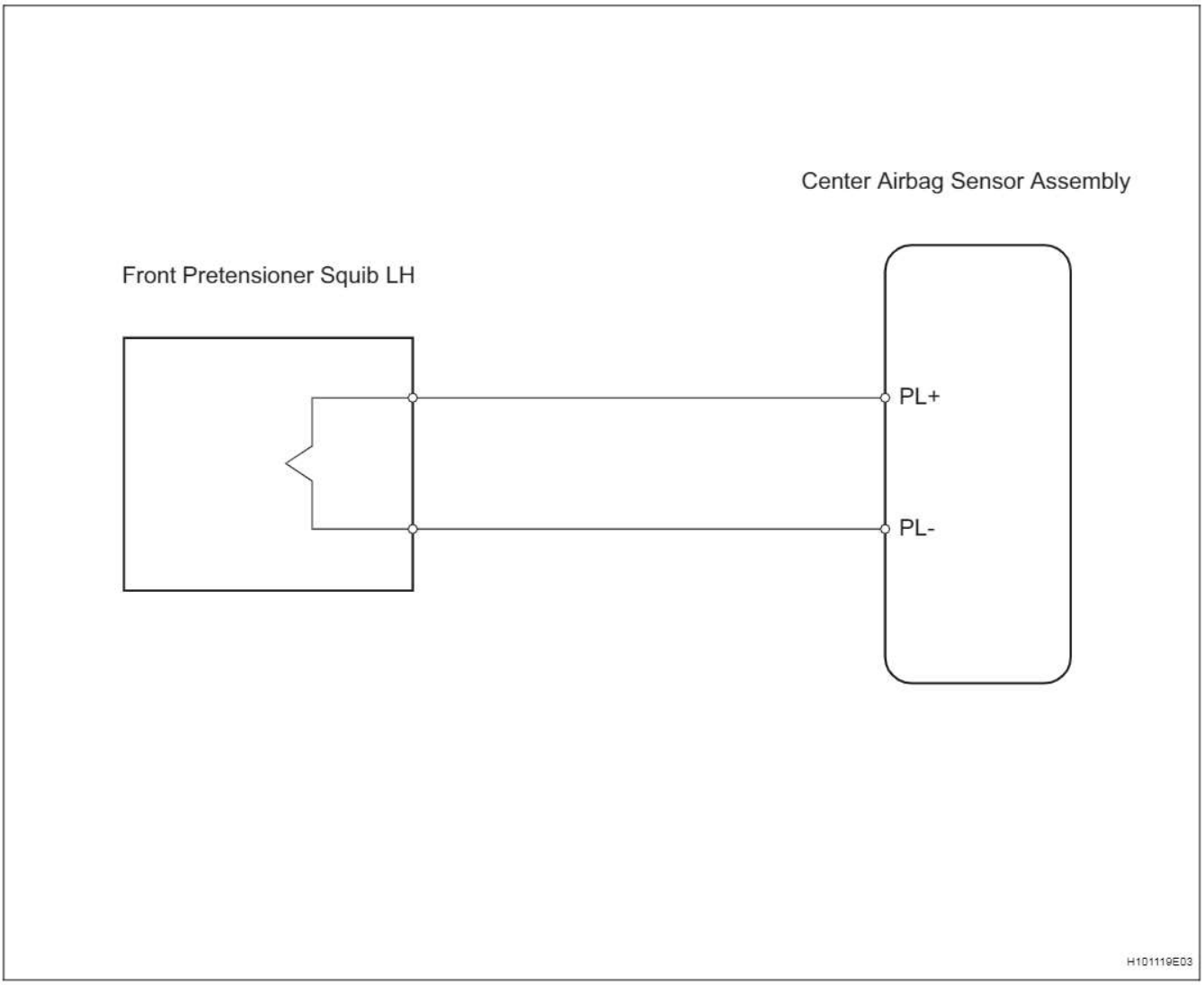
The front pretensioner squib LH circuit consists of the center airbag sensor assembly and the front seat outer belt assembly LH (seat belt pretensioner LH).

RS

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

DTC B0136/74 is recorded when an open circuit is detected in the front pretensioner squib LH circuit.

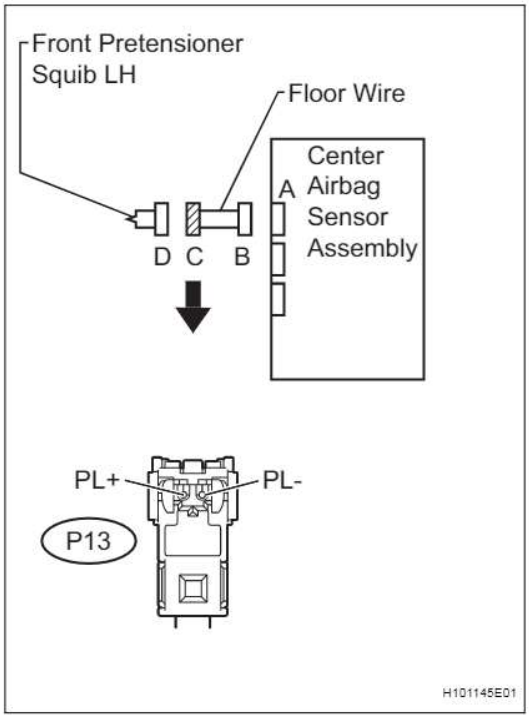
## WIRING DIAGRAM




## INSPECTION PROCEDURE

| 1 | CHECK FLOOR WIRE (FRONT PRETENSIONER SQUIB LH CIRCUIT) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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 and the front seat outer belt assembly LH.




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

**Standard resistance**

| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| P13-1 (PL+) - P13-2 (PL-) | Below 1 Ω |

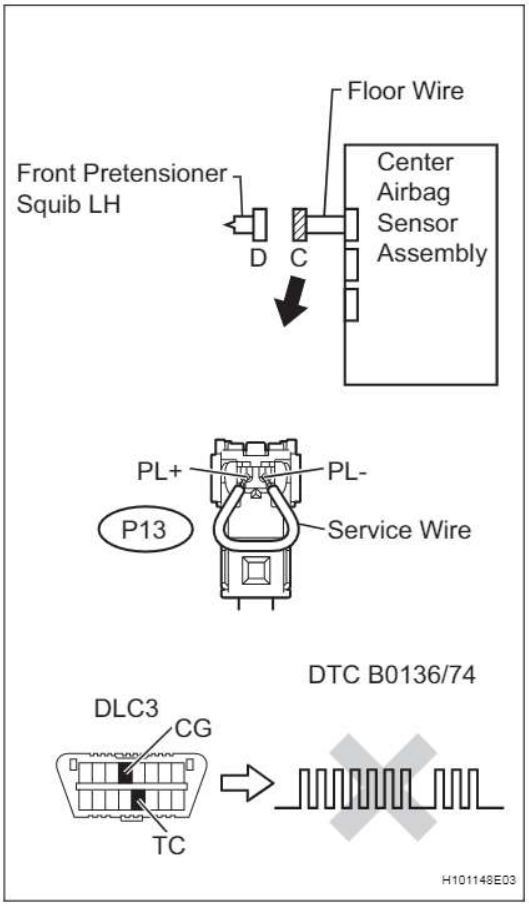
NG → **REPAIR OR REPLACE FLOOR WIRE**

RS

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

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




(b) Using a service wire, connect terminals PL+ and PL- of connector "C".

**NOTICE:**

- **Twist the end of the service wire in order to insert to the connector.**
- **Do not forcibly insert the twisted service wire into the terminals of the connector when connecting.**

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

(d) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(e) Clear the stored DTCs in the memory (see page RS-44).

(f) Turn the ignition switch to the LOCK position.

(g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(h) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0136/74 is not output.**

HINT:

Codes other than code B0136/74 may be output at this time, but they are not related to this check.

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

| 3 | CHECK FRONT SEAT OUTER BELT ASSEMBLY LH |
|---|---|

(a) Turn the ignition switch to the LOCK position.

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

(c) Disconnect the service wire from the connector "C".

(d) Connect the connector to the front seat outer belt assembly LH.

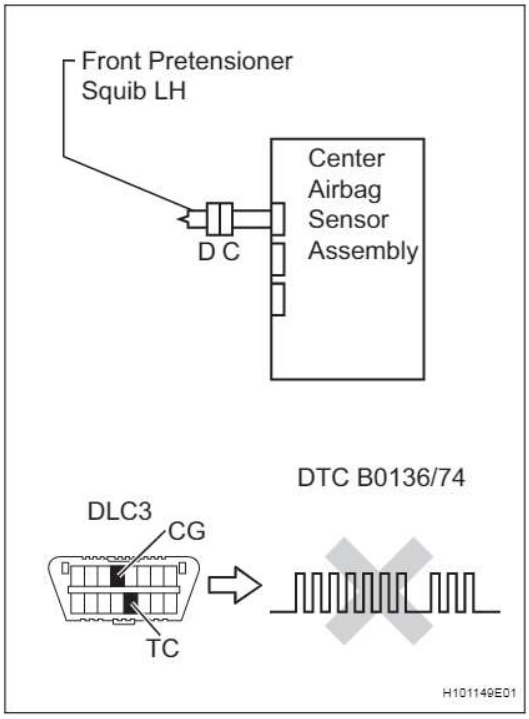
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(g) Clear the stored DTCs in the memory (see page RS-44).

(h) Turn the ignition switch to the LOCK position.

(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(j) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0136/74 is not output.**

HINT:

Codes other than code B0136/74 may be output at this time, but they are not related to this check.

RS

NG → **REPLACE FRONT SEAT OUTER BELT ASSEMBLY LH**

OK

**PROBLEM SYMPTOMS SIMULATION**

# SYSTEM DESCRIPTION

(2005/12- )

## 1. DESCRIPTION OF SUPPLEMENTAL RESTRAINT SYSTEM

(a) General description:

(1) The center airbag sensor uses collision signals received from each sensor to determine whether or not to activate the driver airbag, passenger airbag, front seat outer belt with pretensioner (driver side and front passenger side), front seat inner belt LH (driver seat buckle switch), and occupant classification ECU. When there is trouble in the system, the center airbag sensor turns on the SRS warning light on the combination meter to inform the driver.

(2) The center airbag sensor is installed on the floor under the air conditioning unit.

(b) Description of check mode (signal check):

(1) The center airbag sensor has a check mode that can be activated through the intelligent tester. In check mode, DTCs can be detected and output. If the malfunction cannot be reproduced or is intermittent during troubleshooting, perform the following simulation to help determine what is causing the malfunction: Change the airbag sensor to check mode. Then wiggle each connector, or drive on various types of roads.

## 2. IGNITION JUDGMENT AND CONDITIONS

(a) Operation in case of front collision:

(1) When an impact that is larger than a predetermined level occurs in the highlighted area in Fig. 1, the airbag is deployed automatically.

(2) The center airbag sensor deceleration sensor uses the front airbag sensor's deceleration sensor signal to determine whether or not to activate the airbag.

(3) The center airbag sensor safing sensor is designed to activate at a deceleration rate that is lower than that of the center airbag sensor deceleration sensor. When the safing sensor and deceleration sensor turn on simultaneously, current flows to the squib and the airbag deploys.

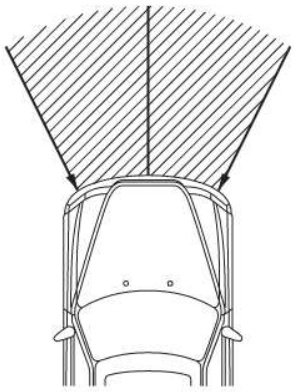


Fig. 1

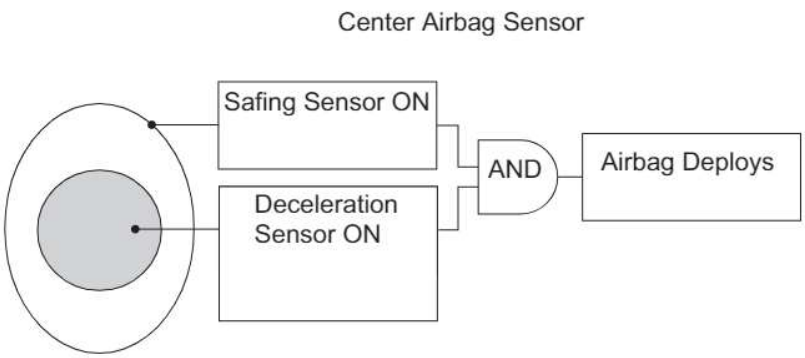



Fig. 2

T

H100348E07

| DTC | B0137/71 | Short to GND in Front Pretensioner Squib LH Circuit |
|---|---|---|

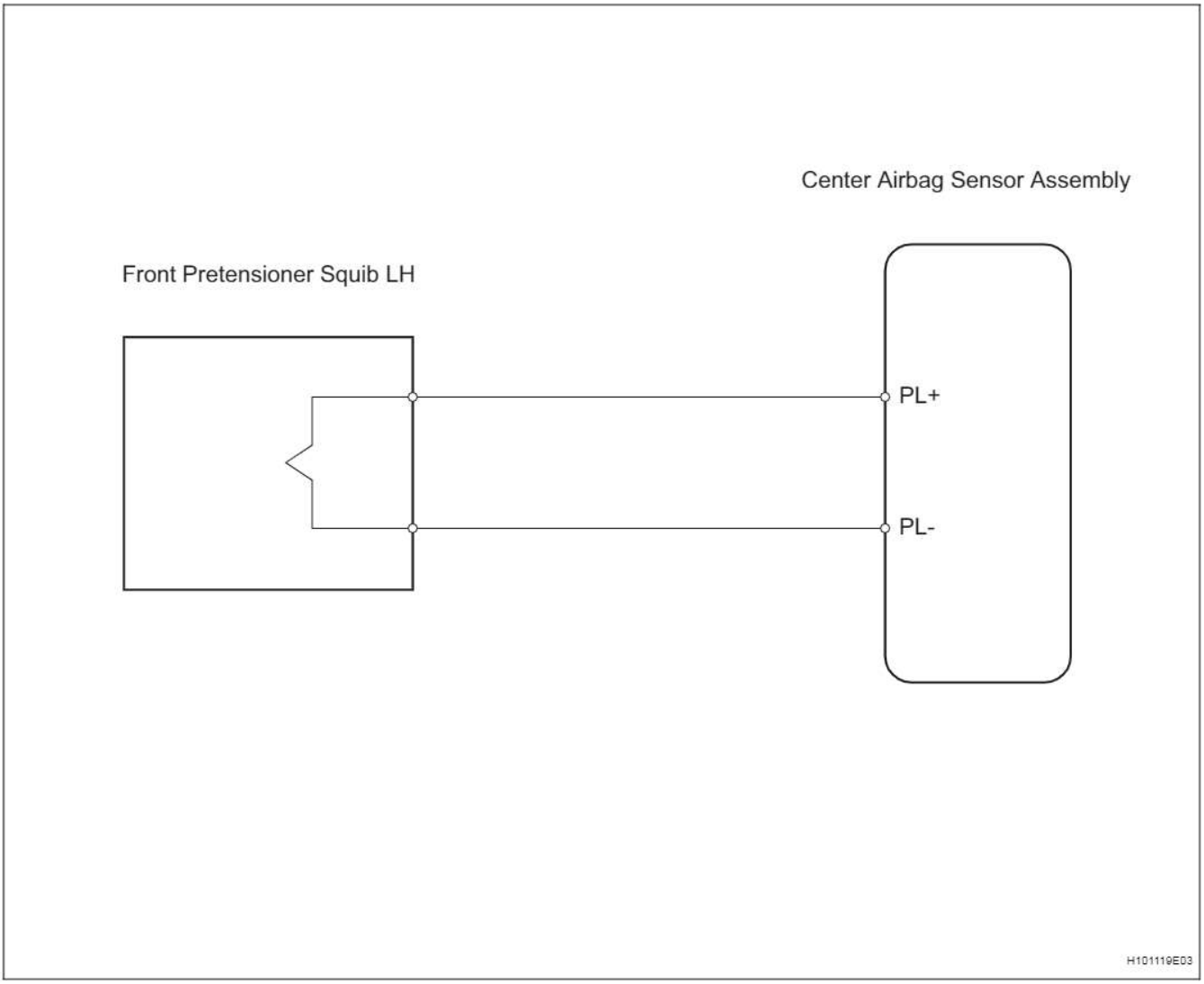
## DESCRIPTION

RS

The front pretensioner squib circuit consists of the center airbag sensor assembly and the front seat outer belt assembly LH (seat belt pretensioner LH).
This circuit instructs the SRS to deploy when deployment conditions are met.
DTC B0137/71 is recorded when a short to ground is detected in the front pretensioner squib LH circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B0137/71 | • Short circuit in front pretensioner squib LH wire harness (to ground)<br>• Front pretensioner squib LH malfunction<br>• Center airbag sensor assembly | • Front seat outer belt assembly LH (front pretensioner squib LH)<br>• Center airbag sensor assembly<br>• Floor wire |

## WIRING DIAGRAM



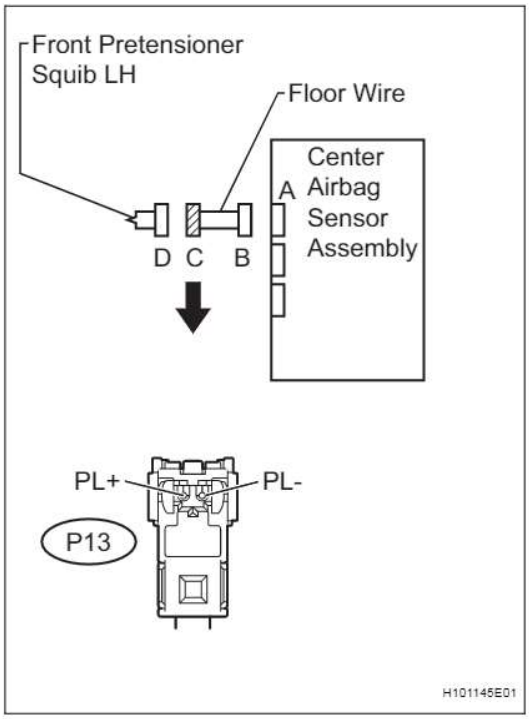
## INSPECTION PROCEDURE

| 1 | CHECK FLOOR WIRE (FRONT PRETENSIONER SQUIB LH CIRCUIT) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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 and the front seat outer belt assembly LH.
(d) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| P13-1 (PL+) - Body ground | 1 MΩ or higher |
| P13-2 (PL-) - Body ground | |



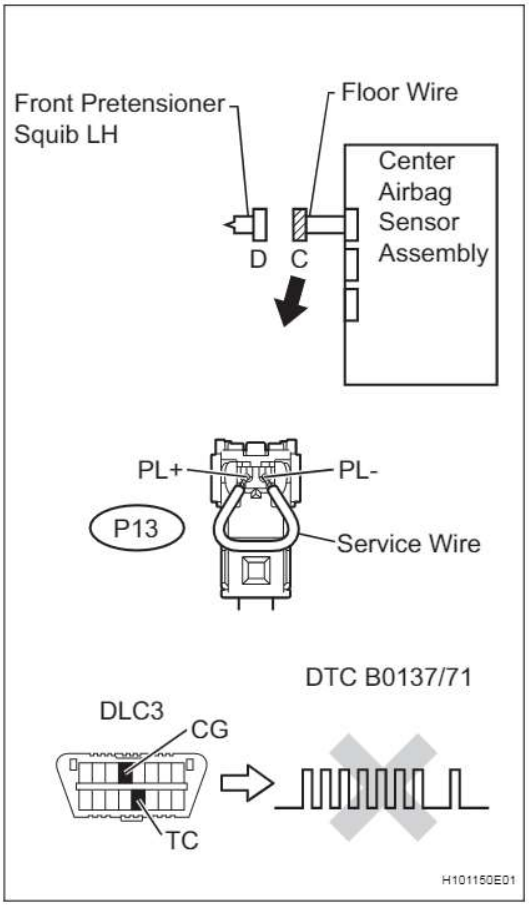

NG → REPAIR OR REPLACE FLOOR WIRE

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

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

RS




(b) Using a service wire, connect terminals PL+ and PL- of connector "C".

**NOTICE:**

- **Twist the end of the service wire in order to insert to the connector.**
- **Do not forcibly insert the twisted service wire into the terminals of the connector when connecting.**

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

(d) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(e) Clear the stored DTCs in the memory (see page RS-44).

(f) Turn the ignition switch to the LOCK position.

(g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(h) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0137/71 is not output.**

HINT:

Codes other than code B0137/71 may be output at this time, but they are not related to this check.

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

| 3 | CHECK FRONT SEAT OUTER BELT ASSEMBLY LH |
|---|---|

(a) Turn the ignition switch to the LOCK position.

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

(c) Disconnect the service wire from the connector "C".

(d) Connect the connector to the front seat outer belt assembly LH.

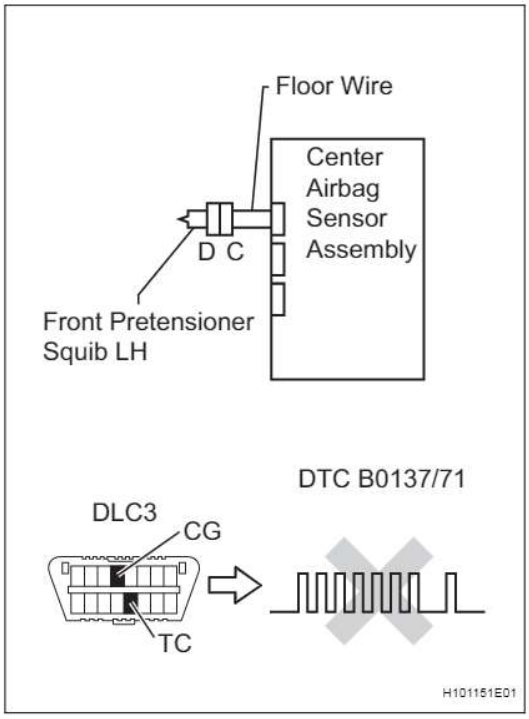
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(g) Clear the stored DTCs in the memory (see page RS-44).

(h) Turn the ignition switch to the LOCK position.

(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(j) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0137/71 is not output.**

HINT:

Codes other than code B0137/71 may be output at this time, but they are not related to this check.

RS

NG → **REPLACE FRONT SEAT OUTER BELT ASSEMBLY LH**

OK

**PROBLEM SYMPTOMS SIMULATION**

| DTC | B0138/72 | Short to B+ in Front Pretensioner Squib LH Circuit |
|---|---|---|

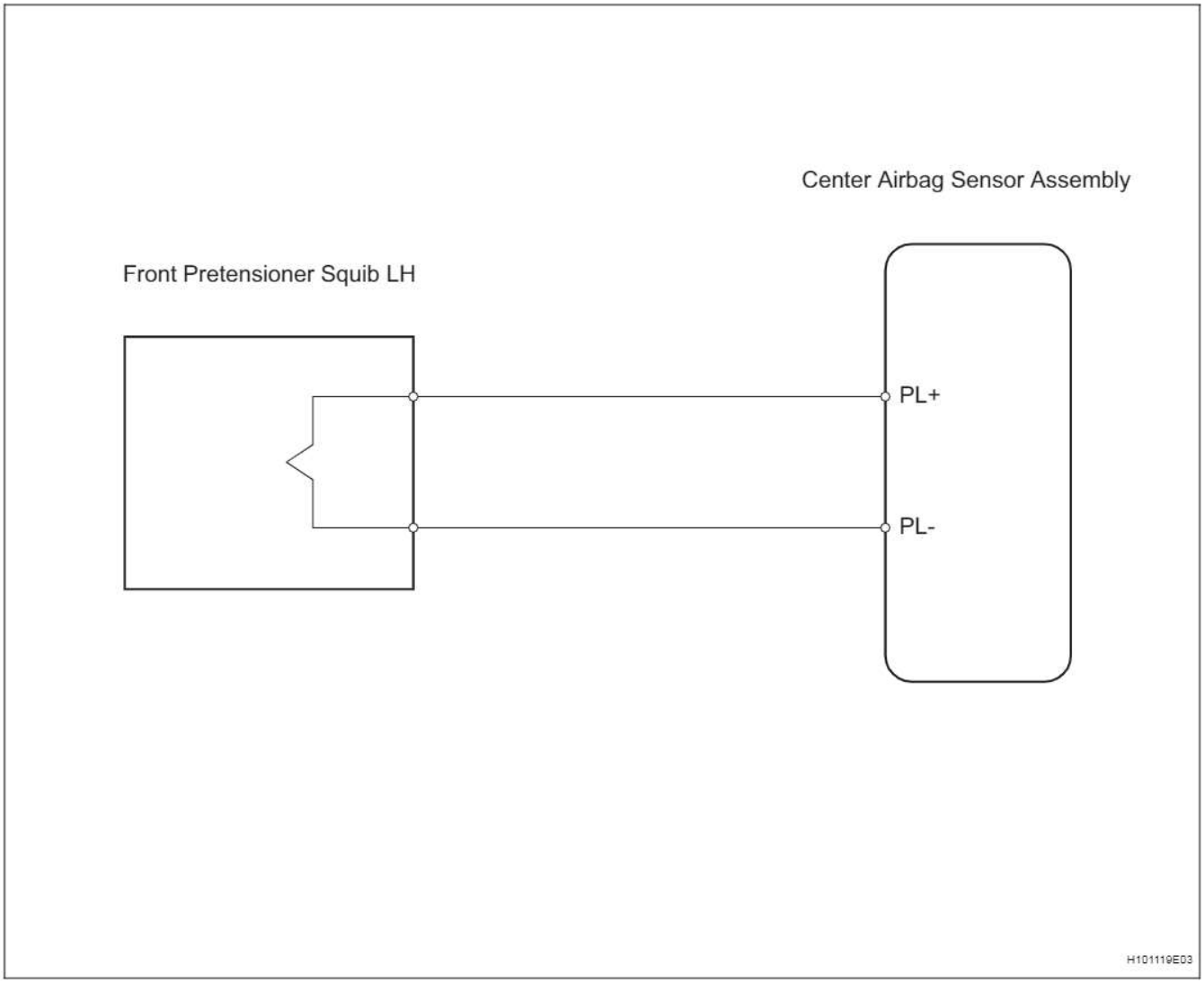
## DESCRIPTION

RS

The front pretensioner LH circuit consists of the center airbag sensor assembly and the front seat outer belt assembly (seat belt pretensioner LH).
This circuit instructs the SRS to deploy when deployment conditions are met.
DTC B0138/72 is recorded when a short to B+ is detected in the front pretensioner squib LH circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B0138/72 | • Short circuit in front pretensioner squib LH wire harness (to B+)<br>• Front pretensioner LH malfunction<br>• Center airbag sensor assembly | • Front seat outer belt assembly LH (front pretensioner squib LH)<br>• Center airbag sensor assembly<br>• Floor wire |

## WIRING DIAGRAM



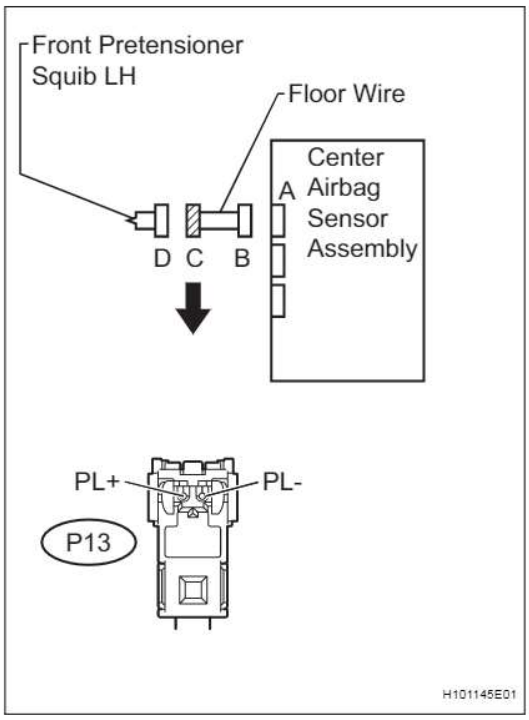
## INSPECTION PROCEDURE

| 1 | CHECK FLOOR WIRE (FRONT PRETENSIONER SQUIB LH CIRCUIT) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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 and the front seat outer belt assembly LH.
(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 (Connector "C") | Condition | Specified Condition |
|---|---|---|
| P13-1 (PL+) - Body ground | Ignition switch ON | Below 1 V |
| P13-2 (PL-) - Body ground | | |

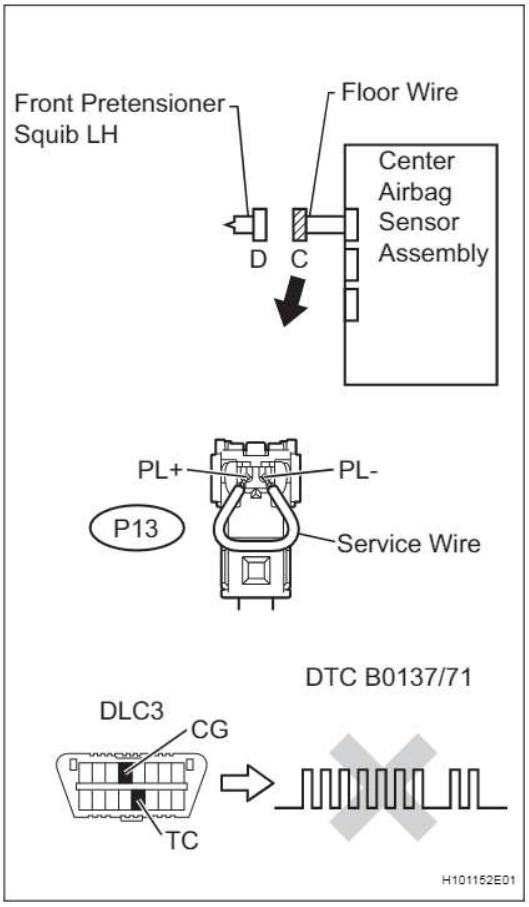



NG → REPAIR OR REPLACE FLOOR WIRE

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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) Using a service wire, connect terminals PL+ and PL- of connector "C".

**NOTICE:**

- **Twist the end of the service wire in order to insert to the connector.**
- **Do not forcibly insert the twisted service wire into the terminals of the connector when connecting.**

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

(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(g) Clear the stored DTCs in the memory (see page RS-44).

(h) Turn the ignition switch to the LOCK position.

(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(j) Check for the DTCs (see page RS-44).

**OK:**

**B0138/72 is not output.**

HINT:

Codes other than code B0137/72 may be output at this time, but they are not related to this check.

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

| 3 | CHECK FRONT SEAT OUTER BELT ASSEMBLY LH |
|---|---|

(a) Turn the ignition switch to the LOCK position.

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

(c) Disconnect the service wire from the connector "C".

(d) Connect the connector to the front seat outer belt assembly LH.

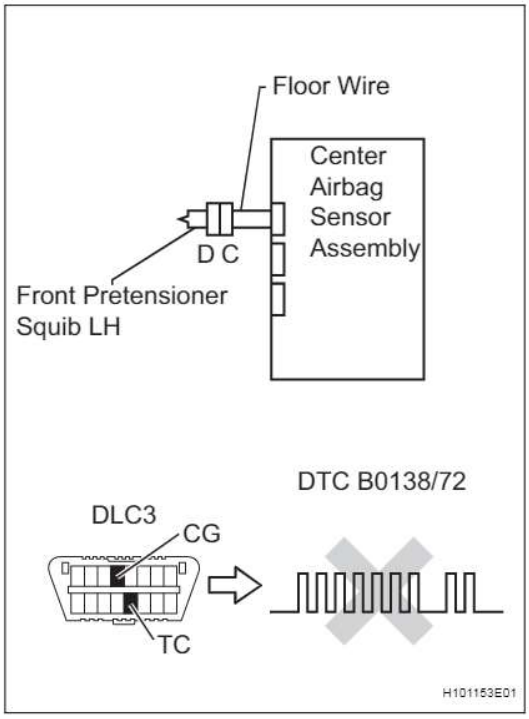
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

(f) Turn the ignition switch to the ON position, and wait at least 60 seconds.

(g) Clear the stored in the memory (see page RS-44).

(h) Turn the ignition switch LOCK position.

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




(j) Check for the DTCs (see page RS-44).

**OK:**

**DTC B0138/72 is not output.**

HINT:

Codes other than code B0138/72 may be output at this time, but they are not related to this check.

RS

NG → **REPLACE FRONT SEAT OUTER BELT ASSEMBLY LH**

OK

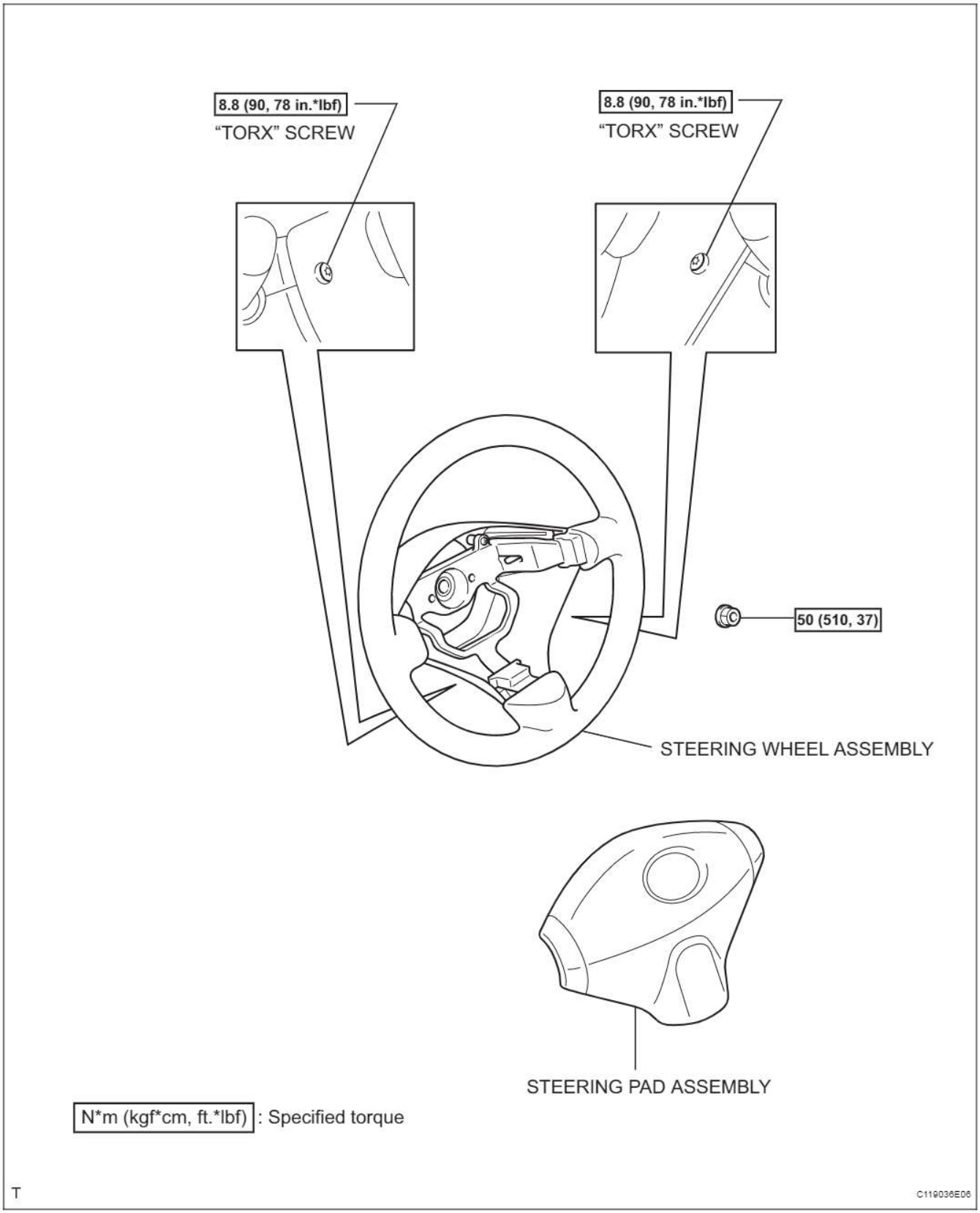
**PROBLEM SYMPTOMS SIMULATION**

# STEERING PAD

## COMPONENTS

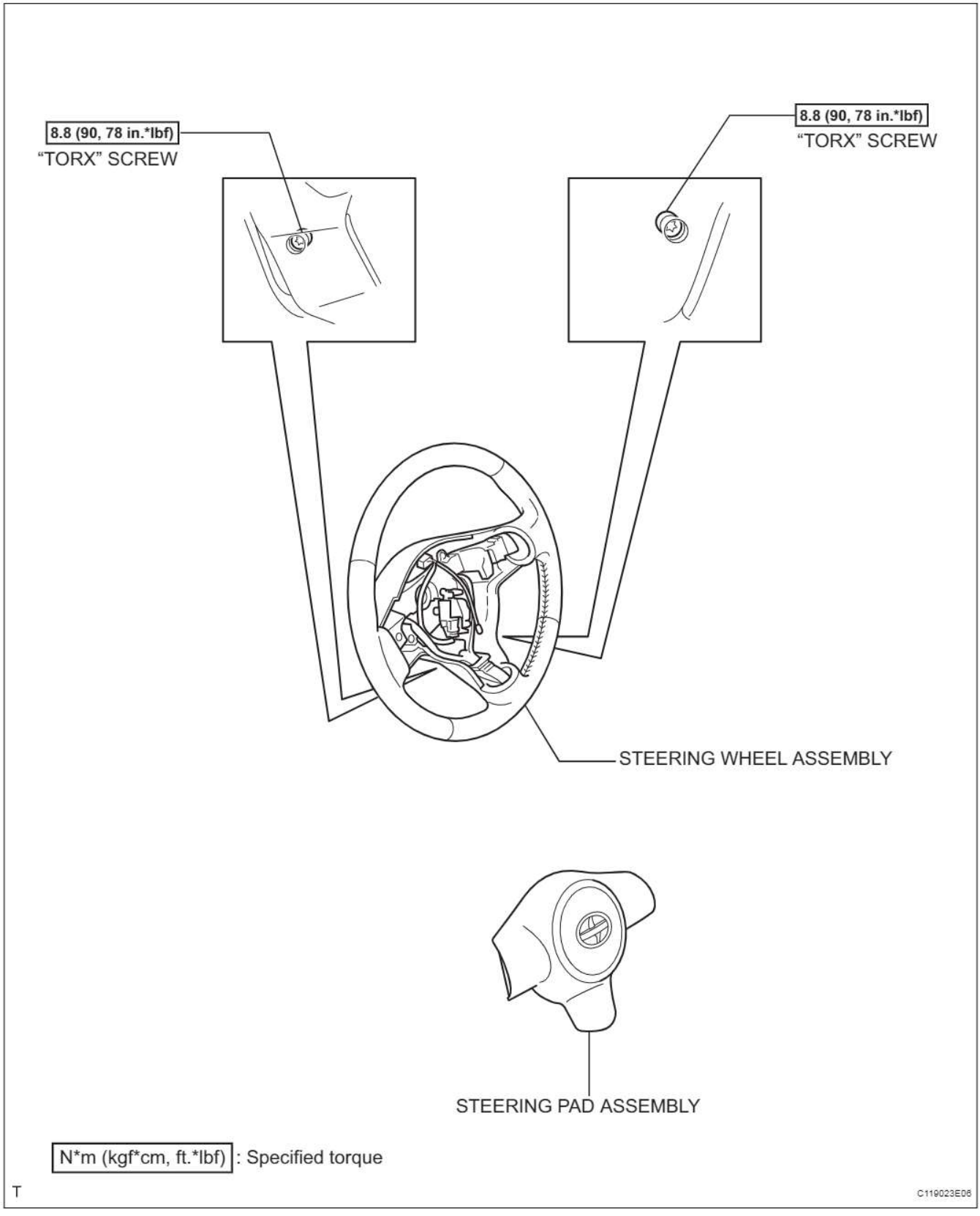
(2005/07-2005/12)

RS

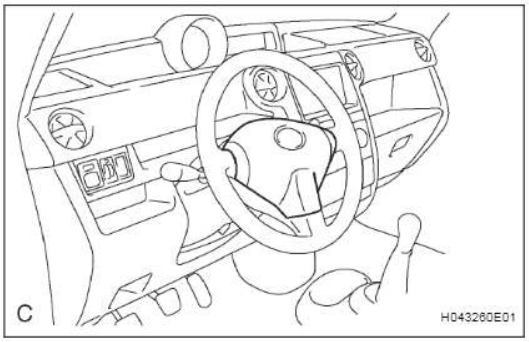


# COMPONENTS

(2005/12- )



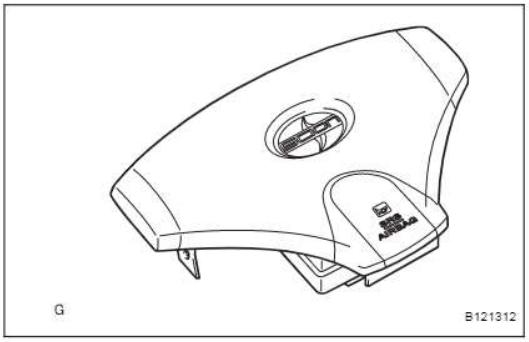
RS




# ON-VEHICLE INSPECTION

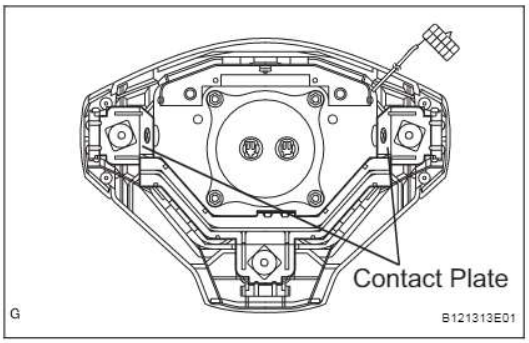
(2005/07-2005/12)

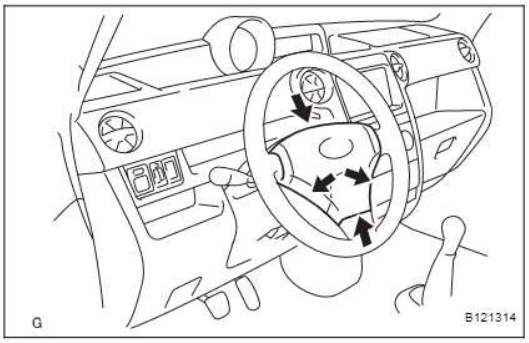
1. **CHECK STEERING PAD ASSEMBLY (VEHICLE NOT INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-51).
   (b) With the steering pad (with airbag) installed on the vehicle, perform a visual check:
   Check for cuts, cracks or discoloration on the steering pad outer surface and in the grooved portion.
   If any of the defects mentioned above are present, replace the steering pad assembly with a new one.
   **CAUTION:**
   **For removal and installation of the steering pad assembly, be sure to follow the correct procedures.**




2. **CHECK STEERING PAD ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-51).
   (b) With the steering pad (with airbag) removed from the vehicle, perform a visual check:
   - Check for cuts, cracks or discoloration on the steering pad outer surface and in the grooved portion.
   - Check for cuts and cracks in the wire harness, and chipping on the connectors.
   - Check for deformation on the steering wheel.
   - Check for deformation of the steering pad contact plates.

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



| DTC | B1000/31 | Center Airbag Sensor Assembly Malfunction |
|---|---|---|

## SYSTEM DESCRIPTION

The center airbag sensor consists of the airbag sensor, the safing sensor, the driver circuit, the diagnosis circuit and the ignition control circuit.

If the center airbag sensor receives signals from the other airbag sensors, it judges whether or not the SRS should be activated.

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

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

HINT:

When a malfunction code other than code B1000/31 is displayed at the same time, first repair the malfunction indicated by the malfunction code other than code B1100/31.

## INSPECTION PROCEDURE

| 1 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

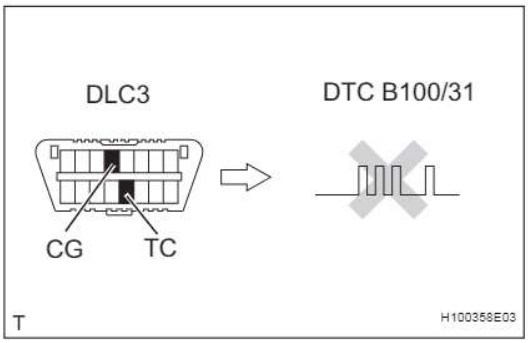
(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Connect the connectors to the center airbag sensor assembly.
(d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(e) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(f) Clear the stored DTCs in the memory (see page RS-48).
(g) Turn the ignition switch to the LOCK position.
(h) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(i) Check for DTCs (see page RS-48).

**OK:**

**DTC B1000/31 is not output.**

HINT:

Codes other than code B1100/31 may be output at this time, but they are not related to this check.




NG → REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK

END

| DTC | B1100/31 | Center Airbag Sensor Assembly Malfunction |
|---|---|---|

## DESCRIPTION

The center airbag sensor assembly consists of the airbag sensor, the safing sensor, the driver circuit, the diagnosis circuit and the ignition control circuit.
If the center airbag sensor assembly receives signals from the other airbag sensors, it judges whether or not the SRS should be activated.
DTC B1100/31 is recorded when a malfunction in the center airbag sensor assembly is detected.

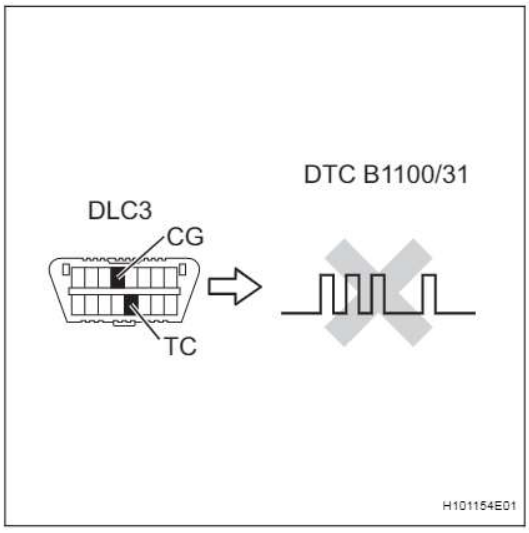
| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1100/31 | Center airbag sensor assembly malfunction | Center airbag sensor assembly |

HINT:
When a malfunction code other than code B1100/31 is displayed at the same time, first repair the malfunction indicated by the malfunction code other than code B1100/31.

## INSPECTION PROCEDURE

| 1 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Connect the connectors 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 to the ON position, and wait for at least 60 seconds.
(f) Clear the stored DTCs in the memory (see page RS-44).
(g) Turn the ignition switch to the LOCK position.
(h) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(i) Check for the DTCs (see page RS-44).
**OK:**
**DTC B1100/31 is not output.**
HINT:
Codes other than code B1100/31 may be output at this time, but they are not related to this check.




NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

**END**

| DTC | B1153/25 | Seat Position Airbag Sensor Circuit Malfunction |
|---|---|---|

## DESCRIPTION

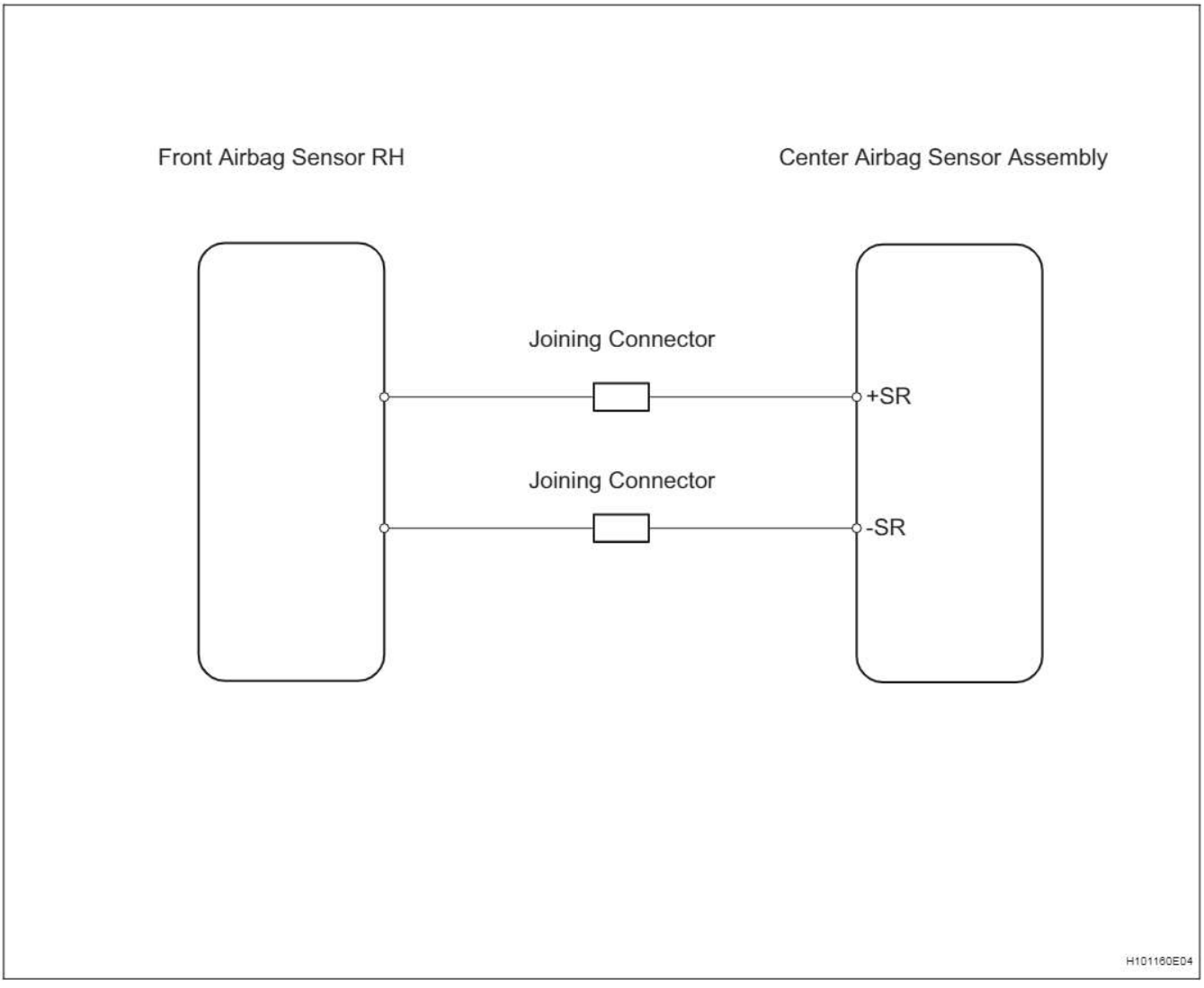
RS

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

DTC B1153/25 is recorded when a malfunction is detected in the seat position sensor circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1153/25 | • Open circuit in LSP+ wire harness or LSP- wire harness of seat position sensor<br>• Short circuit in seat position wire harness (to ground)<br>• Short circuit in seat position sensor wire harness (+B)<br>• Seat position sensor malfunction<br>• Center airbag sensor assembly | • Seat position sensor<br>• Center airbag sensor assembly<br>• Floor wire<br>• Front seat inner belt assembly LH |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

| 1 | CHECK SEAT POSITION SENSOR |
|---|---|

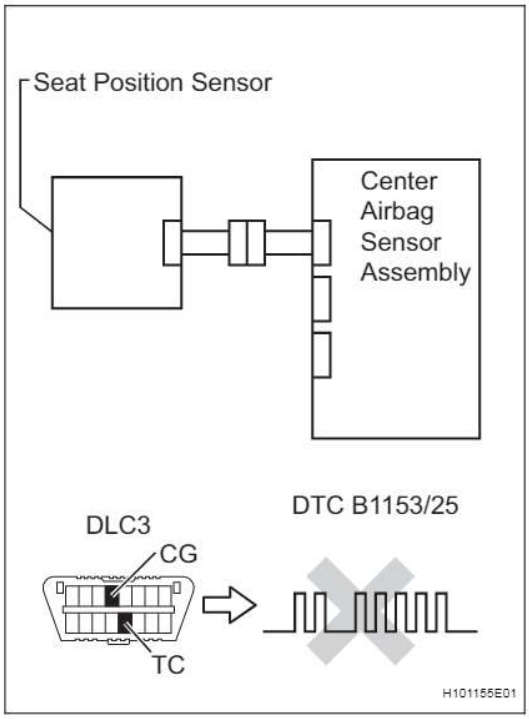
(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(d) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(e) Clear the stored DTCs in the memory (see page RS-44).
(f) Turn the ignition switch to the LOCK position.
(g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(h) Check for the DTCs (see page RS-44).

**OK:**

**DTC B1153/25 is not output.**

HINT:

Codes other than code B1153 may be output at this time, but they are not related to this check.




OK → PROBLEM SYMPTOMS SIMULATION

NG

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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:**

**Connector is connected.**

NG → CONNECT CONNECTORS

OK

RS

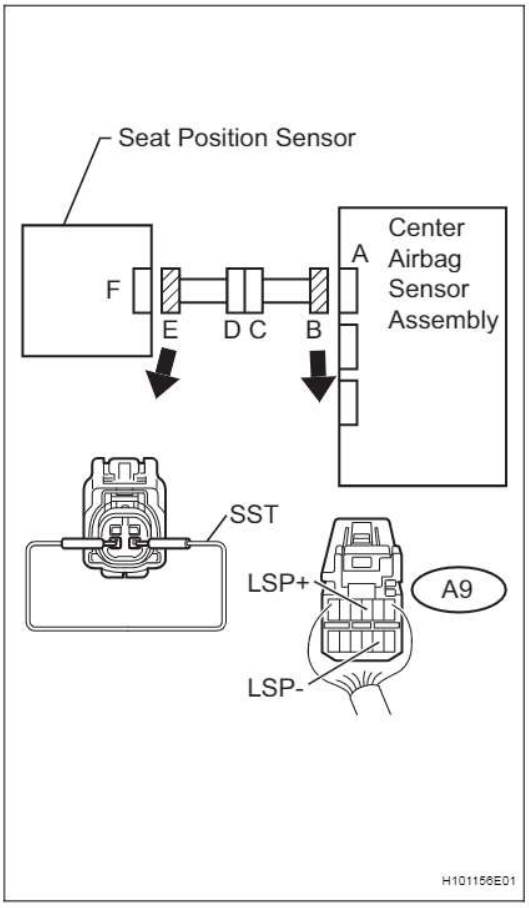
| 3 | CHECK SEAT POSITION SENSOR |
|---|---|

(a) Check that the connector is properly connected to the seat position sensor.
**OK:**
**Connector is connected.**

NG → **CONNECT CONNECTORS**

OK

| 4 | CHECK SEAT POSITION SENSOR CIRCUIT (OPEN) (CENTER AIRBAG SENSOR ASSEMBLY - SEAT POSITION SENSOR) |
|---|---|




(a) Disconnect the connectors from the center airbag sensor assembly and the seat position sensor.
(b) Using SST, connect one terminal to the other of connector "E".
**SST 09843-18040**
**NOTICE:**
**Do not forcibly insert SST into the terminals of the connector when connecting.**
(c) Measure the resistance according to the value(s) in the table below.
**Standard resistance**

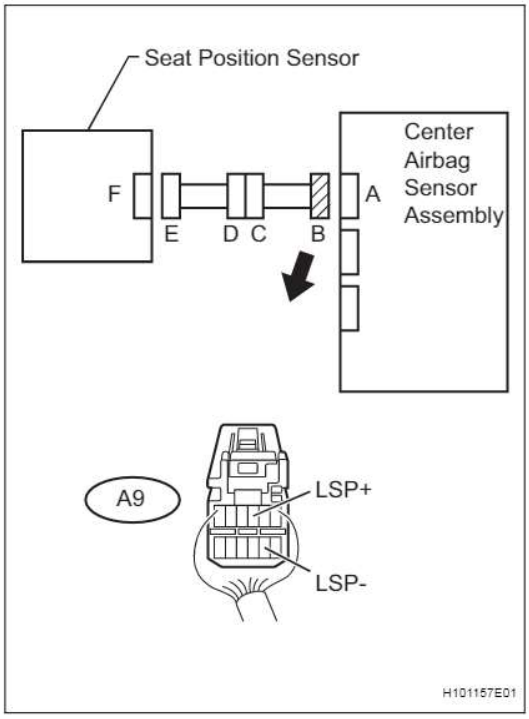
| Tester Connector (Connector "B") | Specified Condition |
|---|---|
| A9-3 (LSP+) - A9-8 (LSP-) | Below 1 Ω |

NG → **Go to step 11**

OK

| 5 | CHECK SEAT POSITION SENSOR CIRCUIT (TO GROUND) (CENTER AIRBAG SENSOR ASSEMBLY - SEAT POSITION SENSOR) |
|---|---|

(a) Disconnect the SST from the connector "E".




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

**Standard resistance**

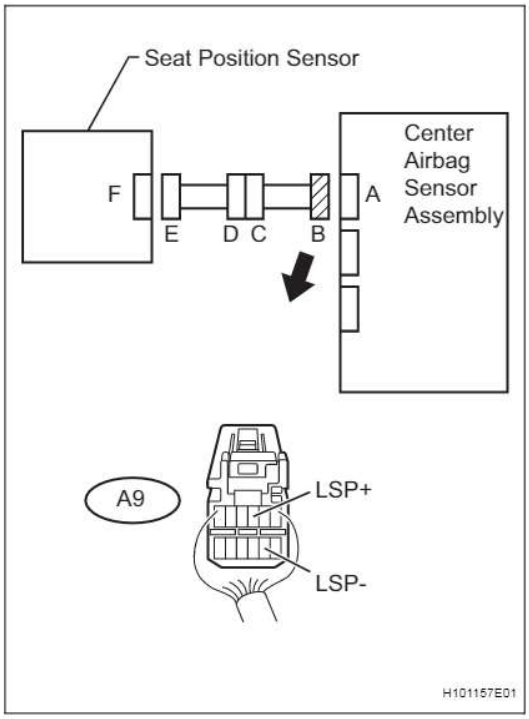
| Tester Connection (Connector "B") | Specified Condition |
|---|---|
| A9-3 (LSP+) - Body ground | 1 MΩ or higher |
| A9-8 (LSP-) - Body ground | |

RS

NG → Go to step 12

OK

**6 CHECK SEAT POSITION SENSOR CIRCUIT (CENTER AIRBAG SENSOR ASSEMBLY - SEAT POSITION SENSOR)**




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

**Standard resistance**

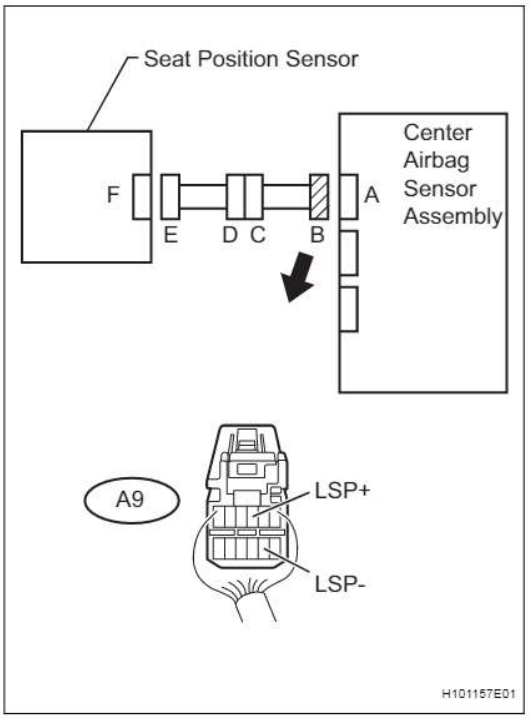
| Tester Connection (Connector "B") | Specified Condition |
|---|---|
| A9-3 (LSP+) - A9-8 (LSP-) | 1 MΩ or higher |

NG → Go to step 13

OK

| 7 | CHECK SEAT POSITION SENSOR CIRCUIT (TO +B) (CENTER AIRBAG SENSOR ASSEMBLY - SEAT POSITION SENSOR) |
|---|---|

RS




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

**Standard voltage**

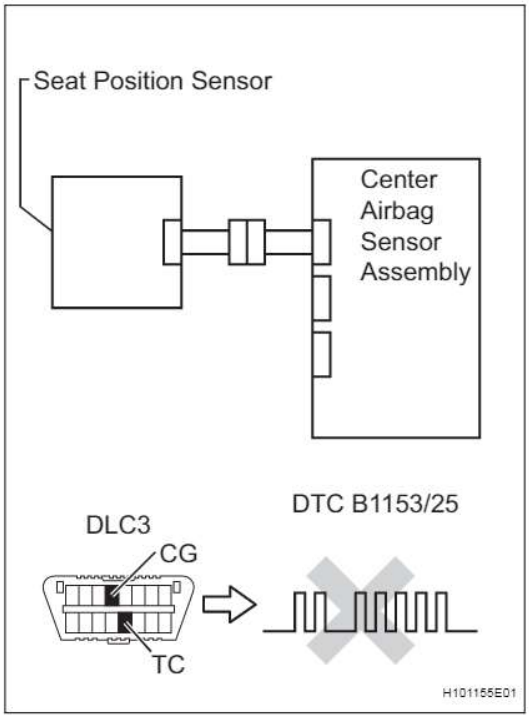
| Tester Connection (Connector "B") | Condition | Specified Condition |
|---|---|---|
| A9-3 (LSP+) - Body ground | Ignition switch ON | Below 1 V |
| A9-8 (LSP-) - Body ground | | |

NG → Go to step 14

OK

| 8 | CHECK SEAT POSITION SENSOR |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Connect the connectors to the seat position sensor and the center airbag sensor assembly.
(d) Connect the negative (-) terminal cable to the battery, and wait for at lest 2 seconds.
(e) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(f) Clear the stored DTCs in the memory (see page RS-44).
(g) Turn the ignition switch to the LOCK position.
(h) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(i) Check for the DTCs (see page RS-44).
**OK:**
**DTC B1153/25 is not output.**
HINT:
Codes other than code B1153/23 may be output at this time, but they are not related to this check.

RS

NG → **Go to step 9**

OK

**PROBLEM SYMPTOMS SIMULATION**

**9 REPLACE SEAT POSITION SENSOR**

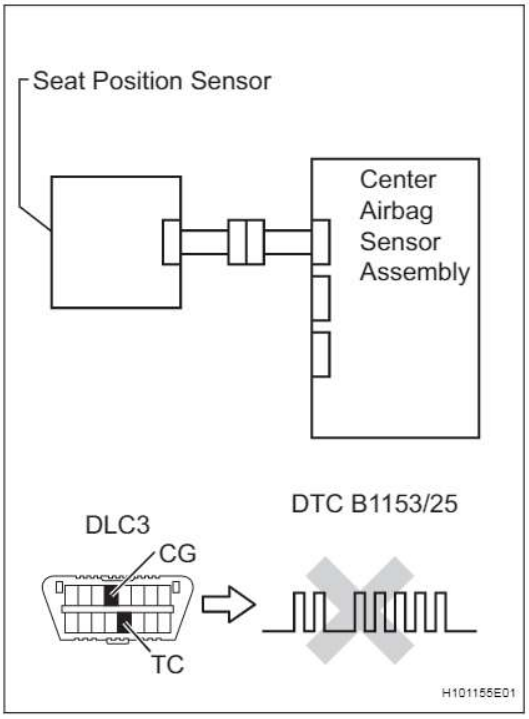
(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Replace the seat position sensor (see page RS-442).

NEXT

**10 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 to the ON position, and wait for at least 60 seconds.
(c) Clear the stored DTCs in the memory (see page RS-44).
(d) Turn the ignition switch to the LOCK position.
(e) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

RS




(f) Check for the DTCs (see page RS-44).
**OK:**
**DTC B1153/25 is not output.**
HINT:
Codes other than code B1153/25 may be output at this time, but they are not related to this check.

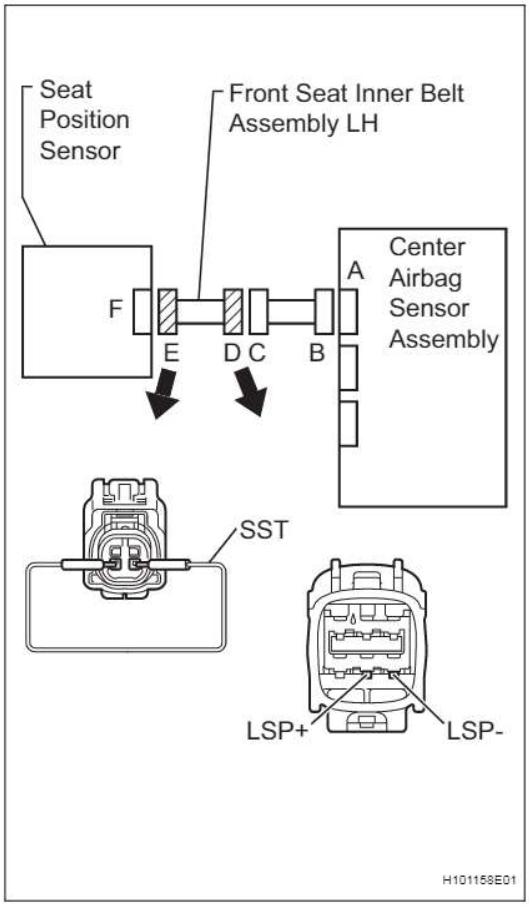
| NG | REPLACE CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

OK

| END |
|---|

| 11 | CHECK WIRE HARNESS (SEAT POSITION SENSOR - FRONT SEAT INNER BELT ASSEMBLY LH) |
|---|---|

(a) Disconnect the front seat inner belt assembly LH connector from the floor wire.
HINT:
The two terminals of connector "E" have already been connected with each other using SST.
**SST 09843-18040**




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

**Standard resistance**

| Tester Connection (Connector "D") | Specified Condition |
|---|---|
| LSP+ - LSP- | Below 1 Ω |

NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR (SEAT POSITION SENSOR - FRONT SEAT INNER BELT ASSEMBLY LH)**

RS

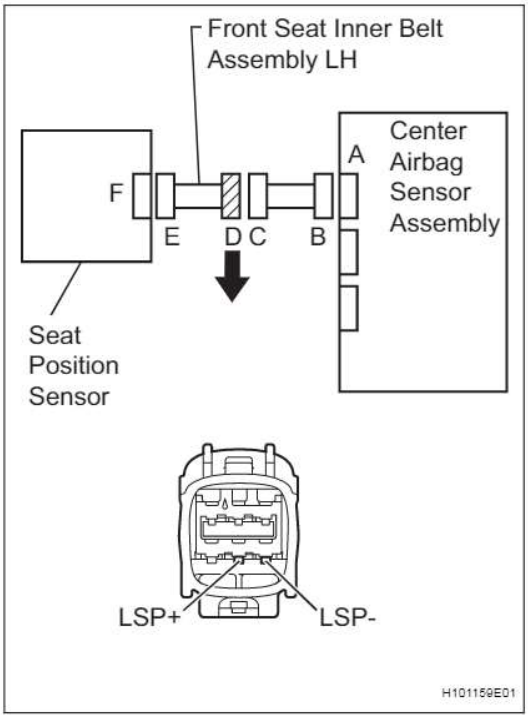
OK

**REPAIR OR REPLACE FLOOR WIRE (CENTER AIRBAG SENSOR ASSEMBLY - FRONT SEAT INNER BELT ASSEMBLY LH)**

| | |
|---|---|
| 12 | **CHECK WIRE HARNESS (SEAT POSITION SENSOR - FRONT SEAT INNER BELT ASSEMBLY LH)** |

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

RS




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

**Standard resistance**

| Tester Connection (Connector "D") | Specified Condition |
|---|---|
| LSP+ - Body ground | 1 MΩ or higher |
| LSP- - Body ground | |

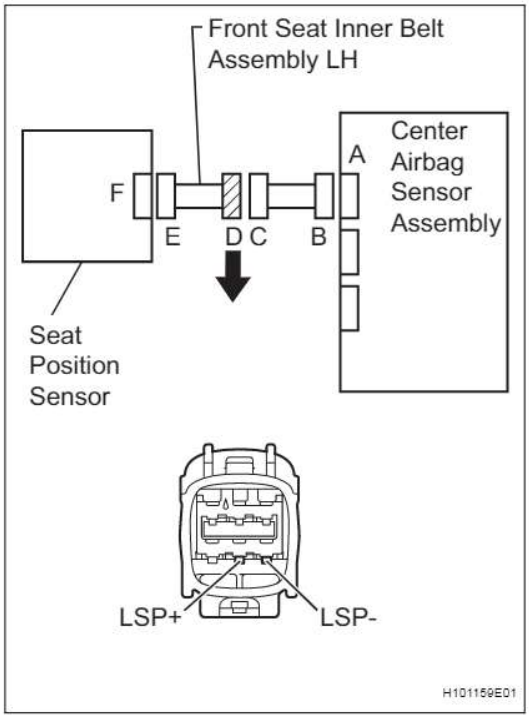
NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR (SEAT POSITION SENSOR - FRONT SEAT INNER BELT ASSEMBLY LH)**

OK

**REPAIR OR REPLACE FLOOR WIRE (CENTER AIRBAG SENSOR ASSEMBLY - FRONT SEAT INNER BELT ASSEMBLY LH)**

| 13 | CHECK WIRE HARNESS (SEAT POSITION SENSOR - FRONT SEAT INNER BELT ASSEMBLY LH) |
|---|---|

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




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

**Standard resistance**

| Tester Connection (Connector "D") | Specified Condition |
|---|---|
| LSP+ - LSP- | 1 MΩor higher |

RS

NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR (SEAT POSITION SENSOR - FRONT SEAT INNER BELT ASSEMBLY LH)**

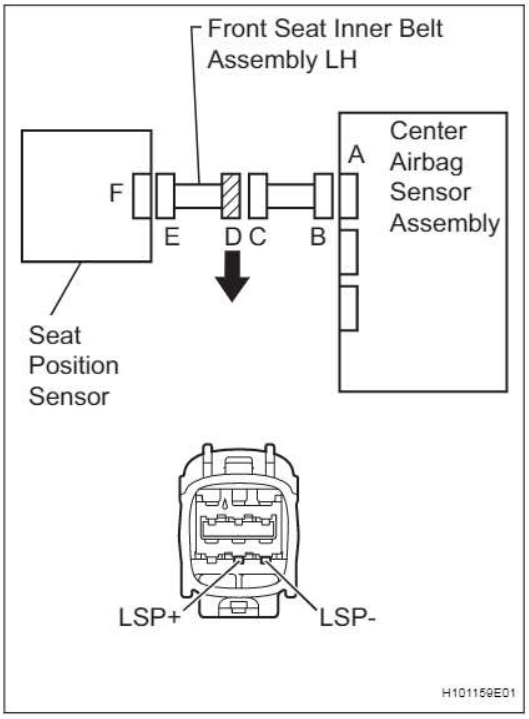
OK

**REPAIR OR REPLACE FLOOR WIRE (CENTER AIRBAG SENSOR ASSEMBLY - FRONT SEAT INNER BELT ASSEMBLY LH)**

| 14 | CHECK WIRE HARNESS (SEAT POSITION SENSOR - FRONT SEAT INNER BELT ASSEMBLY LH) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Disconnect the front seat wire connector on the center airbag sensor assembly side.
(d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

RS




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

**Standard voltage**

| Tester Connection (Connector "D") | Condition | Specified Condition |
|---|---|---|
| LSP+ - Body ground | Ignition switch ON | Below 1 V |
| LSP- - Body ground | | |

NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR (SEAT POSITION SENSOR - FRONT SEAT INNER BELT ASSEMBLY LH)**

OK

**REPAIR OR REPLACE FLOOR WIRE (CENTER AIRBAG SENSOR ASSEMBLY - FRONT SEAT INNER BELT ASSEMBLY LH)**

| DTC | B1156/15 | Front Airbag Sensor RH Malfunction |
|---|---|---|

| DTC | B1157/15 | Front Airbag Sensor RH Malfunction |
|---|---|---|

## DESCRIPTION

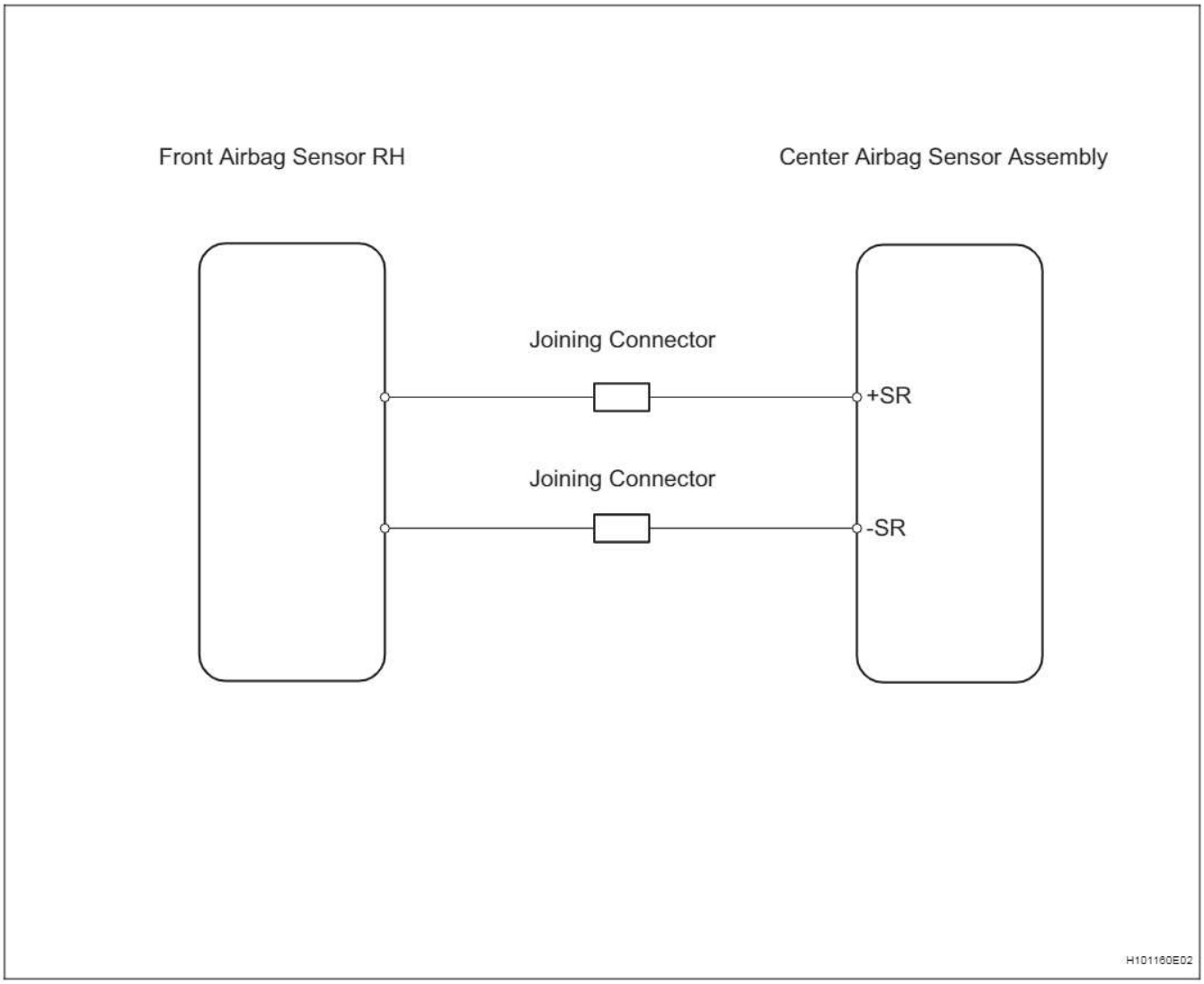


The front airbag sensor RH circuit consists of the center airbag sensor assembly and the front airbag sensor RH. DTC B1156/15 or B1157/15 is recorded when a malfunction is detected in the front airbag sensor RH circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1156/15<br>B1157/15 | • Short circuit in front airbag sensor RH wire harness (to B+)<br>• Short circuit in front airbag sensor RH wire harness (to ground)<br>• Short circuit between +SR wire harness and -SR wire harness of front airbag sensor RH<br>• Open circuit in +SR wire harness or -SR wire harness of front airbag sensor RH<br>• Front airbag sensor RH malfunction<br>• Center airbag sensor assembly malfunction | • Front airbag sensor assembly<br>• Center airbag sensor assembly<br>• Instrument panel wire<br>• Engine room main wire |

RS

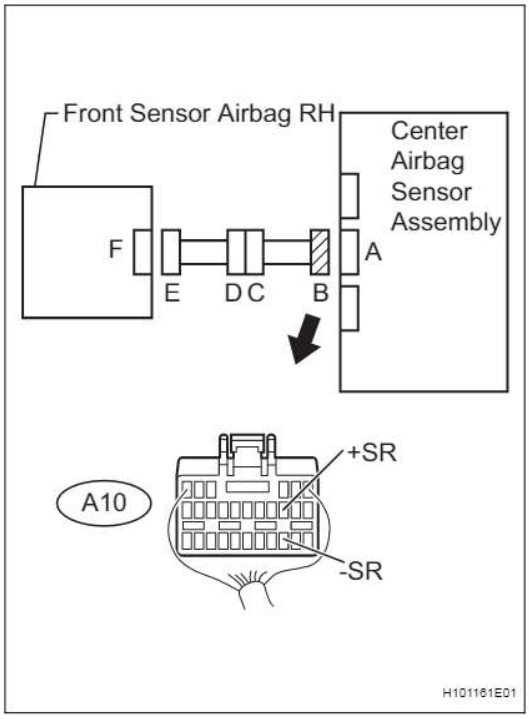
## WIRING DIAGRAM




## INSPECTION PROCEDURE

| | |
|---|---|
| 1 | **CHECK FRONT AIRBAG SENSOR RH CIRCUIT (TO B+) (CENTER AIRBAG SENSOR ASSEMBLY - FRONT AIRBAG SENSOR RH)** |

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Disconnect the connectors between the center airbag sensor assembly and the front airbag sensor RH.
(d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.




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

**Standard voltage**

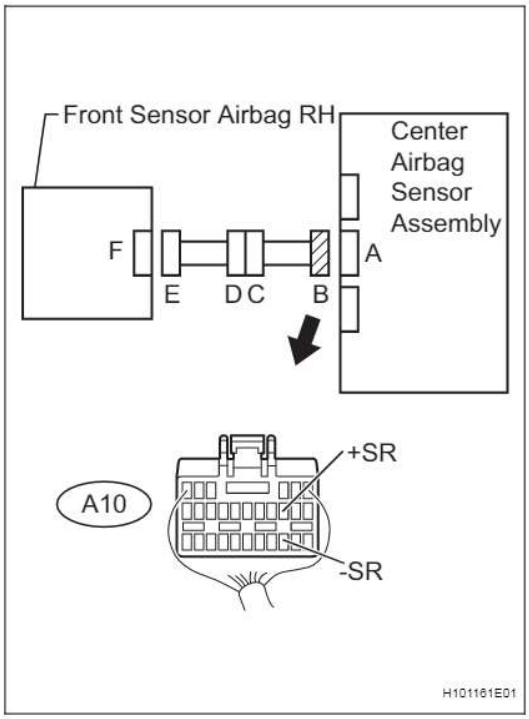
| Tester Connection (Connector "B") | Condition | Specified Condition |
|---|---|---|
| A10-9 (+SR) - Body ground | Ignition switch ON | Below 1 V |
| A10-20 (-SR) - Body ground | | |

RS

NG → Go to step 7

OK

| 2 | CHECK FRONT AIRBAG SENSOR RH CIRCUIT (TO GROUND) (FRONT AIRBAG SENSOR RH - CENTER AIRBAG SENSOR ASSEMBLY) |
|---|---|




(a) Turn the ignition switch to the LOCK position.
(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**

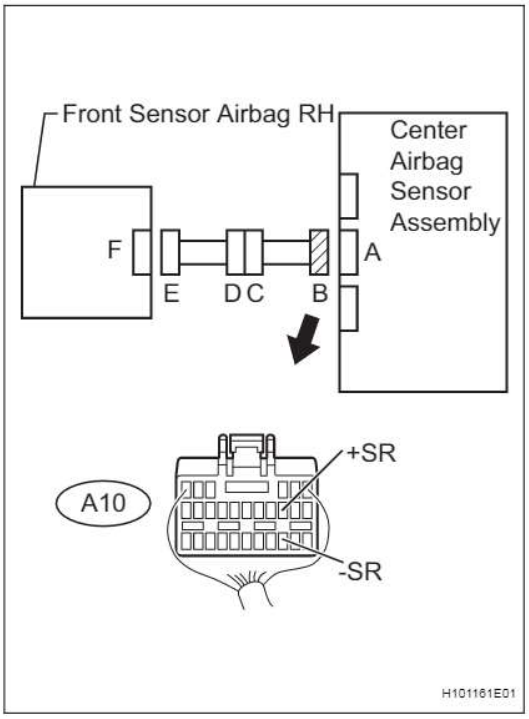
| Tester Connection (Connector "B") | Specified Condition |
|---|---|
| A10-9 (+SR) - Body ground | 1 MΩ or higher |
| A10-20 (-SR) - Body ground | |

NG → Go to step 8

OK

RS

| 3 | CHECK FRONT AIRBAG SENSOR RH CIRCUIT (SHORT) (FRONT AIRBAG SENSOR RH - CENTER AIRBAG SENSOR ASSEMBLY) |
|---|---|




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

**Standard resistance**

| Tester Connection (Connector "B") | Specified Condition |
|---|---|
| A10-9 (+SR) - A10-20 (-SR) | 1 MΩ or higher |

NG → **Go to step 9**

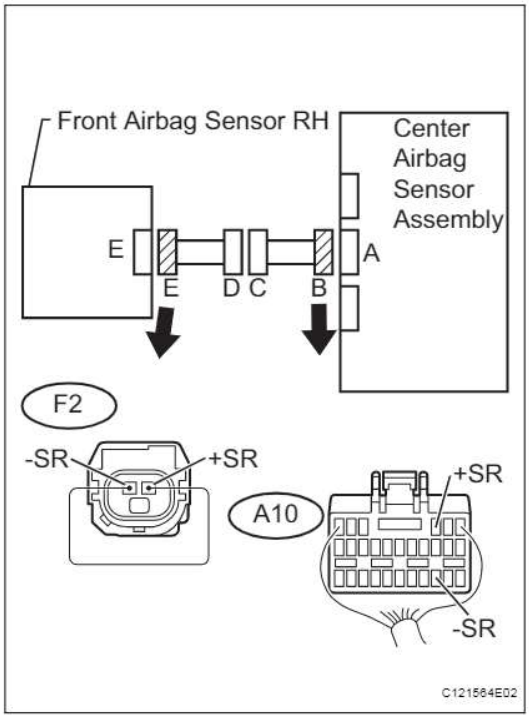
OK

| 4 | CHECK FRONT AIRBAG SENSOR RH CIRCUIT (OPEN) (FRONT AIRBAG SENSOR RH - CENTER AIRBAG SENSOR ASSEMBLY) |
|---|---|

(a) Using a service wire, connect terminals +SR and -SR of connector "E".

**NOTICE:**

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




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

**Standard resistance**

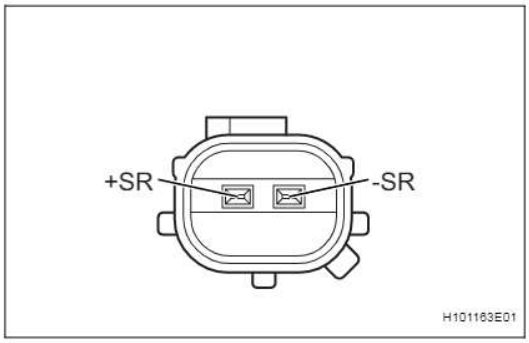
| Tester Connection (Connector "B") | Specified Condition |
|---|---|
| A10-9 (+SR) - A10-20 (-SR) | Below 1 Ω |

NG → **Go to step 10**

RS

OK

## 5 INSPECT FRONT AIRBAG SENSOR RH




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

**Standard resistance**

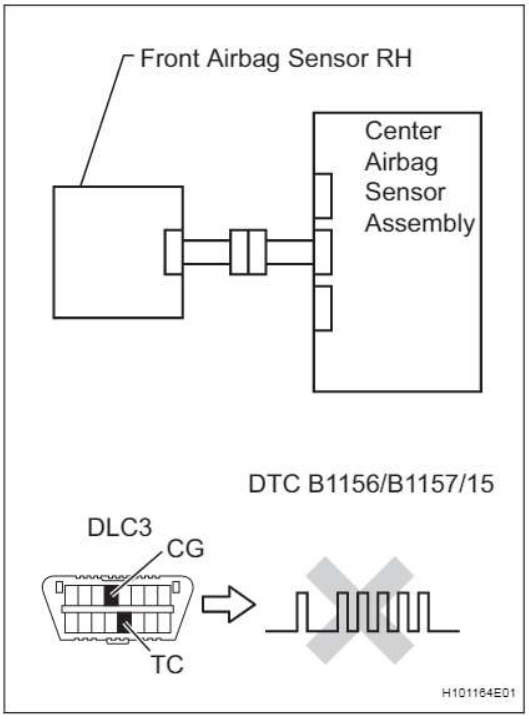
| Tester Connection (Connector "B") | Specified Condition |
|---|---|
| +SR - -SR | 738 to 902 Ω |

NG → **REPLACE FRONT AIRBAG SENSOR RH**

OK

## 6 CHECK CENTER AIRBAG SENSOR ASSEMBLY

(a) Connect the connectors to the front airbag sensor 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 to the ON position, and wait for at least 60 seconds.
(d) Clear the stored DTCs in the memory (see page RS-44).
(e) Turn the ignition switch to the LOCK position.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(g) Check for the DTCs (see page RS-44).

**OK:**

**DTC B1156/15 or B1157/15 is not output.**

HINT:

Codes other than code B1156/15 or B1157/15 may be output at this time, but they are not related to this check.

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

**PROBLEM SYMPTOMS SIMULATION**

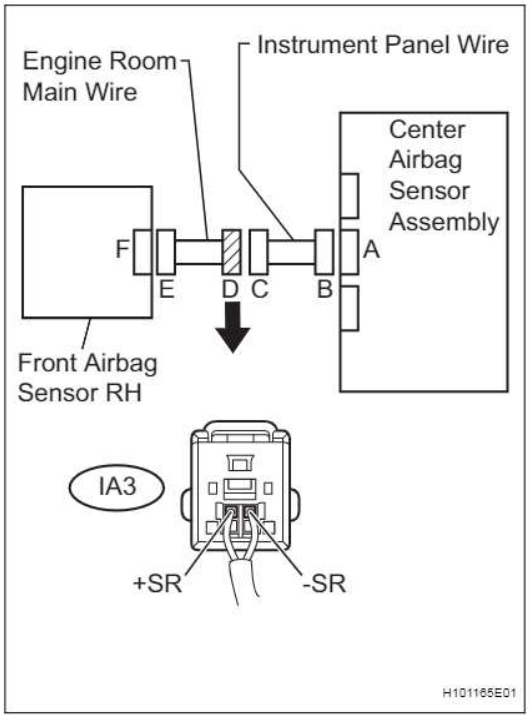
| 7 | CHECK ENGINE ROOM MAIN WIRE HARNESS (TO B+) (CONNECTOR - FRONT AIRBAG SENSOR RH) |
|---|---|

(a) Turn the ignition switch to the LOCK position.

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

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

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




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

**Standard voltage**

| Tester Connection (Connector "D") | Condition | Specified Condition |
|---|---|---|
| IA3-2 (+SR) - Body ground | Ignition switch ON | Below 1 V |
| IA3-1 (-SR) - Body ground | | |

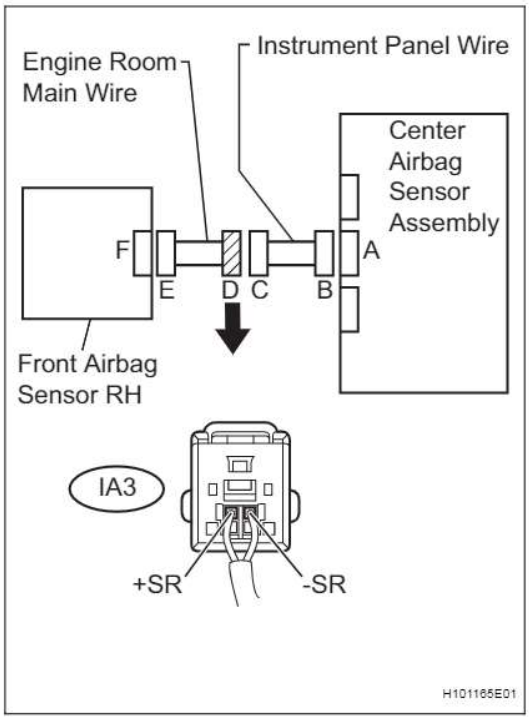
RS

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

OK

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

| 8 | CHECK ENGINE ROOM MAIN WIRE HARNESS (TO GROUND) (CONNECTOR - FRONT AIRBAG SENSOR RH) |
|---|---|




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

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

**Standard resistance**

| Tester Connection (Connector "D") | Specified Condition |
|---|---|
| IA3-2 (+SR) - Body ground | 1 MΩ or higher |
| IA3-1 (-SR) - Body ground | |

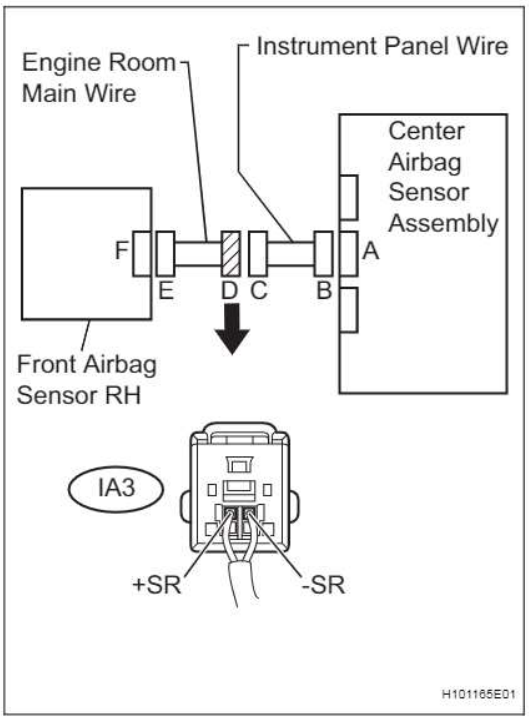
NG → **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

RS

| 9 | CHECK ENGINE ROOM MAIN WIRE HARNESS (SHORT) (CONNECTOR - FRONT AIRBAG SENSOR RH) |
|---|---|




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

**Standard resistance**

| Tester Connection (Connector "D") | Specified Condition |
|---|---|
| IA3-2 (+SR) - IA3-1 (-SR) | 1 MΩ or higher |

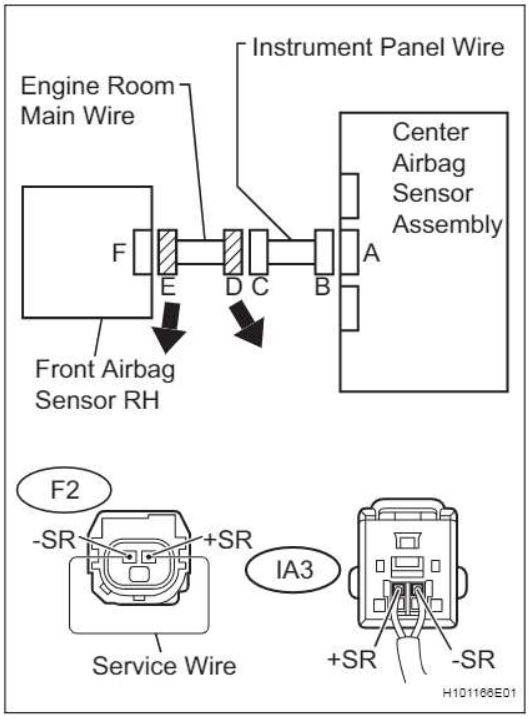
NG → **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

| 10 | CHECK ENGINE ROOM MAIN WIRE HARNESS (OPEN) (CONNECTOR - FRONT AIRBAG SENSOR RH) |
|---|---|

(a) Disconnect the engine room main wire connector from the instrument panel wire.
HINT:
Terminals +SR and -SR of connector "E" have already been connected with each other using the service wire.




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

**Standard resistance**

| Tester Connection (Connector "D") | Specified Condition |
|---|---|
| IA3-2 (+SR) - IA3-1 (-SR) | Below 1 Ω |

RS

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

OK

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

| DTC | B1158/16 | Front Airbag Sensor LH Malfunction |
|---|---|---|

| DTC | B1159/16 | Front Airbag Sensor LH Malfunction |
|---|---|---|

RS

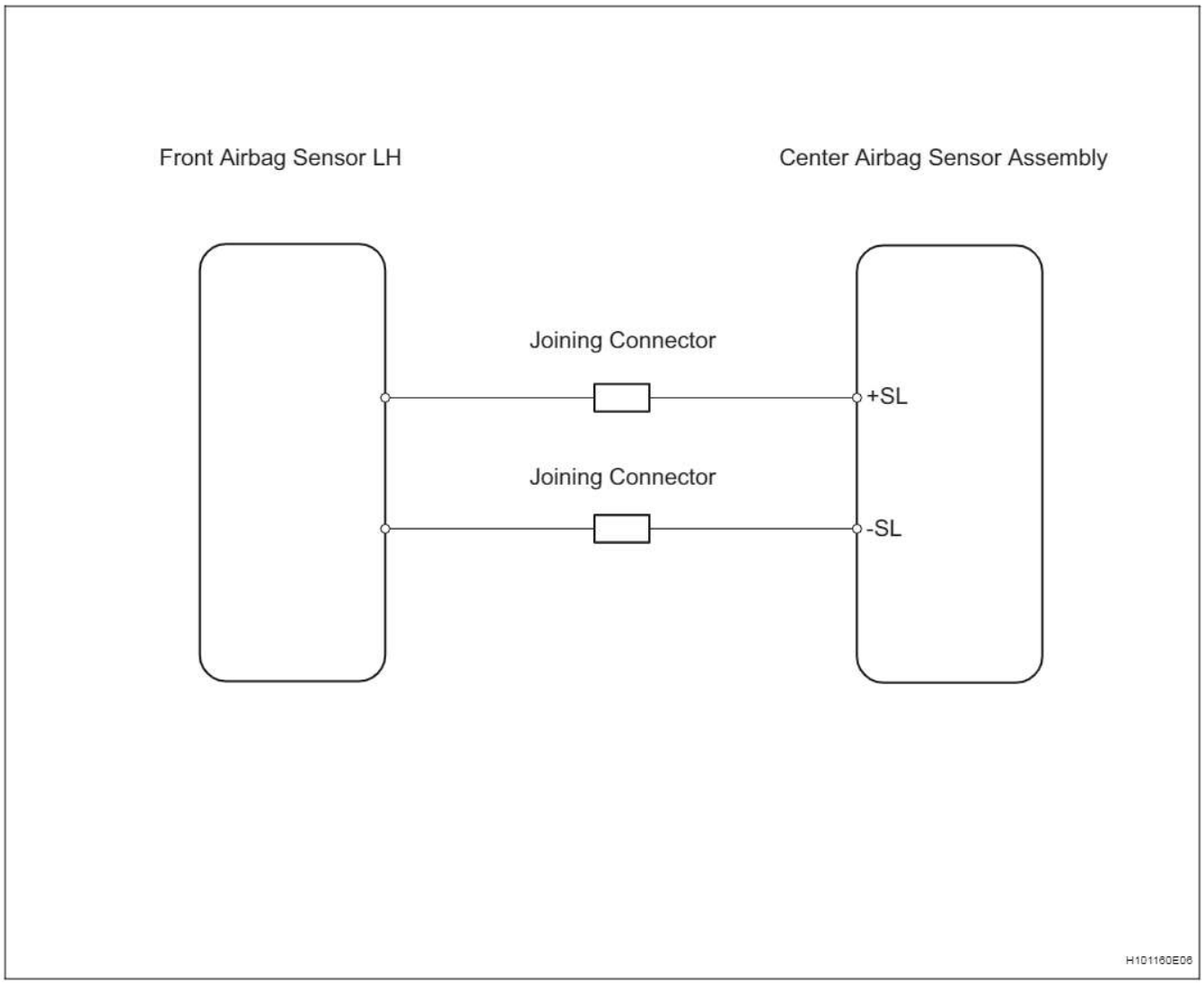
## DESCRIPTION

The front airbag sensor LH circuit consists of the center airbag sensor assembly and the front airbag sensor LH.

DTC B1158/16 or B1159/16 is recorded when malfunction is detected in the front airbag sensor LH circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1158/16<br>B1159/16 | • Short circuit in front airbag sensor LH wire harness (to B+)<br>• Short circuit in front airbag sensor LH wire harness (to ground)<br>• Short circuit between SL+ wire harness and -SL wire harness of front airbag sensor LH<br>• Open circuit in +SL wire harness or -SL wire harness of front airbag sensor LH<br>• Front airbag sensor LH malfunction<br>• Center airbag sensor assembly | • Front airbag sensor LH<br>• Center airbag sensor assembly<br>• Instrument panel wire<br>• Engine room main wire |

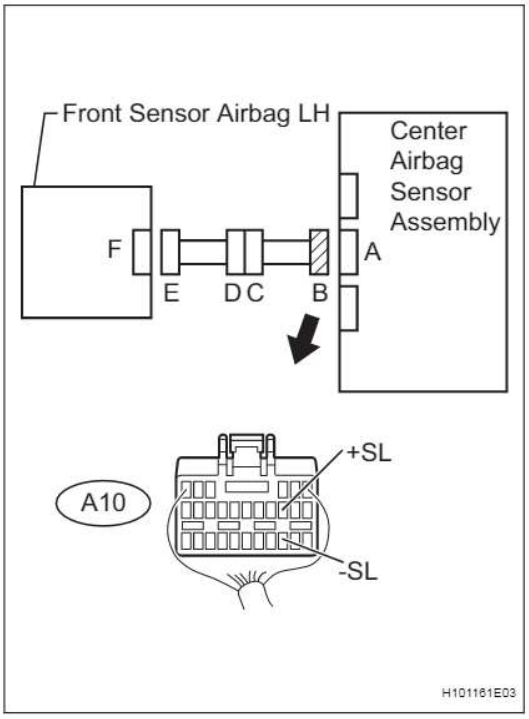
## WIRING DIAGRAM




## INSPECTION PROCEDURE

| | |
|---|---|
| 1 | CHECK FRONT AIRBAG SENSOR LH CIRCUIT (TO +B) (CENTER AIRBAG SENSOR ASSEMBLY - FRONT AIRBAG SENSOR LH) |

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Disconnect the connectors between the center airbag sensor assembly and the front airbag sensor LH.
(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.

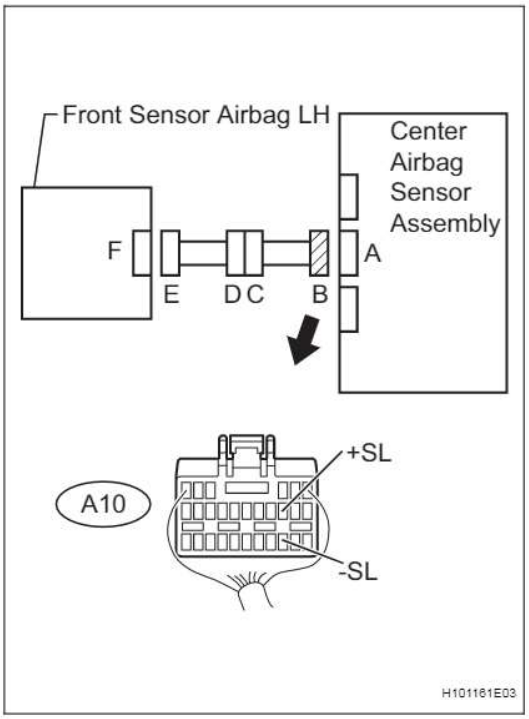
**Standard voltage**

| Tester Connection (Connector "B") | Condition | Specified Condition |
|---|---|---|
| A10-15 (+SL) - Body ground | Ignition switch ON | Below 1 V |
| A10-26 (-SL) - Body ground | | |

NG → Go to step 7

OK

**2 CHECK FRONT AIRBAG SENSOR LH CIRCUIT (TO GROUND) (CENTER AIRBAG SENSOR ASSEMBLY - FRONT AIRBAG SENSOR LH)**




(a) Turn the ignition switch to the LOCK position.
(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.

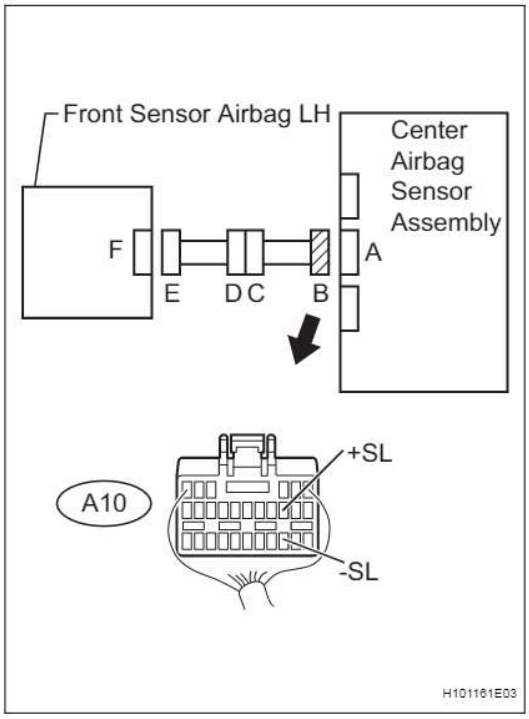
**Standard resistance**

| Tester Connection (Connector "B") | Specified Condition |
|---|---|
| A10-15 (+SL) - Body ground | 1 MΩ or higher |
| A10-26 (-SL) - Body ground | |

NG → Go to step 8

OK

| 3 | CHECK FRONT AIRBAG SENSOR LH CIRCUIT (SHORT) (CENTER AIRBAG SENSOR ASSEMBLY - FRONT AIRBAG SENSOR LH) |
|---|---|




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

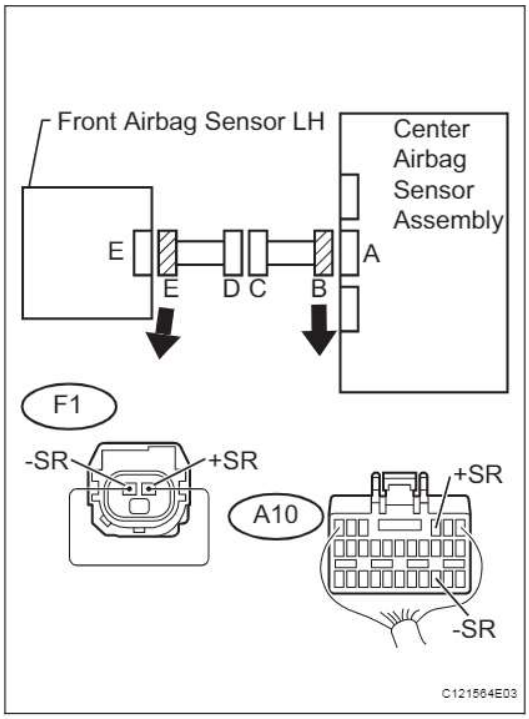
**Standard resistance**

| Tester Connection (Connector "B") | Specified Condition |
|---|---|
| A10-15 (+SL) - A10-26 (-SL) | 1 MΩ or higher |

NG → Go to step 9

OK

| 4 | CHECK FRONT AIRBAG SENSOR LH CIRCUIT (OPEN) (CENTER AIRBAG SENSOR ASSEMBLY - FRONT AIRBAG SENSOR LH) |
|---|---|




(a) Using a service wire, connect terminals +SL and -SL of connector "E".

**NOTICE:**

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

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

**Standard resistance**

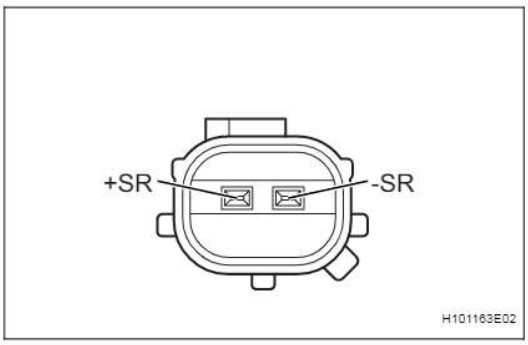
| Tester Connection (Connector "B") | Specified Condition |
|---|---|
| A10-15 (+SL) - A10-26 (-SL) | 1 MΩ or higher |

NG → Go to step 10

OK

**5 INSPECT FRONT AIRBAG SENSOR LH**

RS




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

**Standard resistance**

| Tester Connection (Connector "B") | Specified Condition |
|---|---|
| +SL - -SL | 738 to 902 Ω |

NG → **REPLACE FRONT AIRBAG SENSOR LH**

OK

**6 CHECK CENTER AIRBAG SENSOR ASSEMBLY**

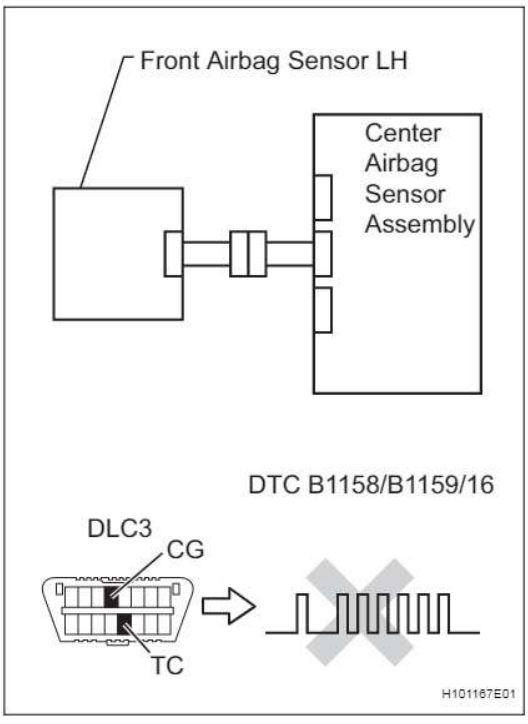
(a) Connect the connectors to the front airbag senor LH and the center airbag sensor assembly.
(b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(c) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(d) Clear the DTCs stored in the memory (see page RS-44).
(e) Turn the ignition switch to the LOCK position.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Check for the DTCs (see page RS-44).

**OK:**

**DTC B1158/16 or B1159/16 is not output.**

HINT:

Codes other than code B1158/16 or B1159/16 may be output at this time, but they are not related to this check.




NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

**PROBLEM SYMPTOMS SIMULATION**

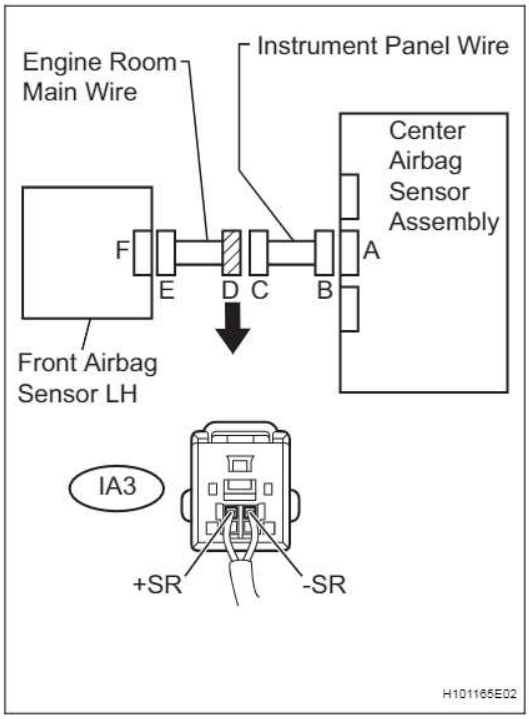
RS

| 7 | CHECK ENGINE ROOM MAIN WIRE HARNESS (TO B+) (CONNECTOR - FRONT AIRBAG SENSOR LH) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Disconnect the engine room main wire connector from the instrument panel wire.
(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 (Connector "D") | Specified Condition |
|---|---|
| IA3-4 (+SL) - Body ground | Below 1 V |
| IA3-3 (-SL) - Body ground | |




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

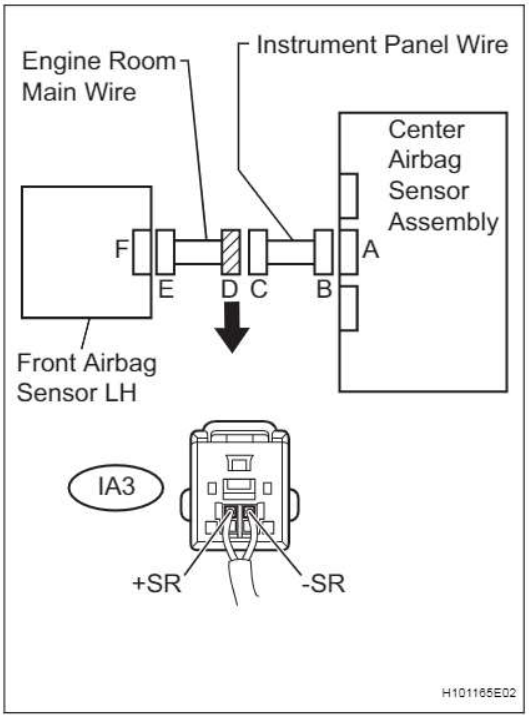
OK

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

| 8 | CHECK ENGINE ROOM MAIN WIRE HARNESS (TO GROUND) (CONNECTOR - FRONT AIRBAG SENSOR LH) |
|---|---|

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

RS




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

**Standard resistance**

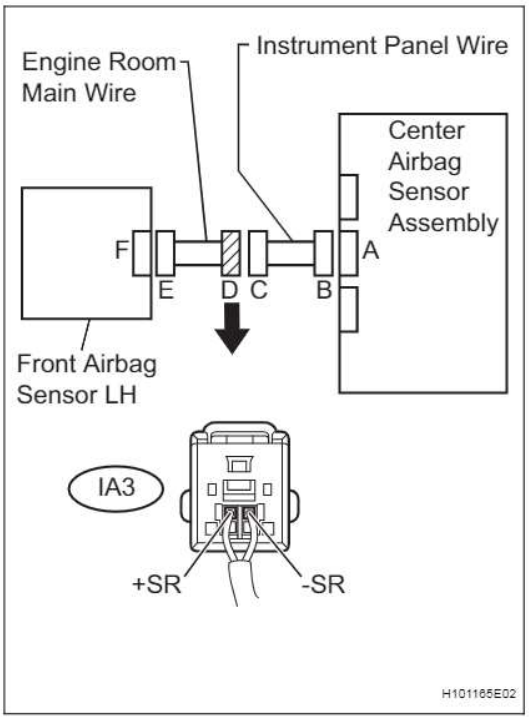
| Tester Connection (Connector "D") | Specified Condition |
|---|---|
| IA3-4 (+SL) - Body ground | 1 MΩ or higher |
| IA3-3 (-SL) - Body ground | |

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

OK

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

| 9 | CHECK ENGINE ROOM MAIN WIRE HARNESS (SHORT) (CONNECTOR - FRONT AIRBAG SENSOR LH) |
|---|---|




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

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

**Standard resistance**

| Tester Connection (Connector "D") | Specified Condition |
|---|---|
| IA3-4 (+SL) - IA3-3 (-SL) | 1 MΩ or higher |

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

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

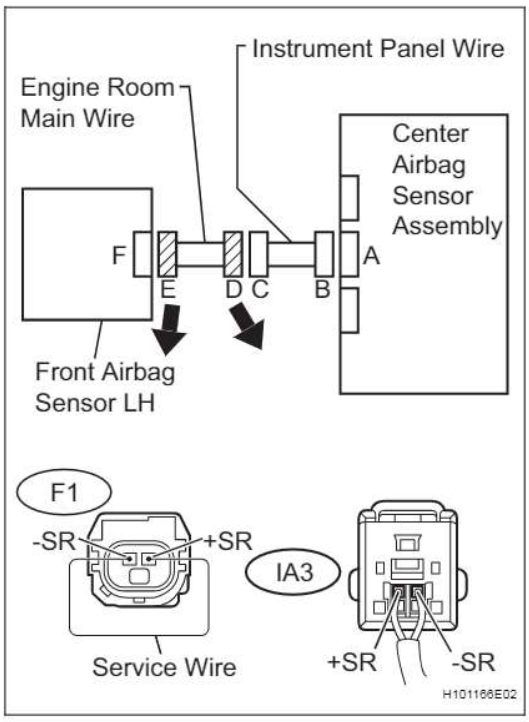
RS

| 10 | CHECK ENGINE ROOM MAIN WIRE HARNESS (OPEN) (CONNECTOR - FRONT AIRBAG SENSOR LH) |
|---|---|

(a) Disconnect the engine room main wire connector from the instrument panel wire.
HINT:
Terminal +SL and -SL of connector "E" have already been connected each other using the service wire.

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

| Tester Connection (Connector "D") | Specified Condition |
|---|---|
| IA3-4 (+SL) - IA3-3 (-SL) | Below 1 Ω |




NG → REPAIR OR REPLACE ENGINE ROOM MAIN WIRE

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

| DTC | B1180/17 | Short in Driver Side Squib 2nd Step Circuit |
|---|---|---|

## DESCRIPTION

The driver side squib (2nd step) circuit consists of the center airbag assembly, the spiral cable sub-assembly and the steering pad.

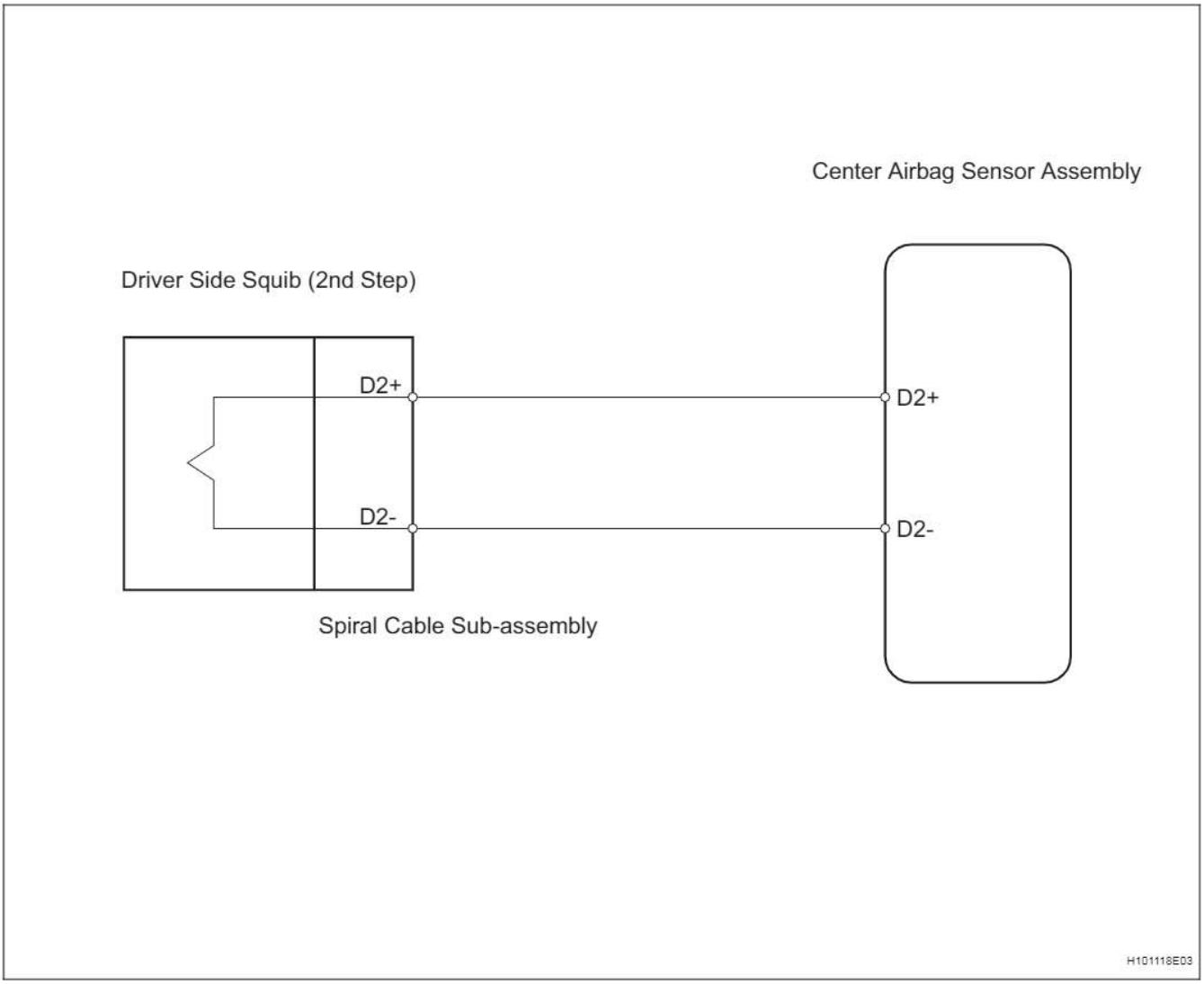
RS

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

DTC B1180/17 is recorded when a short circuit is detected in the driver side squib (2nd step) circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1180/17 | • Short circuit between D2+ wire harness and D2- wire harness of driver side squib (2nd step)<br>• Driver side squib (2nd step) malfunction<br>• Spiral cable sub-assembly malfunction<br>• Center airbag sensor assembly malfunction | • Steering pad (driver side squib, 2nd step)<br>• Spiral cable sub-assembly<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

| 1 | CHECK SPIRAL CABLE SUB-ASSEMBLY |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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) Check that the spiral cable sub-assembly connector (on the steering pad side) is not damaged.
**OK:**
**Lock button is not disengaged, or claw of lock is not deformed or damaged.**

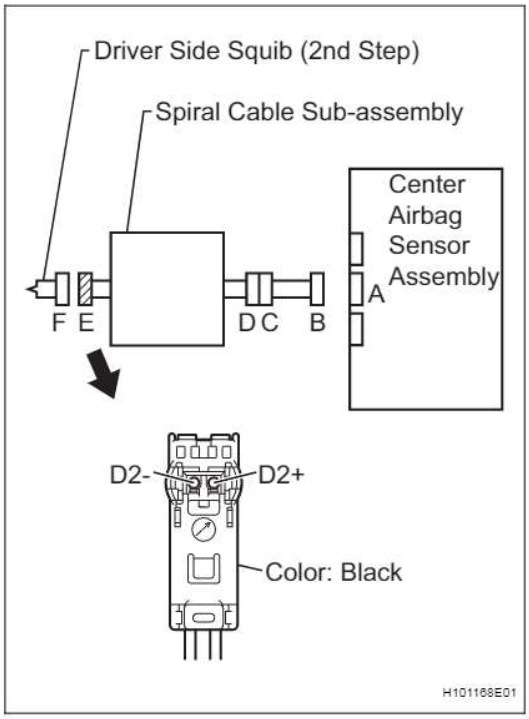
NG → **REPLACE SPIRAL CABLE SUB-ASSEMBLY**

OK

| 2 | CHECK DRIVER SIDE SQUIB (2ND STEP) CIRCUIT (CENTER AIRBAG SENSOR ASSEMBLY - STEERING PAD) |
|---|---|

(a) Disconnect the connector from the center airbag sensor assembly.
(b) Release the activation prevention mechanism built into connector "B" (see page RS-25).
(c) Measure the resistance according to the value(s) in the table below.
**Standard resistance**

| Tester Connection (Connector "E") | Specified Condition |
|---|---|
| D2+ - D2- | 1 MΩ or higher |




NG → **Go to step 5**

OK

| 3 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

(a) Connector the connector to the center airbag sensor assembly.

RS

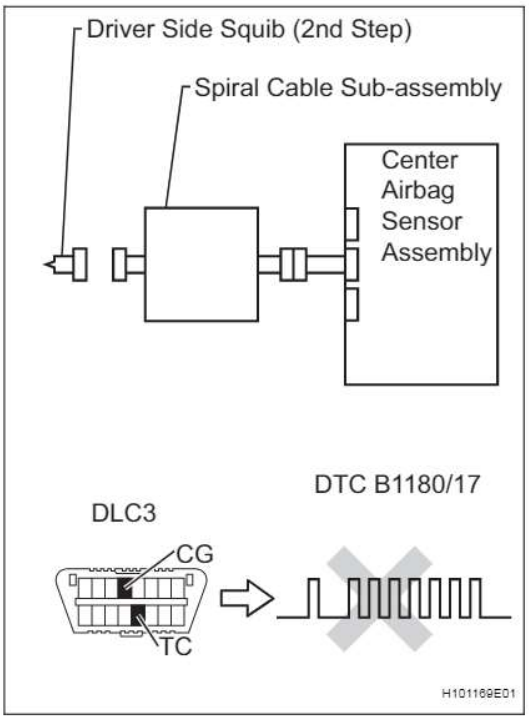
(b) Connector the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(c) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(d) Clear the stored DTCs in the memory (see page RS-44).
(e) Turn the ignition switch to the LOCK position.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Check for the DTCs (see page RS-44).

**OK:**

**DTC B1180/17 is not output.**

HINT:

Codes other than code B1180/17 may be output at this time, but they are not related to this check.

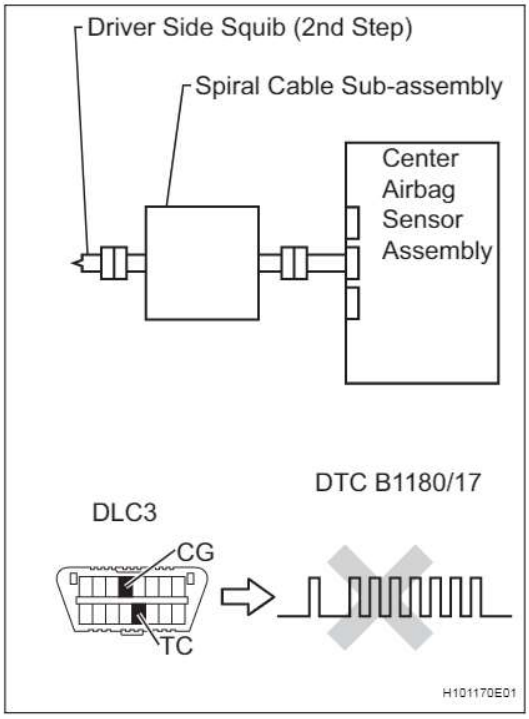



NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

| 4 | CHECK STEERING PAD (DRIVER SIDE SQUIB, 2ND STEP) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Connect the connectors to the steering pad.
(d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(e) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(f) Clear the stored DTCs in the memory (see page RS-44).
(g) Turn the ignition switch to the LOCK position.
(h) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(i) Check for the DTCs (see page RS-44).
**OK:**
**B1180/17 is not output.**
HINT:
Codes other than code B1180/17 may be output this time, but they are not related to this check.

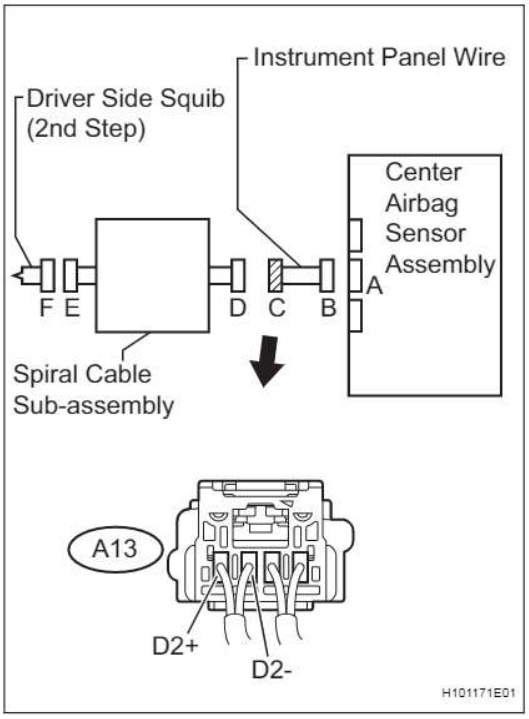
NG → **REPLACE STEERING PAD**

OK

**PROBLEM SYMPTOMS SIMULATION**

| 5 | CHECK INSTRUMENT PANEL WIRE |
|---|---|

(a) Disconnect the instrument panel wire connector from the spiral cable sub-assembly.
HINT:
The activation prevention mechanism of connector "B" has already been released.




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

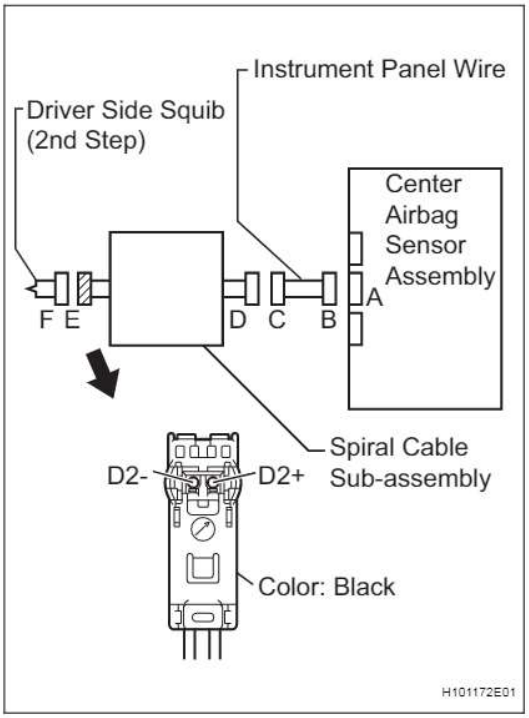
**Standard resistance**

| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| A13-4 (D2+) - A13-3 (D2-) | 1 MΩ or higher |

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

OK

## 6 CHECK SPIRAL CABLE SUB-ASSEMBLY




(a) Release the activation prevention mechanism built into connector "D" (see page RS-25).

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

**Standard resistance**

| Tester Connection (Connector "E") | Specified Condition |
|---|---|
| D2+ - D2- | 1 MΩ or higher |

NG → **REPLACE SPIRAL CABLE SUB-ASSEMBLY**

OK

PROBLEM SYMPTOMS SIMULATION

| DTC | B1181/18 | Open 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 cub-assembly and the steering pad.

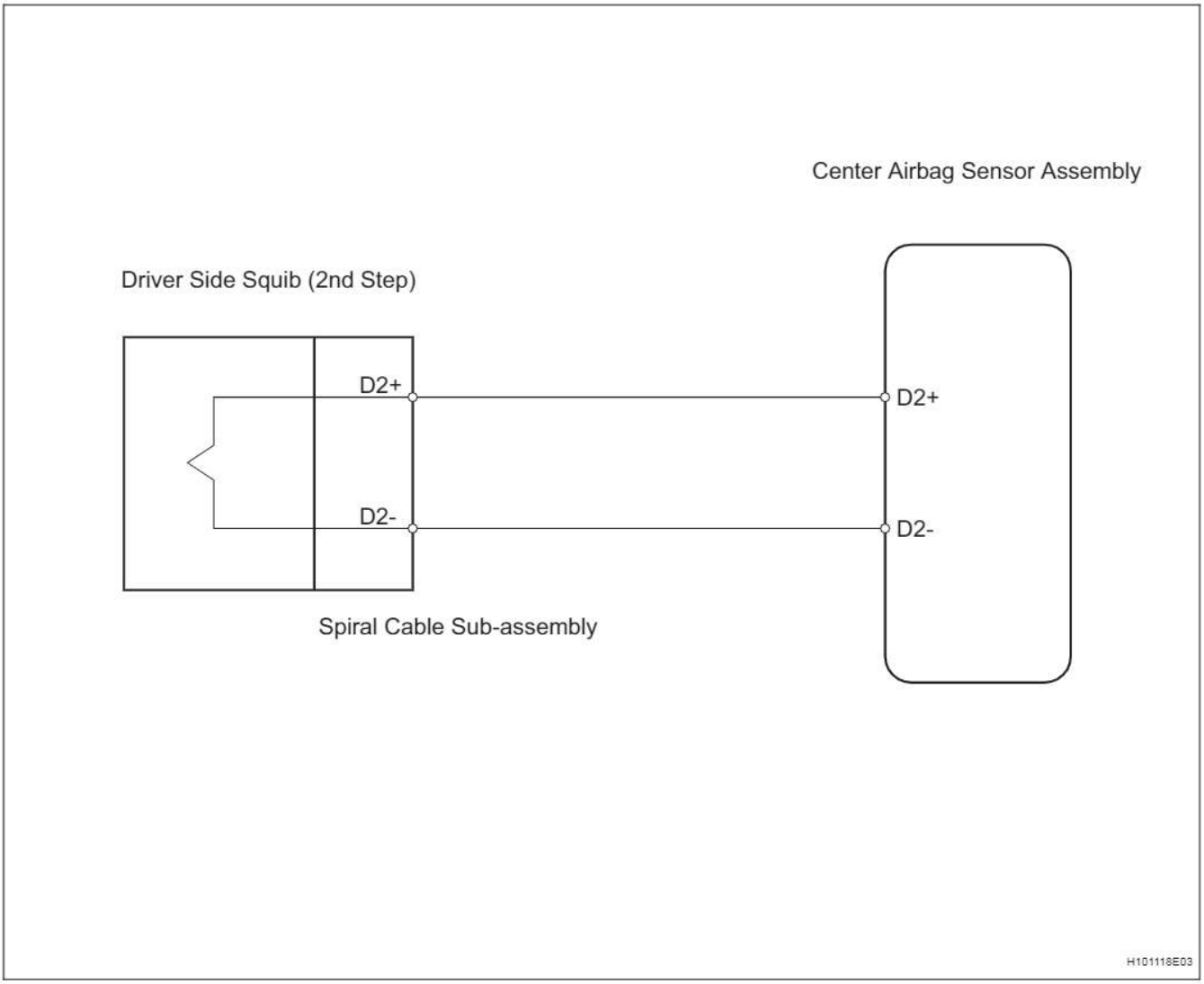
RS

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

DTC B1181/18 is recorded when an open circuit is detected in the driver side squib (2nd step) circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1181/18 | • Open circuit in D2+ wire harness or D2- wire harness of driver side squib (2nd step)<br>• Driver side squib (2nd step) malfunction<br>• Spiral cable sub-assembly malfunction<br>• Center airbag sensor assembly | • Steering pad (driver side squib, 2nd step)<br>• Spiral cable sub-assembly<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

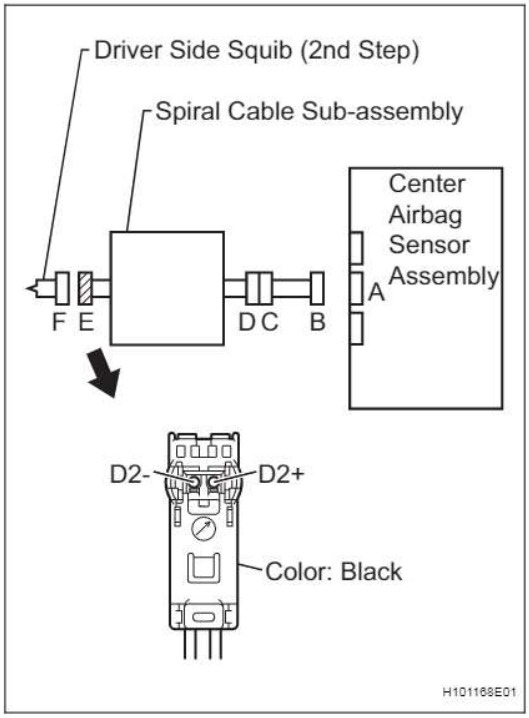
| 1 | CHECK DRIVER SIDE SQUIB CIRCUIT (CENTER AIRBAG SENSOR ASSEMBLY - STEERING PAD) |
|---|---|



(a) Turn the ignition switch to the LOCK position.
(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 and the steering pad.
(d) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester Connection (Connection "E") | Specified Condition |
|---|---|
| D2+ - D2- | Below 1 Ω |



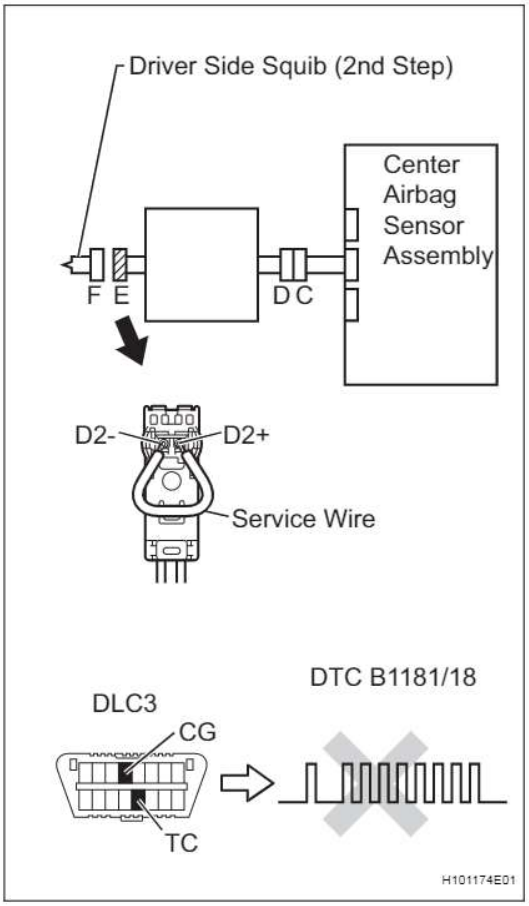

NG → **Go to step 4**

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

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

RS




(b) Using a service wire, connect terminals D2+ and D2- of connector "E".

**NOTICE:**

- **Twist the end of the service wire in order to the connector.**
- **Do not forcibly insert the twisted service wire into the terminals of the connector when connecting.**

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

(d) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(e) Clear the stored DTCs in the memory (see page RS-44).

(f) Turn the ignition switch to the LOCK position.

(g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(h) Check for the DTCs (see page RS-44).

**OK:**

**DTC B1181/18 is not output.**

HINT:

Codes other than code B1181/18 may be output at this time, but they are not related to this check.

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

| 3 | CHECK STEERING PAD (DRIVER SIDE SQUIB, 2ND STEP) |
|---|---|

(a) Turn the ignition switch to the LOCK position.

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

(c) Connect the connectors to the steering pad.

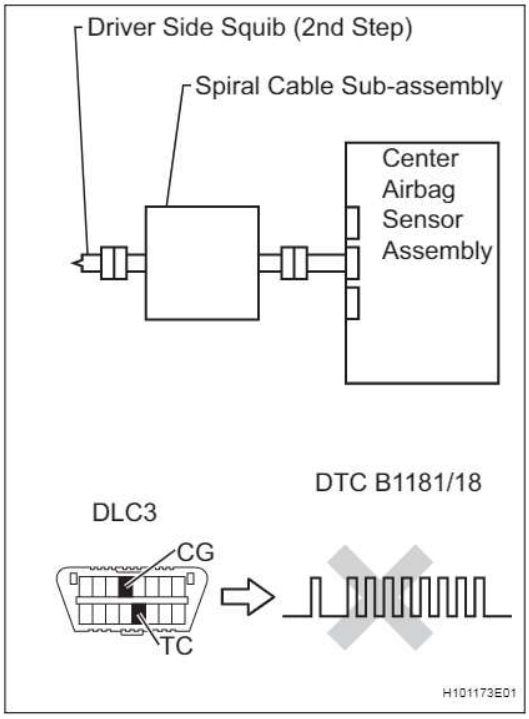
(d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

(e) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(f) Clear the stored DTCs in the memory (see page RS-44).

(g) Turn the ignition switch to the LOCK position.

(h) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(i) Check for the DTCs (see page RS-44).
**OK:**
**DTC B1181/18 is not output.**
HINT:
Codes other than code B1181/18 may be output at this time, but they are not related to this check.

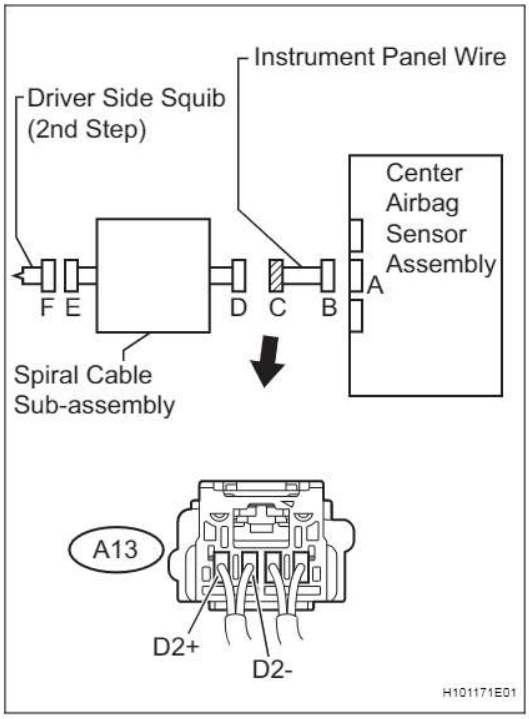
RS

NG → **REPLACE STEERING PAD**

OK

**PROBLEM SYMPTOMS SIMULATION**

**4 CHECK INSTRUMENT PANEL WIRE**




(a) Disconnect the instrument panel wire connector from the spiral cable sub-assembly.
(b) Measure the resistance according to the value(s) in the table below.
**Standard resistance**

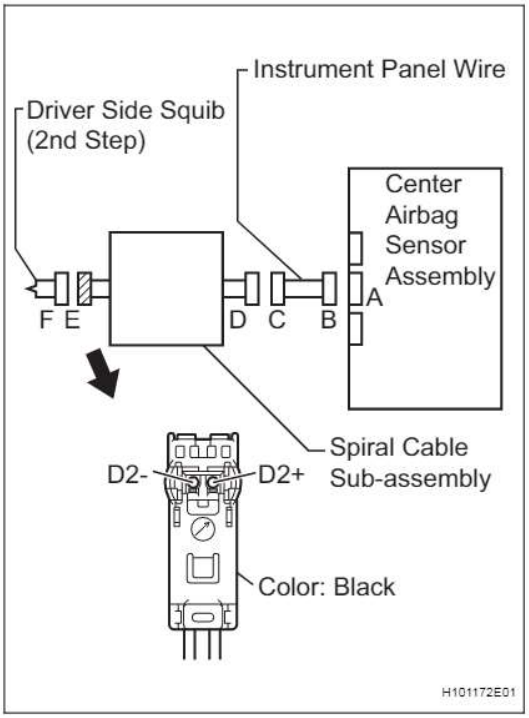
| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| A13-4 (D2+) - A13-3 (D2-) | Below 1 Ω |

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

OK

| 5 | CHECK SPIRAL CABLE CUB-ASSEMBLY |
|---|---|

RS




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

**Standard resistance**

| Tester Connection (Connector "E") | Specified Condition |
|---|---|
| D2+ - D2- | Below 1 Ω |

NG → REPLACE SPIRAL CABLE SUB-ASSEMBLY

OK

PROBLEM SYMPTOMS SIMULATION

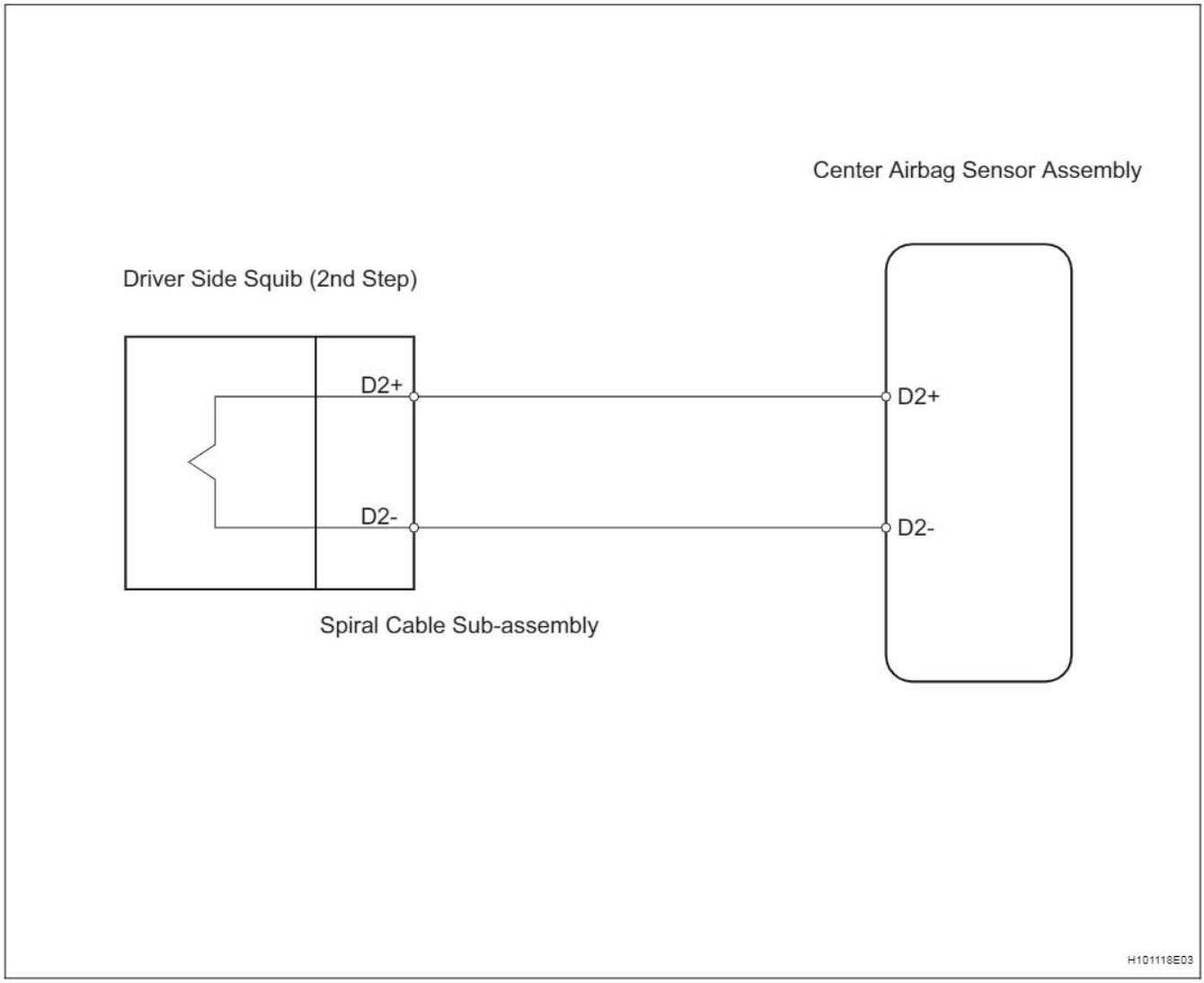
| DTC | B1182/19 | Short to GND in Driver Side Squib 2nd Step Circuit |
|---|---|---|

## DESCRIPTION

The driver side squib (2nd step) circuit consists of the center airbag sensor assembly, the spiral cable sub-assembly and the steering pad.
This circuit instructs the SRS to deploy when deployment conditions are met.
DTC B1182/19 is recorded when a short to ground is detected in the driver side squib (2nd step) circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1182/19 | • Short circuit in driver side squib (2nd step) wire harness (to ground)<br>• Driver side squib (2nd step) malfunction<br>• Spiral cable sub-assembly malfunction<br>• Center airbag sensor assembly malfunction | • Steering pad (driver side squib, 2nd step)<br>• Spiral cable sub-assembly<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

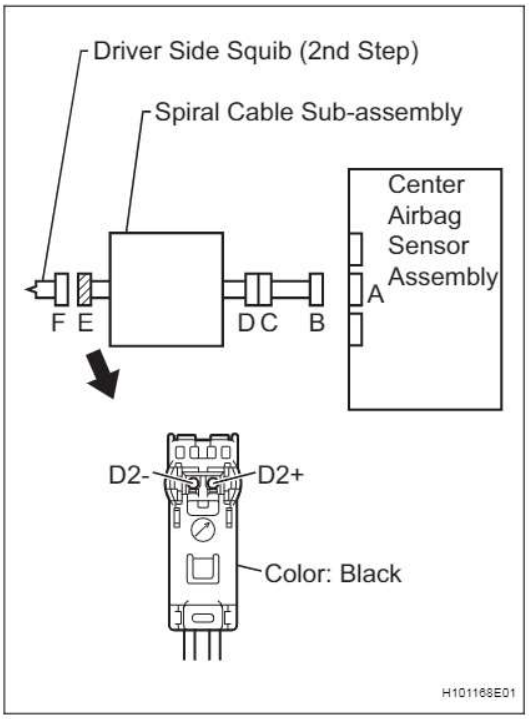
| 1 | CHECK DRIVER SIDE SQUIB (CENTER AIRBAG SENSOR ASSEMBLY - STEERING PAD) |
|---|---|

RS

(a) Turn the ignition switch to the LOCK position.
(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 and the steering pad.
(d) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester Connection (Connector "E") | Specified Condition |
|---|---|
| D2+ - Body ground | 1 MΩ or higher |
| D2- - Body ground | |

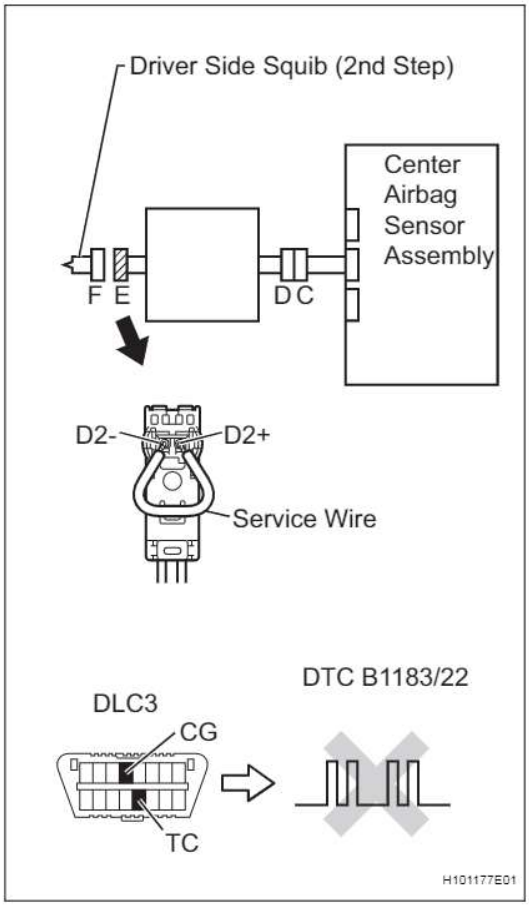



NG → Go to step 5

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

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




(b) Using a service wire, connect terminals D2+ and D2- of connector "E".

**NOTICE:**

- **Twist the end of the service wire in order to insert to the connector.**
- **Do not forcibly insert the twisted service wire into the terminals of the connector when connecting.**

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

(d) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(e) Clear the stored DTCs in the memory (see page RS-44).

(f) Turn the ignition switch to the LOCK position.

(g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(h) Check for the DTCs (see page RS-44).

**OK:**

**DTC B1182/19 is not output.**

HINT:

Codes other than code B1182/19 may be output at this time, but they are not related to this check.

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

| 3 | CHECK STEERING PAD (DRIVER SIDE SQUIB, 2ND STEP) |
|---|---|

(a) Turn the ignition switch to the LOCK position.

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

(c) Disconnect the service wire from the connector "E".

(d) Connect the connectors to the steering pad.

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

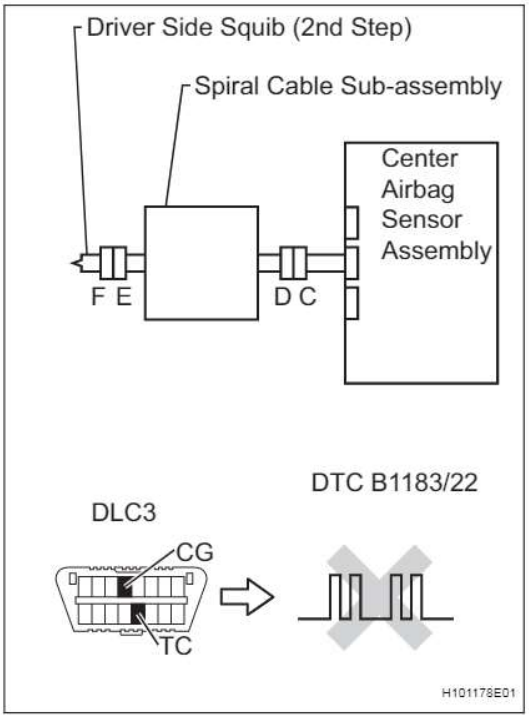
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(g) Clear the stored DTCs in the memory (see page RS-44).

(h) Turn the ignition switch to the LOCK position.

(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

RS



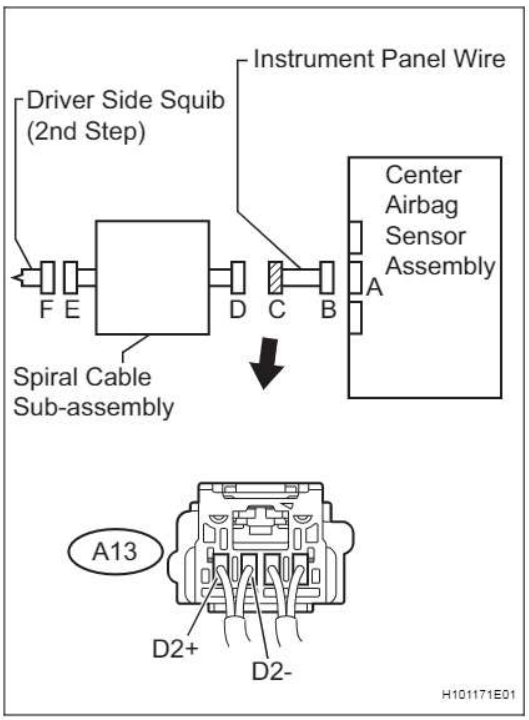

(j) Check for the DTCs (see page RS-44).
**OK:**
**DTC B1182/19 is not output.**
HINT:
Codes other than code B1182/19 may be output at this time, but they are not related to this check.

NG → **REPLACE STEERING PAD**

OK

**PROBLEM SYMPTOMS SIMULATION**

**4 CHECK INSTRUMENT PANEL WIRE**



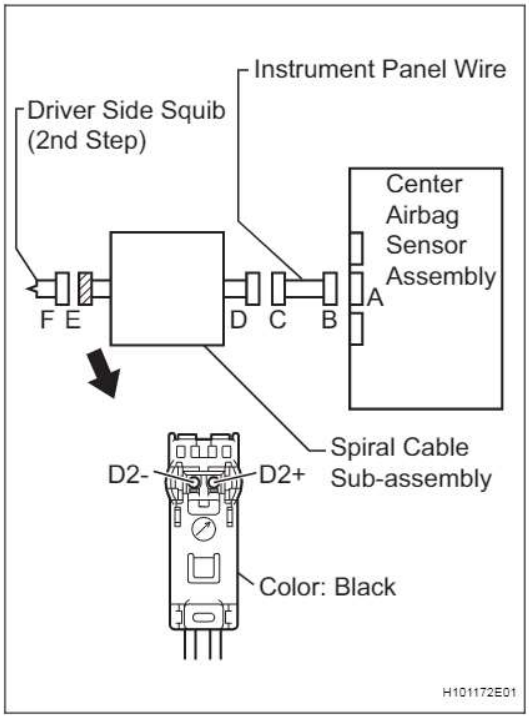

(a) Disconnect the instrument panel wire connector from the spiral cable sub-assembly.
(b) Measure the resistance according to the value(s) in the table below.
**Standard resistance**

| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| A13-4 (D2+) - Body ground | 1 MΩ or higher |
| A13-3 (D2-) - Body ground | |

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

OK

**5 CHECK SPIRAL CABLE SUB-ASSEMBLY**




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

**Standard resistance**

| Tester Connection (Connector "E") | Specified Condition |
|---|---|
| D2+ - Body ground | 1 MΩ or higher |
| D2- - Body ground | |

NG → **REPLACE SPIRAL CABLE SUB-ASSEMBLY**

OK

**PROBLEM SYMPTOMS SIMULATION**

| DTC | B1183/22 | Short to B+ in Driver Side Squib 2nd Step Circuit |
|---|---|---|

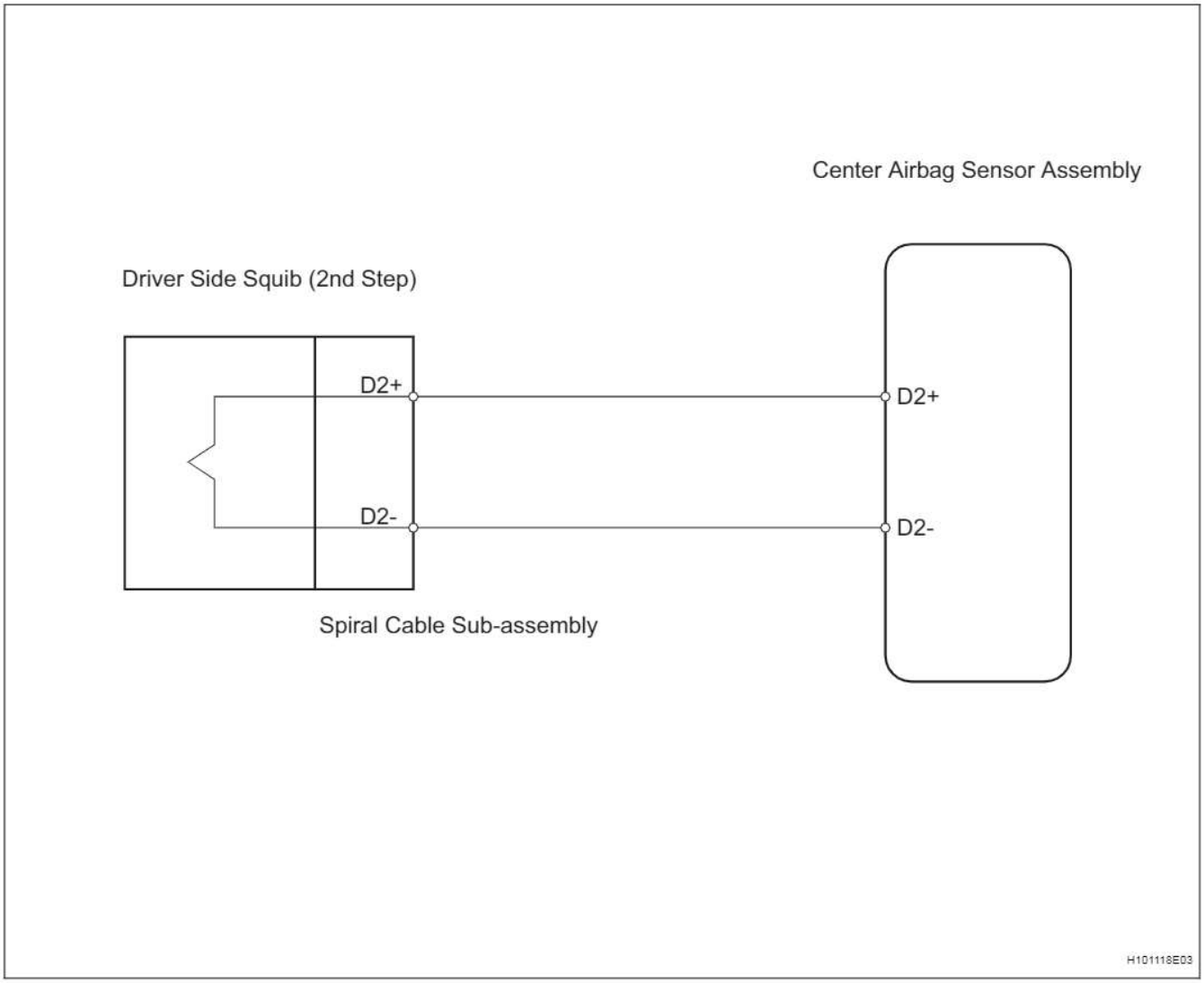
## DESCRIPTION

RS

The driver side squib (2nd step) circuit consists of the center airbag sensor assembly, the spiral cable sub-assembly and the steering pad.
This circuit instructs the SRS to deploy when deployment conditions are met.
DTC B1183/22 is recorded when a short to B+ is detected in the driver side squib (2nd step) circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1183/22 | • Short circuit in driver side squib (2nd step) wire harness (to B+)<br>• Driver side squib (2nd step) malfunction<br>• Spiral cable sub-assembly malfunction<br>• Center airbag sensor assembly malfunction | • Steering pad (driver side squib, 2nd step)<br>• Spiral cable sub-assembly<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

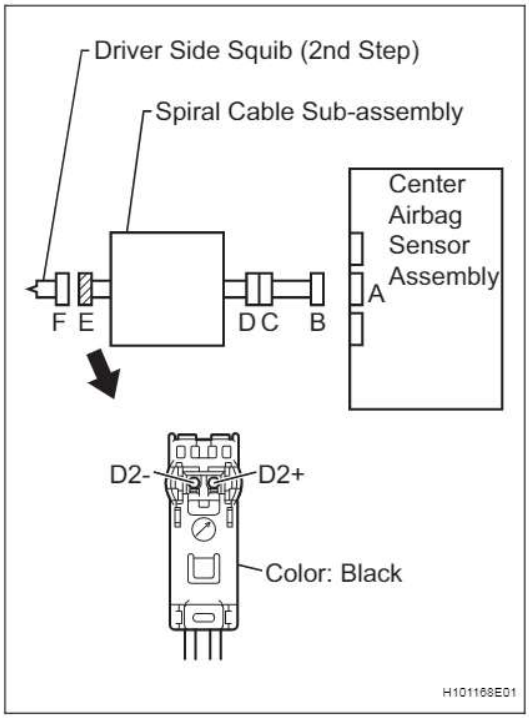
| 1 | CHECK DRIVER SIDE SQUIB CIRCUIT (CENTER AIRBAG SENSOR ASSEMBLY - STEERING PAD) |
|---|---|



(a) Turn the ignition switch to the LOCK position.
(b) Disconnect negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Disconnect the connectors from the center airbag sensor assembly and the steering pad.
(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 (Connector "E") | Condition | Specified Condition |
|---|---|---|
| D2+ - Body ground | Ignition switch ON | Below 1 V |
| D2- - Body ground | | |



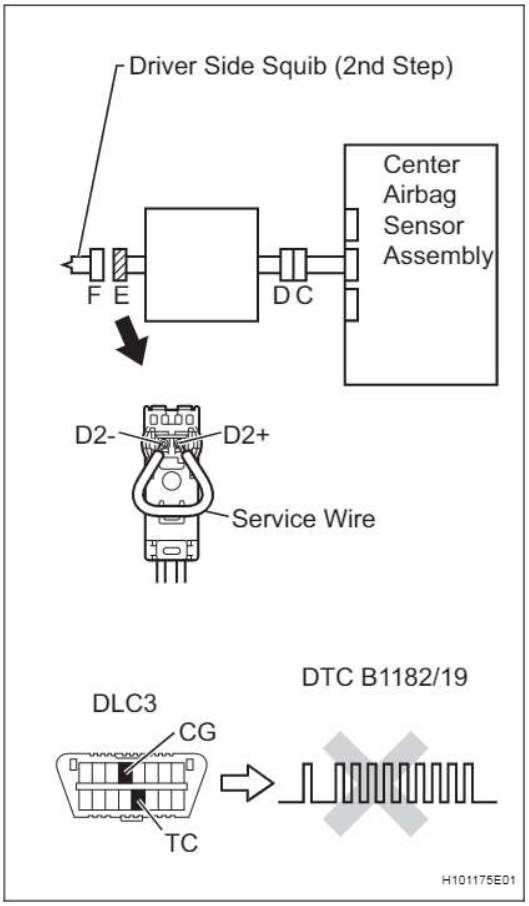

NG → Go to step 5

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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.

RS




(d) Using a service wire, connect terminals D2+ and D2- of connector "E".
**NOTICE:**
- **Twist the end of the service wire in order to insert to the connector,**
- **Do not forcibly insert the twisted service wire into the terminals of the connector when connecting.**

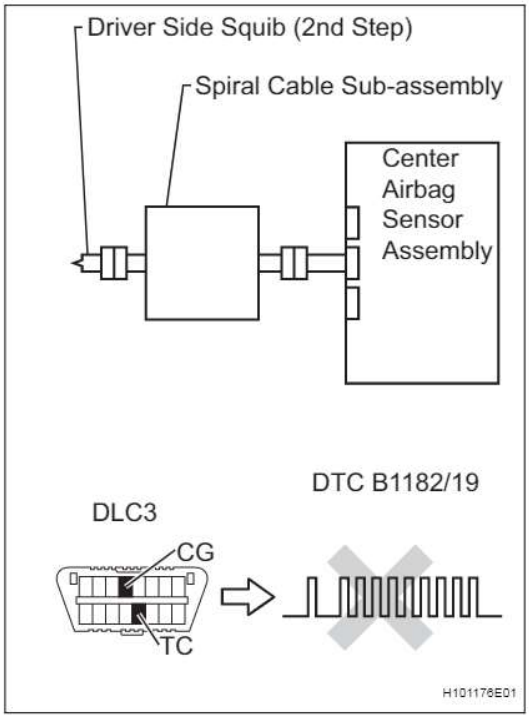
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Clear the stored DTCs in the memory (see page RS-44).
(h) Turn the ignition switch to the LOCK position.
(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(j) Check for the DTCs (see page RS-44).
**OK:**
**DTC B1183/22 is not output.**
HINT:
Codes other than code B1183/22 may be output at this time, but they are not related to this check.

NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

| 3 | CHECK STEERING PAD (DRIVER SIDE SQUIB, 2ND STEP) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Disconnect the service wire from the connector "E".
(d) Connect the connectors to the steering pad.
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Clear the stored DTCs in the memory (see page RS-44).
(h) Turn the ignition switch to the LOCK position.
(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(j) Check for the DTCs (see page RS-44).
**OK:**
**DTC B1183/22 is not output.**
HINT:
Codes other than code B1183/22 may be output at this time, but they are not related to this check.

RS

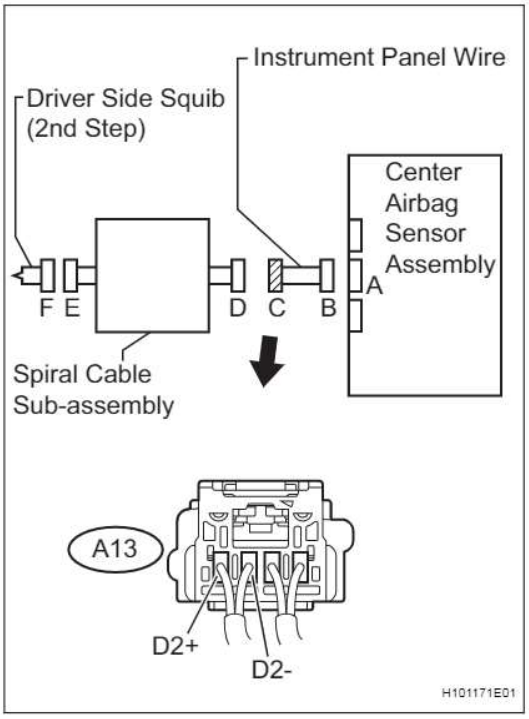
NG → **REPLACE STEERING PAD**

OK

**PROBLEM SYMPTOMS SIMULATION**

| 4 | CHECK INSTRUMENT PANEL WIRE |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Disconnect the instrument panel wire connectors from the spiral cable sub-assembly.
(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.

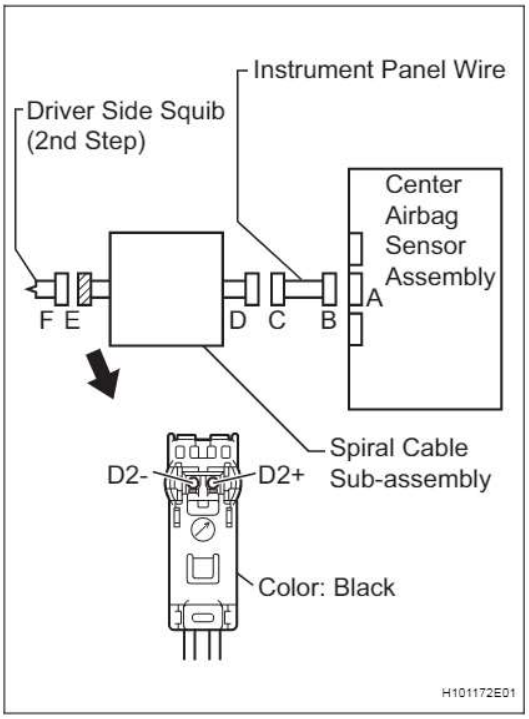
**Standard voltage**

| Tester Connection (Connector "C") | Condition | Specified Condition |
|---|---|---|
| A13-4 (D2+) - Body ground | Ignition switch ON | Below 1 V |
| A13-3 (D2-) - Body ground | | |

NG → REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

## 5 CHECK SPIRAL CABLE SUB-ASSEMBLY




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

**Standard voltage**

| Tester Connection (Connector "E") | Condition | Specified Condition |
|---|---|---|
| D2+ - Body ground | Ignition switch ON | Below 1 V |
| D2- - Body ground | | |

NG → REPLACE SPIRAL CABLE SUB-ASSEMBLY

OK

## PROBLEM SYMPTOMS SIMULATION

RS

# HOW TO PROCEED WITH TROUBLESHOOTING

(2005/07-2005/12)
HINT:
*: Use the intelligent tester.

| 1 | VEHICLE BROUGHT TO WORKSHOP |
|---|---|

NEXT

| 2 | INSPECT BATTERY VOLTAGE |
|---|---|

**Standard voltage:**
**11 to 14 V**
If the voltage is below 11 V, recharge or replace the battery before proceeding.

NEXT

| 3 | WARNING LIGHT CHECK |
|---|---|

(a) Refer to check operation (see page RS-44).

NEXT

| 4 | CHECK FOR DTC* |
|---|---|

(a) Check for DTCs and note any codes that are output (see page RS-44).
(b) Delete the DTC.
(c) Recheck for DTCs. Based on the DTC output above, try to force output of the same DTC by simulating the symptoms indicated by the DTC.

**Result:**

| Result | Proceed to |
|---|---|
| DTC does not reoccur | A |
| DTC reoccurs | B |

B → Go to step 7

A

| 5 | PROBLEM SYMPTOM TABLE |
|---|---|

**Result:**

| Result | Proceed to |
|---|---|
| Fault is not listed in problem symptoms table | A |
| Fault is listed in problem symptoms table | B |

B → Go to step 7

A

| 6 | OVERALL ANALYSIS AND TROUBLESHOOTING* |
|---|---|

(a) Terminals of ECU (see page RS-35).
(b) On-vehicle inspection.
- Steering pad (see page RS-402).
- Front passenger airbag assembly (see page RS-425).
- Center airbag sensor assembly (see page RS-435).
- Front airbag sensor assembly LH, RH (see page RS-438).
- Seat position sensor (see page RS-442).

(c) Inspection.
- Steering pad (see page RS-405).
- Spiral cable sub-assembly (see page RS-422).
- Front passenger airbag assembly (see page RS-426).

NEXT

| 7 | ADJUST, REPAIR OR REPLACE |
|---|---|

NEXT

| 8 | CONFIRMATION TEST |
|---|---|

NEXT

END

| DTC | B1185/57 | Short in Front Passenger Side Squib 2nd Step Circuit |
|---|---|---|

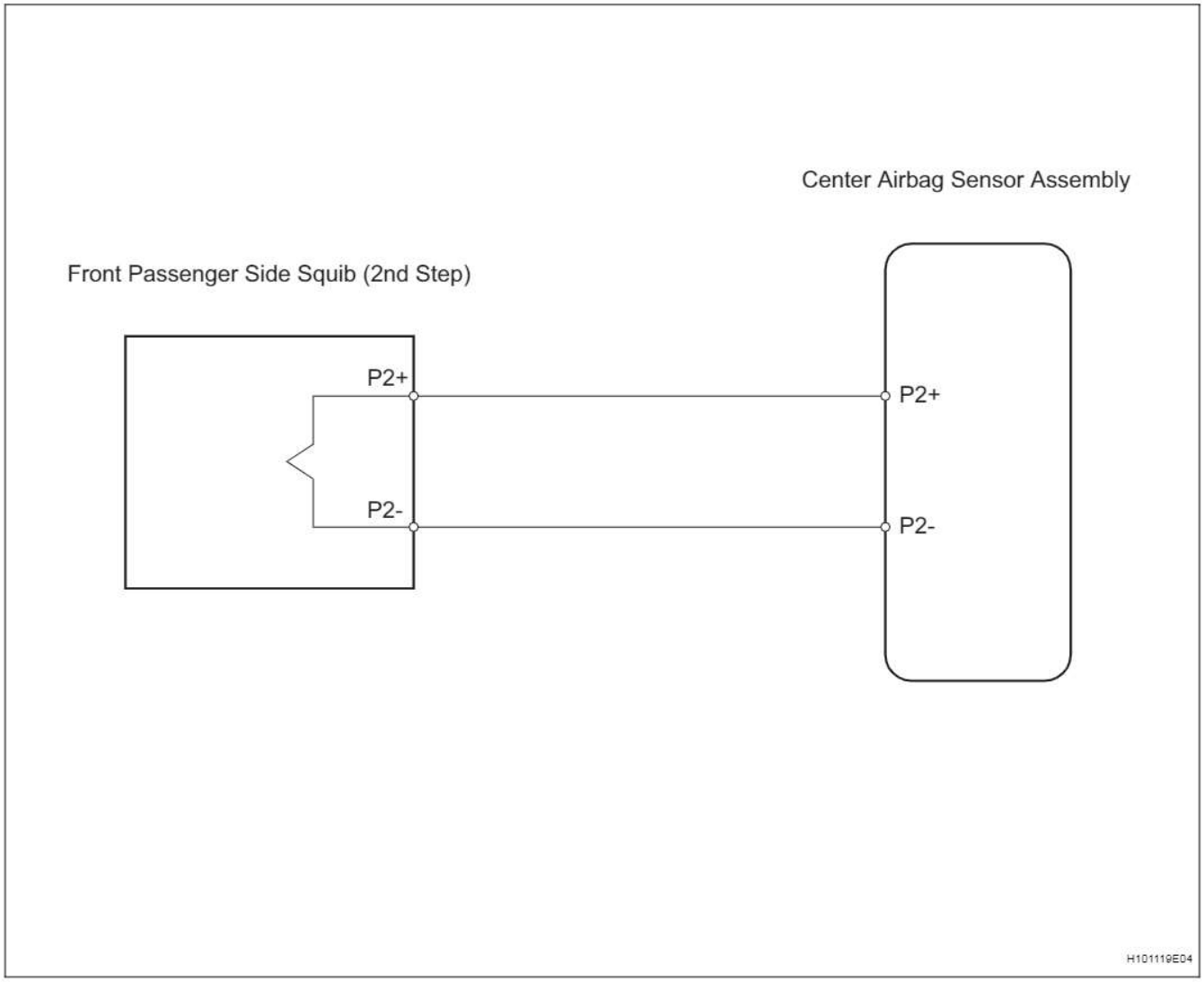
## DESCRIPTION

The front passenger side squib (2nd step) circuit consists of the center airbag sensor assembly and the front passenger airbag assembly.
This circuit instructs the SRS to deploy when deployment conditions are met.
DTC B1185/57 is recorded when a short circuit is detected in the front passenger side squib (2nd step) circuit.



| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1185/57 | • Short circuit between P2+ wire harness and P2- wire harness of front passenger side squib (2nd step)<br>• Front passenger side squib (2nd step) malfunction<br>• Center airbag sensor assembly | • Front passenger airbag assembly (front passenger side squib, 2nd step)<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

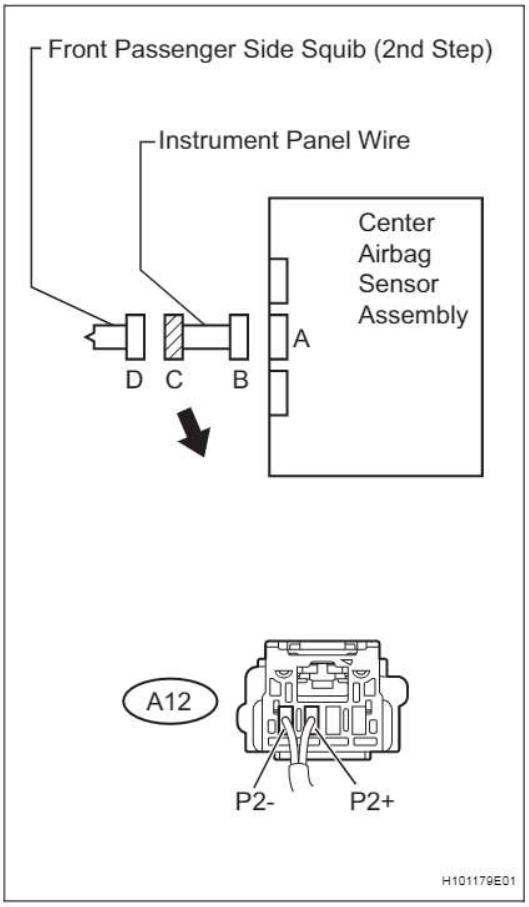
| 1 | CHECK INSTRUMENT PANEL WIRE (FRONT PASSENGER SIDE SQUIB CIRCUIT (2ND STEP)) |
|---|---|

RS

(a) Turn the ignition switch to the LOCK position.
(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 and the front passenger airbag assembly.
(d) Release the activation prevention mechanism built into connector "B" (see page RS-25).
(e) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| A12-3 (P2+) - A12-4 (P2-) | 1 MΩ or higher |

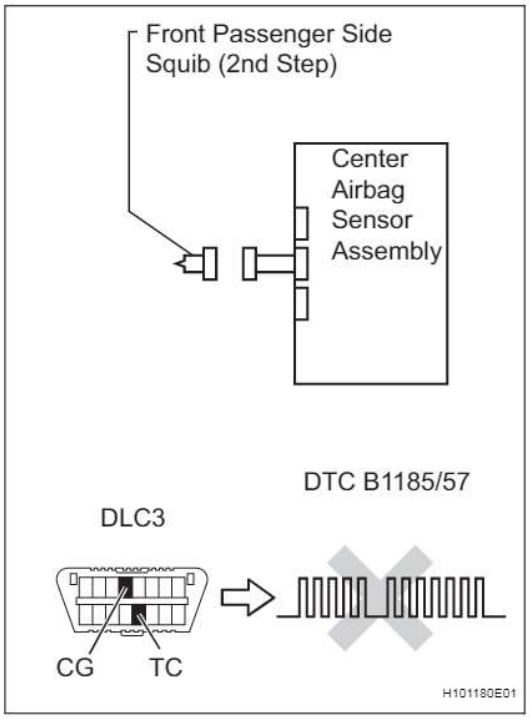



NG → **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

(a) Connect the connector 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 to the ON position, and wait for at least 60 seconds.
(d) Clear the stored DTCs in the memory (see page RS-44).
(e) Turn the ignition switch to the LOCK position.




(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(g) Check for the DTCs (see page RS-44).

**OK:**

**DTC B1185/57 is not output.**

HINT:

Codes other than code B1185/57 may be output at this time, but they are not related to this check.

RS

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

| 3 | CHECK FRONT PASSENGER AIRBAG ASSEMBLY (FRONT PASSENGER SIDE SQUIB, 2ND STEP) |
|---|---|

(a) Turn the ignition switch to the LOCK position.

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

(c) Connect the connector to the front passenger airbag assembly.

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

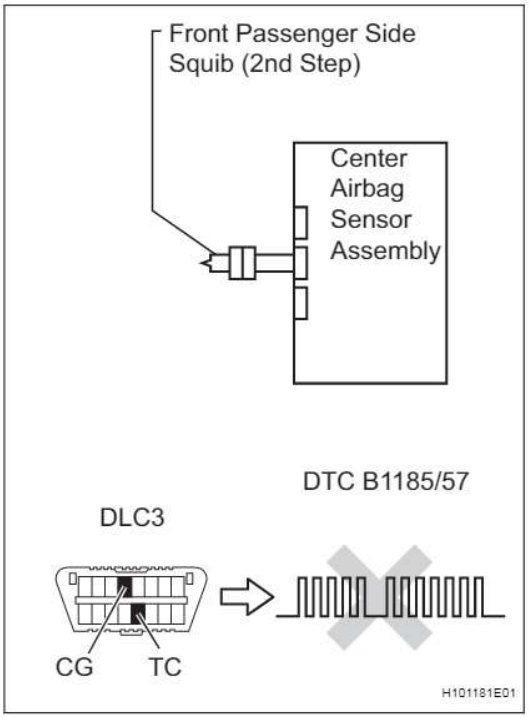
(e) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(f) Clear the stored DTCs in the memory (see page RS-44).

(g) Turn the ignition switch to the LOCK position.

(h) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

RS




(i) Check for the DTCs (see page RS-44).

**OK:**

**DTC B1185/57 is not output.**

HINT:

Codes other than code B1185/57 may be output at this time, but they are not related to this check.

**NG** → **REPLACE FRONT PASSENGER AIRBAG ASSEMBLY**

**OK**

**PROBLEM SYMPTOMS SIMULATION**

| DTC | B1186/58 | Open in Front Passenger Side Squib 2nd Step Circuit |
|---|---|---|

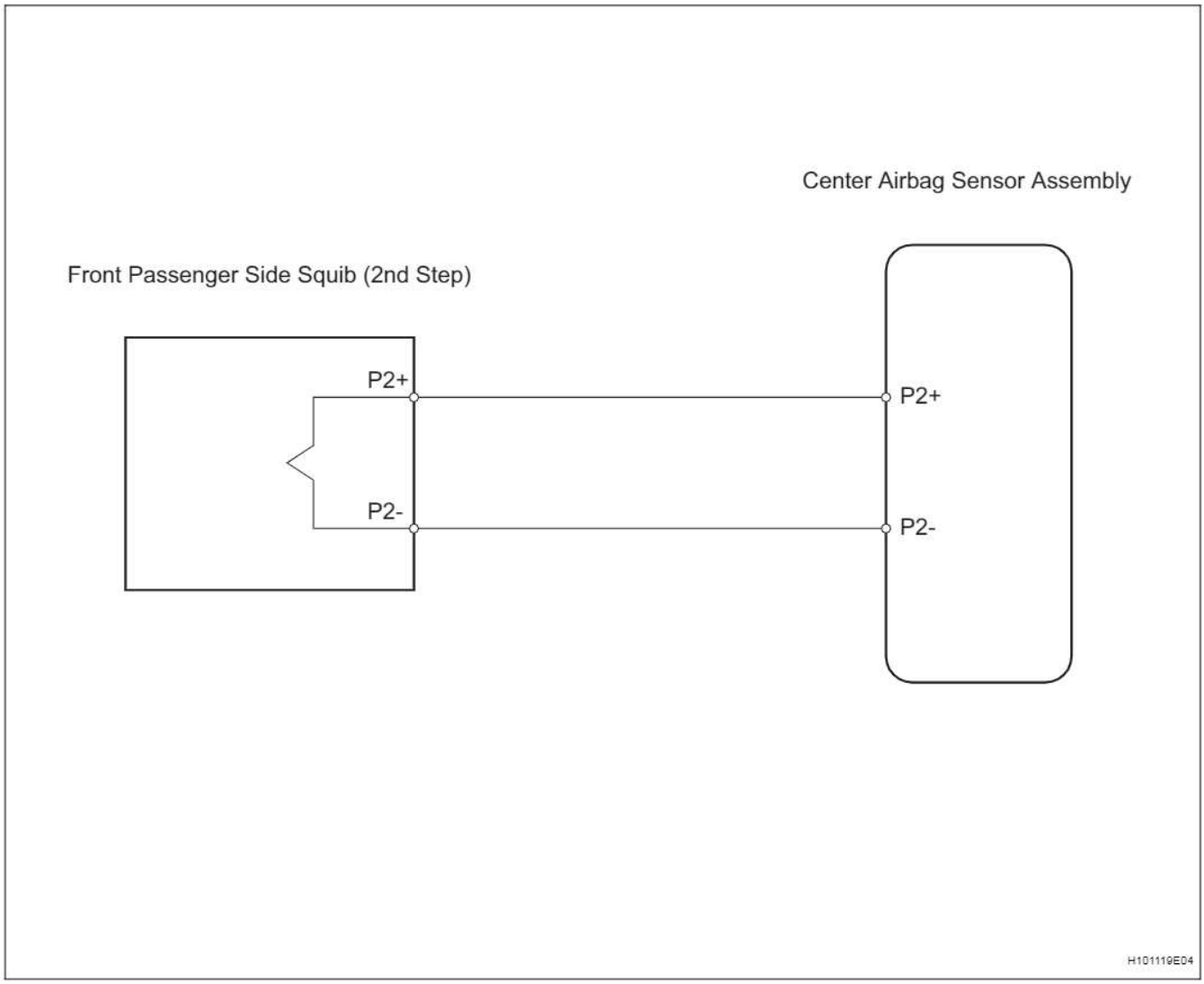
## DESCRIPTION

The front passenger side squib (2nd step) circuit consists of the center airbag sensor assembly and the front passenger airbag assembly.
This circuit instructs the SRS to deploy when deployment conditions are met.
DTC B1186/58 is recorded when an open circuit is detected in the front passenger side squib (2nd step) circuit.

RS

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1186/58 | • Open circuit in P2+ wire harness or P2- wire harness of front passenger side squib (2nd step)<br>• Front passenger side squib (2nd step)<br>• Center airbag sensor assembly | • Front passenger airbag assembly (front passenger side squib, 2nd step)<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

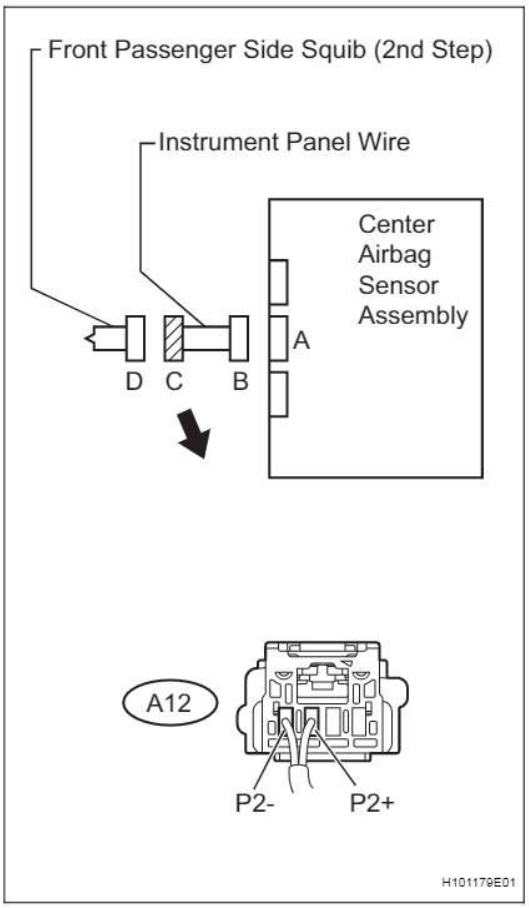
| 1 | CHECK INSTRUMENT PANEL WIRE (FRONT PASSENGER SIDE SQUIB CIRCUIT (2ND STEP)) |
|---|---|

RS

(a) Turn the ignition switch to the LOCK position.
(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 and the front passenger airbag assembly.
(d) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| A12-3 (P2+) - A12-4 (P2-) | Below 1 Ω |

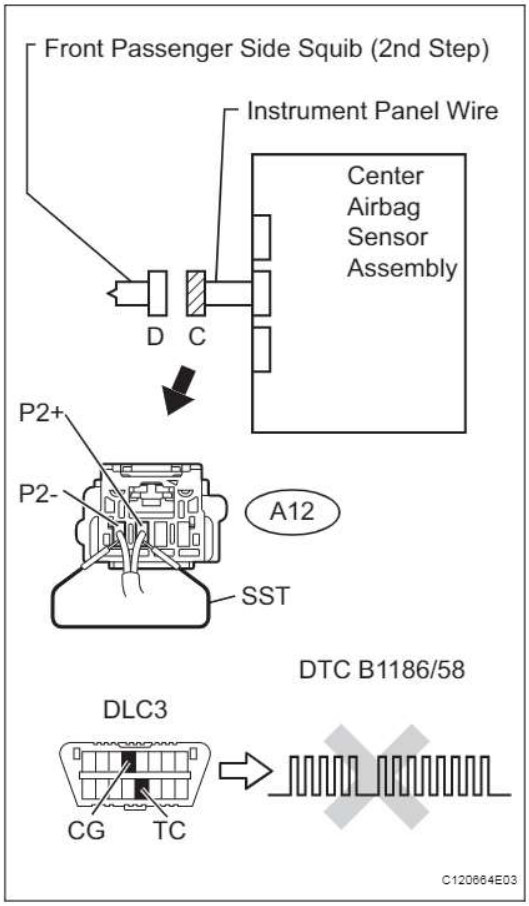



NG → REPAIR OR REPLACE INSTRUMENT PANEL WIRE

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

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




(b) Using SST, connect terminals P2+ and P2- of connector "C".

**SST 09843-18040**

**NOTICE:**

**Do not forcibly insert SST into the terminals of the connector when connecting,**

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

(d) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(e) Clear the stored DTCs in the memory (see page RS-44).

(f) Turn the ignition switch to the LOCK position.

(g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(h) Check for the DTCs (see page RS-44).

**OK:**

**DTC B1186/58 is not output.**

HINT:

Codes other than code B1186/58 may be output at this time, but they are not related to this check.

**NG** → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

**OK**

| 3 | CHECK FRONT PASSENGER AIRBAG ASSEMBLY (FRONT PASSENGER SIDE SQUIB, 2ND STEP) |
|---|---|

(a) Turn the ignition switch to the LOCK position.

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

(c) Disconnect the SST from the connector "C".

(d) Connect the connector to the front passenger airbag assembly.

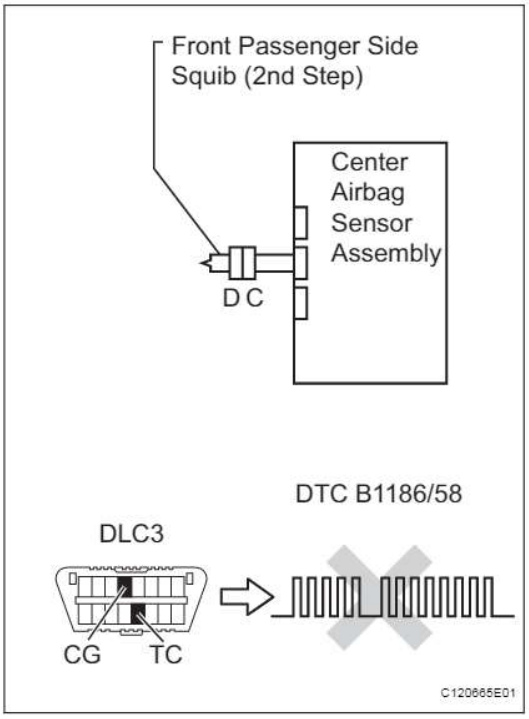
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.

(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

(g) Clear the stored DTCs in the memory (see page RS-44).

(h) Turn the ignition switch to the LOCK position.

(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(j) Check for the DTCs (see page RS-44).

**OK:**

**DTC B1186/58 is not output.**

HINT:

Codes other than code B1186/58 may be output at this time, but they are not related to this check.

**NG** → **REPLACE FRONT PASSENGER AIRBAG ASSEMBLY**

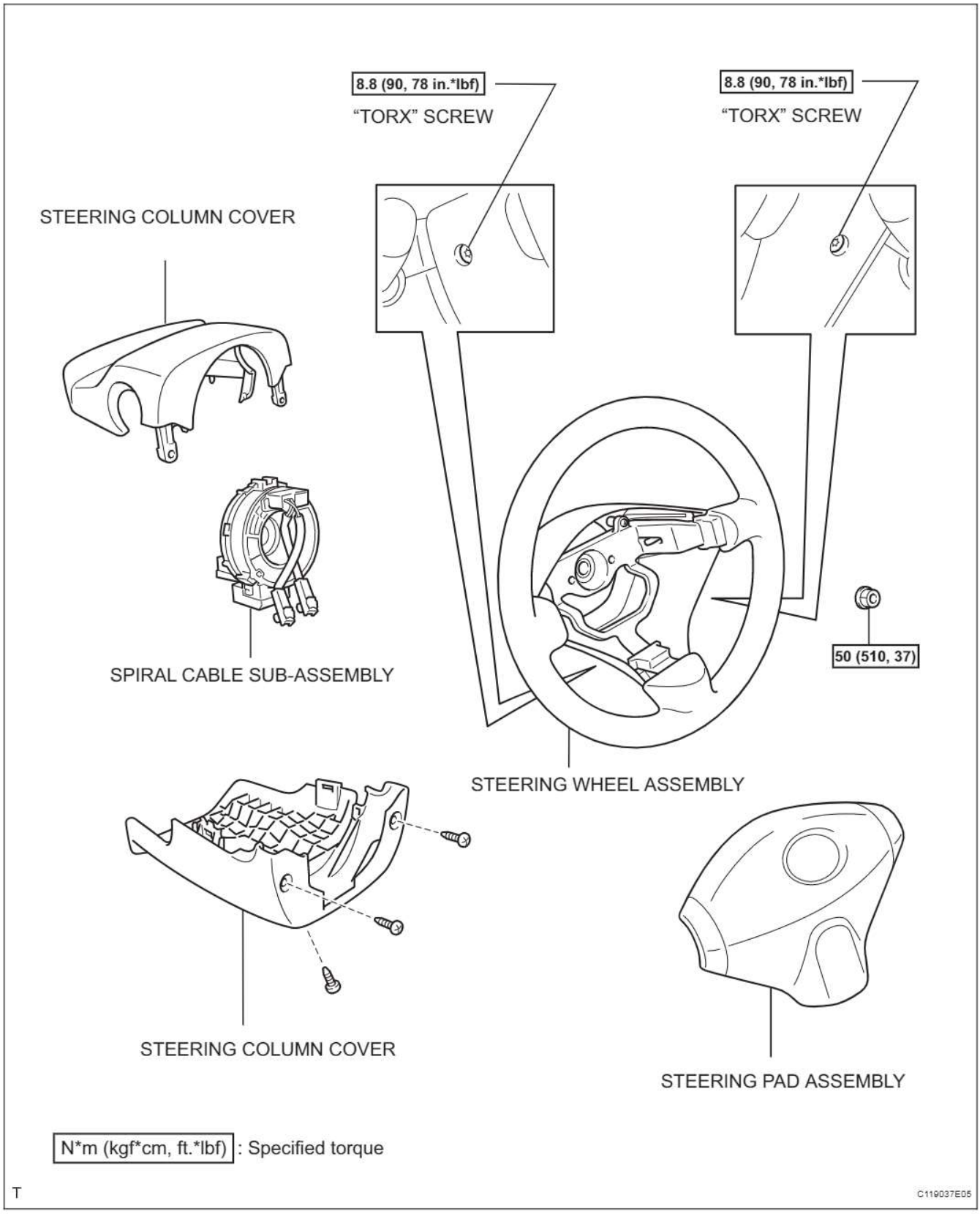
**OK**

**PROBLEM SYMPTOMS SIMULATION**

# SPIRAL CABLE

## COMPONENTS

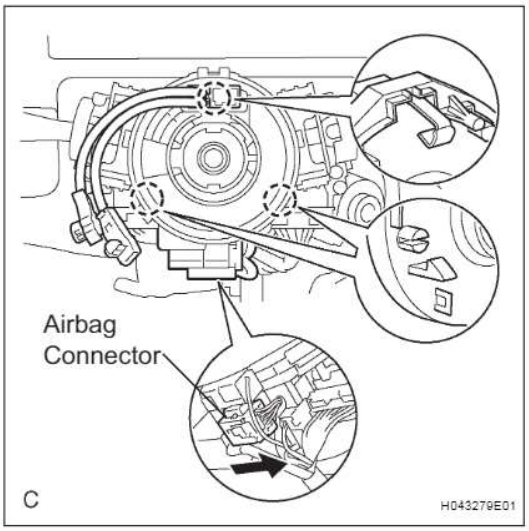




# REMOVAL

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

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
   **CAUTION:**
   **Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.**
2. **REMOVE STEERING PAD ASSEMBLY (See page RS-404)**
3. **PLACE FRONT WHEELS FACING STRAIGHT AHEAD**
4. **REMOVE STEERING WHEEL ASSEMBLY (See page SR-10)**
5. **REMOVE STEERING COLUMN COVER (See page SR-10)**
6. **REMOVE SPIRAL CABLE SUB-ASSEMBLY**
   (a) Disconnect the airbag connector.
   **NOTICE:**
   **When handling the airbag connector, do not damage the airbag wire harness.**
   (b) Detach the 3 claws and remove the spiral cable.



| DTC | B1187/55 | Short to GND in Front Passenger Side Squib 2nd Step Circuit |
|---|---|---|

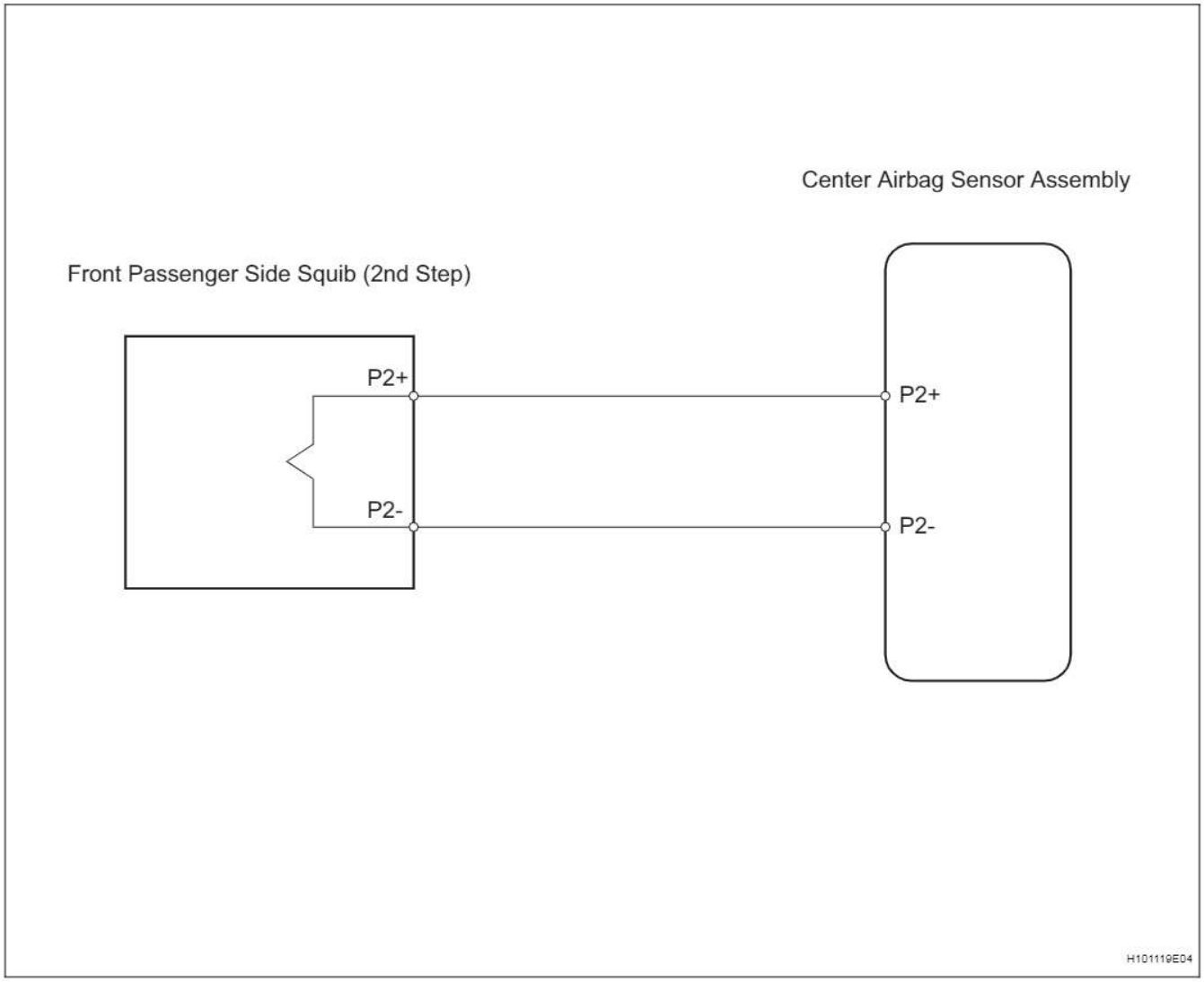
## DESCRIPTION

The front passenger side squib (2nd step) circuit consists of the center airbag assembly and the front passenger airbag assembly.
This circuit instructs the SRS to deploy when deployment conditions are met.
DTC B1187/55 is recorded when a short to ground is detected in the front passenger side squib (2nd step) circuit.

RS

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1187/55 | • Short circuit in front passenger side squib (2nd step) wire harness (to ground)<br>• Front passenger side squib (2nd step) malfunction<br>• Center airbag sensor assembly malfunction | • Front passenger airbag assembly (front passenger side squib, 2nd step)<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

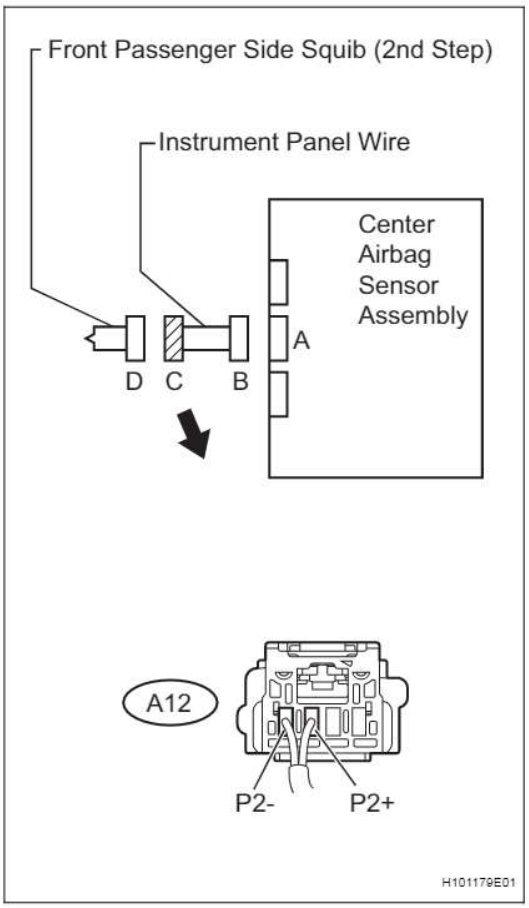
| 1 | CHECK INSTRUMENT PANEL WIRE (FRONT PASSENGER SIDE SQUIB CIRCUIT (2ND STEP)) |
|---|---|

RS

(a) Turn the ignition switch to the LOCK position.
(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 and the front passenger airbag assembly.
(d) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester Connection (Connector "C") | Specified Condition |
|---|---|
| A12-3 (P2+) - Body ground | 1 MΩ or higher |
| A12-4 (P2-) - Body ground | |




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

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Using SST, connect terminals P2+ and P2- of connector "C".

**SST 09843-18040**

**NOTICE:**
**Do not forcibly insert SST into the terminals of the connector when connecting.**

(c) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(d) Turn the ignition switch to the ON position, and wait for at least 60 seconds.

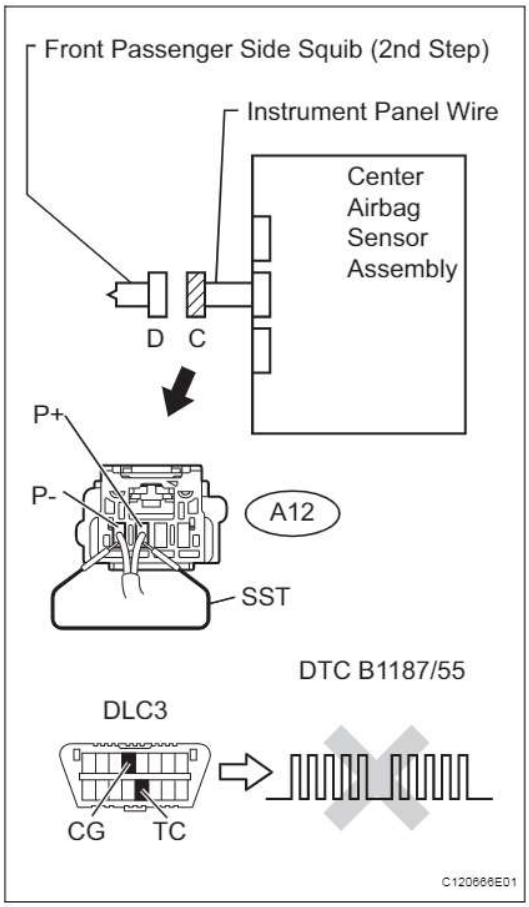
(e) Clear the stored DTCs in the memory (see page RS-44).
(f) Turn the ignition switch to the LOCK position.
(g) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(h) Check for the DTCs (see page RS-44).

**OK:**

**DTC B1187/55 is not output.**

HINT:

Codes other than code B1187/55 may be output at this time, but they are not related to this check.

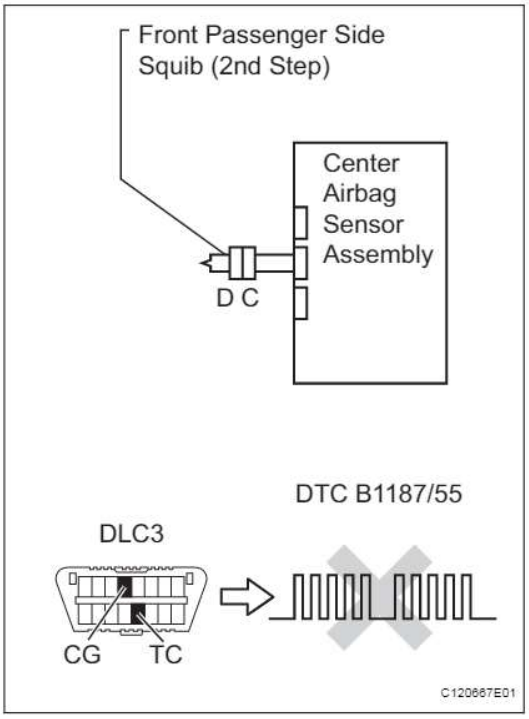



NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

| 3 | CHECK FRONT PASSENGER AIRBAG ASSEMBLY (FRONT PASSENGER SIDE SQUIB (2ND STEP)) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Disconnect the SST from the connector "C".
(d) Connect the connector to the front passenger airbag assembly.
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Clear the stored DTCs in the memory (see page RS-44).
(h) Turn the ignition switch to the LOCK position.
(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(j) Check for the DTCs (see page RS-44).

**OK:**

**DTC B1187/55 is not output.**

HINT:

Codes other than code B1187/55 may be output at this time, but they are not related to this check.

**NG** → **REPLACE FRONT PASSENGER AIRBAG ASSEMBLY**

**OK**

**PROBLEM SYMPTOMS SIMULATION**

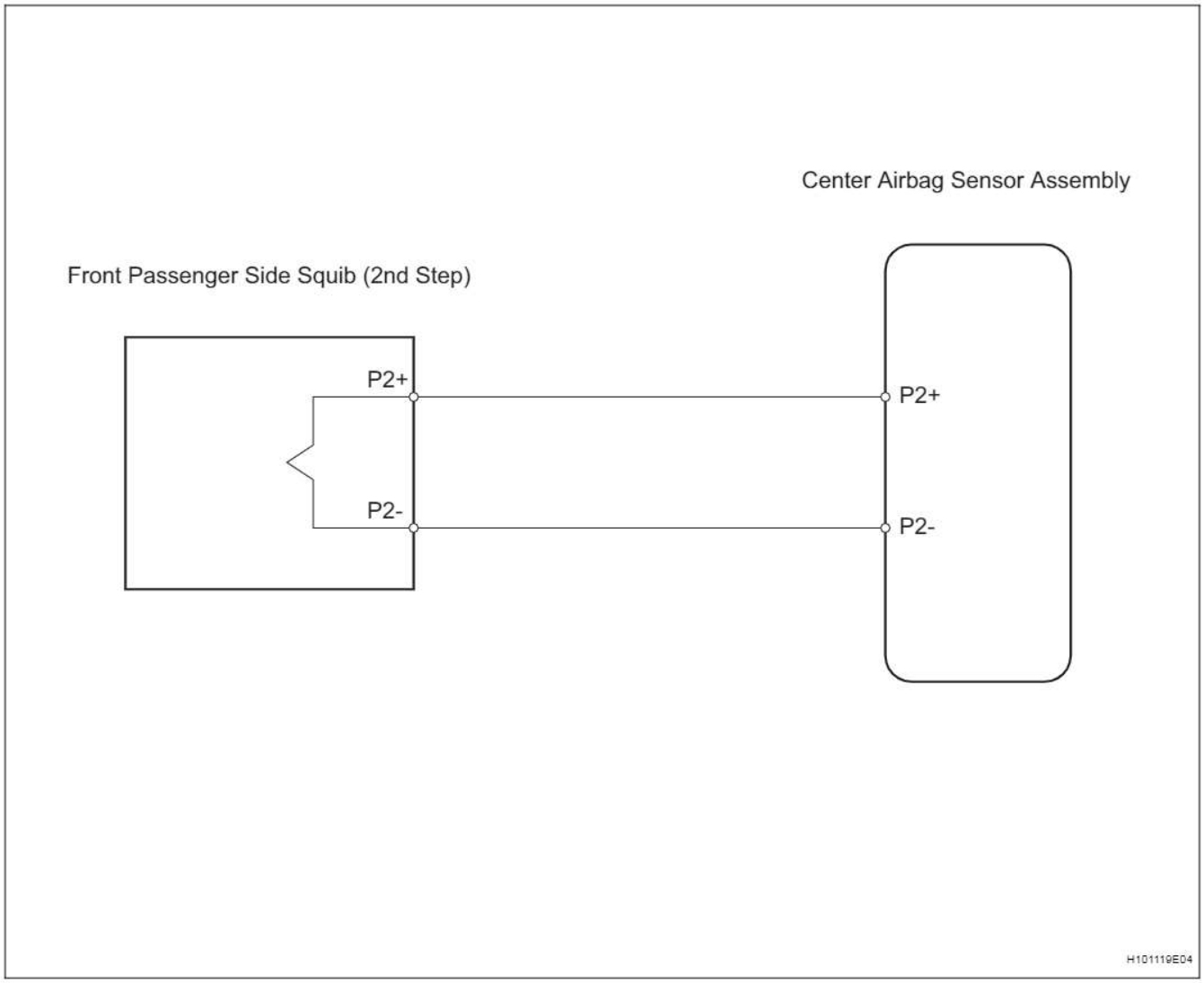
| DTC | B1188/56 | Short to B+ in Front Passenger Side Squib 2nd Step Circuit |
|---|---|---|

## DESCRIPTION

The front passenger side squib (2nd step) circuit consists of the center airbag sensor assembly and the front passenger airbag assembly.
This circuit instructs the SRS to deploy when deployment conditions are met.
DTC B1188/56 is recorded when a short to B+ is detected in the front passenger side squib (2nd step) circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1188/56 | • Short circuit in front passenger side squib (2nd step) wire harness (to B+)<br>• Front passenger side squib (2nd step)<br>• Center airbag sensor assembly | • Front passenger airbag assembly (front passenger side squib, 2nd step)<br>• Center airbag sensor assembly<br>• Instrument panel wire |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

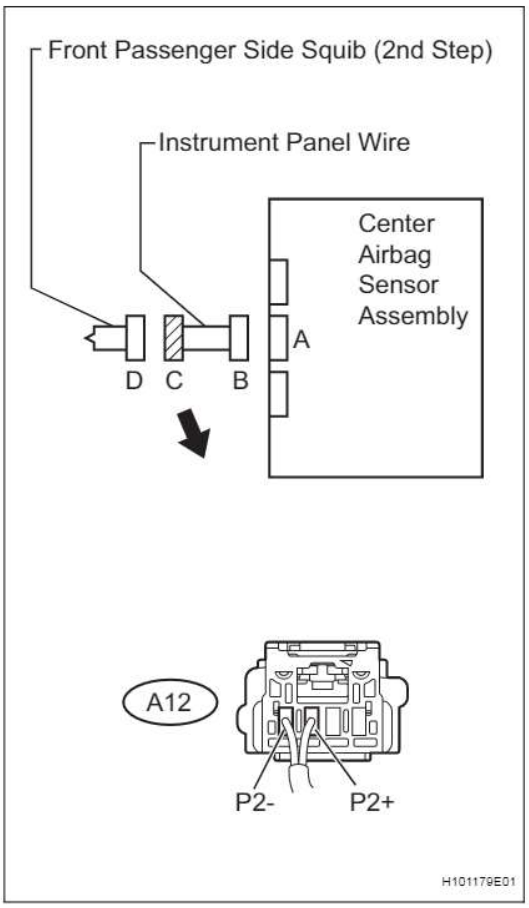
| 1 | CHECK INSTRUMENT PANEL WIRE (FRONT PASSENGER SIDE SQUIB (2ND STEP)) |
|---|---|

RS

(a) Turn the ignition switch to the LOCK position.
(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 and the front passenger airbag assembly.
(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 (Connector "C") | Condition | Specified Condition |
|---|---|---|
| A12-3 (P+) - Body ground | Ignition switch ON | Below 1 V |
| A12-4 (P-) - Body ground | | |

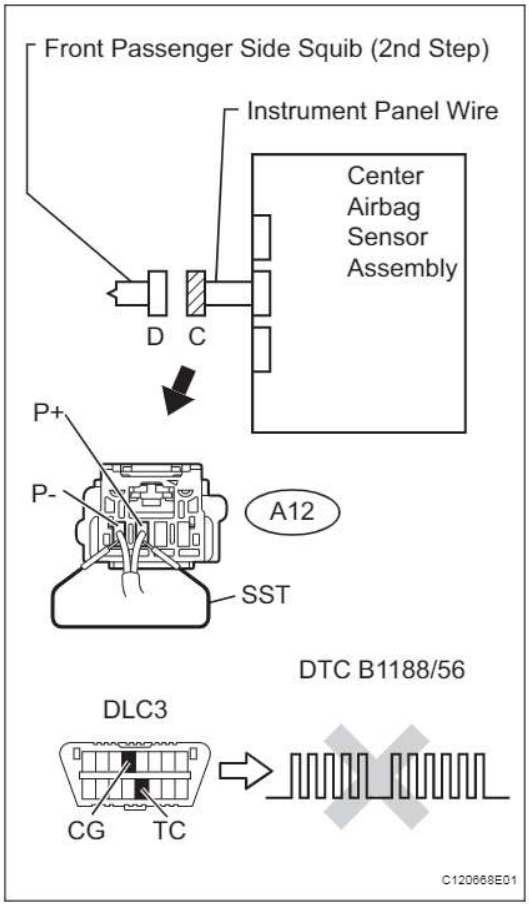



NG → **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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) Using a service wire, connect terminals D+ and D- of connector "E".
**SST 09843-18040**

**NOTICE:**
**Do not forcibly insert SST into the terminals of the connector when connecting.**

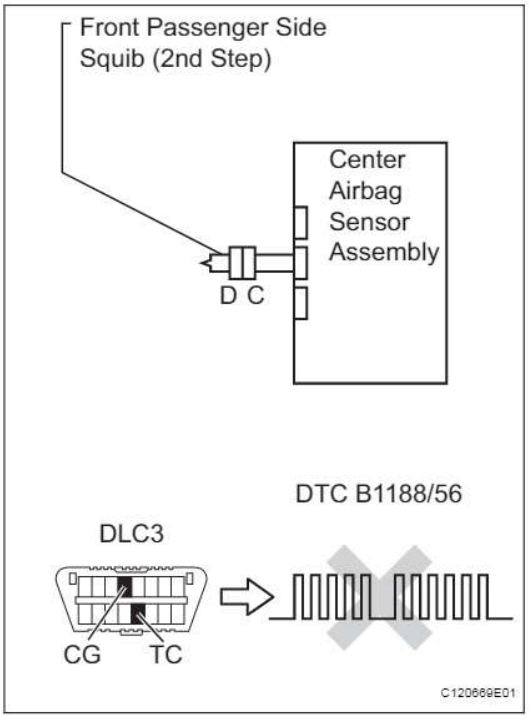
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Clear the stored DTCs in the memory (see page RS-44).
(h) Turn the ignition switch to the LOCK position.
(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(j) Check for the DTCs (see page RS-44).
**OK:**
**B1188/56 is not output.**
HINT:
Codes other than code B1188/55 may be output at this time, but they are not related to this check.

NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

| 3 | CHECK FRONT PASSENGER AIRBAG ASSEMBLY (FRONT PASSENGER SIDE SQUIB, 2ND STEP) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Disconnect the SST from the connector "C".
(d) Connect the connector to the front passenger airbag assembly.
(e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(f) Turn the ignition switch to the ON position, and wait for at least 60 seconds.
(g) Clear the stored DTCs in the memory (see page RS-44).
(h) Turn the ignition switch to the LOCK position.
(i) Turn the ignition switch to the ON position, and wait for at least 60 seconds.




(j) Check for the DTCs (see page RS-44).

**OK:**

**B1188/56 is not output.**

HINT:

Codes other than code B1188/55 may be output at this time, but they are not related to this check.

**NG** → **REPLACE FRONT PASSENGER AIRBAG ASSEMBLY**

**OK**

**PROBLEM SYMPTOMS SIMULATION**

| DTC | B1610/13 | Front Airbag Sensor RH Circuit Malfunction |
|---|---|---|

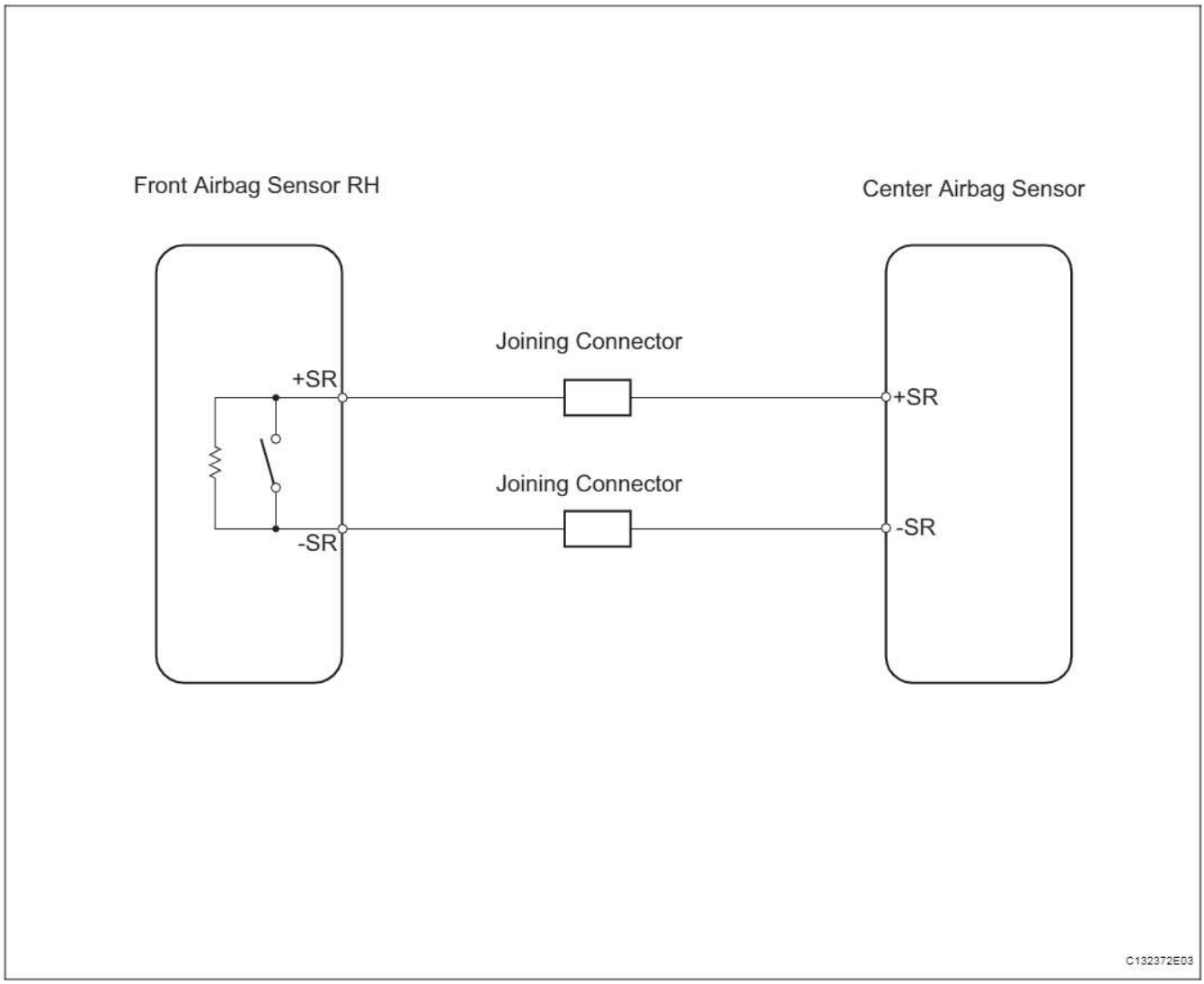
## SYSTEM DESCRIPTION

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

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1610/13 | When one of following conditions is met:<br>• Center airbag sensor receives line short signal, open signal, short to ground signal or B+ short signal in front airbag sensor RH circuit for 2 seconds<br>• Front airbag sensor RH malfunction<br>• Center airbag sensor malfunction | • Front airbag sensor RH<br>• Center airbag sensor assembly<br>• Instrument panel wire<br>• Engine room main wire |

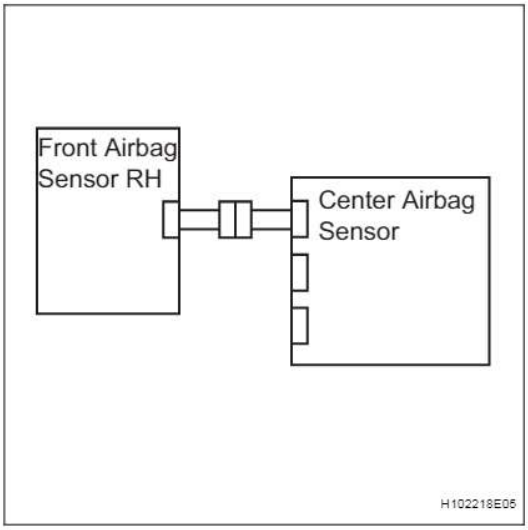
## WIRING DIAGRAM



## INSPECTION PROCEDURE

| 1 | CHECK FOR DTC |
|---|---|

RS




(a) Turn the ignition switch ON, and wait for at least 60 seconds.
(b) Clear the DTCs (see page RS-48).
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON, and wait for at least 60 seconds.
(e) Check for DTCs (see page RS-48).
**OK:**
**DTC B1610/13 is not output.**
HINT:
DTCs other than DTC B1610/13 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG

| 2 | CHECK CONNECTION OF CONNECTOR |
|---|---|

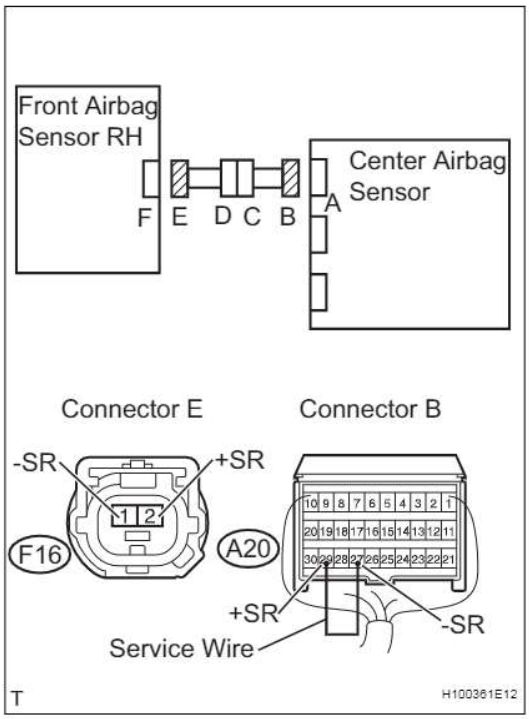
(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Check that the connectors are properly connected to the center airbag sensor and front airbag sensor RH.
**OK:**
**Connectors are connected.**

NG → **CONNECT CONNECTOR**

OK

RS

## 3 CHECK FRONT AIRBAG SENSOR RH CIRCUIT (OPEN)




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

(b) Using a service wire, connect terminals A20-27 (-SR) and A20-29 (+SR) of connector "B".

**NOTICE:**

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

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

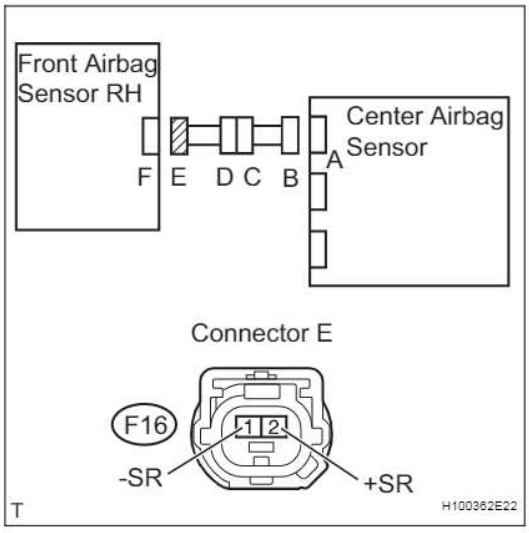
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| F16-2 (+SR) - F16-1 (-SR) | Below 1 Ω |

NG → **Go to step 8**

OK

## 4 CHECK FRONT AIRBAG SENSOR RH CIRCUIT (SHORT)




(a) Disconnect the service wire from connector "B".

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

**Standard resistance**

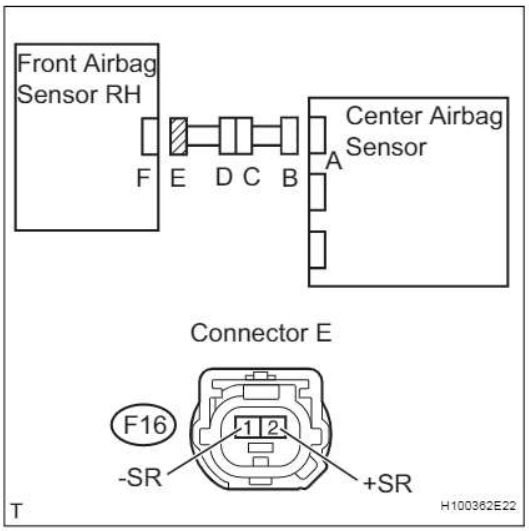
| Tester Connection | Specified Condition |
|---|---|
| F16-2 (+SR) - F16-1 (-SR) | 1 MΩ or higher |

NG → **Go to step 9**

OK

RS

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




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

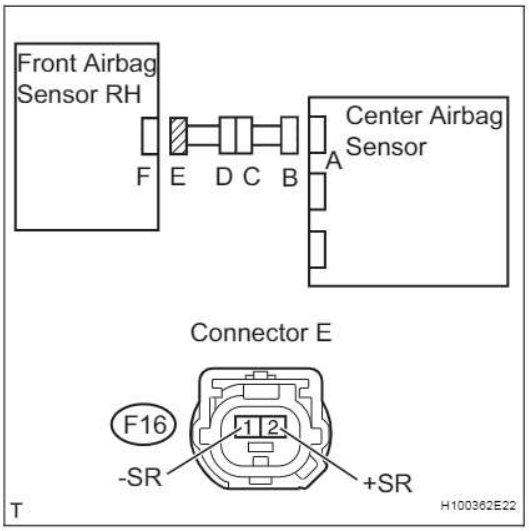
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| F16-2 (+SR) - Body ground | Below 1 V |
| F16-1 (-SR) - Body ground | |

NG → **Go to step 10**

OK

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




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Measure the resistance of the wire harness side connector.

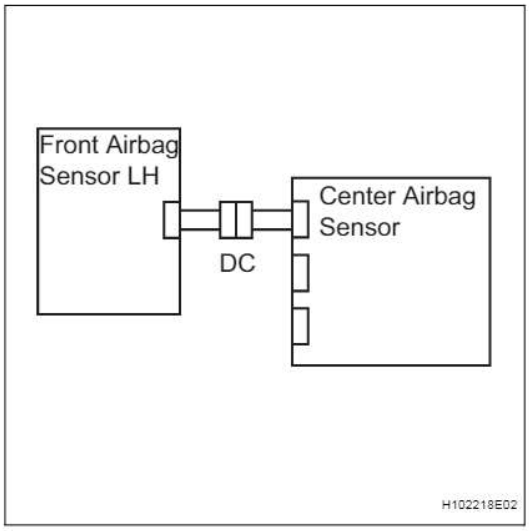
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| F16-2 (+SR) - Body ground | 1 MΩ or higher |
| F16-1 (-SR) - Body ground | |

NG → **Go to step 11**

OK

| 7 | CHECK FRONT AIRBAG SENSOR RH |
|---|---|




(a) Connect the connectors to the center airbag sensor.
(b) Interchange the front airbag sensor RH with the front airbag sensor LH and connect the connectors to them.
(c) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(d) Turn the ignition switch ON, and wait for at least 60 seconds.
(e) Clear the DTCs (see page RS-48).
(f) Turn the ignition switch OFF.
(g) Turn the ignition switch ON, and wait for at least 60 seconds.
(h) Check for DTCs (see page RS-48).

**Result**

| Result | Proceed to |
|---|---|
| DTC B1610/13 is output | A |
| DTC B1615/14 is output | B |
| DTC B1610/13 and B1615/14 are not output | C |

A → REPLACE CENTER AIRBAG SENSOR ASSEMBLY

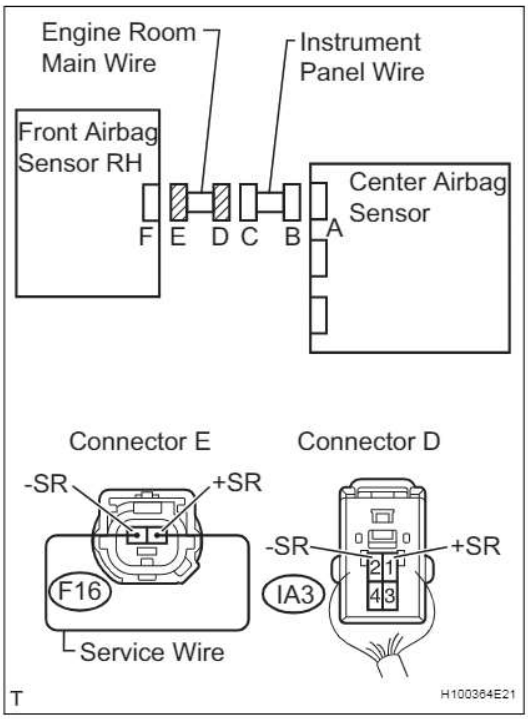
B → REPLACE FRONT AIRBAG SENSOR RH

C

USE SIMULATION METHOD TO CHECK

RS

| 8 | CHECK ENGINE ROOM MAIN WIRE (OPEN) |
|---|---|




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

(b) Using a service wire, connect terminals F16-1 (-SR) and F16-2 (+SR) of connector "E".

**NOTICE:**

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

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

**Standard resistance**

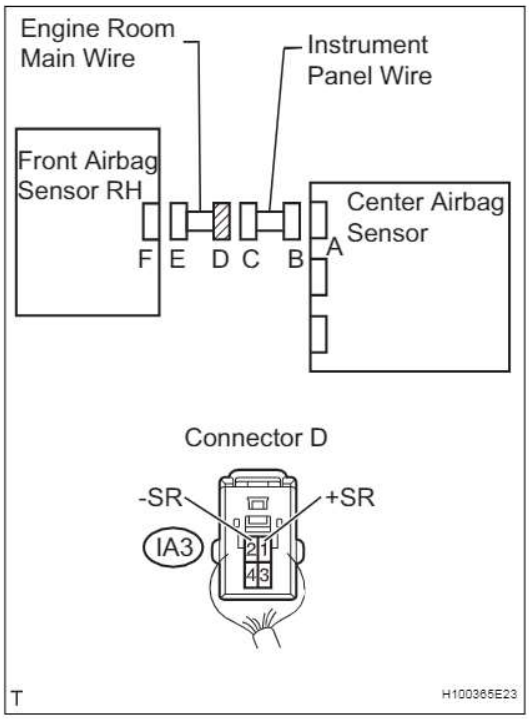
| Tester Connection | Specified Condition |
|---|---|
| IA3-1 (+SR) - IA3-2 (-SR) | Below 1 Ω |

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

OK

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

| 9 | CHECK ENGINE ROOM MAIN WIRE (SHORT) |
|---|---|




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

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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| IA3-1 (+SR) - IA3-2 (-SR) | 1 MΩ or higher |

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

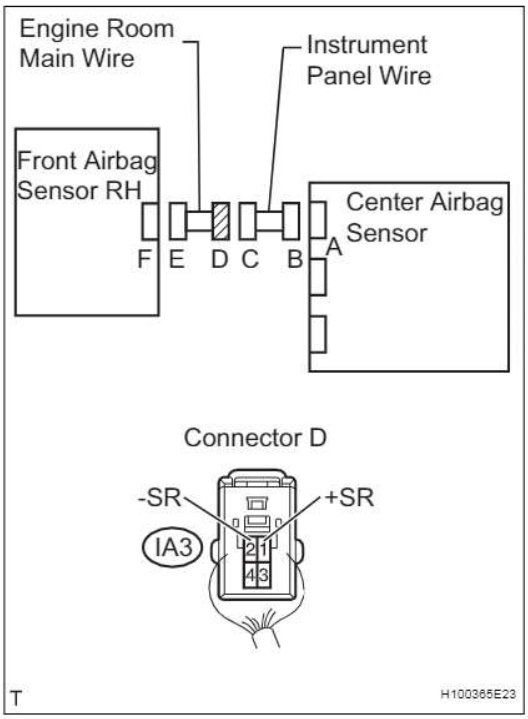
OK

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

RS

RS

| 10 | CHECK ENGINE ROOM MAIN WIRE (TO +B) |
|---|---|




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect the engine room main wire connector from the instrument panel wire.
(d) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(e) Turn the ignition switch ON.
(f) Measure the voltage of the wire harness side connector.

**Standard voltage**

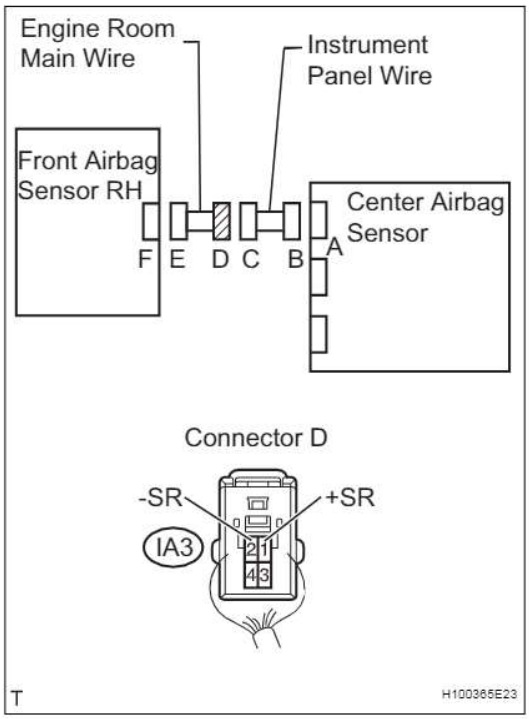
| Tester Connection | Specified Condition |
|---|---|
| IA3-1 (+SR) - Body ground | Below 1 V |
| IA3-2 (-SR) - Body ground | |

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

OK

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

| 11 | CHECK ENGINE ROOM MAIN WIRE (TO GROUND) |
|---|---|




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

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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| IA3-1 (+SR) - Body ground | 1 MΩ or higher |
| IA3-2 (-SR) - Body ground | |

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

OK

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

| DTC | B1615/14 | Front Airbag Sensor LH Circuit Malfunction |
|---|---|---|

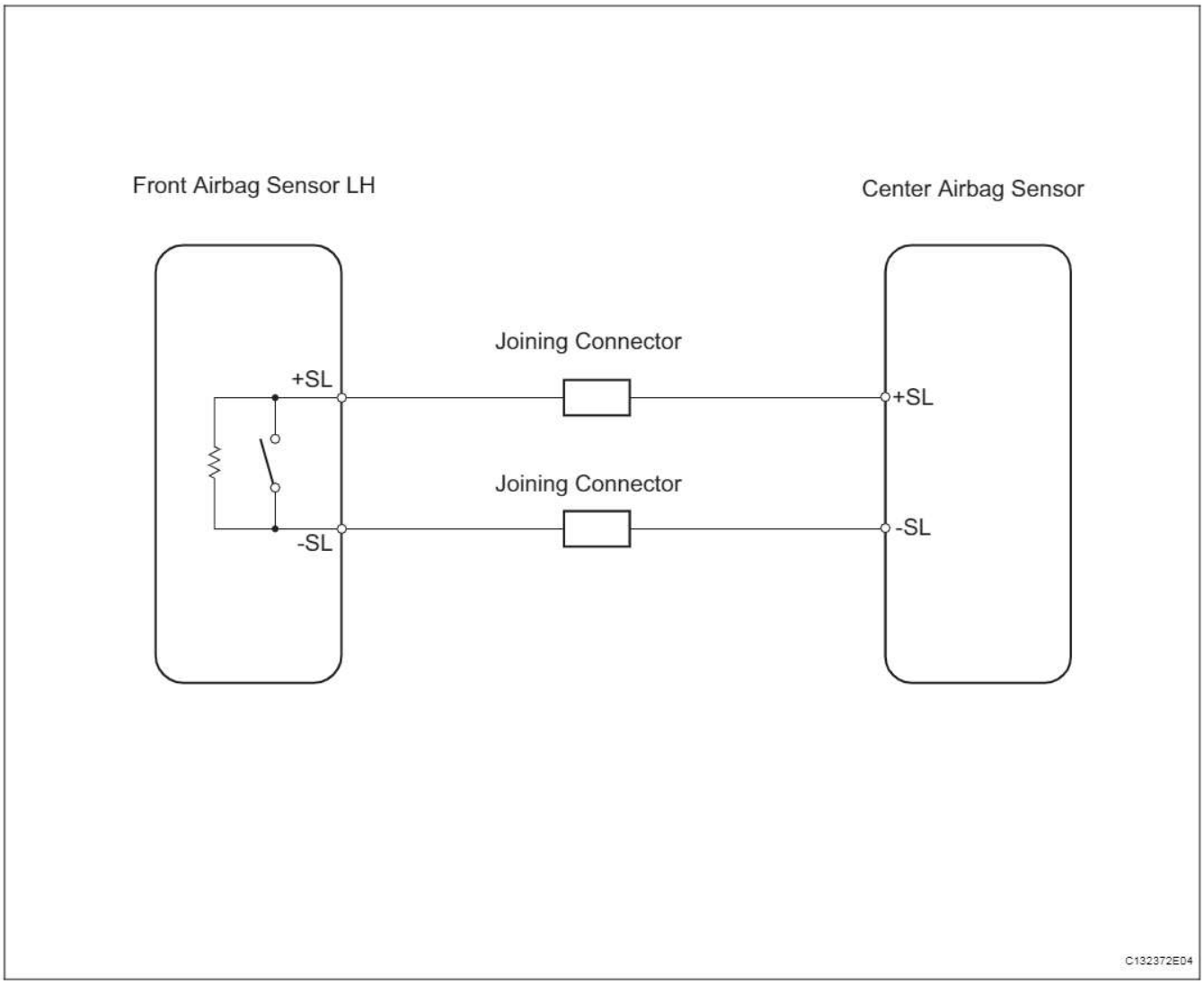
## SYSTEM DESCRIPTION

RS

The front airbag sensor LH consists of the diagnostic circuit and front deceleration sensor. The center airbag sensor receives signals from the front deceleration sensor, and determines whether or not the SRS should be activated. DTC B1615/14 is recorded when a malfunction is detected in the front airbag sensor LH circuit.

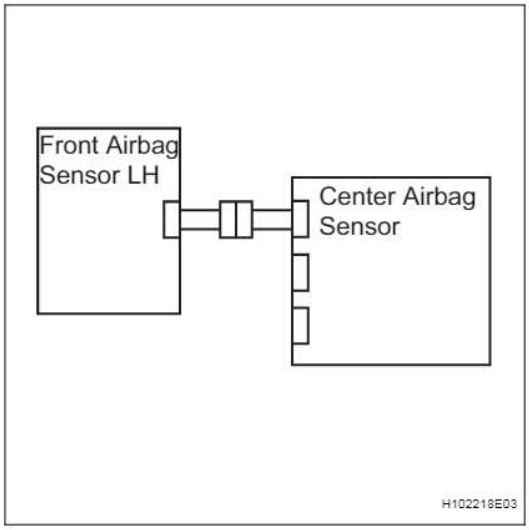
| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1615/14 | When one of following conditions is met:<br>• Center airbag sensor receives line short signal, open signal, short to ground signal or B+ short signal in front airbag sensor LH circuit for 2 seconds<br>• Front airbag sensor LH malfunction<br>• Center airbag sensor malfunction | • Front airbag sensor LH<br>• Center airbag sensor assembly<br>• Instrument panel wire<br>• Engine room main wire |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

| 1 | CHECK FOR DTC |
|---|---|




(a) Turn the ignition switch ON, and wait for at least 60 seconds.
(b) Clear the DTCs stored in memory (see page RS-48).
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON, and wait for at least 60 seconds.
(e) Check for DTCs (see page RS-48).

**OK:**

**DTC B1615/14 is not output.**

HINT:

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

OK → **USE SIMULATION METHOD TO CHECK**

NG

| 2 | CHECK CONNECTION OF CONNECTOR |
|---|---|

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

**OK:**

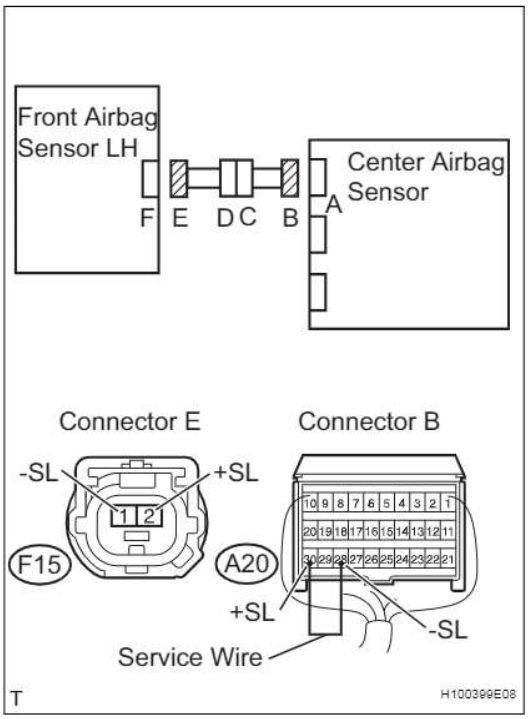
**Connectors are connected.**

NG → **CONNECT CONNECTOR**

OK

RS

## 3 CHECK FRONT AIRBAG SENSOR LH CIRCUIT (OPEN)




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

(b) Using a service wire, connect terminals A20-28 (-SL) and A20-30 (+SL) of connector "B".

**NOTICE:**

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

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

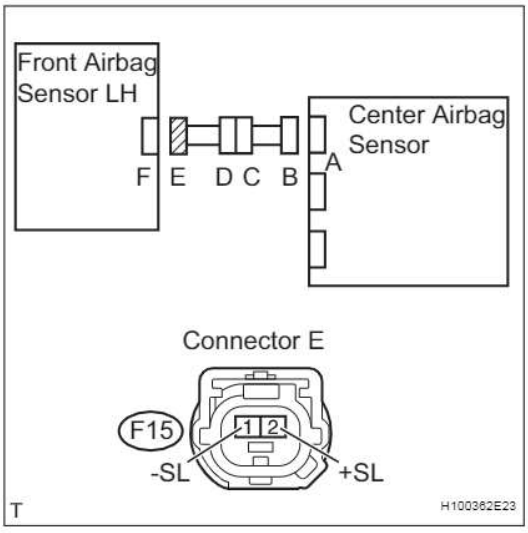
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| F15-2 (+SL) - F15-1 (-SL) | Below 1 Ω |

NG → **Go to step 8**

OK

## 4 CHECK FRONT AIRBAG SENSOR LH CIRCUIT (SHORT)




(a) Disconnect the service wire from connector "B".

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

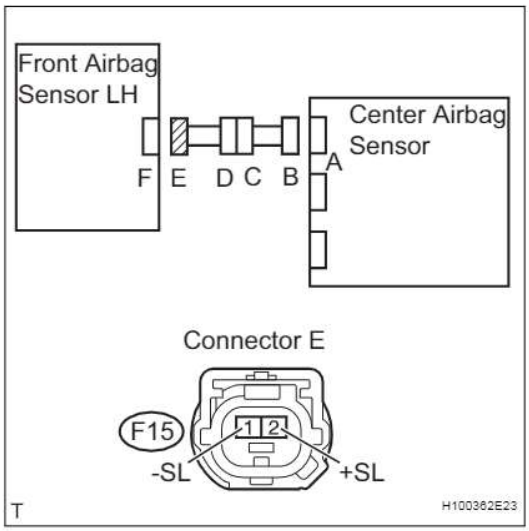
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| F15-2 (+SL) - F15-1 (-SL) | 1 MΩ or higher |

NG → **Go to step 9**

OK

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




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

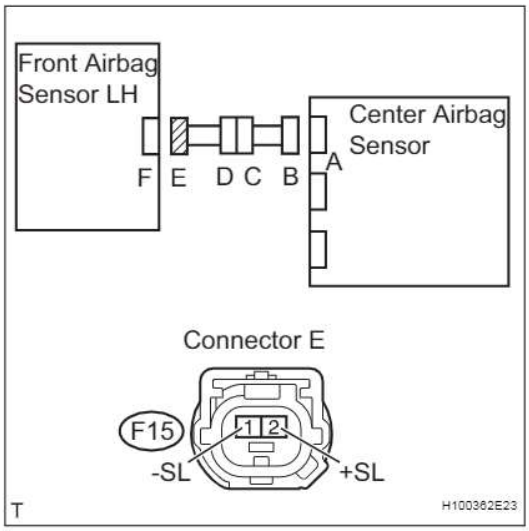
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| F15-2 (+SL) - Body ground | Below 1 V |
| F15-1 (-SL) - Body ground | |

NG → **Go to step 10**

OK

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




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Measure the resistance of the wire harness side connector.

**Standard resistance**

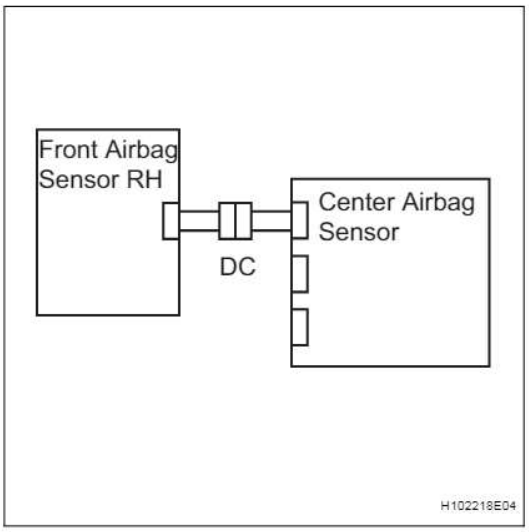
| Tester Connection | Specified Condition |
|---|---|
| F15-2 (+SL) - Body ground | 1 MΩ or higher |
| F15-1 (-SL) - Body ground | |

NG → **Go to step 11**

OK

RS

| 7 | CHECK FRONT AIRBAG SENSOR LH |
|---|---|




(a) Connect the connectors to the center airbag sensor.
(b) Interchange the front airbag sensor LH with the front airbag sensor RH and connect the connectors to them.
(c) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(d) Turn the ignition switch ON, and wait for at least 60 seconds.
(e) Clear the DTCs (see page RS-48).
(f) Turn the ignition switch OFF.
(g) Turn the ignition switch ON, and wait for at least 60 seconds.
(h) Check for DTCs (see page RS-48).

**Result**

| Result | Proceed to |
|---|---|
| DTC B1615/14 is output | A |
| DTC B1610/13 is output | B |
| DTC B1610/13 and B1615/14 are not output | C |

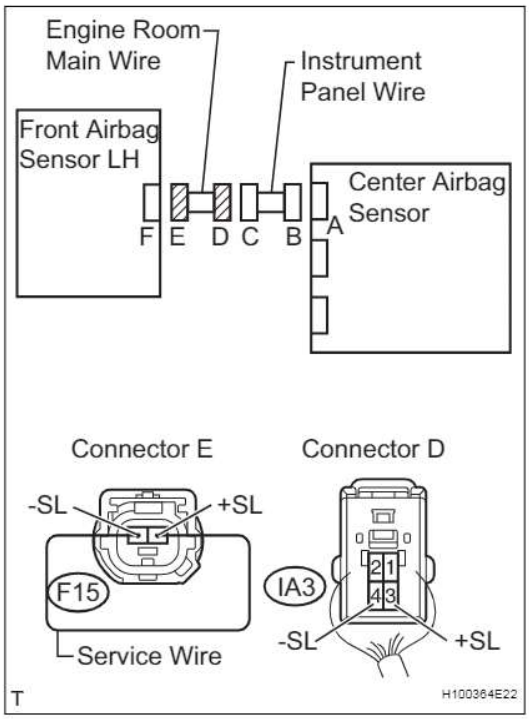
A → REPLACE CENTER AIRBAG SENSOR ASSEMBLY

B → REPLACE FRONT AIRBAG SENSOR LH

C

USE SIMULATION METHOD TO CHECK

| 8 | CHECK ENGINE ROOM MAIN WIRE (OPEN) |
|---|---|




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

(b) Using a service wire, connect terminals F15-1 (-SL) and F15-2 (+SL) of connector "E".

**NOTICE:**

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

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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| IA3-3 (+SL) - IA3-4 (-SL) | Below 1 Ω |

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

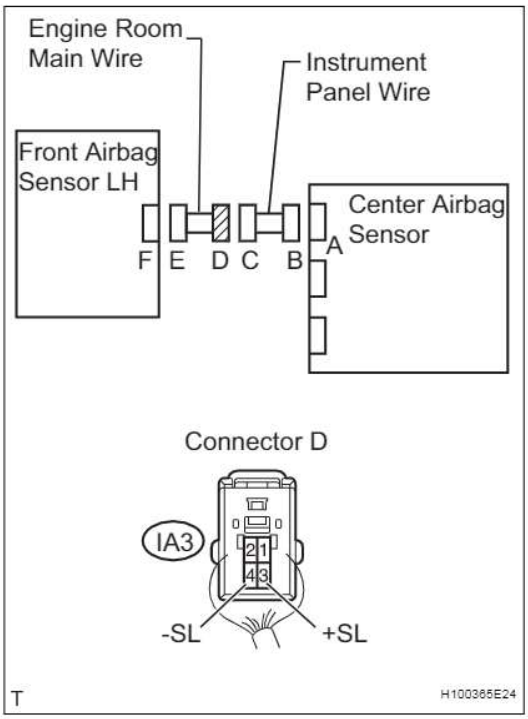
OK

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

RS

RS

| 9 | CHECK ENGINE ROOM MAIN WIRE (SHORT) |
|---|---|




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

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

**Standard resistance**

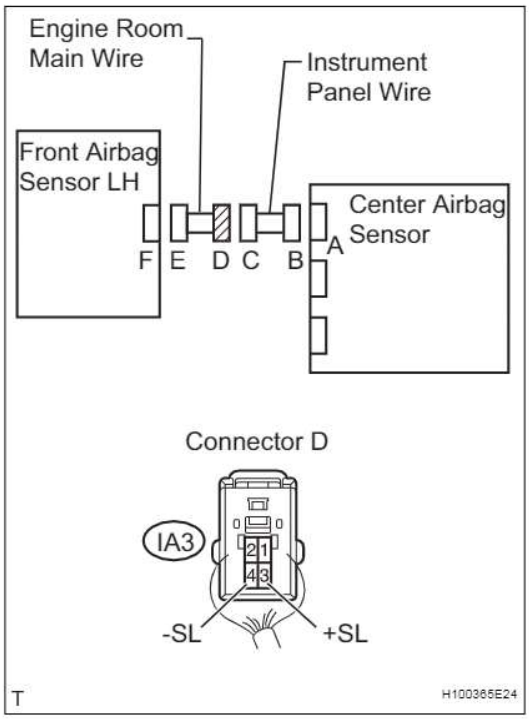
| Tester Connection | Specified Condition |
|---|---|
| IA3-3 (+SL) - IA3-4 (-SL) | 1 MΩ or higher |

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

OK

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

| 10 | CHECK ENGINE ROOM MAIN WIRE (TO B+) |
|---|---|




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect the engine room main wire connector from the instrument panel wire.
(d) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(e) Turn the ignition switch ON.
(f) Measure the voltage of the wire harness side connector.

**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| IA3-3 (+SL) - Body ground | Below 1 V |
| IA3-4 (-SL) - Body ground | |

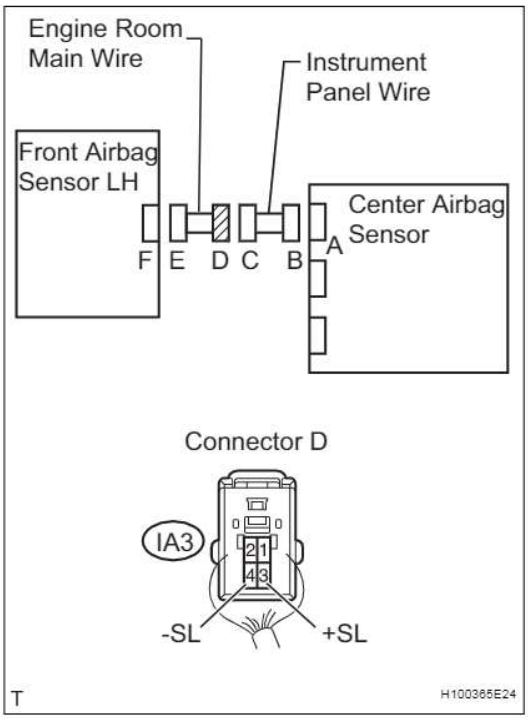
NG → REPAIR OR REPLACE ENGINE ROOM MAIN WIRE

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

RS

| 11 | CHECK ENGINE ROOM MAIN WIRE (TO GROUND) |
|---|---|




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

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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| IA3-3 (+SL) - Body ground | 1 MΩ or higher |
| IA3-4 (-SL) - Body ground | |

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

OK

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

| DTC | B1650/32 | Occupant Classification System Malfunction |
|---|---|---|

## DESCRIPTION

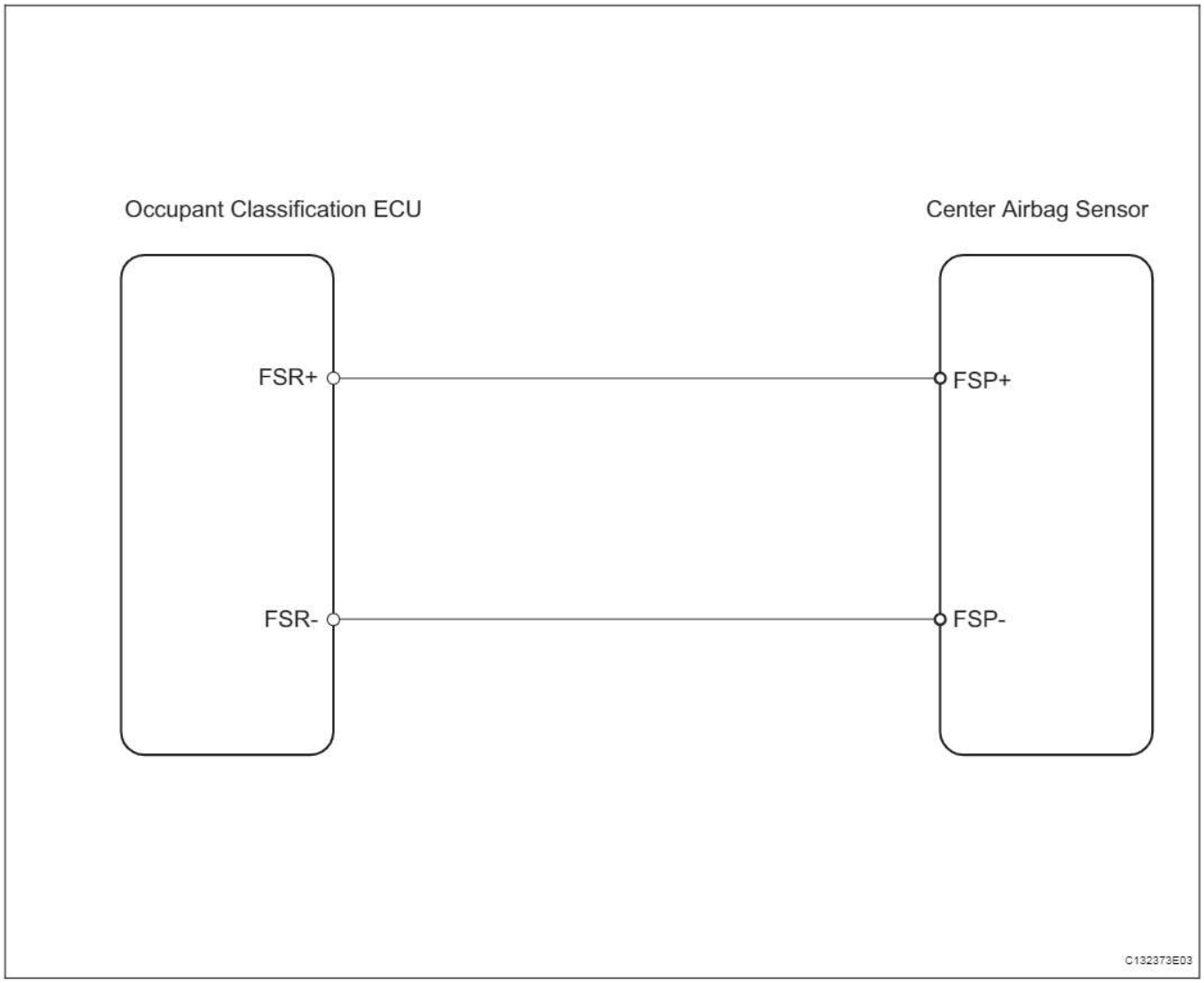
The occupant classification system circuit consists of the center airbag sensor and the occupant classification system.

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

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1650/32 | When one of following conditions is met:<br>• Occupant classification system malfunction<br>• Center airbag sensor detects line short circuit signal, open circuit signal, short circuit to ground signal or short circuit to B+ signal in occupant classification system circuit for 2 seconds<br>• Center airbag sensor malfunction | • Floor wire<br>• Occupant classification system<br>• Center airbag sensor assembly |

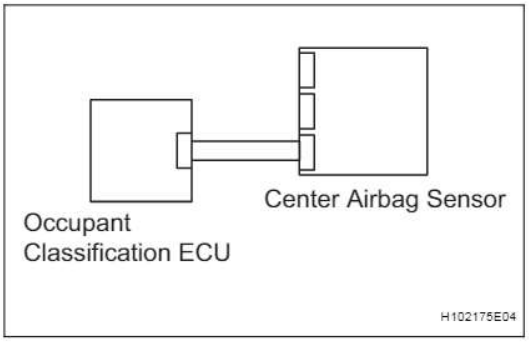
## WIRING DIAGRAM



## INSPECTION PROCEDURE

| 1 | CHECK FOR DTC (CENTER AIRBAG SENSOR ASSEMBLY) |
|---|---|

RS




(a) Turn the ignition switch ON, and wait for at least 60 seconds.
(b) Clear the DTCs stored in the memory (see page RS-48).
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON, and wait for at least 60 seconds.
(e) Check for DTCs (see page RS-48).

**OK:**

**DTC B1650/32 is not output.**

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

OK → **USE SIMULATION METHOD TO CHECK**

NG

| 2 | CHECK FOR DTC (OCCUPANT CLASSIFICATION ECU) |
|---|---|

(a) Turn the ignition switch ON, and wait for at least 10 seconds.
(b) Using the intelligent tester, check for DTCs of the occupant classification ECU (see page RS-48).

**OK:**

**DTC is not output.**

NG → **GO TO DTC CHART (OCCUPANT CLASSIFICATION SYSTEM)**

OK

| 3 | CHECK CONNECTION OF CONNECTOR |
|---|---|

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

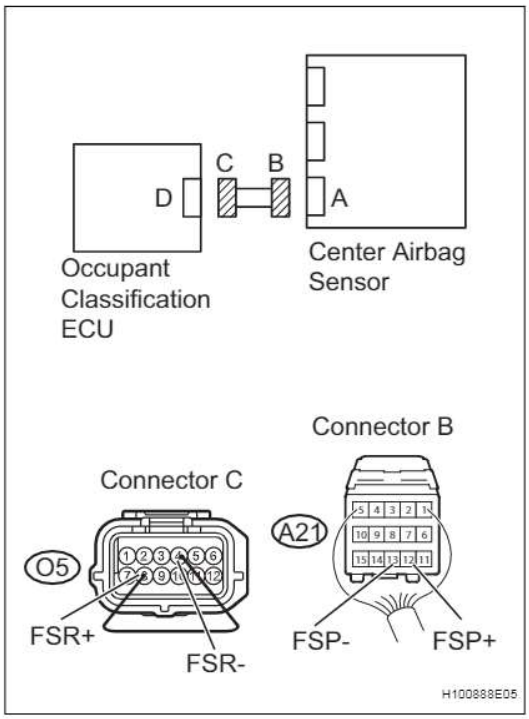
**OK:**

**The connectors are properly connected.**

NG → **CONNECT CONNECTOR**

OK

## 4 CHECK FLOOR WIRE (FOR OPEN)



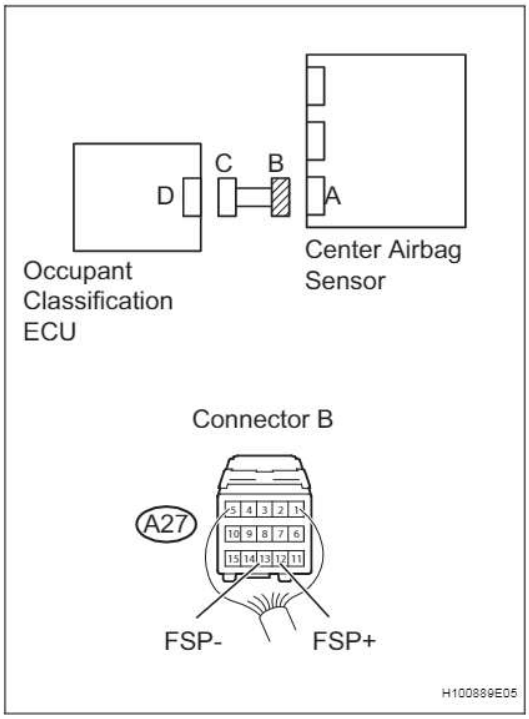

(a) Disconnect the connectors from the center airbag sensor and the occupant classification ECU.
(b) Using a service wire, connect terminals O5-8 (FSR+) and O5-4 (FSR-) of connector "C".
**NOTICE:**
**Do not forcibly insert the service wire into the terminals of the connector when connecting them.**
(c) Measure the resistance of the wire harness side connectors.
**Standard resistance**

| Terminal Connection | Specified Condition |
|---|---|
| A21-12 (FSP+) - A21-13 (FSP-) | Below 1 Ω |

NG → REPAIR OR REPLACE FLOOR WIRE

OK

## 5 CHECK FLOOR WIRE (FOR SHORT)




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

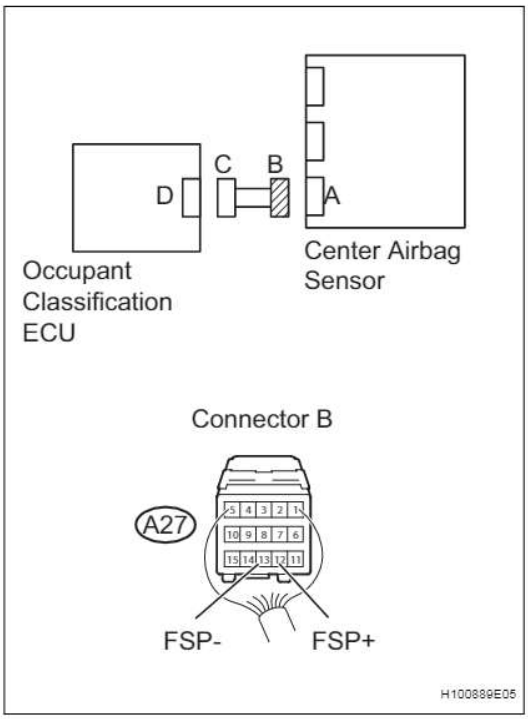
| Terminal Connection | Specified Condition |
|---|---|
| A21-12 (FSP+) - A21-13 (FSP-) | 1 MΩ or higher |

NG → REPAIR OR REPLACE FLOOR WIRE

OK

RS

| 6 | CHECK FLOOR WIRE (TO B+) |
|---|---|




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

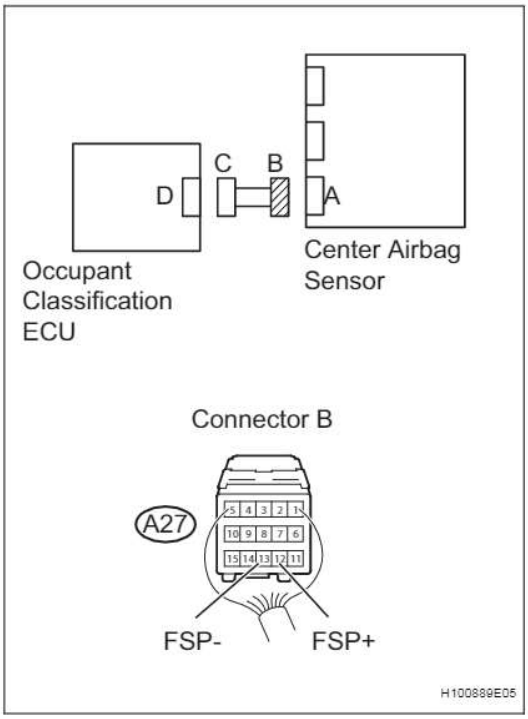
**Standard voltage**

| Terminal Connection | Specified Condition |
|---|---|
| A21-12 (FSP+) - Body ground | Below 1 V |
| A21-13 (FSP-) - Body ground | |

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

| 7 | CHECK FLOOR WIRE (TO GROUND) |
|---|---|




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Measure the resistance of the wire harness side connector.

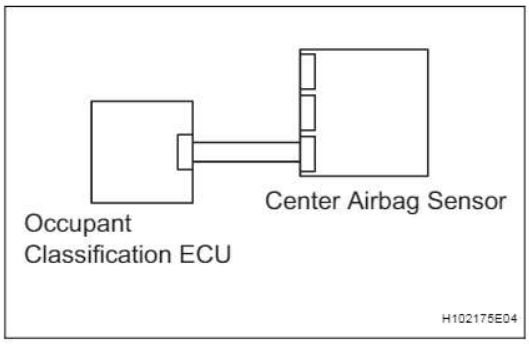
**Standard resistance**

| Terminal Connection | Specified Condition |
|---|---|
| A21-12 (FSP+) - Body ground | 1 MΩ or higher |
| A21-13 (FSP-) - Body ground | |

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

| 8 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Replace the center airbag sensor (see page RS-435).
HINT:
Perform the inspection using parts from a normal vehicle when possible.
(d) Connect the connectors to the center airbag sensor.
(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(f) Turn the ignition switch ON, and wait for at least 60 seconds.
(g) Clear the DTCs stored in the memory (see page RS-48).
(h) Turn the ignition switch OFF.
(i) Turn the ignition switch ON, and wait for at least 60 seconds.
(j) Check for DTCs (see page RS-48).
**OK:**
**DTC B1650/32 is not output.**
HINT:
DTCs other than B1650/32 may be output at this time, but they are not related to this check.

OK → USE SIMULATION METHOD TO CHECK

NG

| 9 | REPLACE OCCUPANT CLASSIFICATION ECU |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Replace the occupant classification ECU (see page SE-5).

NEXT

| 10 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform the zero point calibration (see page RS-309).
HINT:
"COMPLETED" is displayed on the tester.

NEXT

| 11 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the sensitivity check (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**



NEXT

END

| DTC | B1653/35 | Seat Position Airbag Sensor Circuit Malfunction |
|---|---|---|

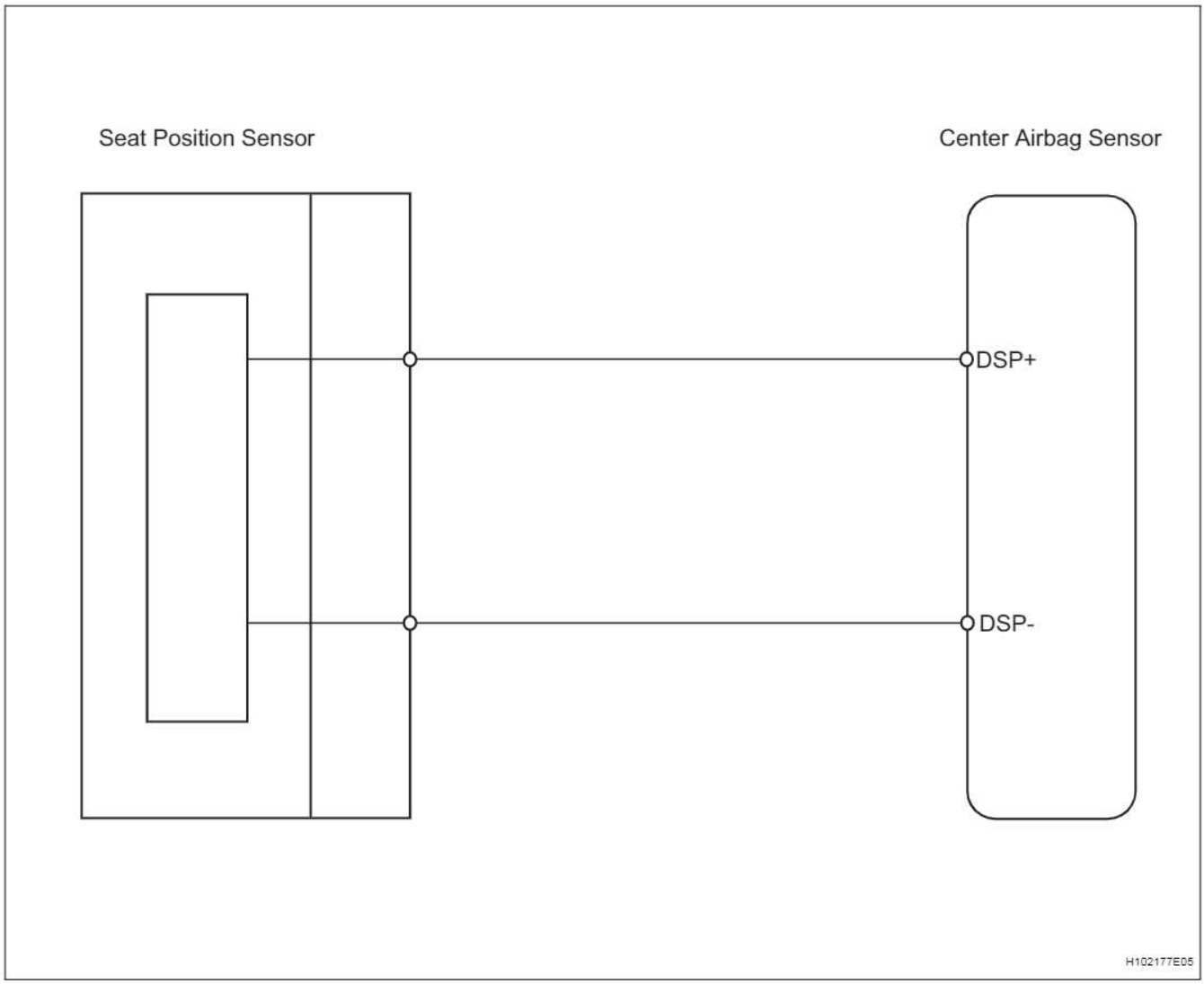
## DESCRIPTION

The seat position airbag sensor circuit consists of the center airbag sensor and the seat position sensor. DTC B1653/35 is recorded when a malfunction is detected in the seat position airbag sensor circuit.



| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1653/35 | When one of following conditions is met:<br>• The center airbag sensor 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<br>• Seat position airbag sensor malfunction<br>• Center airbag sensor malfunction | • No. 2 floor wire<br>• Seat position sensor<br>• Center airbag sensor assembly |

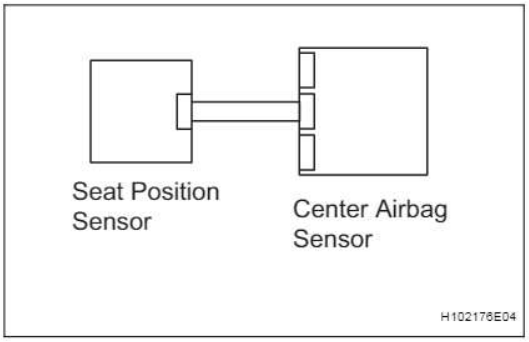
## WIRING DIAGRAM



## INSPECTION PROCEDURE

| 1 | CHECK FOR DTC |
|---|---|

RS




(a) Turn the ignition switch ON, and wait for at least 60 seconds.
(b) Clear the DTCs stored in the memory (see page RS-48).
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON, and wait for at least 60 seconds.
(e) Check the DTCs (see page RS-48).

**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.

OK → **USE SIMULATION METHOD TO CHECK**

NG

| 2 | CHECK CONNECTION OF CONNECTOR |
|---|---|

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

**OK:**

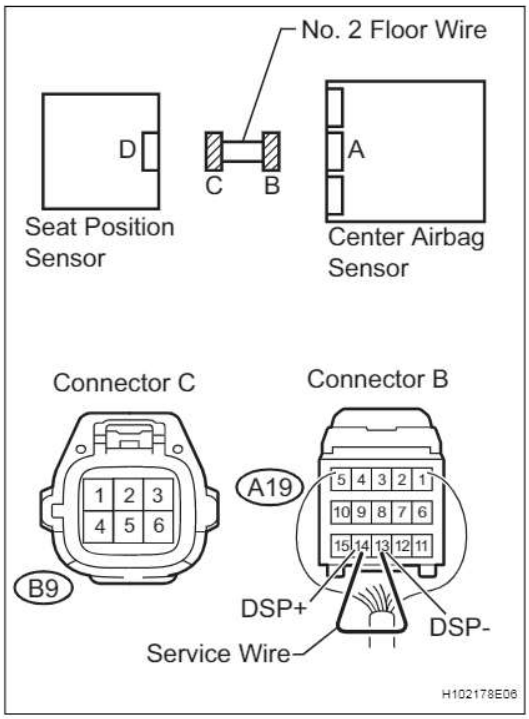
**The connectors are properly connected.**

NG → **CONNECT CONNECTOR**

OK

RS

**3 CHECK NO. 2 FLOOR WIRE (OPEN)**



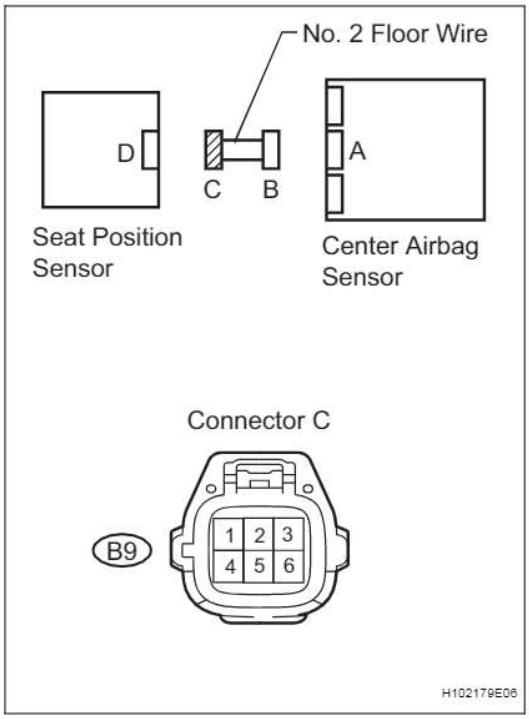

(a) Disconnect the connectors from the center airbag sensor and the seat position airbag sensor.
(b) Using a service wire, connect terminals A19-14 (DSP+) and A19-13 (DSP-) of connector "B".
**NOTICE:**
**Do not forcibly insert a service wire into the terminals of the connector when connecting them.**
(c) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| B9-1 - B9-6 | Below 1 Ω |

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

OK

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




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

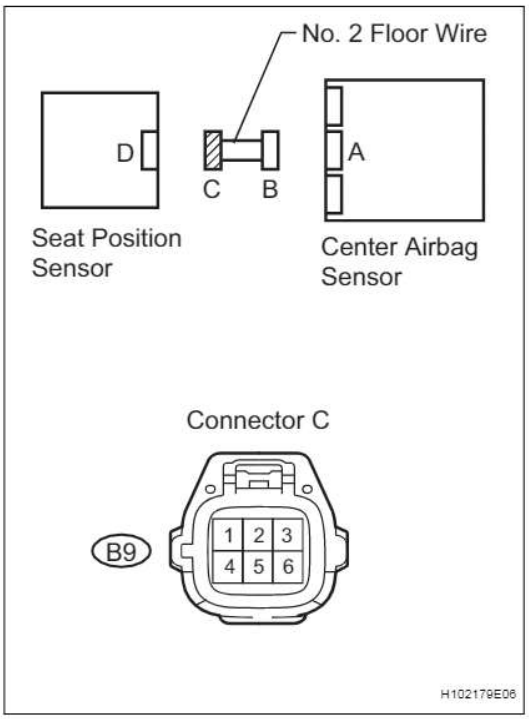
| Tester Connection | Specified Condition |
|---|---|
| B9-2 - B9-4 | 1 MΩ or higher |

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

OK

RS

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




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

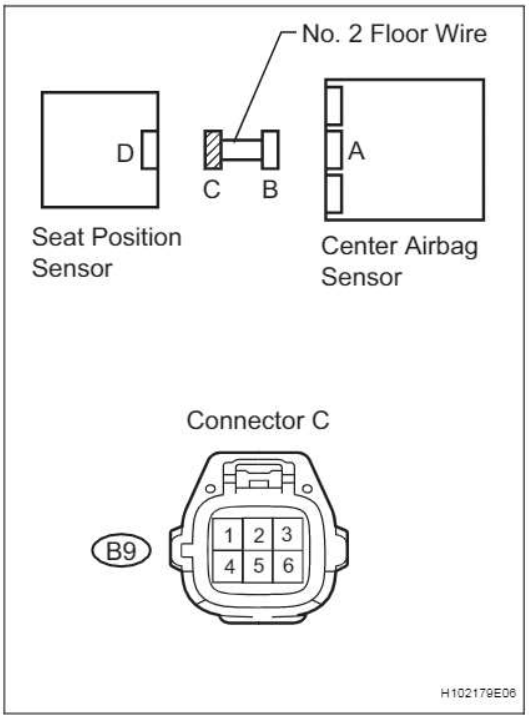
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| B9-2 - Body ground | Below 1 V |
| B9-4 - Body ground | |

NG → REPAIR OR REPLACE NO. 2 FLOOR WIRE

OK

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




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Measure the resistance of the wire harness side connector.

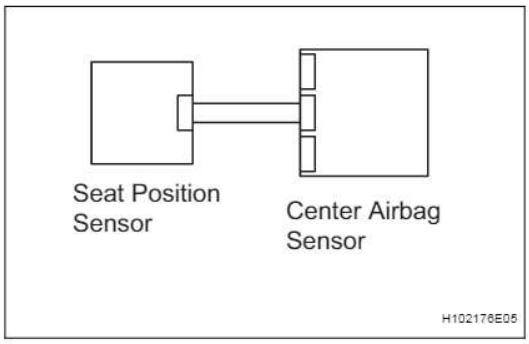
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| B9-2 - Body ground | 1 MΩ or higher |
| B9-4 - Body ground | |

NG → REPAIR OR REPLACE NO. 2 FLOOR WIRE

OK

| 7 | CHECK SEAT POSITION AIRBAG SENSOR |
|---|---|




(a) Connect the connectors to the center airbag sensor and the seat position airbag sensor.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the ignition switch ON, and wait for at least 60 seconds.
(d) Clear the DTCs stored in the memory (see page RS-48 ).
(e) Turn the ignition switch OFF.
(f) Turn the ignition switch ON, and wait for at least 60 seconds.
(g) Check the DTCs (see page RS-48).
**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.

OK → **USE SIMULATION METHOD TO CHECK**

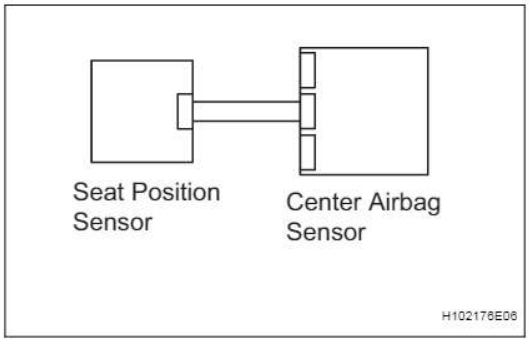
NG

| 8 | REPLACE SEAT POSITION AIRBAG SENSOR |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Replace the seat position airbag sensor (see page RS-442).
HINT:
Perform inspection using parts from a normal vehicle if possible.

NEXT

| 9 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|




(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Turn the ignition switch ON, and wait for at least 60 seconds.
(c) Clear the DTCs stored in the memory (see page RS-48).
(d) Turn the ignition switch OFF.
(e) Turn the ignition switch ON, and wait for at least 60 seconds.
(f) Check the DTCs (see page RS-48).
**OK:**
**DTC B1653/35 is not output.**
HINT:
Codes other than DTC B1653/35 may be output at this time, but they are not related to this check.

NG → REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK

RS

END

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

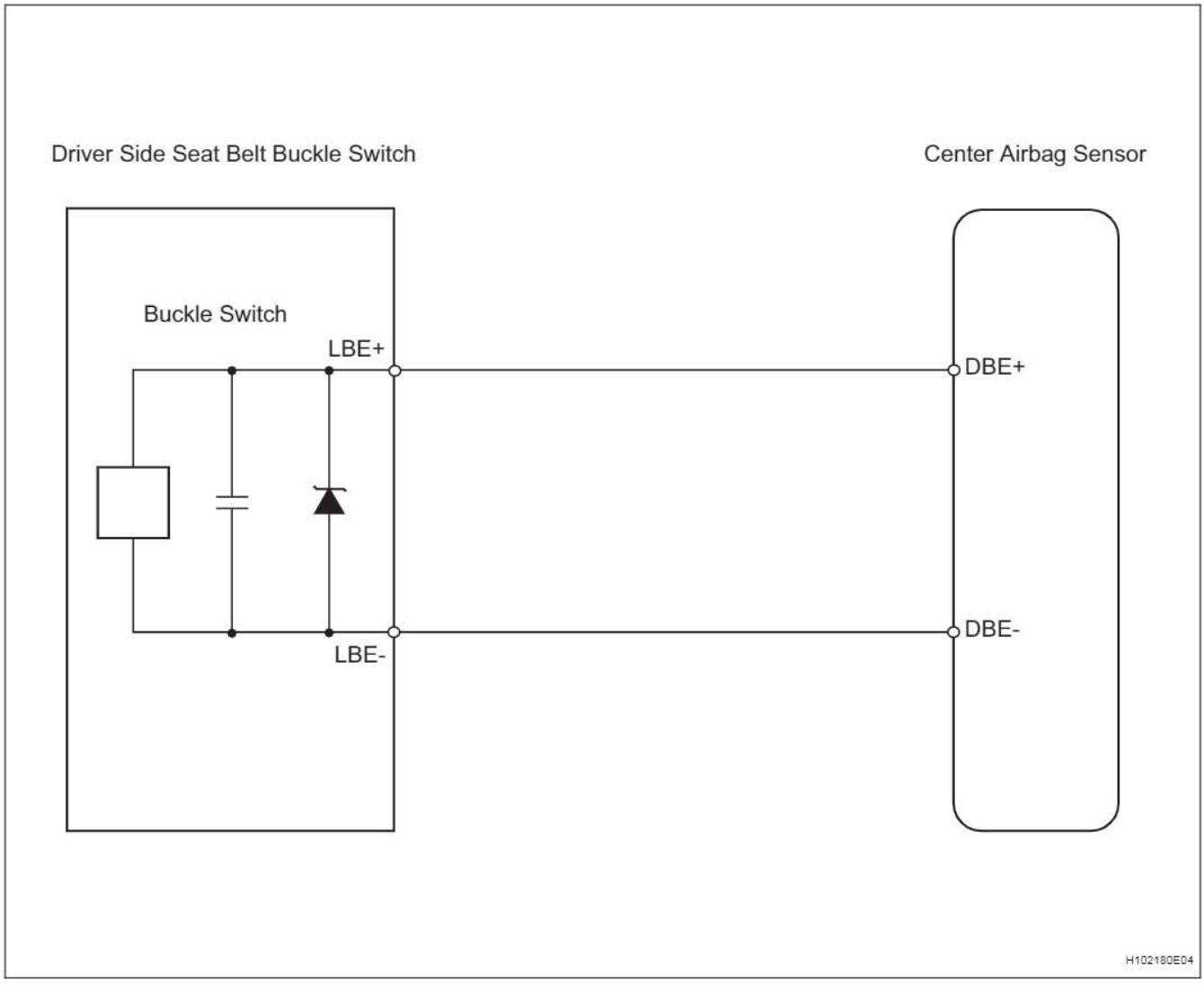
## DESCRIPTION

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

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1655/37 | When one of following conditions is met::<br>• The center airbag sensor 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<br>• Front seat inner belt LH malfunction<br>• Center airbag sensor malfunction | • No. 2 floor wire<br>• Front seat inner belt assembly LH (Driver side seat belt buckle switch)<br>• Center airbag sensor assembly |

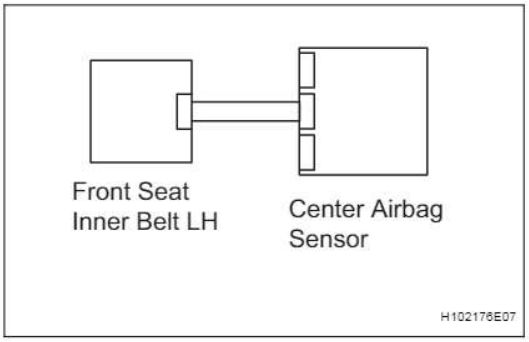
## WIRING DIAGRAM



## INSPECTION PROCEDURE

| 1 | CHECK FOR DTC |
|---|---|

RS




(a) Turn the ignition switch ON, and wait for at least 60 seconds.
(b) Clear the DTCs stored in the memory (see page RS-48).
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON, and wait for at least 60 seconds.
(e) Check the DTCs (see page RS-48).

**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.

OK → **USE SIMULATION METHOD TO CHECK**

NG

| 2 | CHECK CONNECTION OF CONNECTOR |
|---|---|

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

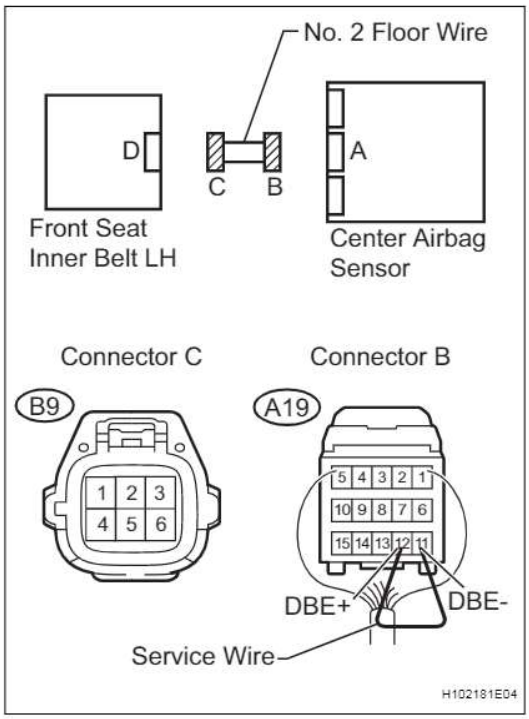
**OK:**

**The connectors are properly connected.**

NG → **CONNECT CONNECTOR**

OK

## 3 CHECK NO. 2 FLOOR WIRE (OPEN)




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

(b) Using a service wire, connect terminals A19-11 (DBE+) and A19-12 (DBE-) of connector "B".

**NOTICE:**

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

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

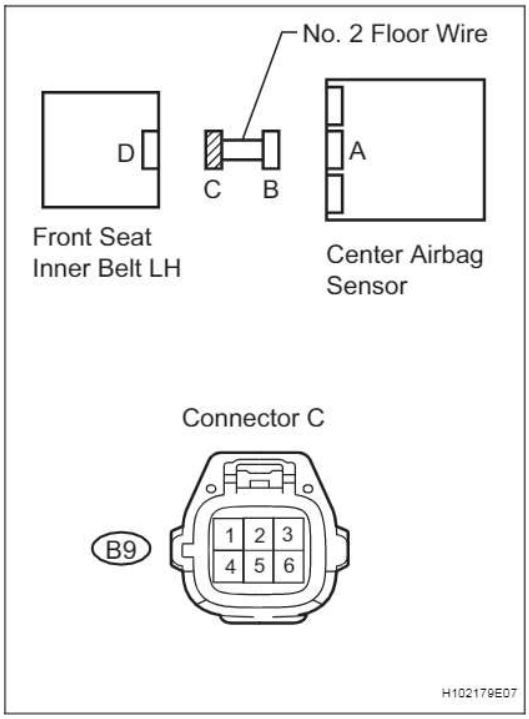
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| B9-3 - B9-2 | Below 1 Ω |

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

OK

## 4 CHECK NO. 2 FLOOR WIRE (SHORT)




(a) Disconnect the service wire from connector "B".

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

**Standard resistance**

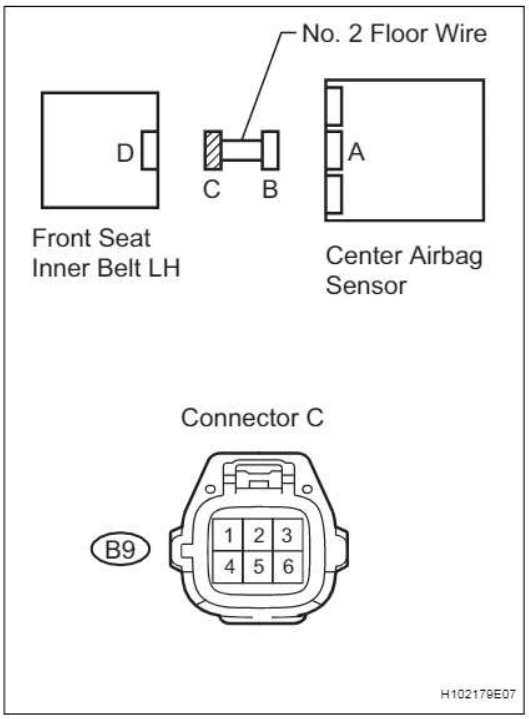
| Tester Connection | Specified Condition |
|---|---|
| B9-3 - B9-2 | 1 MΩ or higher |

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

OK

RS

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




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

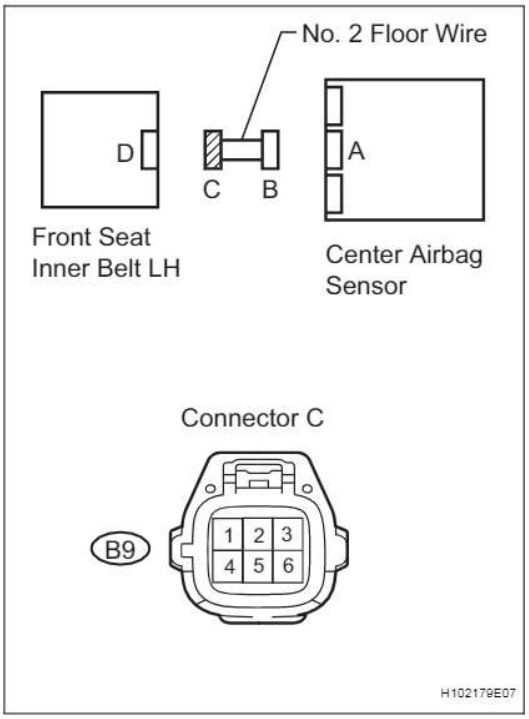
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| B9-3 - Body ground | Below 1 V |
| B9-2 - Body ground | |

NG → REPAIR OR REPLACE NO. 2 FLOOR WIRE

OK

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




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Measure the resistance of the wire harness side connector.

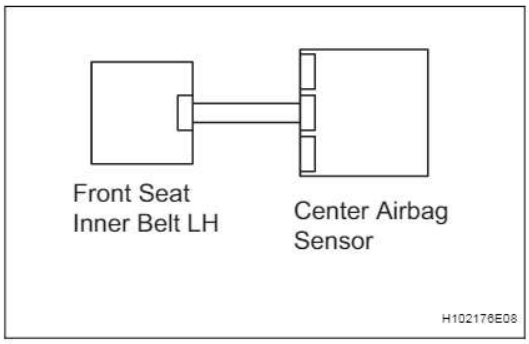
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| B9-3 - Body ground | 1 MΩ or higher |
| B9-2 - Body ground | |

NG → REPAIR OR REPLACE NO. 2 FLOOR WIRE

OK

| 7 | CHECK FRONT SEAT INNER BELT ASSEMBLY LH |
|---|---|




(a) Connect the connectors to the center airbag sensor and the front seat inner belt LH.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the ignition switch ON, and wait for at least 60 seconds.
(d) Clear the DTCs stored in the memory (see page RS-48).
(e) Turn the ignition switch OFF.
(f) Turn the ignition switch ON, and wait for at least 60 seconds.
(g) Check the DTCs (see page RS-48).
**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.

OK → **USE SIMULATION METHOD TO CHECK**

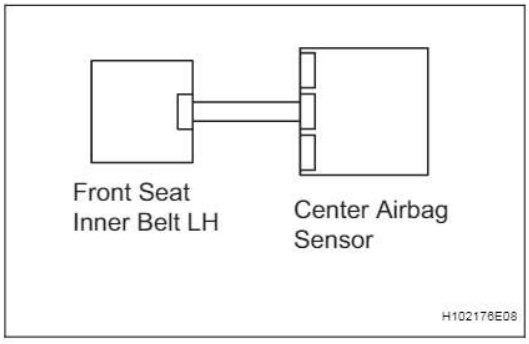
NG

| 8 | REPLACE FRONT SEAT INNER BELT ASSEMBLY LH |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Replace the front seat inner belt LH (see page SB-9).
HINT:
Perform inspection using parts from a normal vehicle if possible.

NEXT

| 9 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|




(a) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(b) Turn the ignition switch ON, and wait for at least 60 seconds.
(c) Clear the DTCs stored in the memory (see page RS-48).
(d) Turn the ignition switch OFF.
(e) Turn the ignition switch ON, and wait for at least 60 seconds.
(f) Check the DTCs (see page RS-48).
**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 → REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK → END

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

## DESCRIPTION

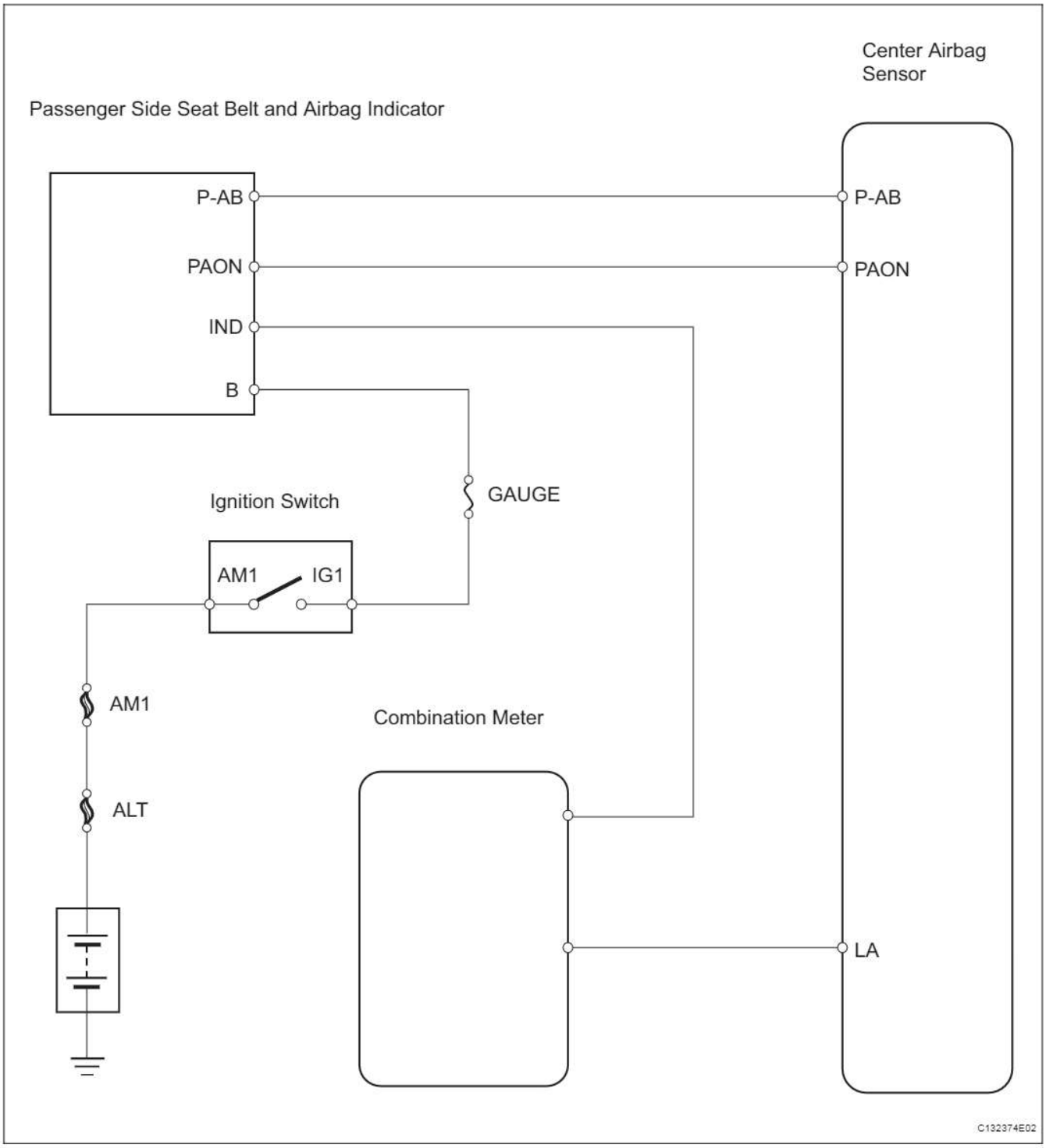


The passenger airbag ON /OFF indicator circuit consists of the center airbag sensor and the front passenger seat belt warning light.
This circuit indicates the operation condition of the front passenger airbag and the passenger side seat belt pretensioner.
DTC B1660/43 is set when a malfunction is detected in the passenger airbag ON / OFF indicator circuit.

| DTC No. | DTC Detection Condition | Trouble Areas |
|---|---|---|
| B1660/43 | When one of following conditions is met:<br>• Center airbag sensor detects line short circuit signal, open circuit signal, short circuit to ground signal or short circuit to B+ signal in passenger airbag ON / OFF indicator circuit for 2 seconds<br>• Front passenger seat belt warning light malfunction<br>• Center airbag sensor malfunction | • Instrument panel wire<br>• Front passenger seat belt warning light (Passenger airbag ON / OFF indicator)<br>• Center airbag sensor assembly |

RS

## WIRING DIAGRAM

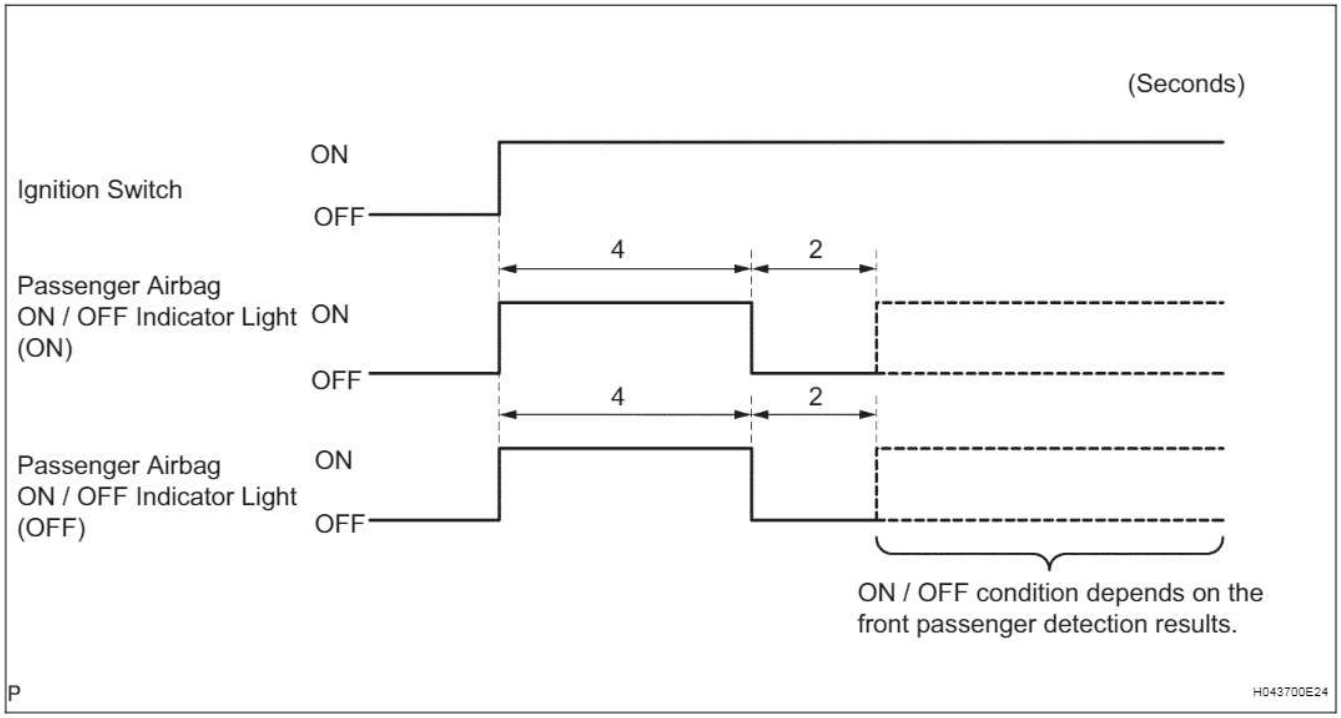



## INSPECTION PROCEDURE

| | |
|---|---|
| 1 | CHECK PASSENGER AIRBAG ON/OFF INDICATOR OPERATION |

(a) Turn the ignition switch ON.
(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-314).




**Result:**

| ON / OFF Indicator Illumination | Proceed to |
|---|---|
| Always ON | A |
| OFF | B |

B → **Go to step 5**

A

**2 CHECK CONNECTION OF CONNECTOR**

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

NG → **CONNECT CONNECTOR**

OK

RS

| 3 | CHECK FRONT PASSENGER SEAT BELT WARNING LIGHT |
|---|---|




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

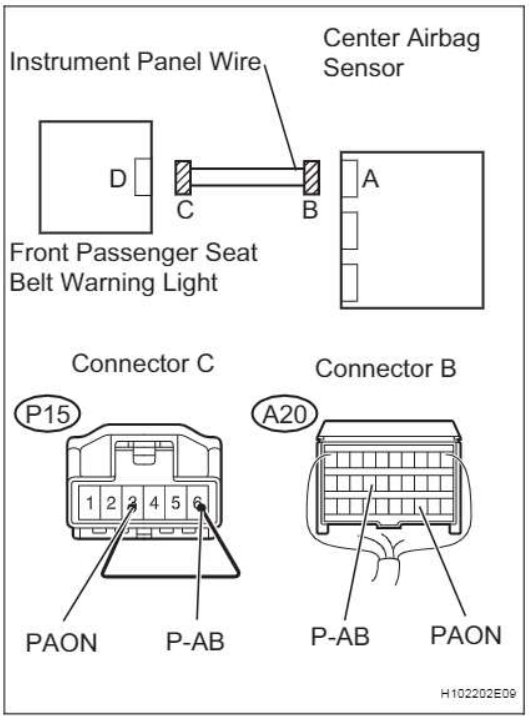
**OK:**

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

**OK** → **Go to step 8**

**NG**

| 4 | CHECK INSTRUMENT PANEL WIRE |
|---|---|




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect the connector from the front passenger seat belt warning light.
(d) Using a service wire, connect terminals P15-3 (PAON) and P15-6 (P-AB) of connector "C".

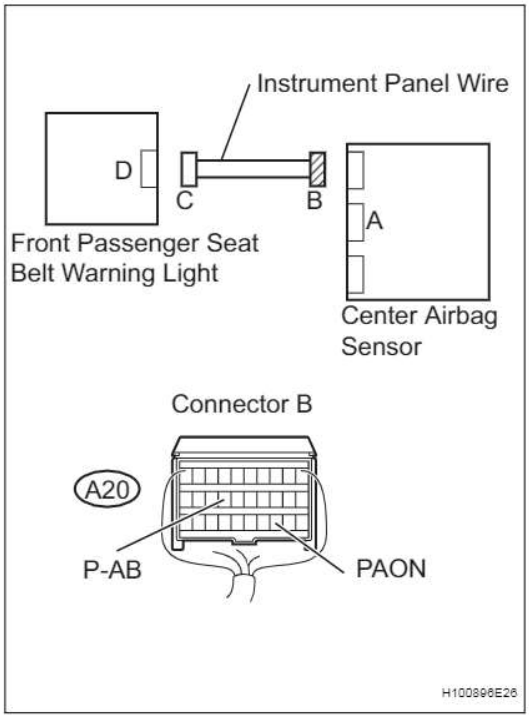
**NOTICE:**

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

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

**Standard resistance**

| Terminal Connection | Specified Condition |
|---|---|
| A20-23 (PAON) - A20-17 (P-AB) | Below 1 Ω |




(f) Disconnect the service wire from connector "C".
(g) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Terminal Connection | Specified Condition |
|---|---|
| A20-17 (P-AB) - Body ground | 1 MΩ or higher |
| A20-23 (PAON) - Body ground | |
| A20-17 (P-AB) - A20-23 (PAON) | |

(h) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(i) Turn the ignition switch ON.
(j) Measure the voltage of the wire harness side connector.
**Standard voltage**

| Terminal Connection | Specified Condition |
|---|---|
| A20-23 (PAON) - Body ground | Below 1 V |
| A20-17 (P-AB) - Body ground | |

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

OK

**REPLACE FRONT PASSENGER SEAT BELT WARNING LIGHT**

**5 CHECK CONNECTION OF CONNECTOR**

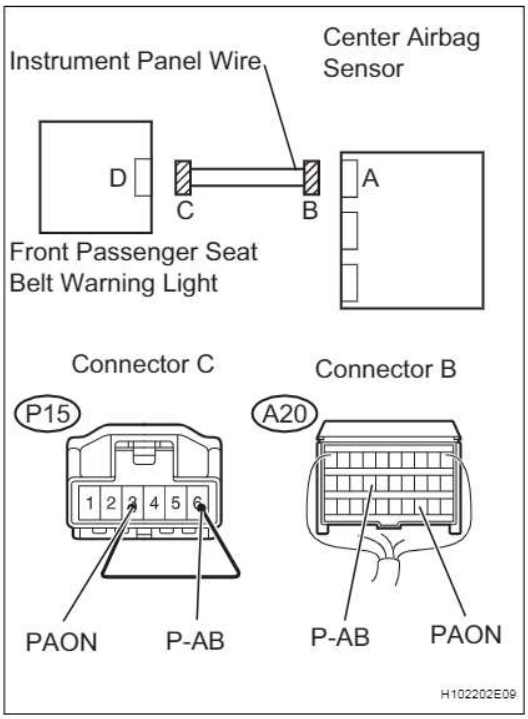
(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Check that the connectors are properly connected to the center airbag sensor and the hazard warning signal switch.
**OK:**
**The connectors are properly connected.**

NG → **CONNECT CONNECTOR**

OK

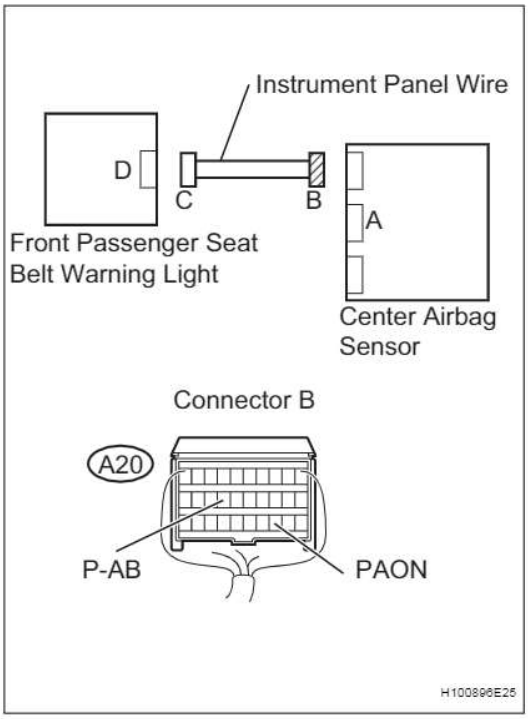
RS

## 6 CHECK INSTRUMENT PANEL WIRE




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect the connector from the front passenger seat belt warning light.
(d) Using a service wire, connect terminals P15-3 (PAON) and P15-6 (P-AB) of connector "C".
**NOTICE:**
**Do not forcibly insert the service wire into the terminals of the connector when connecting them.**
(e) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Terminal Connection | Specified Condition |
|---|---|
| A20-23 (PAON) - A20-17 (P-AB) | Below 1 Ω |




(f) Disconnect the service wire from connector "C".
(g) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Terminal Connection | Specified Condition |
|---|---|
| A20-17 (P-AB) - Body ground | 1 MΩ or higher |
| A20-23 (PAON) - Body ground | |
| A20-17 (P-AB) - A20-23 (PAON) | |

(h) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(i) Turn the ignition switch ON.
(j) Measure the voltage of the wire harness side connector.
**Standard voltage**

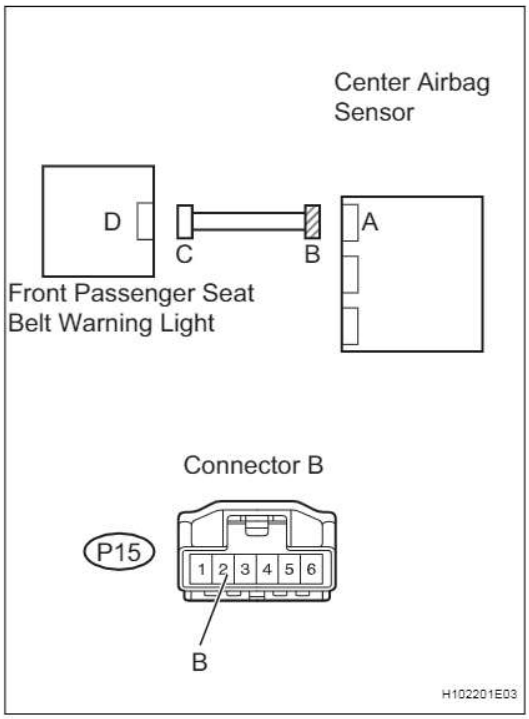
| Terminal Connection | Specified Condition |
|---|---|
| A20-23 (PAON) - Body ground | Below 1 V |
| A20-17 (P-AB) - Body ground | |

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

OK

RS

## 7 CHECK WIRE HARNESS (POWER SOURCE)




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

**Standard voltage**

| Terminal Connection | Specified Condition |
|---|---|
| P15-2 (B) - Body ground | 10 to 14 V |

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

OK

## 8 CHECK FRONT PASSENGER SEAT BELT WARNING LIGHT




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Remove the connector from the front passenger seat belt warning light.
(d) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(e) Using a service wire, connect terminals P15-3 (PAON) and P15-4 (ILL-) of the front passenger seat belt warning light connector.
(f) Using a service wire, connect terminals P15-6 (P-AB) and P15-4 (ILL-) of the front passenger seat belt warning light connector.
(g) Turn the ignition switch ON.
(h) Check the passenger airbag ON / OFF indicator operation.

**OK:**

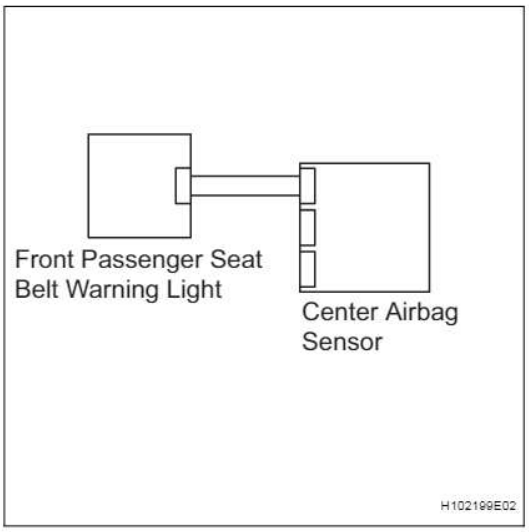
**Passenger airbag ON / OFF indicator comes on**

NG → **REPLACE FRONT PASSENGER SEAT BELT WARNING LIGHT**

OK

RS

| 9 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Connect the connector to the center airbag sensor.
(d) Connect the connector to the front passenger seat belt warning light.
(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(f) Turn the ignition switch ON, and wait for at least 60 seconds.
(g) Clear the DTCs stored in the memory (see page RS-48).
(h) Turn the ignition switch to the LOCK position.
(i) Turn the ignition switch ON, and wait for at least 60 seconds.
(j) Check for DTCs (see page RS-48).

**OK:**

**DTC B1660/43 is not output.**

HINT:

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

NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

**USE SIMULATION METHOD TO CHECK**

RS

# HOW TO PROCEED WITH TROUBLESHOOTING

(2005/12- )

HINT:

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

| 1 | VEHICLE BROUGHT TO WORKSHOP |
|---|---|

NEXT

| 2 | INSPECT BATTERY VOLTAGE |
|---|---|

**Standard voltage:**
**11 to 14 V**

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

NEXT

| 3 | CHECK FOR DTC* |
|---|---|

(a) Check for DTCs and note any codes that are output (see page RS-48).
(b) Delete the DTC.
(c) Recheck for DTC. Based on the DTC output above, try to force output of the same airbag system DTC or occupant classification system DTC by simulating the operation indicated by the DTC.

**Result:**

| Result | Proceed to |
|---|---|
| DTC output does not reoccur | A |
| Occupant classification system DTC output reoccurs | B |
| Airbag system DTC output reoccurs | C |

| B | Go to OCCUPANT CLASSIFICATION SYSTEM |
|---|---|
| C | Go to step 6 |

A

| 4 | PROBLEM SYMPTOMS TABLE |
|---|---|

**Result:**

| Result | Proceed to |
|---|---|
| Fault is not listed in problem symptoms table | A |

| Result | Proceed to |
|---|---|
| Fault is listed in problem symptoms table | B |

B → Go to step 6

A

RS

| 5 | OVERALL ANALYSIS AND TROUBLESHOOTING |
|---|---|

(a) On-vehicle inspection
- Steering pad (see page RS-403)
- Front passenger airbag assembly (see page RS-425)
- Center airbag sensor assembly (see page RS-435)
- Front airbag sensor assembly LH, RH (see page RS-438)

(b) Inspection
- Spiral cable sub-assembly (see page RS-422)

(c) Terminals of ECU (see page RS-36).

NEXT

| 6 | REPAIR OR REPLACE |
|---|---|

NEXT

| 7 | CONFIRMATION TEST |
|---|---|

NEXT

END

| DTC | B1662/45 | Indicator Light Circuit Malfunction |
|---|---|---|

## DESCRIPTION

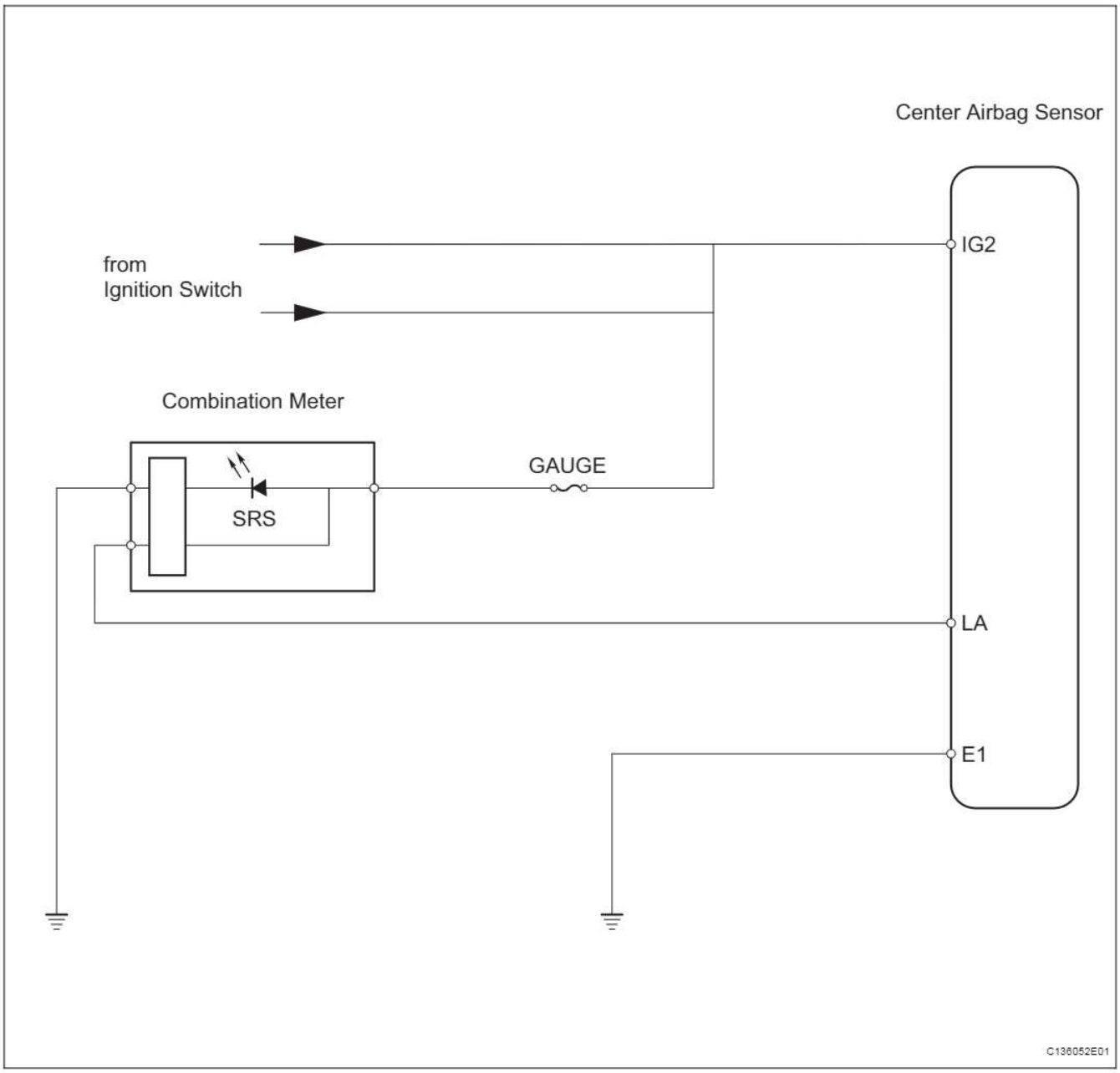
The SRS warning light circuit consists of the center airbag sensor and the combination meter.
When the center airbag sensor detects a malfunction in the SRS airbag system, the SRS warning light comes on to inform the driver.
It also comes on when the power voltage drops, and automatically goes off in approximately 10 seconds after the power voltage returns to normal (DTC is not stored).
The SRS warning light comes on for 6 seconds after the ignition switch is turned ON and goes off if the system is normal.
When an open circuit is detected, such as when the connector between the combination meter and the center airbag sensor is disconnected, the SRS warning light remains on even when approximately 6 seconds has elapsed after the ignition switch is turned ON.
DTC B1662/45 is recorded when a malfunction is detected in the SRS warning light circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1662/45 | When one of following conditions is met:<br>• The center airbag sensor receives an open circuit signal or a short circuit to ground signal in the SRS warning light circuit for 2 seconds<br>• SRS warning light malfunction<br>• Center airbag sensor malfunction | • Combination meter (SRS warning light)<br>• Center airbag sensor assembly<br>• Cowl wire |

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

RS

## WIRING DIAGRAM




## INSPECTION PROCEDURE

| | |
|---|---|
| 1 | INSPECT BATTERY VOLTAGE |

(a) Measure the voltage of the battery.
**Standard voltage:**
**11 to 14 V**

NG → **RECHARGE OR REPLACE BATTERY**

OK

| 2 | CHECK CONNECTION OF CONNECTOR |
|---|---|

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

NG → **CONNECT CONNECTOR**

OK

| 3 | CHECK COMBINATION METER |
|---|---|

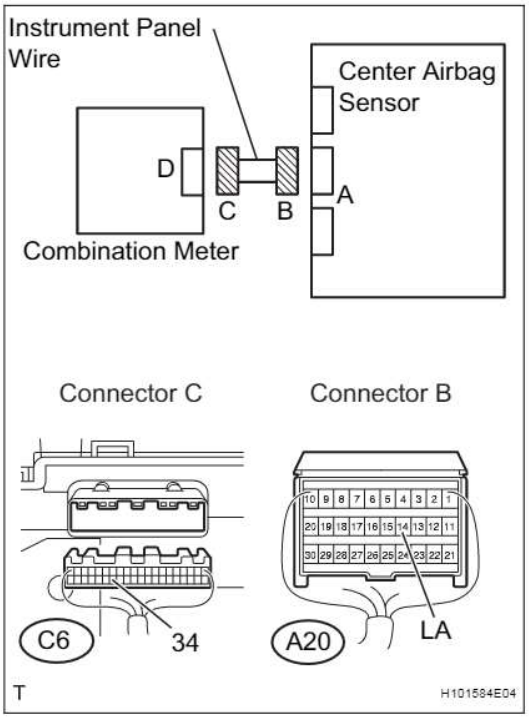
(a) Disconnect the connectors from the center airbag sensor.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the ignition switch ON and check the operation of the SRS warning light.
**OK:**
**The SRS warning light comes on (goes off 6 seconds after the ignition switch is turned ON).**

NG → **GO TO METER / GAUGE SYSTEM**

OK

RS

| 4 | CHECK INSTRUMENT PANEL WIRE (CENTER AIRBAG SENSOR - COMBINATION METER) |
|---|---|




(a) Disconnect the connector from the combination meter.
(b) Measure the resistance of the wire harness side connectors.

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A20-14 (LA) - C6-34 | Below 1 Ω |
| A20-14 (LA) - Body ground | 1 MΩ or higher |

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

OK

**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 |
|---|---|---|



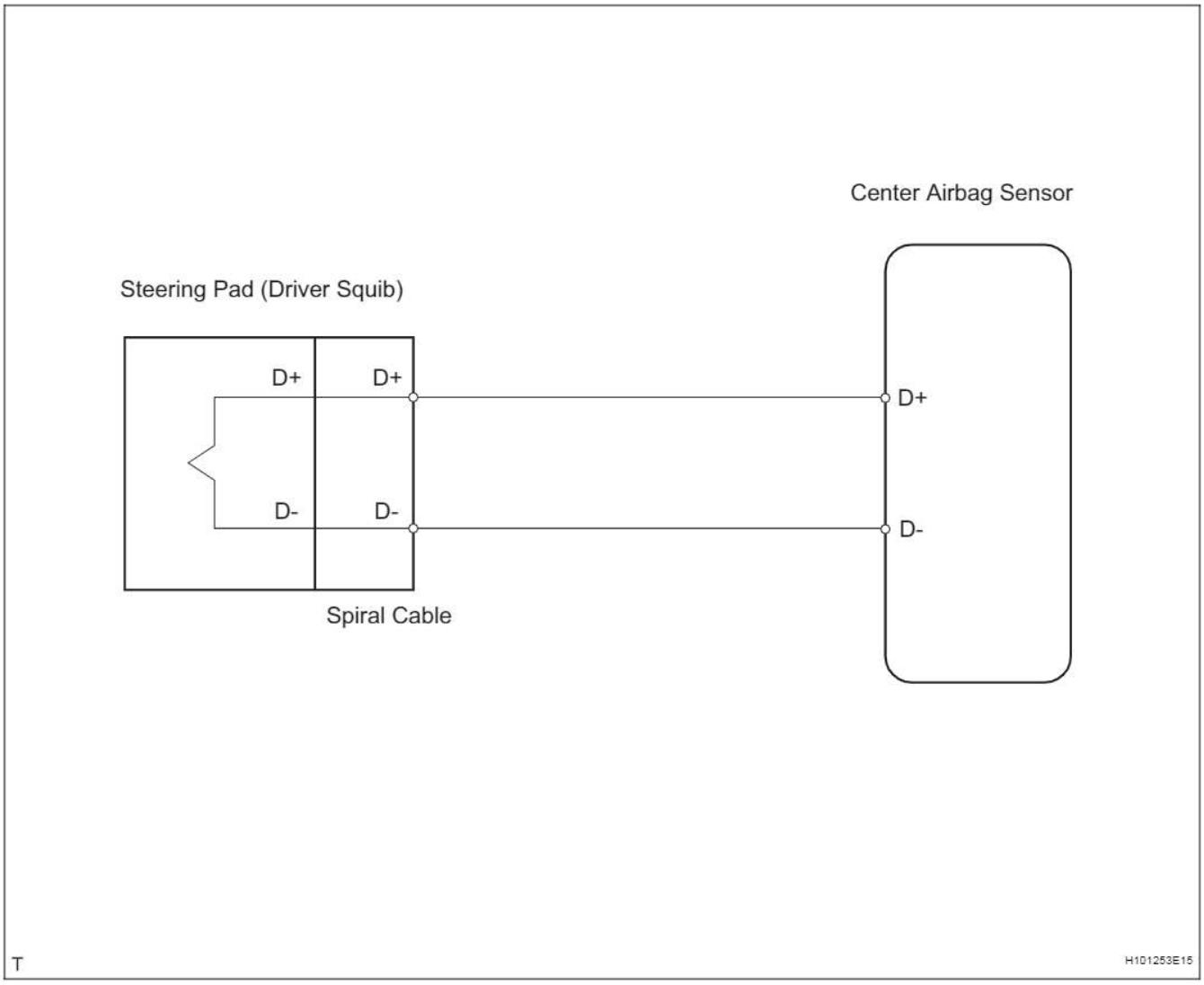
## SYSTEM DESCRIPTION

The driver squib circuit consists of the center airbag sensor, spiral cable and 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 squib circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1800/51 | Center airbag sensor receives line short circuit signal 5 times in driver squib circuit during primary check | • Steering pad (driver squib)<br>• Spiral cable<br>• Center airbag sensor assembly<br>• Instrument panel wire |
| B1801/51 | Center airbag sensor receives open circuit signal in driver squib circuit for 2 seconds | • Steering pad (driver squib)<br>• Spiral cable<br>• Center airbag sensor assembly<br>• Instrument panel wire |
| B1802/51 | Center airbag sensor receives short circuit to ground signal in driver squib circuit for 0.5 seconds | • Steering pad (driver squib)<br>• Spiral cable<br>• Center airbag sensor assembly<br>• Instrument panel wire |
| B1803/51 | Center airbag sensor receives B+ short circuit signal in driver squib circuit for 0.5 seconds | • Steering pad (driver squib)<br>• Spiral cable<br>• Center airbag sensor assembly<br>• Instrument panel wire |

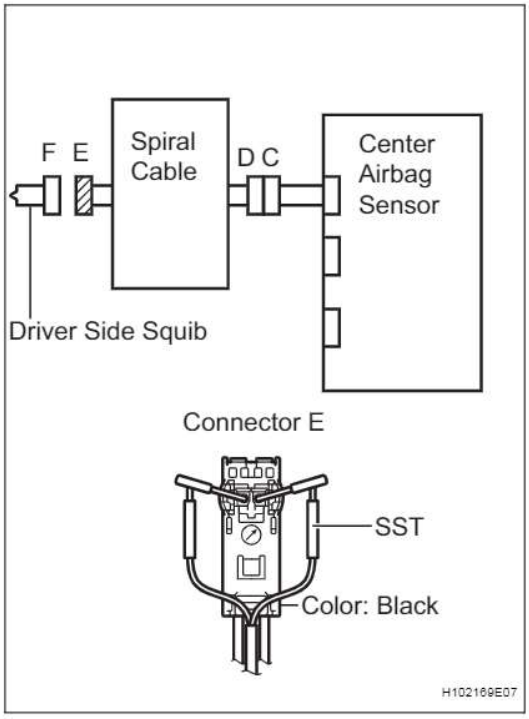
## WIRING DIAGRAM





## INSPECTION PROCEDURE

| 1 | CHECK STEERING PAD (DRIVER SQUIB) |
|---|---|




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
Disconnect the connectors from the steering pad.
(c) Connect the white wire side of SST (resistance 2.1 Ω) to the spiral cable connector "E".
**SST 09843-18060**

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

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

(d) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(e) Turn the ignition switch ON, and wait for at least 60 seconds.
(f) Clear the DTCs stored in memory (see page RS-48).
(g) Turn the ignition switch OFF.
(h) Turn the ignition switch ON, and wait for at least 60 seconds.
(i) Check for DTCs (see page RS-48).
**OK:**
**DTC B1800, B1801, B1802, B1803 or 51 is not output.**
HINT:
DTCs other than DTC B1800, B1801, B1802, B1803 or 51 may be output at this time, but they are not related to this check.

OK → **REPLACE STEERING PAD (DRIVER SQUIB)**

NG

| 2 | CHECK CONNECTOR |
|---|---|

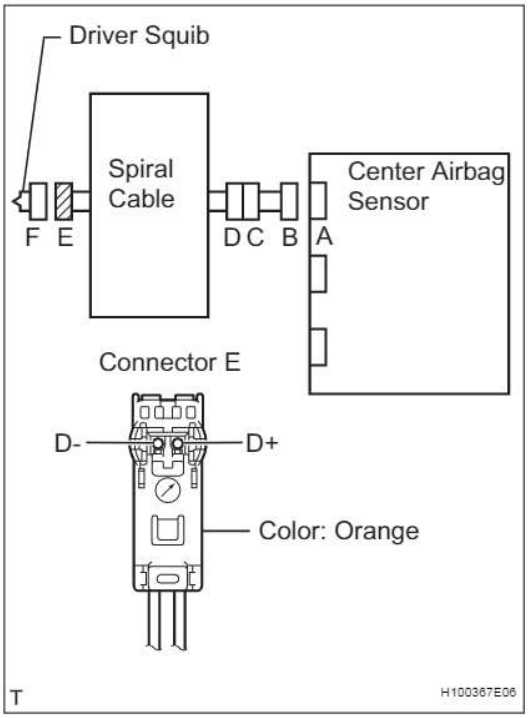
(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect SST (resistance 2.1 Ω) from the spiral cable.
(d) Check that the spiral cable connector (on the steering pad side) is not damaged.
**OK:**
**Lock button is not disengaged, and claw of lock is not deformed or damaged.**

NG → **REPLACE SPIRAL CABLE**

OK

| 3 | CHECK DRIVER SQUIB CIRCUIT |
|---|---|

RS




(a) Disconnect the connector from the center airbag sensor.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the ignition switch ON.
(d) Measure the voltage of the wire harness side connector.

**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| D+ - Body ground | Below 1 V |
| D- - Body ground | |

(e) Turn the ignition switch OFF.
(f) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(g) Measure the resistance of the wire harness side connector.

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| D+ - D- | Below 1 Ω |
| D+ - Body ground | 1 MΩ or higher |
| D- - Body ground | |

(h) Release the activation prevention mechanism built into connector "B" (see page RS-39).
(i) Measure the resistance of the wire harness side connector.

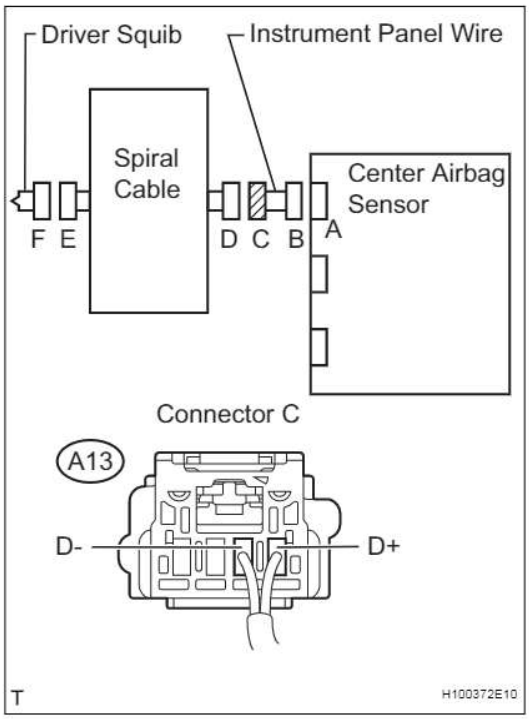
**Standard resistance**

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

OK → REPLACE CENTER AIRBAG SENSOR ASSEMBLY

NG

| 4 | CHECK INSTRUMENT PANEL WIRE |
|---|---|




(a) Restore the released activation prevention mechanism of connector "B" to its original position.
(b) Disconnect the instrument panel wire connector from the spiral cable.
(c) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(d) Turn the ignition switch ON.
(e) Measure the voltage of the wire harness side connector.

**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| A13-1 (D+) - Body ground | Below 1 V |
| A13-2 (D-) - Body ground | |

(f) Turn the ignition switch OFF.
(g) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(h) Measure the resistance of the wire harness side connector.

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A13-1 (D+) - A13-2 (D-) | Below 1 Ω |
| A13-1 (D+) - Body ground | 1 MΩ or higher |
| A13-2 (D-) - Body ground | |

(i) Release the activation prevention mechanism built into connector "B" (see page RS-39).
(j) Measure the resistance of the wire harness side connector.

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A13-1 (D+) - A13-2 (D-) | 1 MΩ or higher |

NG → REPAIR OR REPLACE INSTRUMENT PANEL WIRE

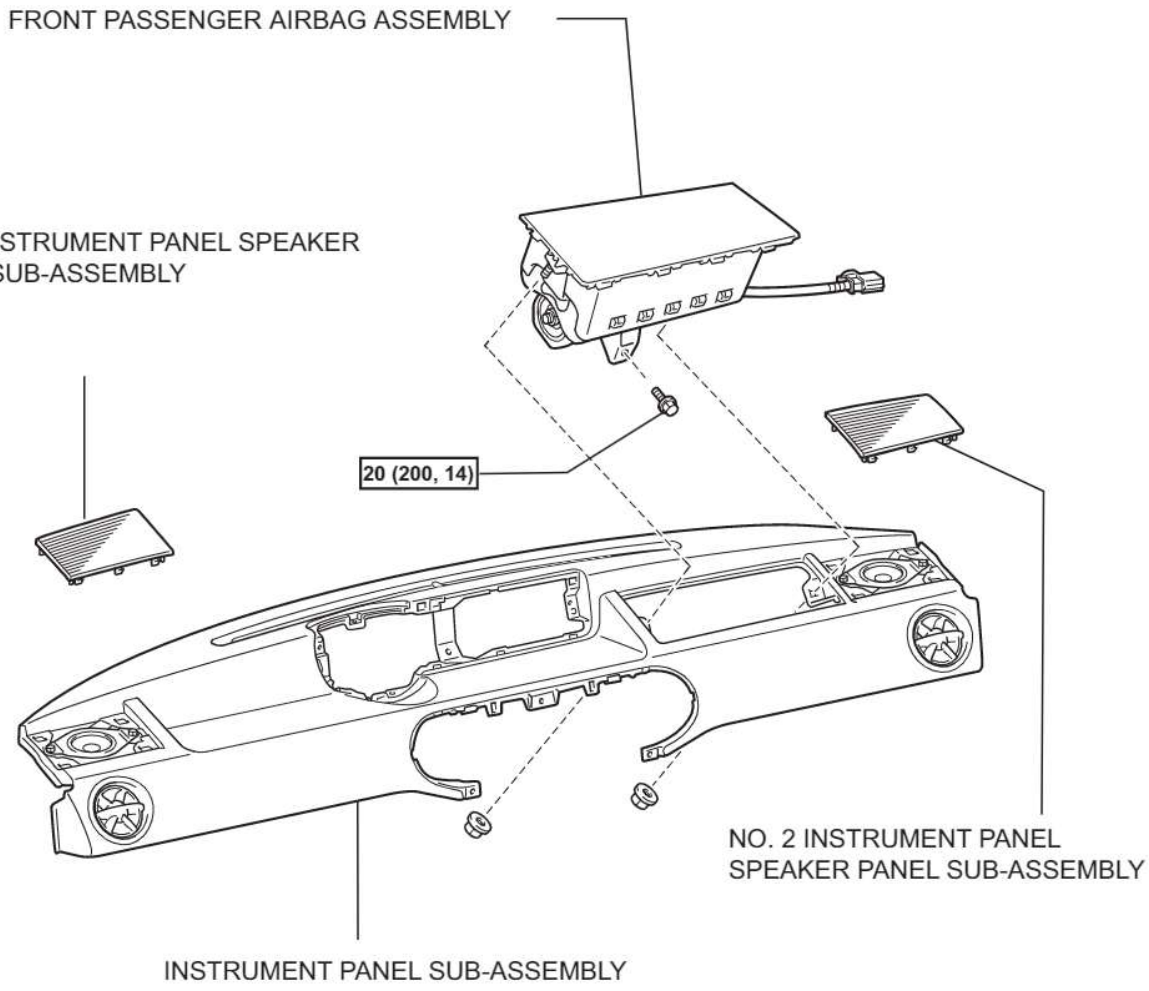
OK

REPLACE SPIRAL CABLE

# FRONT PASSENGER AIRBAG ASSEMBLY

## COMPONENTS

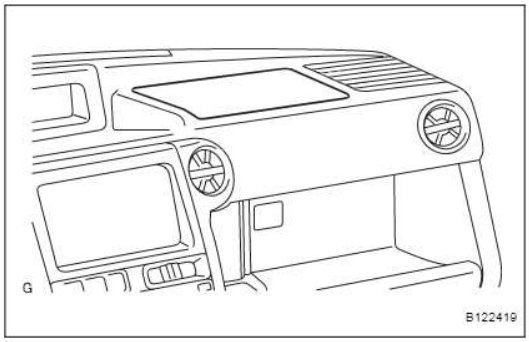
RS




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

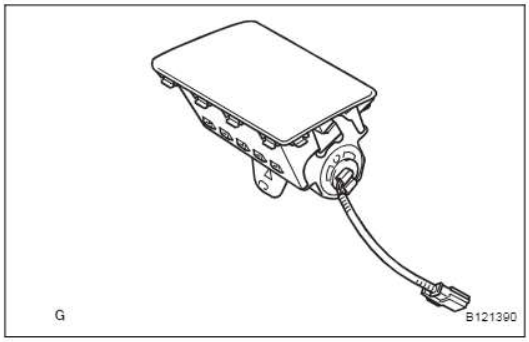
T

C119038E03



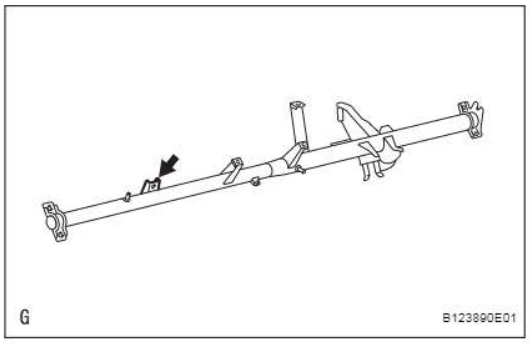

# ON-VEHICLE INSPECTION

1. **CHECK FRONT PASSENGER AIRBAG ASSEMBLY (VEHICLE NOT INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-51).
   (b) With the front passenger airbag installed on the vehicle, perform a visual check:
   Check for cuts, cracks or discoloration on the front passenger airbag surface and in the grooved portion.
   If any of the defects mentioned above are present, replace the front passenger airbag with a new one.
   **CAUTION:**
   **For removal and installation of the front passenger airbag, be sure to follow the correct procedures.**




2. **CHECK FRONT PASSENGER AIRBAG ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-51).
   (b) With the front passenger airbag removed from the vehicle, perform a visual check:
   - Check for cuts, cracks or discoloration on the front passenger airbag.
   - Check for cracks or other damage on the connectors.
   - Check for deformation or cracks on the instrument panel and instrument panel reinforcement.

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



| | | |
|---|---|---|
| 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 |

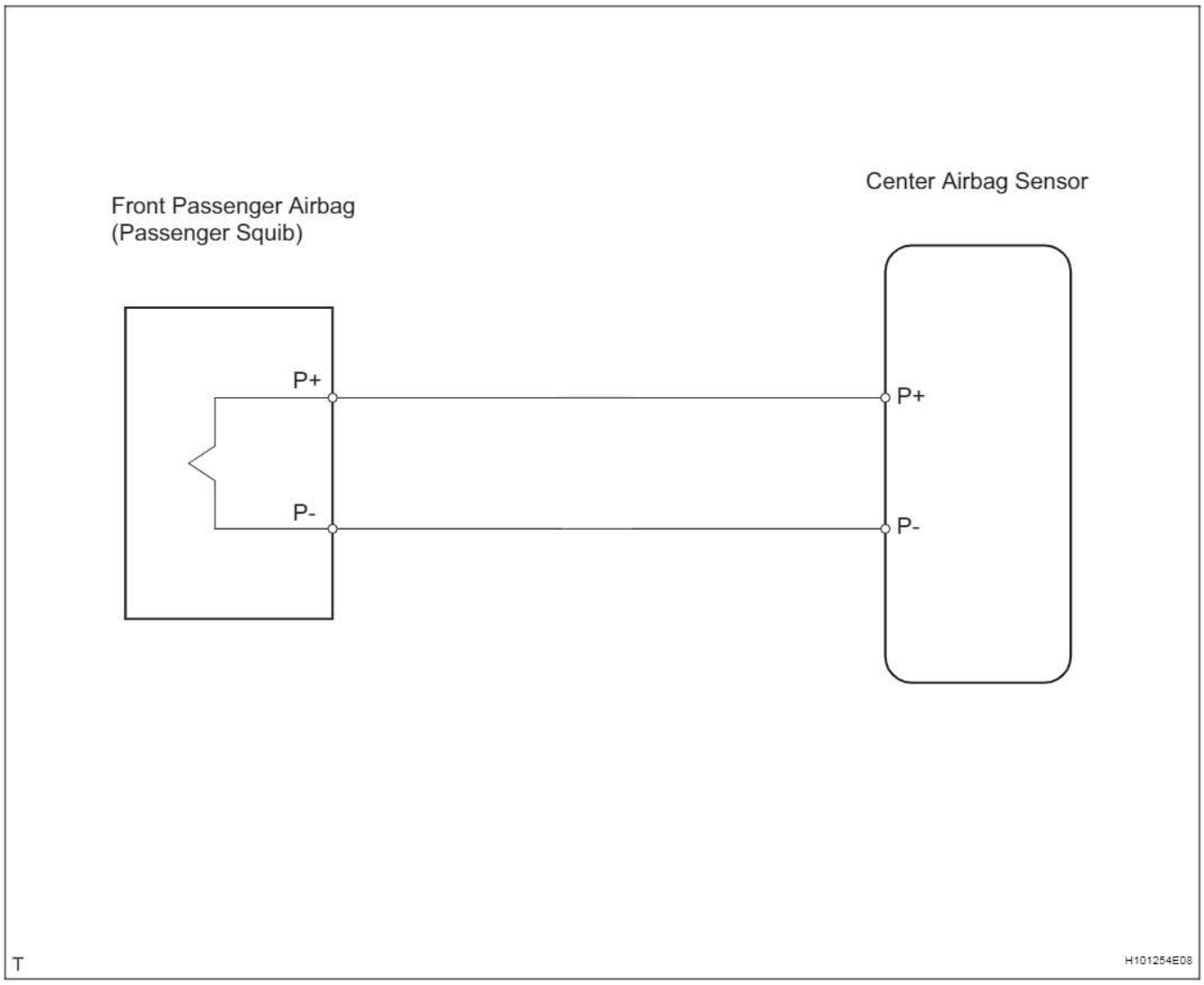
RS

## SYSTEM DESCRIPTION

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1805/52 | Center airbag sensor receives line short circuit signal 5 times in passenger squib circuit during primary check | • Front passenger airbag assembly (Passenger squib)<br>• Center airbag sensor assembly<br>• Instrument panel wire |
| B1806/52 | Center airbag sensor receives open circuit signal in passenger squib circuit for 2 seconds | • Front passenger airbag assembly (Passenger squib)<br>• Center airbag sensor assembly<br>• Instrument panel wire |
| B1807/52 | Center airbag sensor receives short circuit to ground signal in passenger squib circuit for 0.5 seconds | • Front passenger airbag assembly (Passenger squib)<br>• Center airbag sensor assembly<br>• Instrument panel wire |
| B1808/52 | Center airbag sensor receives B+ short circuit signal in passenger squib circuit for 0.5 seconds | • Front passenger airbag assembly (Passenger squib)<br>• Center airbag sensor assembly<br>• Instrument panel wire |

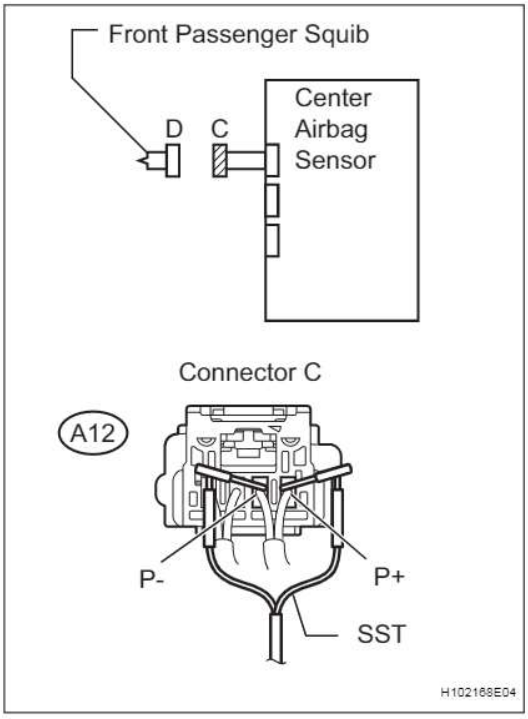
## WIRING DIAGRAM



## INSPECTION PROCEDURE

| 1 | CHECK FRONT PASSENGER AIRBAG ASSEMBLY (PASSENGER SQUIB) |
|---|---|

RS




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect the connectors from the front passenger airbag.
(d) Connect the white wire side of SST (resistance 2.1 Ω) to the instrument panel wire connector "C".
**SST 09843-18060**

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

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

(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(f) Turn the ignition switch ON, and wait for at least 60 seconds.
(g) Clear the DTCs stored in memory (see page RS-48).
(h) Turn the ignition switch OFF.
(i) Turn the ignition switch ON, and wait for at least 60 seconds.
(j) Check for DTCs (see page RS-48).
**OK:**
**DTC B1805, B1806, B1807, B1808 or 52 is not output.**
HINT:
DTCs other than DTC B1805, B1806, B1807, B1808 or 52 may be output at this time, but they are not related to this check.

OK → **REPLACE FRONT PASSENGER AIRBAG ASSEMBLY**

NG

| 2 | CHECK CONNECTOR |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect SST (resistance 2.1 Ω) from the instrument panel wire.
(c) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(d) Check that the instrument panel wire connectors (on the front passenger side airbag) are not damaged.

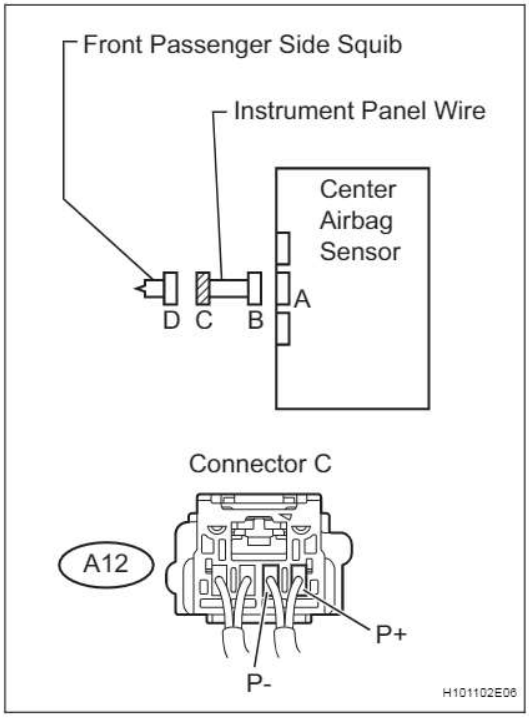
**OK:**
**Lock button is not disengaged, and claw of lock is not deformed or damaged.**

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

OK

RS

## 3 CHECK INSTRUMENT PANEL WIRE (PASSENGER SQUIB CIRCUIT)




(a) Disconnect the connector from the center airbag sensor.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the ignition switch ON.
(d) Measure the voltage of the wire harness side connector.
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| A12-1 (P+) - Body ground | Below 1 V |
| A12-2 (P-) - Body ground | |

(e) Turn the ignition switch OFF.
(f) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(g) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A12-1 (P+) - A12-2 (P-) | Below 1 Ω |
| A12-1 (P+) - Body ground | 1 MΩ or higher |
| A12-2 (P-) - Body ground | |

(h) Release the activation prevention mechanism built into connector "B" (see page RS-39).
(i) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A12-1 (P+) - A12-2 (P-) | 1 MΩ or higher |

OK → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

NG

**REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

| DTC | B1810/53 | Short in Driver Side Squib 2nd Step Circuit |
|---|---|---|
| DTC | B1811/53 | Open in Driver Side Squib 2nd Step Circuit |
| DTC | B1812/53 | Short to GND in Driver Side Squib 2nd Step Circuit |
| DTC | B1813/53 | Short to B+ in Driver Side Squib 2nd Step Circuit |

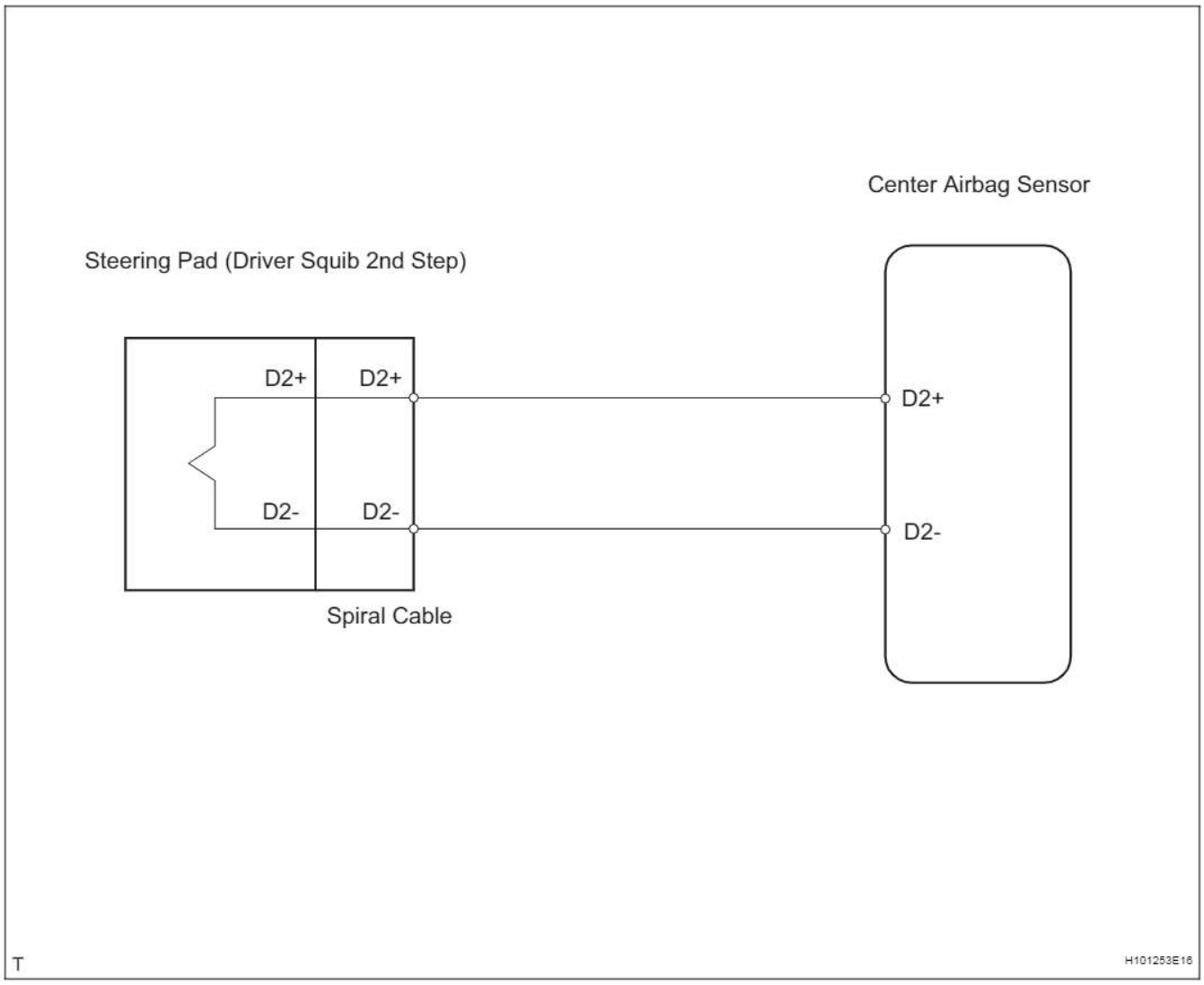
RS

## DESCRIPTION

The driver side squib 2nd step circuit consists of the center airbag sensor, the spiral cable and the steering pad.
The circuit instructs the SRS to deploy when deployment conditions are met.
These DTCs are recorded when a malfunction is detected in the driver side squib 2nd step circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1810/53 | When one of following conditions is met:<br>• The center airbag sensor receives a line short circuit signal 5 times in the driver side squib 2nd step circuit during primary check<br>• Driver side squib 2nd step malfunction<br>• Spiral cable malfunction<br>• Center airbag sensor malfunction | • Instrument panel wire<br>• Spiral cable<br>• Steering pad (Driver side squib 2nd step)<br>• Center airbag sensor assembly |
| B1811/53 | When one of following conditions is met:<br>• The center airbag sensor receives an open circuit signal in the driver side squib 2nd step circuit for 2 seconds<br>• Driver side squib 2nd step malfunction<br>• Spiral cable malfunction<br>• Center airbag sensor malfunction | • Instrument panel wire<br>• Spiral cable<br>• Steering pad (Driver side squib 2nd step)<br>• Center airbag sensor assembly |
| B1812/53 | When one of following conditions is met:<br>• The center airbag sensor receives a short circuit to ground signal in the driver side 2nd step circuit for 0.5 seconds<br>• Driver side squib 2nd step malfunction<br>• Spiral cable malfunction<br>• Center airbag sensor malfunction | • Instrument panel wire<br>• Spiral cable<br>• Steering pad (Driver side squib 2nd step)<br>• Center airbag sensor assembly |
| B1813/53 | When one of following conditions is met:<br>• The center airbag sensor receives a short circuit to B+ signal in the driver side squib 2nd step circuit for 0.5 seconds<br>• Driver side squib 2nd step malfunction<br>• Spiral cable malfunction<br>• Center airbag sensor malfunction | • Instrument panel wire<br>• Spiral cable<br>• Steering pad (Driver side squib 2nd step)<br>• Center airbag sensor assembly |

## WIRING DIAGRAM



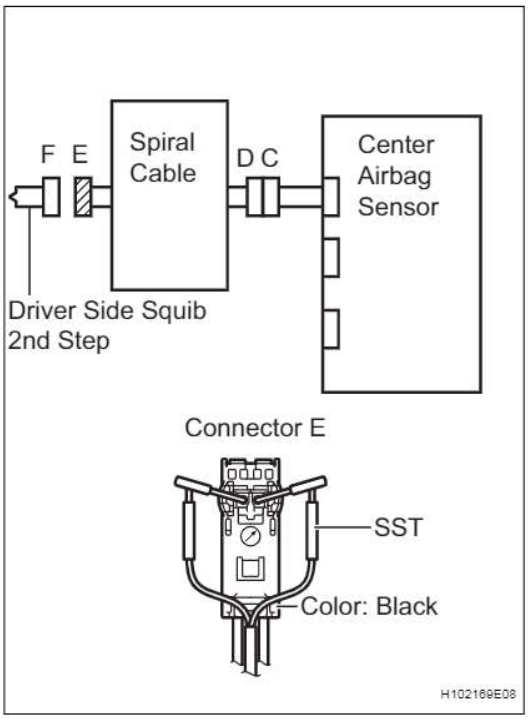

## INSPECTION PROCEDURE

HINT:

- Change the intelligent tester to the "check mode" (signal check) (see page RS-51).
- After selecting the "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on various types of roads (see page RS-51).

RS

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




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect the connectors from the steering pad.
(d) Connect the white wire side of SST (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 SST into the terminals of the connector when connecting them.**
- **Insert SST straight into the terminals of the connector.**

**SST 09843-18060**

(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(f) Turn the ignition switch ON, and wait for at least 60 seconds.
(g) Clear the DTCs stored in the memory (see page RS-48).
(h) Turn the ignition switch OFF.
(i) Turn the ignition switch ON, and wait for at least 60 seconds.
(j) Check the DTCs (see page RS-48).

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

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

OK → **REPLACE STEERING PAD**

NG

| 2 | CHECK CONNECTOR |
|---|---|

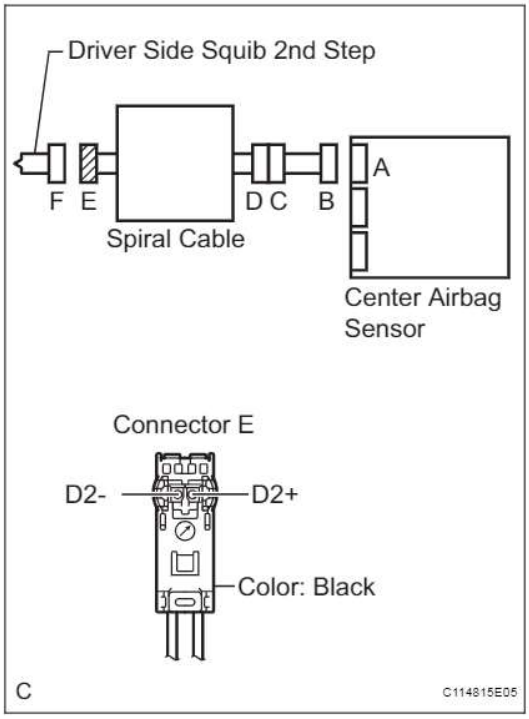
(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect SST from connector "E".
(d) Check that the spiral cable connectors (on the steering pad side) are not damaged.

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

NG → **REPLACE SPIRAL CABLE**

OK

| 3 | CHECK DRIVER SIDE SQUIB 2ND STEP CIRCUIT |
|---|---|




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

(b) Check for a short to B+ in the circuit.
(1) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(2) Turn the ignition switch ON.
(3) Measure the voltage of the wire harness side connector.
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| D2+ - Body ground | Below 1 V |
| D2- - Body ground | |

(c) Check for an open in the circuit.
(1) Turn the ignition switch OFF.
(2) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(3) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| D2+ - D2- | Below 1 Ω |

(d) Check for a short to ground in the circuit.
(1) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| D2+ - Body ground | 1 MΩ or higher |
| D2- - Body ground | |

(e) Check for a short in the circuit.
(1) Release the activation prevention mechanism built into connector "B" (see page RS-39).
(2) Measure the resistance of the wire harness side connector.
**Standard resistance**

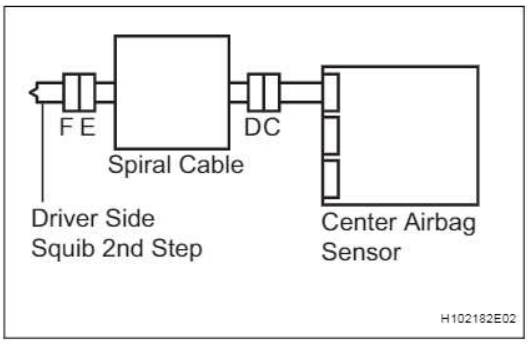
| Tester Connection | Specified Condition |
|---|---|
| D2+ - D2- | 1 MΩ or higher |

NG → Go to step 5

OK

RS

| 4 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|




(a) Connect the connectors to the steering pad and the center airbag sensor.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the ignition switch ON, and wait for at least 60 seconds.
(d) Clear the DTCs stored in the memory (see page RS-48).
(e) Turn the ignition switch OFF.
(f) Turn the ignition switch ON, and wait for at least 60 seconds.
(g) Check the DTCs (see page RS-48).

**OK:**

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

HINT:

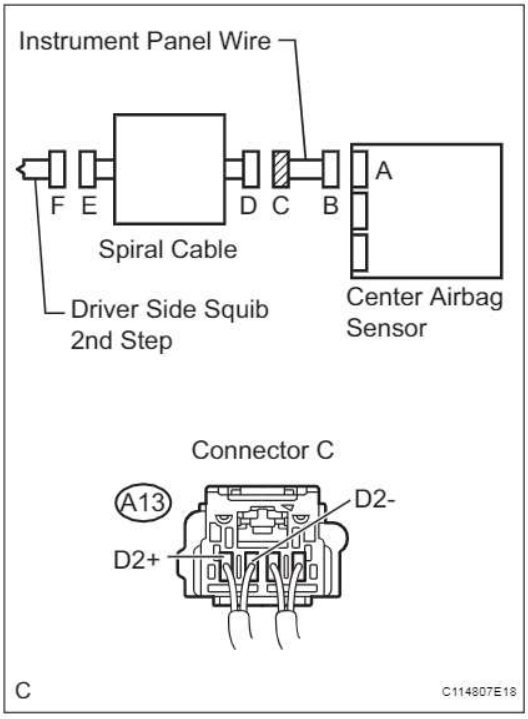
Codes other than DTC B1810, B1811, B1812, B1813 or 53 may be output at this time, but they are not related to this check.

NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

**USE SIMULATION METHOD TO CHECK**

| 5 | CHECK INSTRUMENT PANEL WIRE |
|---|---|




(a) Check for a short to B+ in the circuit.
  (1) 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 cable to the negative (-) battery terminal, and wait for at least 2 seconds.
  (4) Turn the ignition switch ON.
  (5) Measure the voltage of the wire harness side connector.

**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| A13-4 (D2+) - Body ground | Below 1 V |
| A13-3 (D2-) - Body ground | |

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

(3) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A13-4 (D2+) - A13-3 (D2-) | Below 1 Ω |

(c) Check for a short to ground in the circuit.
(1) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A13-4 (D2+) - Body ground | 1 MΩ or higher |
| A13-3 (D2-) - Body ground | |

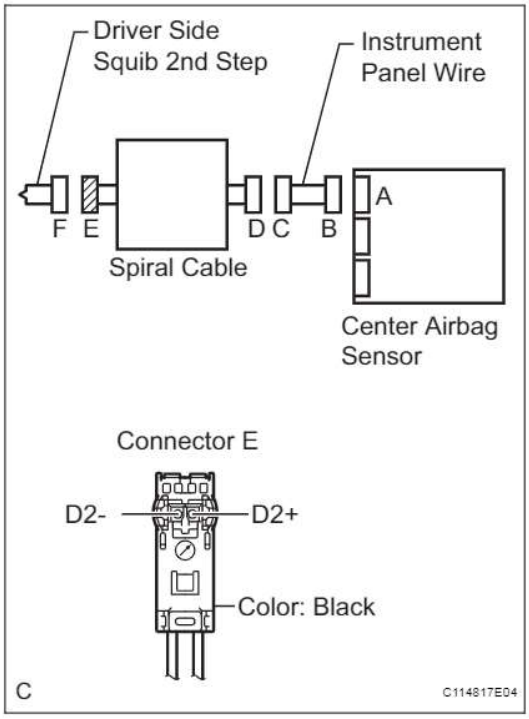
(d) Check for a short in the circuit.
(1) Release the activation prevention mechanism built into connector "B" (see page RS-39).
(2) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A13-4 (D2+) - A13-3 (D2-) | 1 MΩ or higher |

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

OK

## 6 CHECK SPIRAL CABLE




(a) Check for a short to B+ in the circuit.
(1) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(2) Turn the ignition switch ON.
(3) Measure the voltage of the wire harness side connector.
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| D2+ - Body ground | Below 1 V |
| D2- - Body ground | |

(b) Check for an open in the circuit.
(1) Turn the ignition switch OFF.
(2) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(3) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| D2+ - D2- | Below 1 Ω |

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

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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| D2+ - Body ground | 1 MΩ or higher |
| D2- - Body ground | |

(d) Check for a short in the circuit.

(1) Release the activation prevention mechanism built into connector "D" (see page RS-39).

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

**Standard resistance**

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

NG → **REPLACE SPIRAL CABLE**

OK

**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 |
|---|---|---|

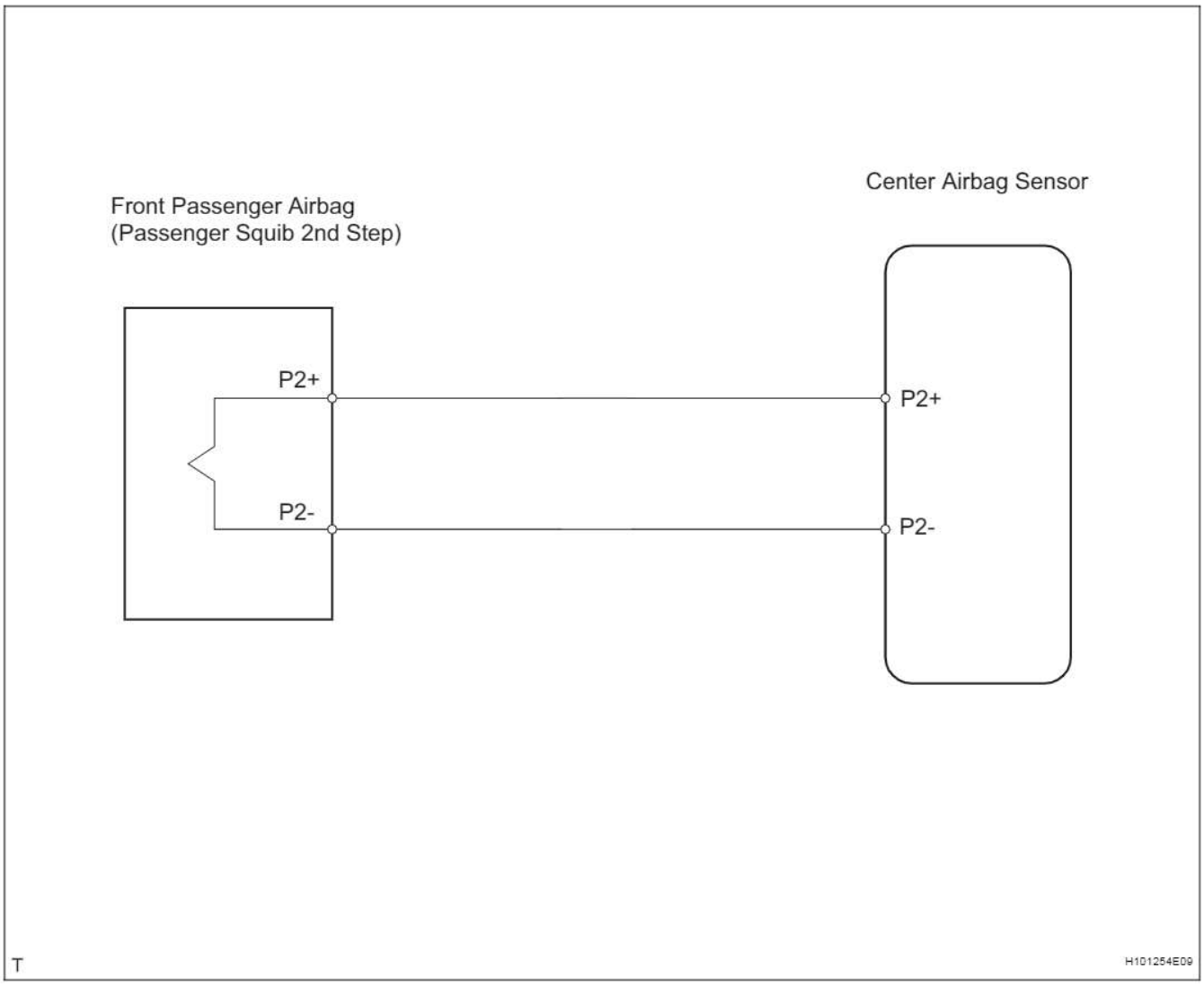
## DESCRIPTION

The front passenger side squib 2nd step circuit consists of the center airbag sensor and the front passenger airbag.
The circuit instructs the SRS to deploy when deployment conditions are met.
These DTCs are recorded when a malfunction is detected in the front passenger side squib 2nd step circuit.

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1815/54 | When one of following conditions is met:<br>• The center airbag sensor receives a line short circuit signal 5 times in the front passenger side squib 2nd step circuit during primary check<br>• Front passenger side squib 2nd step malfunction<br>• Center airbag sensor malfunction | • Instrument panel wire<br>• Instrument panel wire assembly<br>• Front passenger airbag assembly (Front passenger side squib 2nd step)<br>• Center airbag sensor assembly |
| B1816/54 | When one of following conditions is met:<br>• The center airbag sensor receives an open circuit signal in the front passenger side squib 2nd step circuit for 2 seconds<br>• Front passenger side squib 2nd step malfunction<br>• Center airbag sensor malfunction | • Instrument panel wire<br>• Instrument panel wire assembly<br>• Front passenger airbag assembly (Front passenger side squib 2nd step)<br>• Center airbag sensor assembly |
| B1817/54 | When one of following conditions is met:<br>• The center airbag sensor receives a short circuit to ground signal in the front passenger side squib 2nd step circuit for 0.5 seconds<br>• Front passenger side squib 2nd step malfunction<br>• Center airbag sensor malfunction | • Instrument panel wire<br>• Instrument panel wire assembly<br>• Front passenger airbag assembly (Front passenger side squib 2nd step)<br>• Center airbag sensor assembly |
| B1818/54 | When one of following conditions is met:<br>• The center airbag sensor receives a short circuit to B+ signal in the front passenger side squib 2nd step circuit for 0.5 seconds<br>• Front passenger side squib 2nd step malfunction<br>• Center airbag sensor malfunction | • Instrument panel wire<br>• Instrument panel wire assembly<br>• Front passenger airbag assembly (Front passenger side squib 2nd step)<br>• Center airbag sensor assembly |

RS

## WIRING DIAGRAM

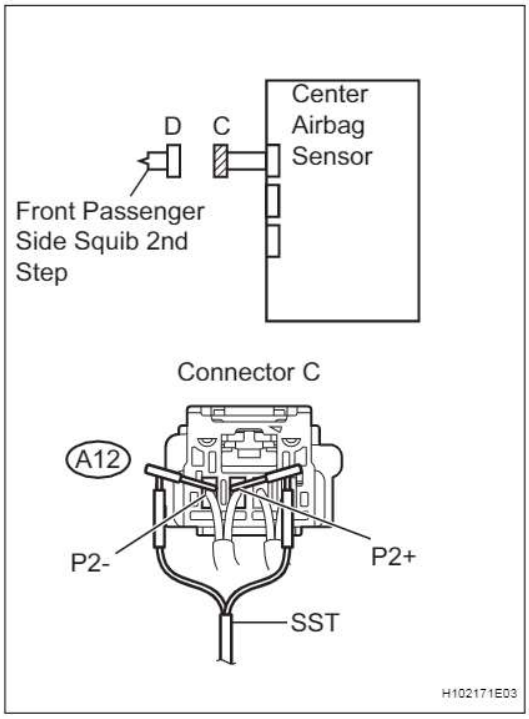



## INSPECTION PROCEDURE

HINT:

- Change the intelligent tester to the "check mode" (signal check) (see page RS-51).
- After selecting the "check mode" (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on various types of roads (see page RS-51).

| 1 | CHECK FRONT PASSENGER AIRBAG ASSEMBLY (FRONT PASSENGER SIDE SQUIB 2ND STEP) |
|---|---|




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

**CAUTION:**
**Never connect a tester to the front passenger airbag (front passenger side squib 2nd step) for measurement, as this may lead to a serious injury due to airbag deployment.**

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

**SST 09843-18060**

(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(f) Turn the ignition switch ON, and wait for at least 60 seconds.
(g) Clear the DTCs stored in the memory (see page RS-48).
(h) Turn the ignition switch OFF.
(i) Turn the ignition switch ON, and wait for at least 60 seconds.
(j) Check the DTCs (see page RS-48).

**OK:**
**DTC B1815, B1816, B1817, B1818 or 54 is not output.**

HINT:
Codes other than DTC B1815, B1816, B1817, B1818 or 54 may be output at this time, but they are not related to this check.

OK → **REPLACE FRONT PASSENGER AIRBAG ASSEMBLY**

NG

| 2 | CHECK CONNECTOR |
|---|---|

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

**OK:**

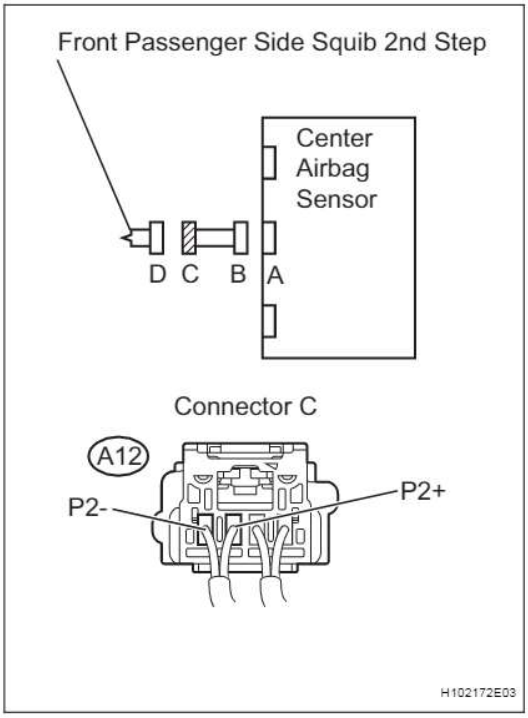
**The lock button is not disengaged, or the claw of the lock is not damaged or deformed.**

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

RS

OK

## 3 CHECK FRONT PASSENGER SIDE SQUIB 2ND STEP CIRCUIT




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

(b) Check for a short to B+ in the circuit.

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

(2) Turn the ignition switch ON.

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

**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| A12-3 (P2+) - Body ground | Below 1 V |
| A12-4 (P2-) - Body ground | |

(c) Check for an open in the circuit.

(1) Turn the ignition switch OFF.

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

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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A12-3 (P2+) - A12-4 (P2-) | Below 1 Ω |

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

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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A12-3 (P2+) - Body ground | 1 MΩ or higher |
| A12-4 (P2-) - Body ground | |

(e) Check for a short in the circuit.

(1) Release the activation prevention mechanism built into connector "B" (see page RS-39).

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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A12-3 (P2+) - A12-4 (P2-) | 1 MΩ or higher |

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

OK

| 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 |
|---|---|---|

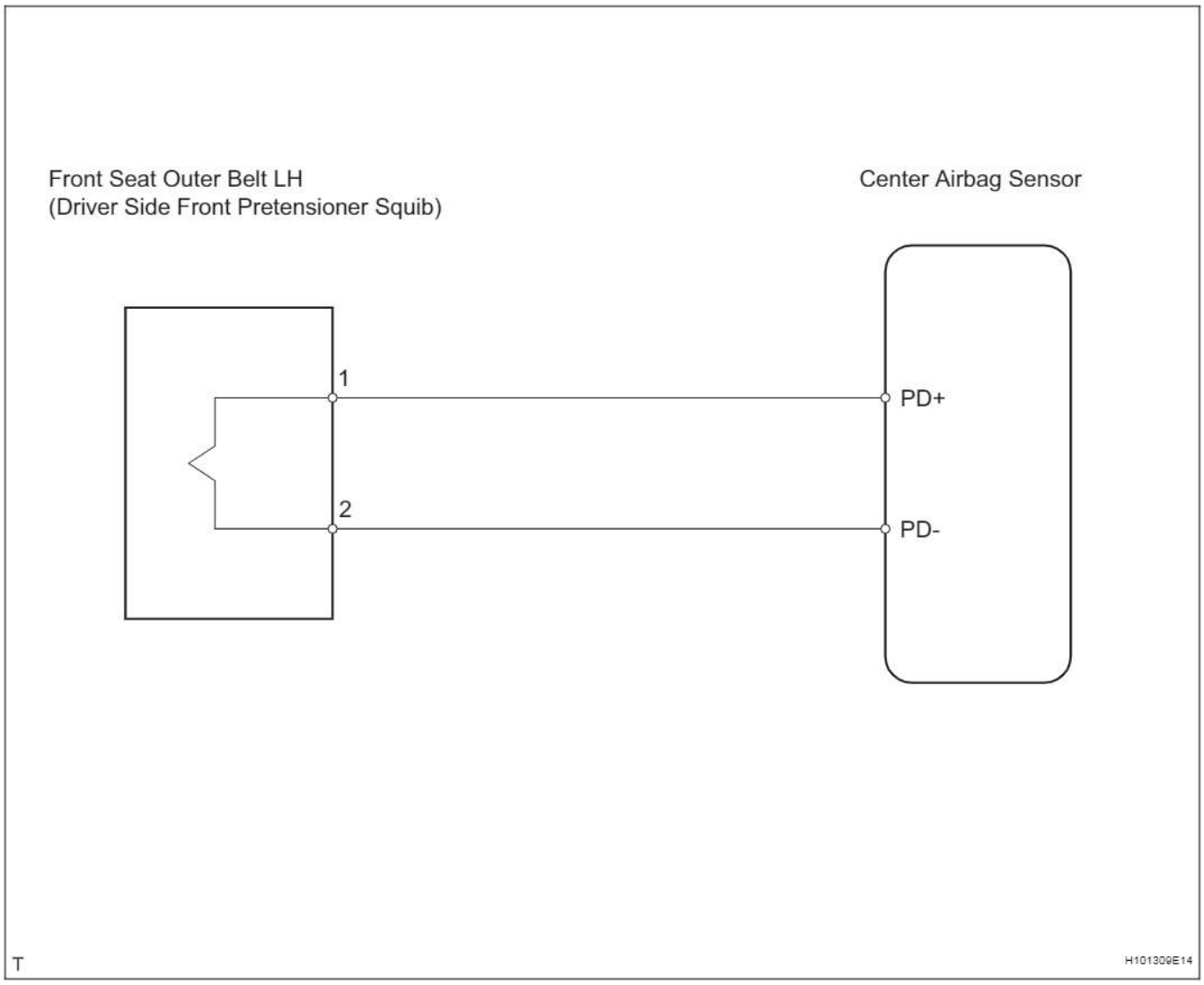
RS

## DESCRIPTION

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1900/73 | When one of following conditions is met:<br>• Center airbag sensor receives line short circuit signal 5 times in driver side front pretensioner squib circuit during primary check<br>• Front pretensioner squib driver side malfunction<br>• Center airbag sensor malfunction | • Front seat outer belt LH assembly (Driver side front pretensioner squib)<br>• Center airbag sensor assembly<br>• Floor wire |
| B1901/73 | When one of following conditions is met:<br>• Center airbag sensor receives open circuit signal in driver side front pretensioner squib circuit for 2 seconds<br>• Front pretensioner squib driver side malfunction<br>• Center airbag sensor malfunction | • Front seat outer belt LH assembly (Driver side front pretensioner squib)<br>• Center airbag sensor assembly<br>• Floor wire |
| B1902/73 | When one of following conditions is met:<br>• Center airbag sensor receives short circuit to ground signal in driver side front pretensioner squib circuit for 0.5 seconds<br>• Front pretensioner squib driver side malfunction<br>• Center airbag sensor malfunction | • Front seat outer belt LH assembly (Driver side front pretensioner squib)<br>• Center airbag sensor assembly<br>• Floor wire |
| B1903/73 | When one of following conditions is met:<br>• Center airbag sensor receives short circuit to B+ signal in driver side front pretensioner squib circuit for 0.5 seconds<br>• Front pretensioner squib driver side malfunction<br>• Center airbag sensor malfunction | • Front seat outer belt LH assembly (Driver side front pretensioner squib)<br>• Center airbag sensor assembly<br>• Floor wire |

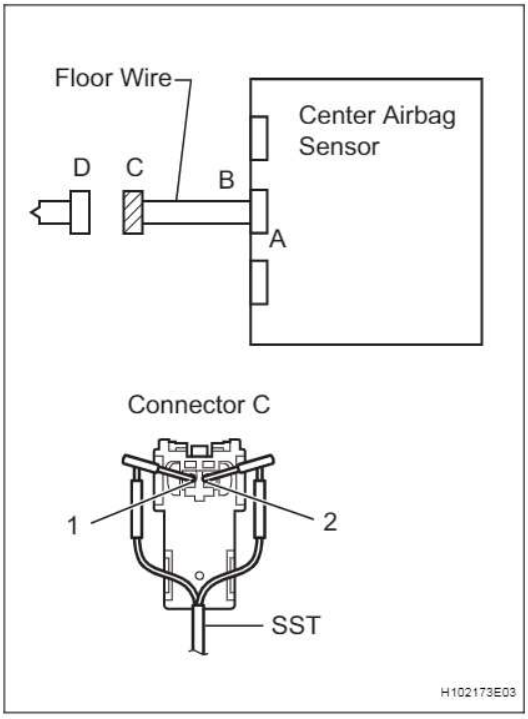
## WIRING DIAGRAM



## INSPECTION PROCEDURE

| 1 | CHECK FRONT SEAT OUTER BELT LH ASSEMBLY (FRONT PRETENSIONER SQUIB LH) |
|---|---|

RS




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect the connector from the front seat outer belt LH.
(d) Connect the white wire side of SST (resistance 2.1 Ω) to the floor wire connector "C".
**SST 09843-18060**

**CAUTION:**
**Never connect a tester to the front pretensioner squib LH for measurement, as this may lead to a serious injury due to airbag deployment.**

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

(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(f) Turn the ignition switch ON, and wait for at least 60 seconds.
(g) Clear the DTCs (see page RS-48).
(h) Turn the ignition switch OFF.
(i) Turn the ignition switch ON, and wait for at least 60 seconds.
(j) Check for DTCs (see page RS-48).
**OK:**
**DTC B1900, B1901, B1902, B1903 or 73 is not output.**
HINT:
DTCs other than DTC B1900, B1901, B1902, B1903 or 73 may be output at this time, but they are not related to this check.

OK → **REPLACE FRONT SEAT OUTER BELT LH ASSEMBLY (FRONT PRETENSIONER SQUIB LH)**

NG

| 2 | CHECK CONNECTOR |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect SST (resistance 2.1 Ω) from the floor wire.
(d) Check that the floor wire connector (on the front seat outer belt LH) is not damaged.

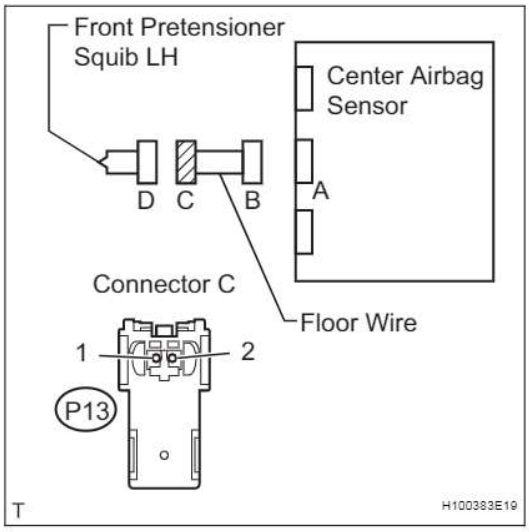
**OK:**
**The lock button is not disengaged, or the claw of the lock is not deformed or damaged.**

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

RS

## 3 CHECK FLOOR WIRE




(a) Disconnect the connector from the center airbag sensor.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the ignition switch ON.
(d) Measure the voltage of the wire harness side connector.
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| P13-1 - Body ground | Below 1 V |
| P13-2 - Body ground | |

(e) Turn the ignition switch OFF.
(f) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(g) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| P13-1 - P13-2 | Below 1 Ω |
| P13-1 - Body ground | 1 MΩ or higher |
| P13-2 - Body ground | |

(h) Release the activation prevention mechanism built into connector "B" (see page RS-39).
(i) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| P13-1 - P13-2 | 1 MΩ or higher |

NG → **REPAIR OR REPLACE FLOOR WIRE**

OK

**REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

| | | |
|---|---|---|
| DTC | B1905/74 | Short in Front Passenger Side Front Pretensioner Squib Circuit |
| DTC | B1906/74 | Open in Front Passenger Side Front Pretensioner Squib Circuit |
| DTC | B1907/74 | Short to GND in Front Passenger Side Front Pretensioner Squib Circuit |
| DTC | B1908/74 | Short to B+ in Front Passenger Side Front Pretensioner Squib Circuit |

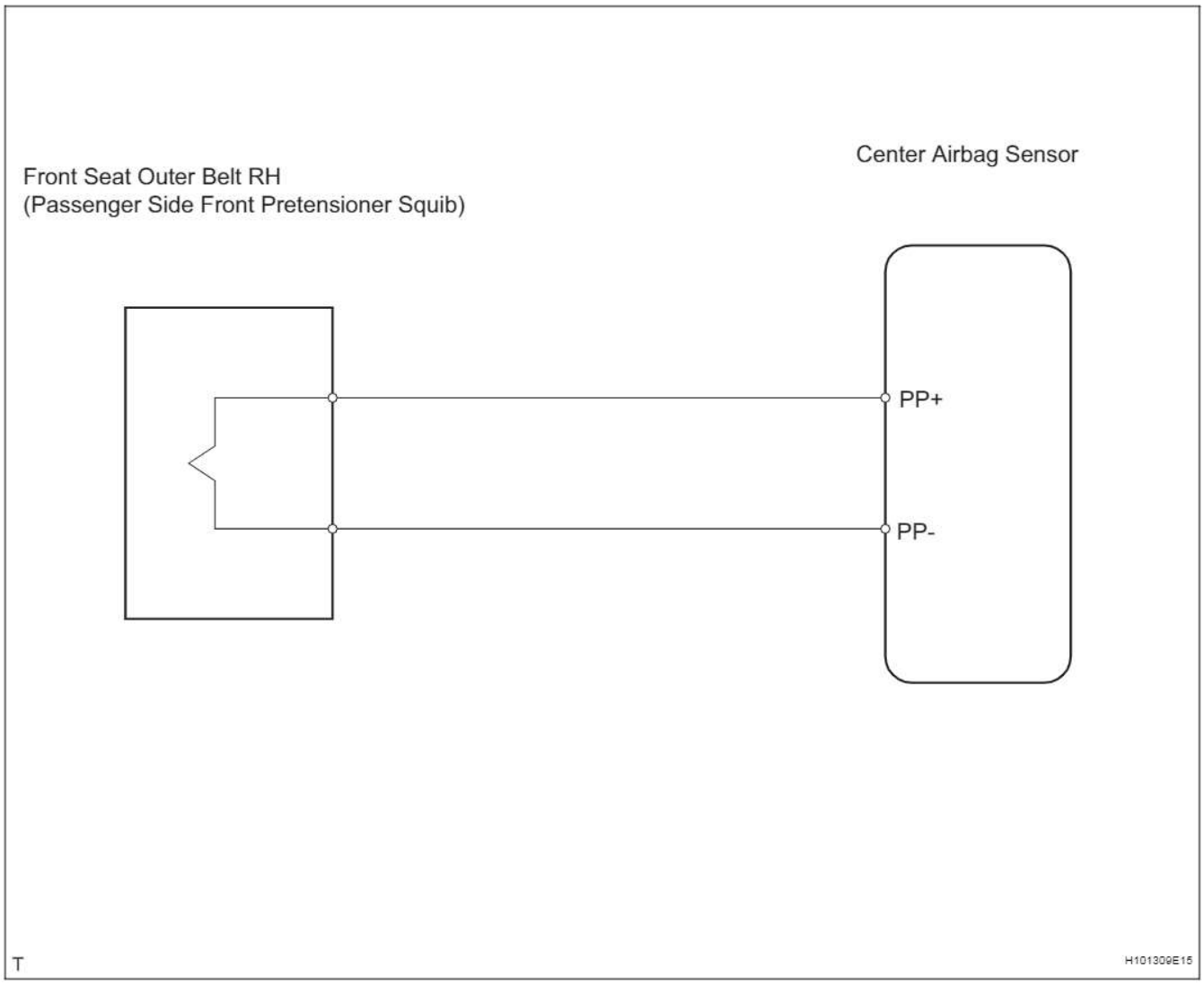
RS

## DESCRIPTION

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1905/74 | When one of following conditions is met:<br>• Center airbag sensor receives line short circuit signal 5 times in passenger side front pretensioner squib circuit during primary check<br>• Front pretensioner squib passenger side malfunction<br>• Center airbag sensor malfunction | • Front seat outer belt RH assembly (Passenger side front pretensioner squib RH)<br>• Center airbag sensor assembly<br>• No. 2 floor wire |
| B1906/74 | When one of following conditions is met:<br>• Center airbag sensor receives line open circuit signal 5 times in passenger side front pretensioner squib circuit for 2 seconds<br>• Front pretensioner squib passenger side malfunction<br>• Center airbag sensor malfunction | • Front seat outer belt RH assembly (Passenger side front pretensioner squib RH)<br>• Center airbag sensor assembly<br>• No. 2 floor wire |
| B1907/74 | When one of following conditions is met:<br>• Center airbag sensor receives short circuit to ground signal in passenger side front pretensioner squib circuit for 0.5 seconds<br>• Front pretensioner squib passenger side malfunction<br>• Center airbag sensor malfunction | • Front seat outer belt RH assembly (Passenger side front pretensioner squib RH)<br>• Center airbag sensor assembly<br>• No. 2 floor wire |
| B1908/74 | When one of following conditions is met:<br>• Center airbag sensor receives short circuit to B+ signal in passenger side front pretensioner squib circuit for 0.5 seconds<br>• Front pretensioner squib passenger side malfunction<br>• Center airbag sensor malfunction | • Front seat outer belt RH assembly (Passenger side front pretensioner squib RH)<br>• Center airbag sensor assembly<br>• No. 2 floor wire |

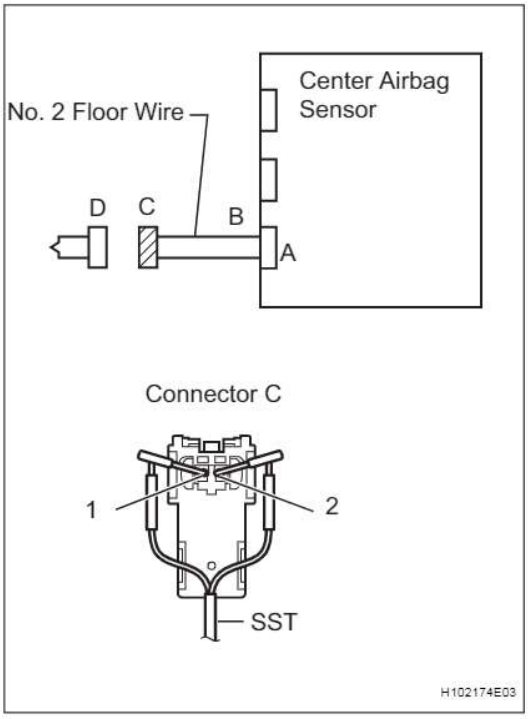
## WIRING DIAGRAM



## INSPECTION PROCEDURE

| 1 | CHECK FRONT SEAT OUTER BELT RH ASSEMBLY (FRONT PRETENSIONER SQUIB RH) |
|---|---|

RS




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect the connector from the front seat outer belt RH.
(d) Connect the white wire side of SST (resistance 2.1 Ω) to the No. 2 floor wire connector "C".
**SST 09843-18060**

**CAUTION:**
**Never connect a tester to the front pretensioner squib RH for measurement, as this may lead to a serious injury due to airbag deployment.**

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

(e) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(f) Turn the ignition switch ON, and wait for at least 60 seconds.
(g) Clear the DTCs (see page RS-48).
(h) Turn the ignition switch OFF.
(i) Turn the ignition switch ON, and wait for at least 60 seconds.
(j) Check for DTCs (see page RS-48).
**OK:**
**DTC B1905, B1906, B1907, B1908 or 74 is not output.**
HINT:
DTCs other than DTC B1905, B1906, B1907, B1908 or 74 may be output at this time, but they are not related to this check.

OK → **REPLACE FRONT SEAT OUTER BELT RH ASSEMBLY (FRONT PRETENSIONER SQUIB RH)**

NG

| 2 | CHECK CONNECTOR |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect SST (resistance 2.1 Ω) from the No. 2 floor wire.
(d) Check that the floor wire connector (on the front seat outer belt RH) is not damaged.

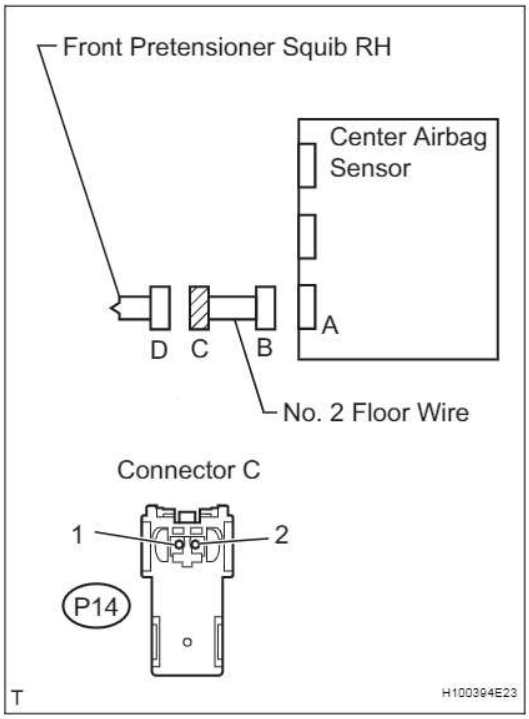
**OK:**
**The lock button is not disengaged, or the claw of the lock is not deformed or damaged.**

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

OK

RS

## 3 CHECK NO. 2 FLOOR WIRE




(a) Disconnect the connector from the center airbag sensor.
(b) Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
(c) Turn the ignition switch ON.
(d) Measure the voltage of the wire harness side connector.
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| P14-1 - Body ground | Below 1 V |
| P14-2 - Body ground | |

(e) Turn the ignition switch OFF.
(f) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(g) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| P14-1 - P14-2 | Below 1 Ω |
| P14-1 - Body ground | 1 MΩ or higher |
| P14-2 - Body ground | |

(h) Release the activation prevention mechanism built into connector "B" (see page RS-39).
(i) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| P14-1 - P14-2 | 1 MΩ or higher |

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

OK

**REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

# Source Voltage Drop

## DESCRIPTION

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

RS

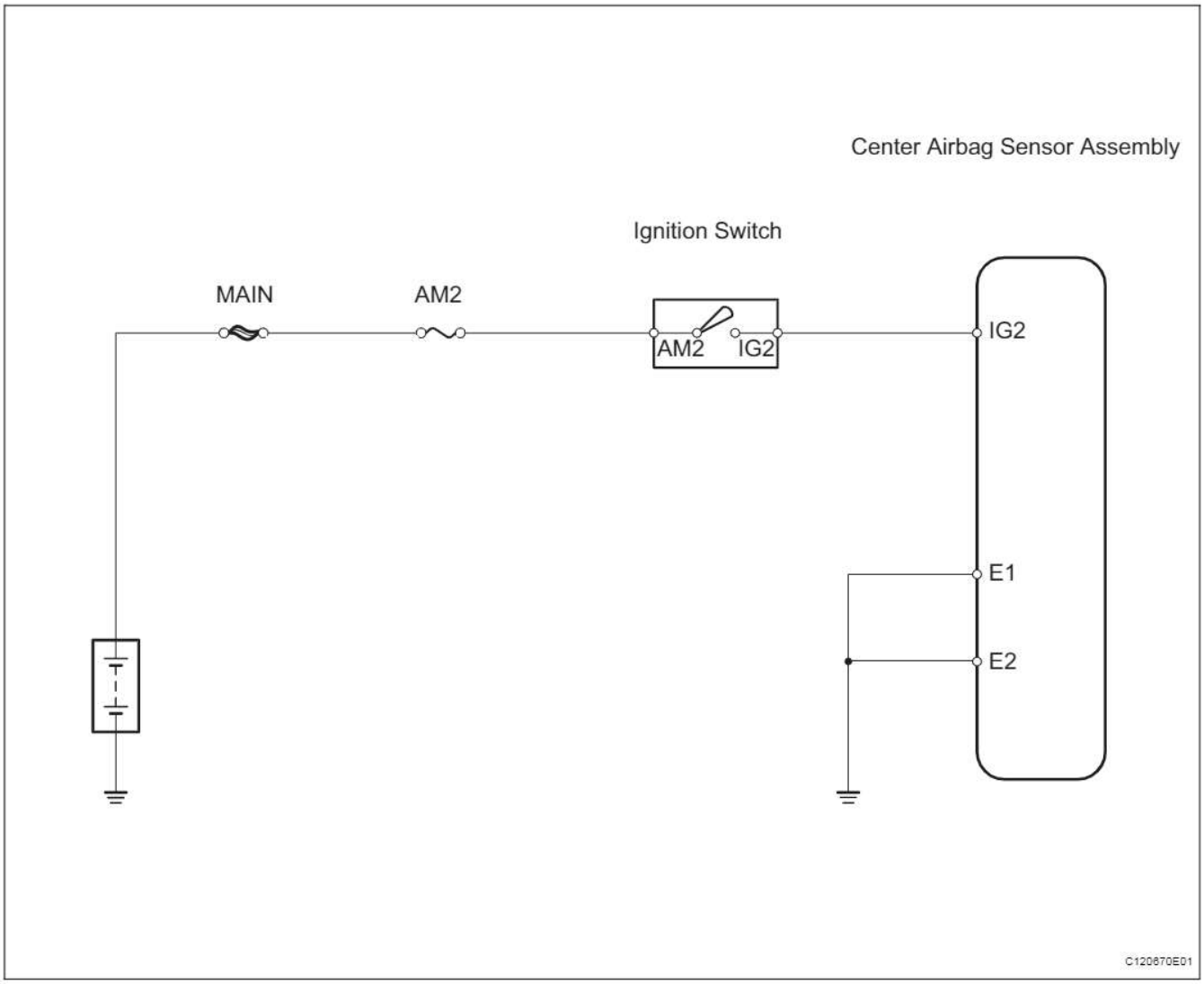
When the source voltage drops, the voltage-increase circuit (DC-DC converter) functions to increase the voltage of the SRS to a normal working level.

A malfunction in this circuit is displayed differently from other codes, in the fact that no DTCs are recorded. With a normal system code present, the source voltage drop is indicated when the SRS warning light comes on.

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.

## WIRING DIAGRAM



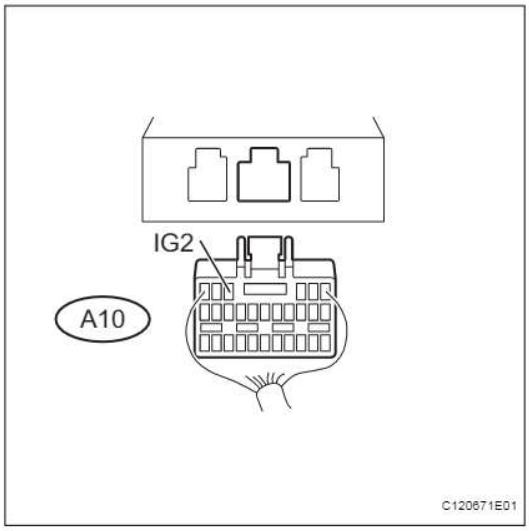
## INSPECTION PROCEDURE

| 1 | PREPARE FOR INSPECTION |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(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 (see page RS-435).

NEXT

| 2 | CHECK WIRE HARNESS (CENTER AIRBAG SENSOR ASSEMBLY - BATTERY) |
|---|---|




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

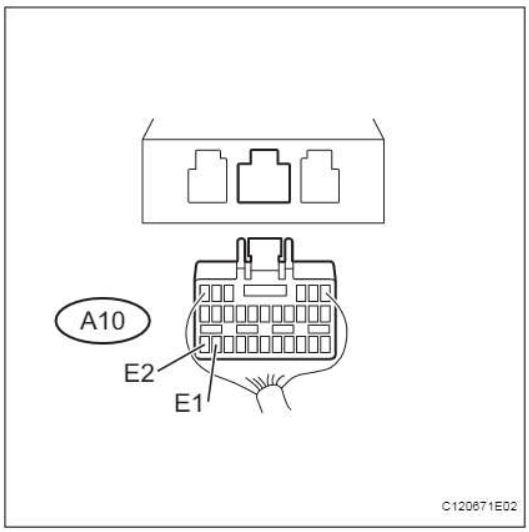
**Standard voltage**

| Tester Connection | Condition | Specified Condition |
|---|---|---|
| A10-5 (IG2) - Body ground | Ignition switch ON | 11 to 14 V |

NG → REPAIR OR REPLACE HARNESS AND CONNECTOR, CHARGING SYSTEM AND BATTERY

OK

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




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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A10-27 (E1) - Body ground | Below 1 Ω |
| A10-28 (E2) - Body ground | |

NG → REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

| 4 | CHECK SRS WARNING LIGHT |
|---|---|

RS

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Connect the center airbag sensor assembly connector.
(d) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(e) Turn the ignition switch to the ON position, and wait for at least 6 seconds.
(f) Operate all components of the electrical system (defogger, wiper, headlight, heater, blower, etc.) and check that SRS warning light does not come on.
**OK:**
**SRS warning light does not come on.**

NG → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

**END**

# SRS Warning Light Remains ON

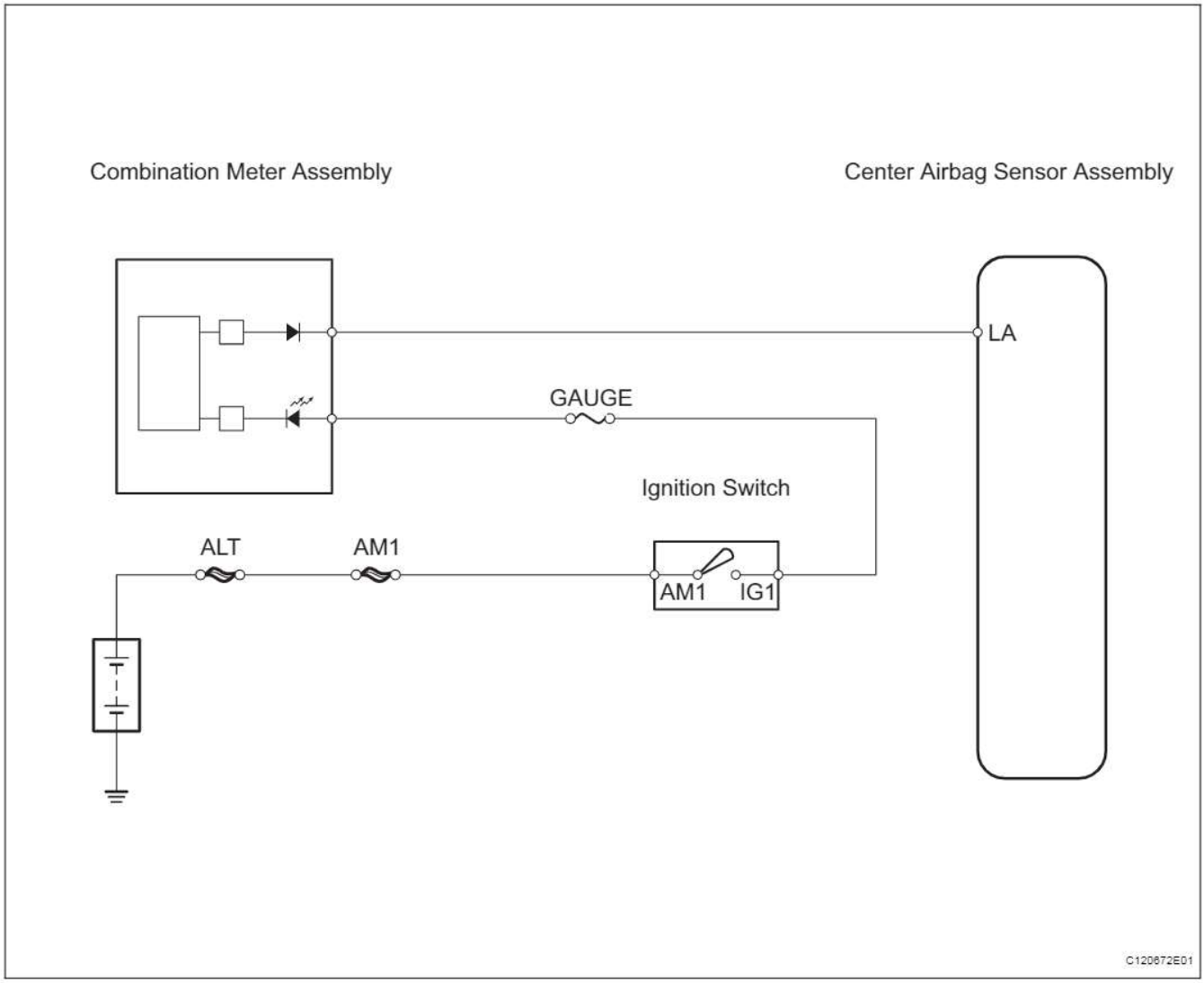
(2005/07-2005/12)

## DESCRIPTION

The SRS warning light is located on the combination meter assembly.
When the SRS is normal, the SRS warning light comes on for approximately 6 seconds after the ignition switch is turned from the LOCK position to the ON position, 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 CONNECTOR |

(a) Turn the ignition switch to the LOCK position.

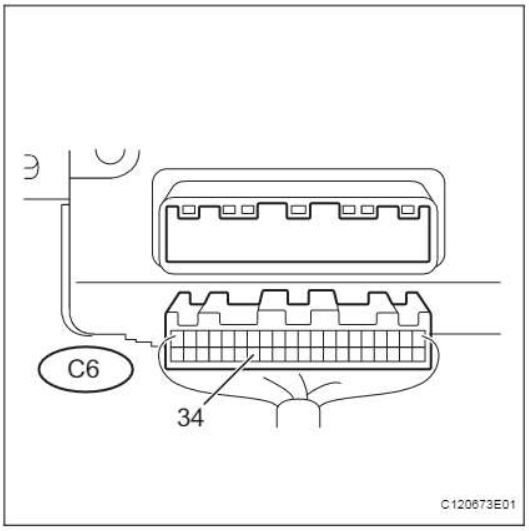
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(c) Check the connection of the center airbag sensor assembly connectors and the combination meter assembly connector.
**OK:**
**Connectors are connected.**

NG → **CONNECT CONNECTORS**

OK

| 2 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

(a) Disconnect the C6 connector from the combination meter assembly.
(b) Connect the negative (-) terminal cable to the battery.
(c) Measure the voltage according to the value(s) in the table below.
**Standard voltage**



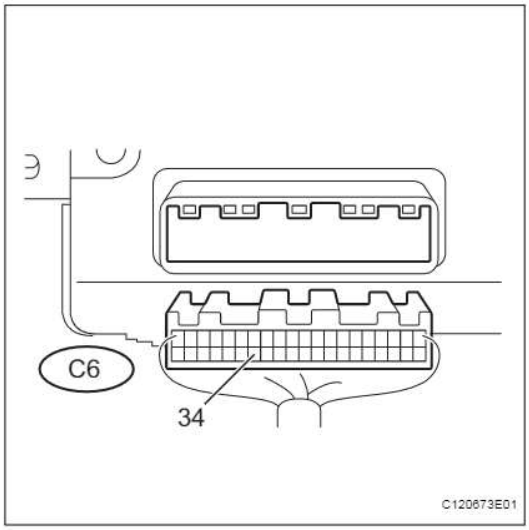

| Tester Connection | Condition | Specified Condition |
|---|---|---|
| C6-34 - Body ground | Ignition switch ON | Above 8 V |

NG → **Go to step 4**

OK

| 3 | CHECK INSTRUMENT PANEL WIRE (TO B+) (COMBINATION METER ASSEMBLY - BODY GROUND) |
|---|---|

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




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

**Standard voltage**

| Tester Connection | Condition | Specified Condition |
|---|---|---|
| C6-34 - Body ground | Ignition switch ON | Below 1 V |

RS

NG → **REPAIR OR REPLACE INSTRUMENT PANEL WIRE (CENTER AIRBAG SENSOR ASSEMBLY - COMBINATION METER ASSEMBLY)**

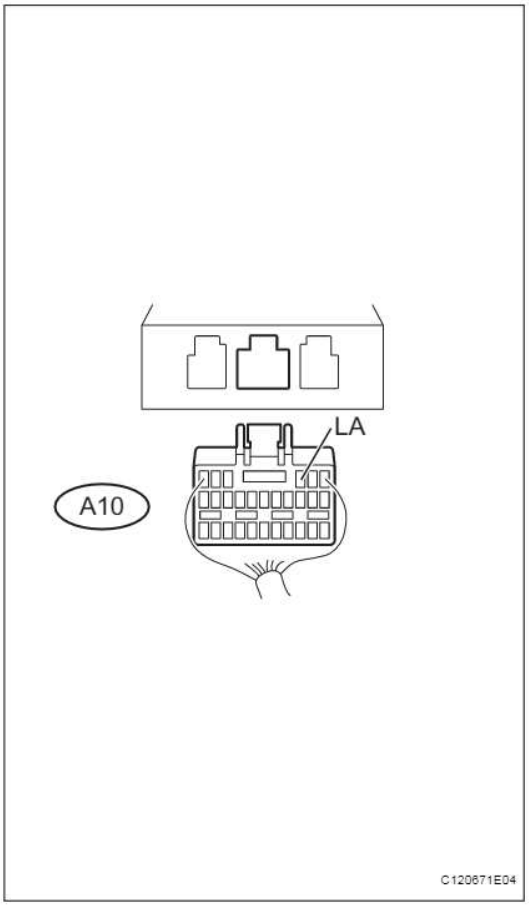
OK

**REPLACE COMBINATION METER ASSEMBLY**

| 4 | CHECK INSTRUMENT PANEL WIRE (CENTER AIRBAG SENSOR ASSEMBLY - BODY GROUND) |
|---|---|

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait at least 90 seconds.
(c) Disconnect the connector from the center airbag sensor assembly.

RS




OK

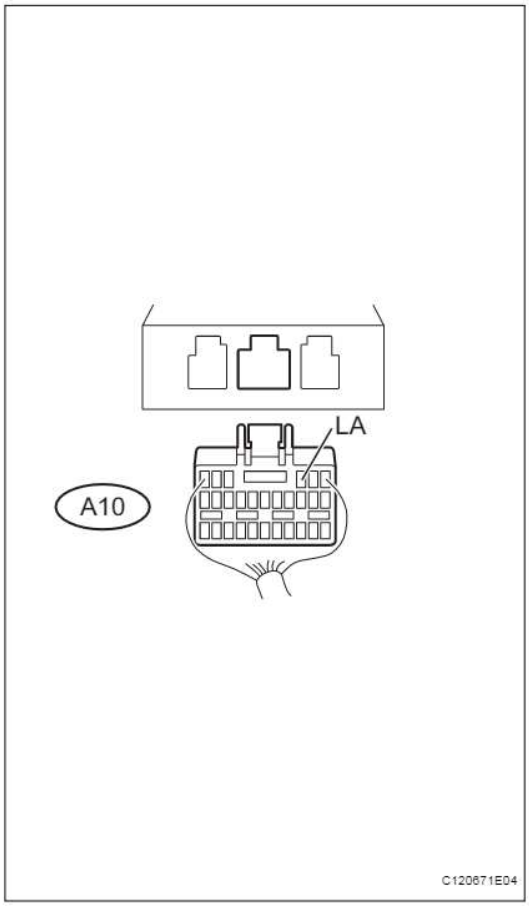
(d) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A10-3 (LA) - Body ground | 1 MΩ or higher |

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

| 5 | CHECK INSTRUMENT PANEL WIRE (CENTER AIRBAG SENSOR ASSEMBLY - COMBINATION METER ASSEMBLY) |
|---|---|




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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A10-3 (LA) - C6-34 | Below 1 Ω |

NG → REPAIR OR REPLACE INSTRUMENT PANEL WIRE (CENTER AIRBAG SENSOR ASSEMBLY - COMBINATION METER ASSEMBLY)

OK

REPLACE CENTER AIRBAG SENSOR ASSEMBLY

# SRS Warning Light Remains ON

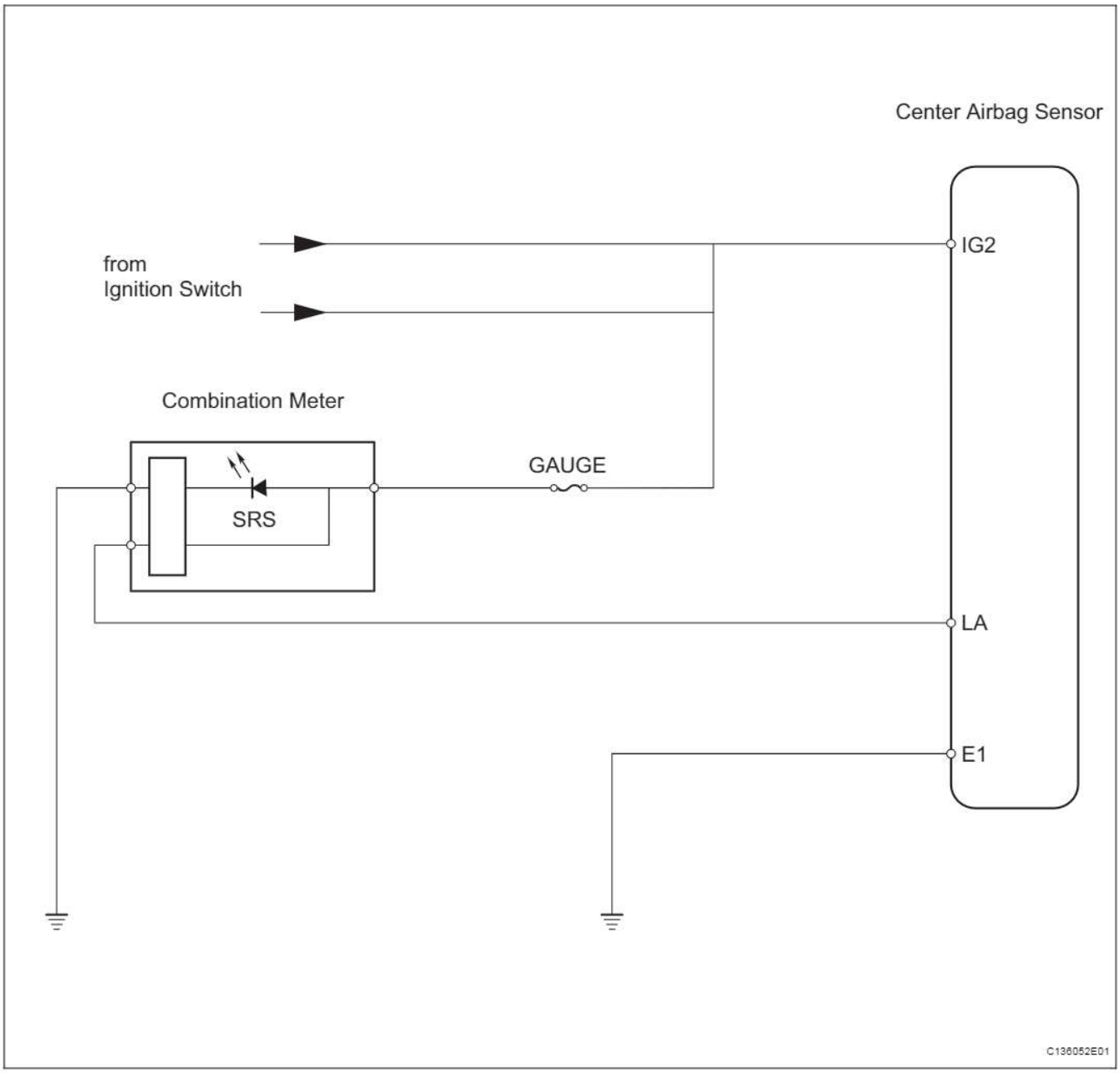
(2005/12- )

## DESCRIPTION

RS

The SRS warning light is located on the combination meter. When the SRS is normal, the SRS warning light illuminates for approximately 6 seconds after the ignition switch is turned from OFF to ON, and then turns off automatically. If there is a malfunction in the SRS, the SRS warning light illuminates to inform the driver. When terminals TC and CG of the DLC3 are connected, the DTCs are communicated through SRS warning light blinking patterns.

## WIRING DIAGRAM



## INSPECTION PROCEDURE

| 1 | INSPECT BATTERY |
|---|---|

(a) Measure the voltage of the battery.
**Standard voltage:**
**11 to 14 V**

NG → **RECHARGE OR REPLACE BATTERY**

OK

| 2 | CHECK CONNECTION OF CONNECTOR |
|---|---|

(a) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(b) Check that the connector is properly connected to the center airbag sensor.
**OK:**
**Connector is connected.**

NG → **CONNECT CONNECTOR**

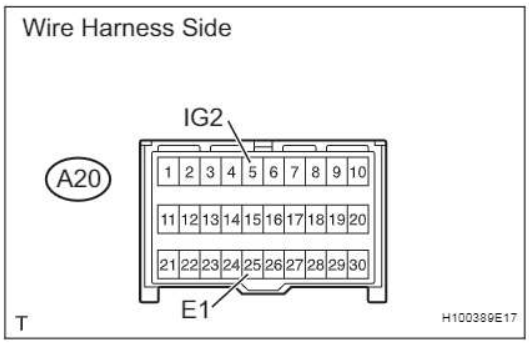
OK

| 3 | PREPARE FOR INSPECTION |
|---|---|

**CAUTION:**
**Be sure to perform the following procedures before troubleshooting to avoid unexpected airbag deployment.**
(a) Disconnect the connector from the center airbag sensor.
(b) Disconnect the connector from the steering pad connector.

NEXT

| 4 | CHECK CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|




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

| Tester Connection | Specified Condition |
|---|---|
| A20-5 (IG2) - Body ground | 8 to 14 V |

**Standard resistance**

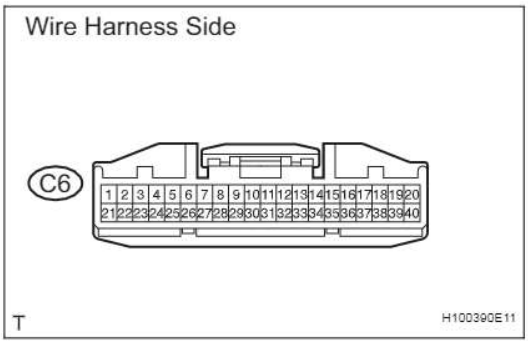
| Tester Connection | Specified Condition |
|---|---|
| A20-25 (E1) - Body ground | Below 1 Ω |

NG → REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

RS

**5 CHECK COMBINATION METER ASSEMBLY (POWER SOURCE)**



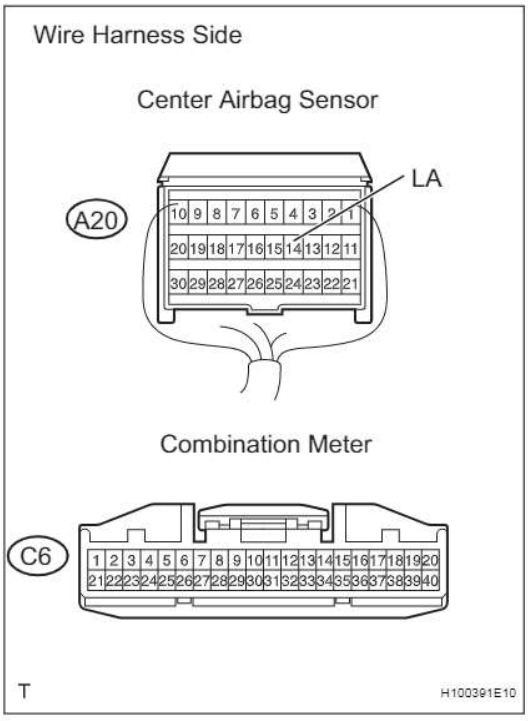

(a) Disconnect the C6 meter connector.
(b) Turn the ignition switch ON.
(c) Measure the voltage of the wire harness side connector.
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| C6-23 - Body ground | 8 to 14 V |

NG → REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

**6 CHECK WIRE HARNESS (CENTER AIRBAG SENSOR - COMBINATION METER AND BODY GROUND)**




(a) Disconnect the A20 ECU connector.
(b) Disconnect the C6 meter connector.
(c) Measure the resistance of the wire harness side connectors.
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A20-14 (LA) - C6-34 | Below 1 Ω |

NG → REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

**7 CHECK SRS WARNING LIGHT OPERATION**

(a) Disconnect the A20 ECU connector with the C6 meter connector connected.
(b) Turn the ignition switch ON.

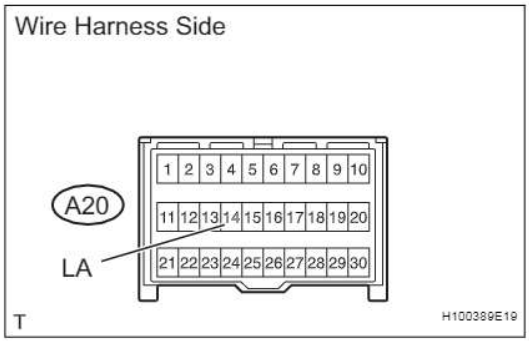
(c) Check that the warning light illuminates 10 seconds after turning the ignition switch ON.
**OK:**
**Warning light illuminates 10 seconds after turning ignition switch ON.**

NG → **REPLACE COMBINATION METER ASSEMBLY**

RS

OK

## 8 CHECK CENTER AIRBAG SENSOR ASSEMBLY




(a) Disconnect the A20 ECU connector.
(b) Turn the ignition switch ON.
(c) Measure the voltage of the wire harness side connector.
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| A20-14 (LA) - Body ground | 8 to 14 V |

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

OK

## 9 REPLACE CENTER AIRBAG SENSOR ASSEMBLY

(a) Replace the center airbag sensor.
(b) Check that the SRS warning light illuminates normally.
**OK:**
**SRS warning light illuminates normally.**

NG → **REPLACE COMBINATION METER ASSEMBLY**

OK

**END**

RS

# PROBLEM SYMPTOMS TABLE

(2005/07-2005/12)

HINT:

- Use the table below to help determine the cause of the problem symptom. The potential cases of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.
- Proceed to the troubleshooting procedures for each circuit in the table below.

## Airbag system

| Symptom | Suspected area | See page |
|---|---|---|
| When ignition switch is in ON position, SRS warning light sometimes comes on after approximately 6 seconds | SRS warning light circuit malfunction (always lights up when DTC is not output) | RS-284 |
| SRS warning light comes on even when DTC is not output | SRS warning light circuit malfunction (always lights up when DTC is not output) | RS-284 |
| With ignition switch in ON position, SRS warning light does not come on | SRS warning light circuit malfunction (does not lights up when ignition switch is turned to ON position) | RS-293 |
| SRS warning light comes on normally but DTC and normal system code are not displayed | TC terminal circuit | RS-297 |
| Terminal TC and CG are not connected but DTC and normal system code are displayed | TC terminal circuit | RS-297 |

# PROBLEM SYMPTOMS TABLE

(2005/12- )

HINT:

- Use the table below to help determine the cause of the problem symptom. The potential causes of the symptoms are listed in order of probability in the "Suspected area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.
- Proceed to the troubleshooting procedures for each circuit in the table below.



**Airbag system:**

| Symptom | Suspected area | See page |
|---|---|---|
| SRS warning light remains on (When ignition switch is ON, SRS warning light sometimes turns on after approximately 6 seconds) | SRS warning light circuit | - |
| SRS warning light remains on (SRS warning light remains illuminated even when DTC is not output) | SRS warning light circuit | - |
| SRS warning light does not come on (When ignition switch is ON, SRS warning light does not illuminate) | SRS warning light circuit | - |
| TC and CG terminal circuit (SRS warning light is blinking but pattern is not DTC or normal system code) | TC terminal circuit | - |
| TC and CG terminal circuit (Terminals TC and CG are connected but blinking pattern is not DTC or normal system code) | TC terminal circuit | - |

# SRS Warning Light does not Come ON

(2005/07-2005/12)

## DESCRIPTION

RS

The SRS warning light is located on the combination meter assembly.
When the SRS is normal, the SRS warning light comes on for approximately 6 seconds after the ignition switch is turned from the LOCK position to the ON position, 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.

## INSPECTION PROCEDURE

**1 CHECK SOURCE VOLTAGE**

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

| Tester Connection | Specified Condition |
|---|---|
| Positive terminal - Negative terminal | 11 to 14 V |

NG → **REPAIR OR REPLACE CHARGING SYSTEM AND BATTERY**

OK

**2 CHECK CENTER AIRBAG SENSOR ASSEMBLY**

(a) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
(b) Disconnect the connector from the center airbag sensor assembly.
(c) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
(d) Turn the ignition switch to the ON position.
(e) Check that the SRS warning light on the combination meter assembly comes on.
**OK:**
**SRS warning light comes on.**

OK → **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

NG

**3 CHECK WIRE HARNESS (COMBINATION METER ASSEMBLY - CENTER AIRBAG SENSOR ASSEMBLY AND BODY GROUND)**

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.

(c) Disconnect the connector from the combination meter assembly.
(d) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A10-3 (LA) - C6-34 | Below 1 Ω |
| A10-3 (LA) - Body ground | 1 MΩ or higher |

RS

NG → REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

REPAIR OR REPLACE COMBINATION METER ASSEMBLY

# SRS Warning Light does not Come ON

(2005/12- )

## DESCRIPTION

RS

The SRS warning light is located on the combination meter. When the SRS is normal, the SRS warning light illuminates for approximately 6 seconds after the ignition switch is turned from OFF to ON, and then turns off automatically. If there is a malfunction in the SRS, the SRS warning light illuminates to inform the driver. When terminals TC and CG of the DLC3 are connected, the DTCs are communicated through SRS warning light blinking patterns.

## WIRING DIAGRAM

Refer to "SRS Warning Light Remains ON" (see page RS-289).

## INSPECTION PROCEDURE

**CAUTION:**

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

1. Turn the ignition switch OFF.
2. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
3. Disconnect the connector from the center airbag sensor.
4. Disconnect the connector from the steering pad.

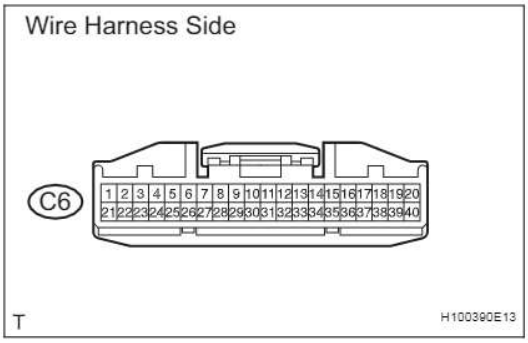
| 1 | CHECK CONNECTION OF CONNECTOR |
|---|---|

(a) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(b) Check that the connectors are properly connected to the center airbag sensor and combination meter.
**OK:**
**Connectors are connected.**

NG → **CONNECT CONNECTOR**

OK

| 2 | CHECK COMBINATION METER ASSEMBLY |
|---|---|




(a) Disconnect the C6 meter connector.
(b) Turn the ignition switch ON.
(c) Measure the voltage of the wire harness side connector.
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| C6-23 - Body ground | 8 to 14 V |

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

OK

| 3 | CHECK SRS WARNING LIGHT OPERATION |
|---|---|

(a) Replace the center airbag sensor.
(b) Check that the SRS warning light illuminates normally.
**OK:**
**SRS warning light illuminates normally.**

NG → **REPLACE COMBINATION METER ASSEMBLY**

OK

| 4 | REPLACE CENTER AIRBAG SENSOR ASSEMBLY |
|---|---|

(a) Replace the center airbag sensor.
(b) Check that the SRS warning light illuminates normally.
**OK:**
**SRS warning light illuminates normally.**

NG → **REPLACE COMBINATION METER ASSEMBLY**

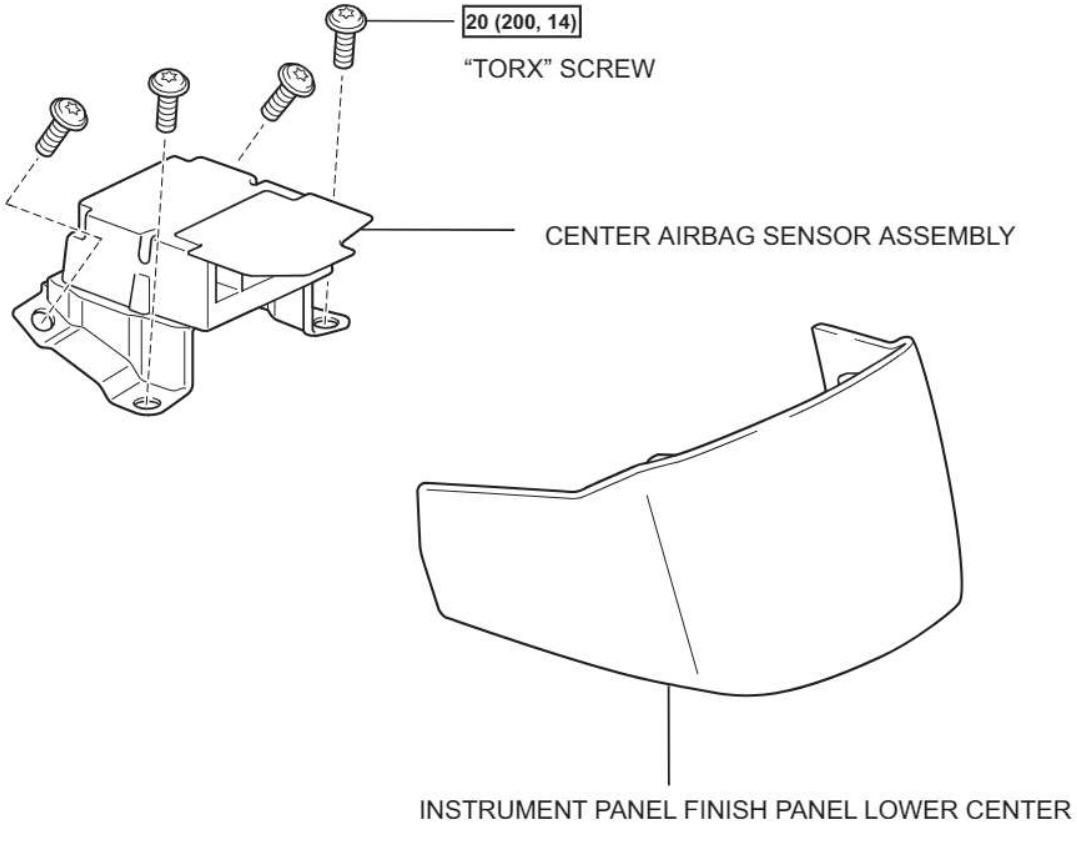
OK

**END**

# CENTER AIRBAG SENSOR ASSEMBLY

## COMPONENTS

RS




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

T

C119039E05

# ON-VEHICLE INSPECTION

1. **CHECK CENTER AIRBAG SENSOR ASSEMBLY (VEHICLE NOT INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-51).

2. **CHECK CENTER AIRBAG SENSOR ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-51).

3. **CHECK CENTER AIRBAG SENSOR ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG DEPLOYED)**
   (a) Replace the center airbag sensor.
   **CAUTION:**
   **For removal and installation of the center airbag sensor assembly, be sure to follow the correct procedures.**

# TC and CG Terminal Circuit

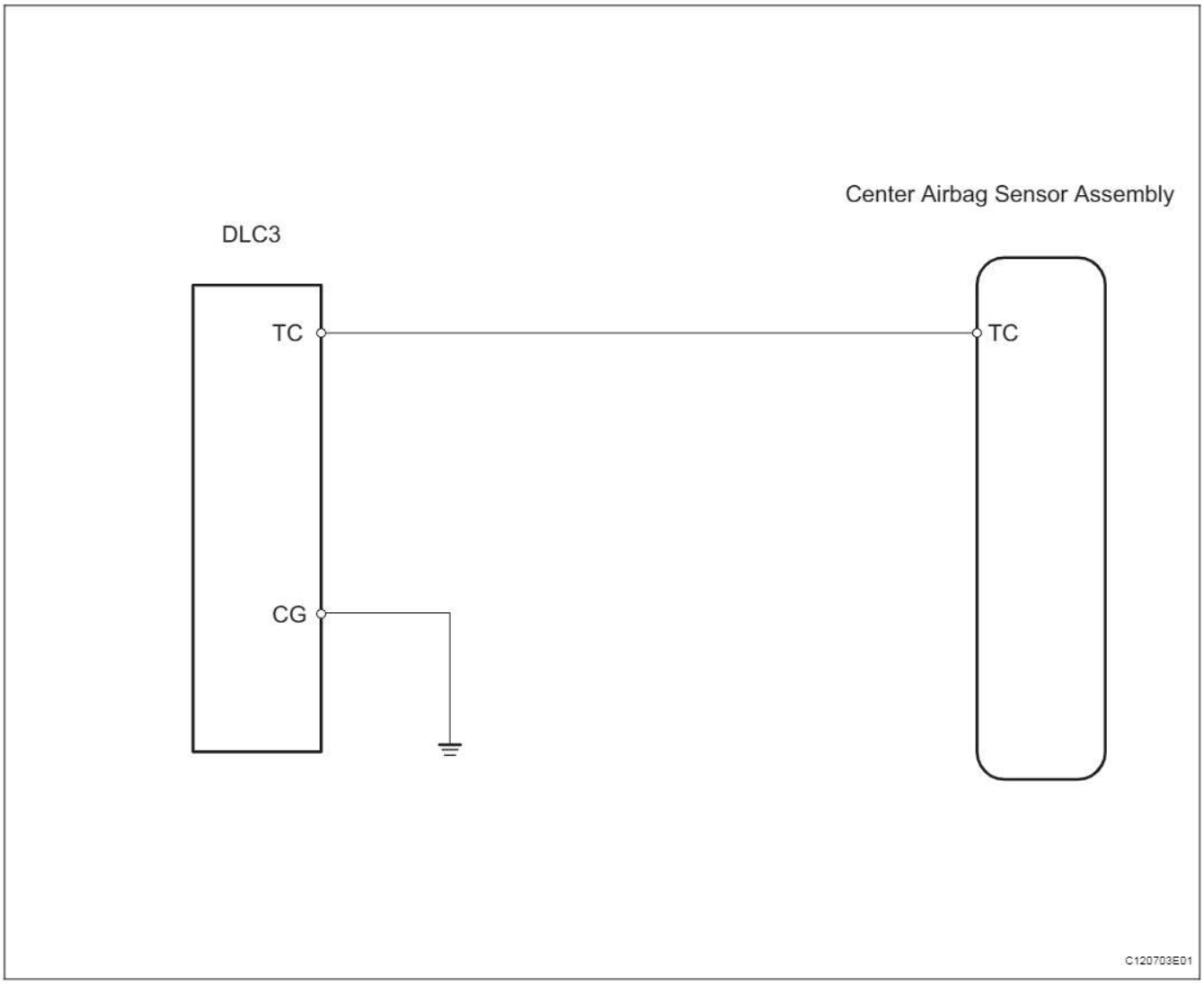
(2005/07-2005/12)

## DESCRIPTION

RS

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

## WIRING DIAGRAM

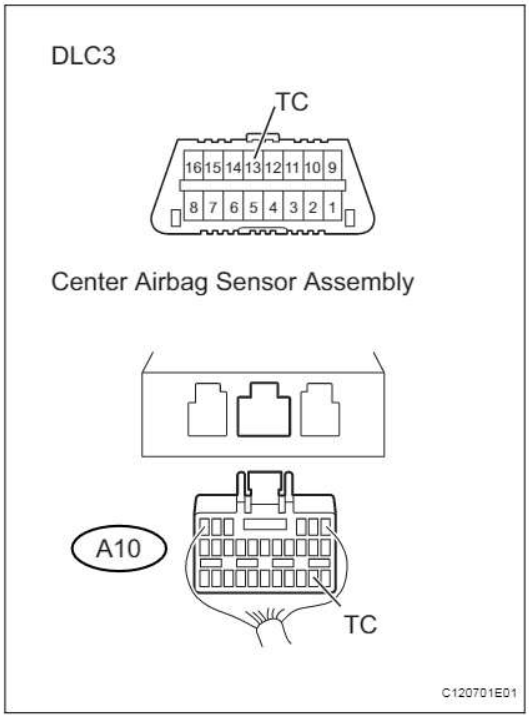



HINT:
When each warning light stays blinking, a ground short in the wiring of terminal TC of the DLC3 or an internal ground short in each ECU is suspected.

## INSPECTION PROCEDURE

| | |
|---|---|
| 1 | CHECK WIRE HARNESS (DLC3 - CENTER AIRBAG SENSOR ASSEMBLY) |

(a) Turn the ignition switch to the LOCK position.
(b) Disconnect the center airbag sensor assembly connector.




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

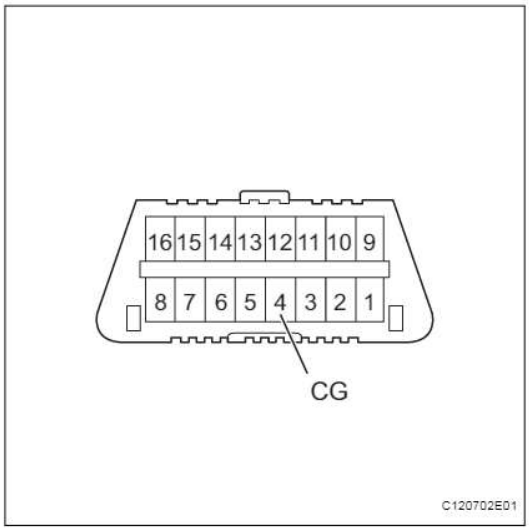
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| DLC3 (TC) - A10-9 (TC) | Below 1 Ω |

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

OK

**2 CHECK WIRE HARNESS (DLC3 - BODY GROUND)**




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

**Standard resistance**

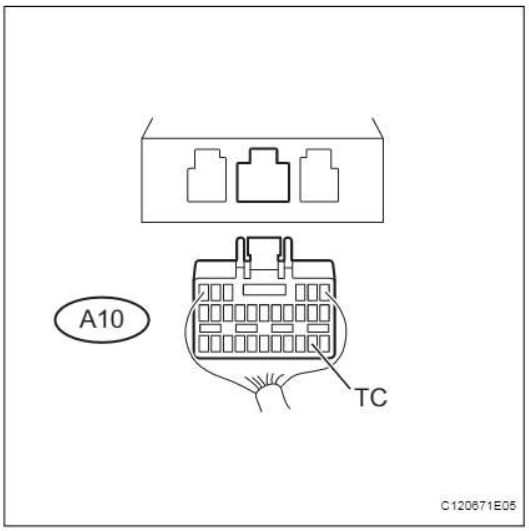
| Tester Connection | Specified Condition |
|---|---|
| DLC3 (TC) - Body ground | Below 1 Ω |

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

OK

RS

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




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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| A10-19 (TC) - Body ground | 1 MΩ or higher |

NG → REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

REPLACE CENTER AIRBAG SENSOR ASSEMBLY

# TC and CG Terminal Circuit

(2005/12- )

## DESCRIPTION

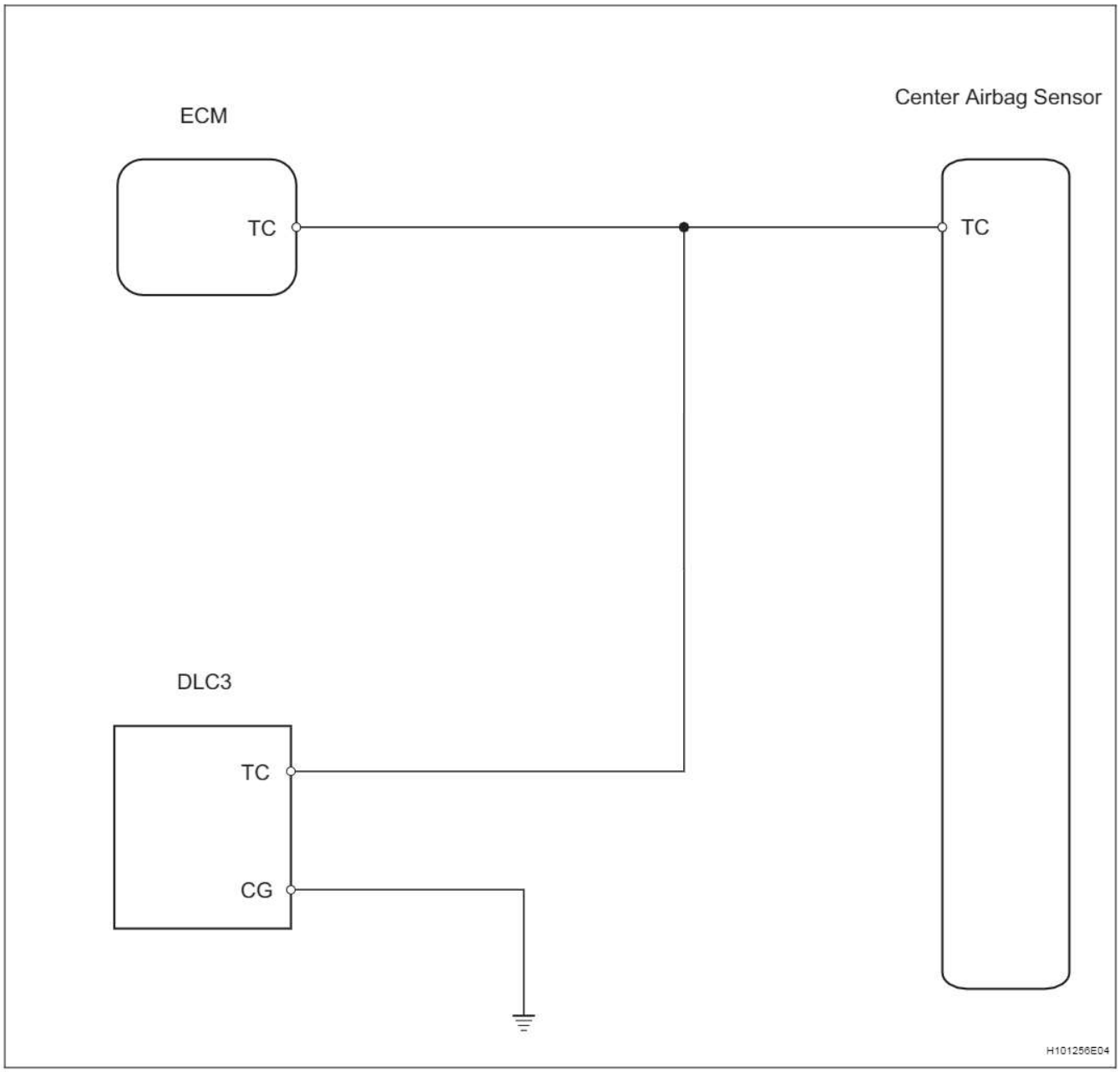
DTC output mode is set by connecting terminals TC and CG of the DLC3. The DTCs are communicated through SRS warning light blinking patterns.

HINT:

When one or more of the warning lights blinks continuously, the cause may be a ground short in the wiring of terminal TC of the DLC3 or an internal ground short in each ECU.

RS

## WIRING DIAGRAM



## INSPECTION PROCEDURE

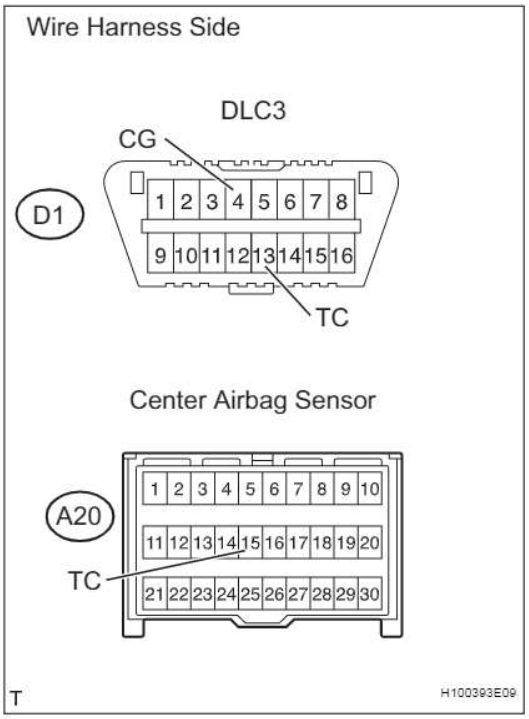
**CAUTION:**

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

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

RS

**1 CHECK WIRE HARNESS (DLC3 - CENTER AIRBAG SENSOR AND BODY GROUND)**




(a) Disconnect the A20 ECU connector.

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

**Standard resistance**

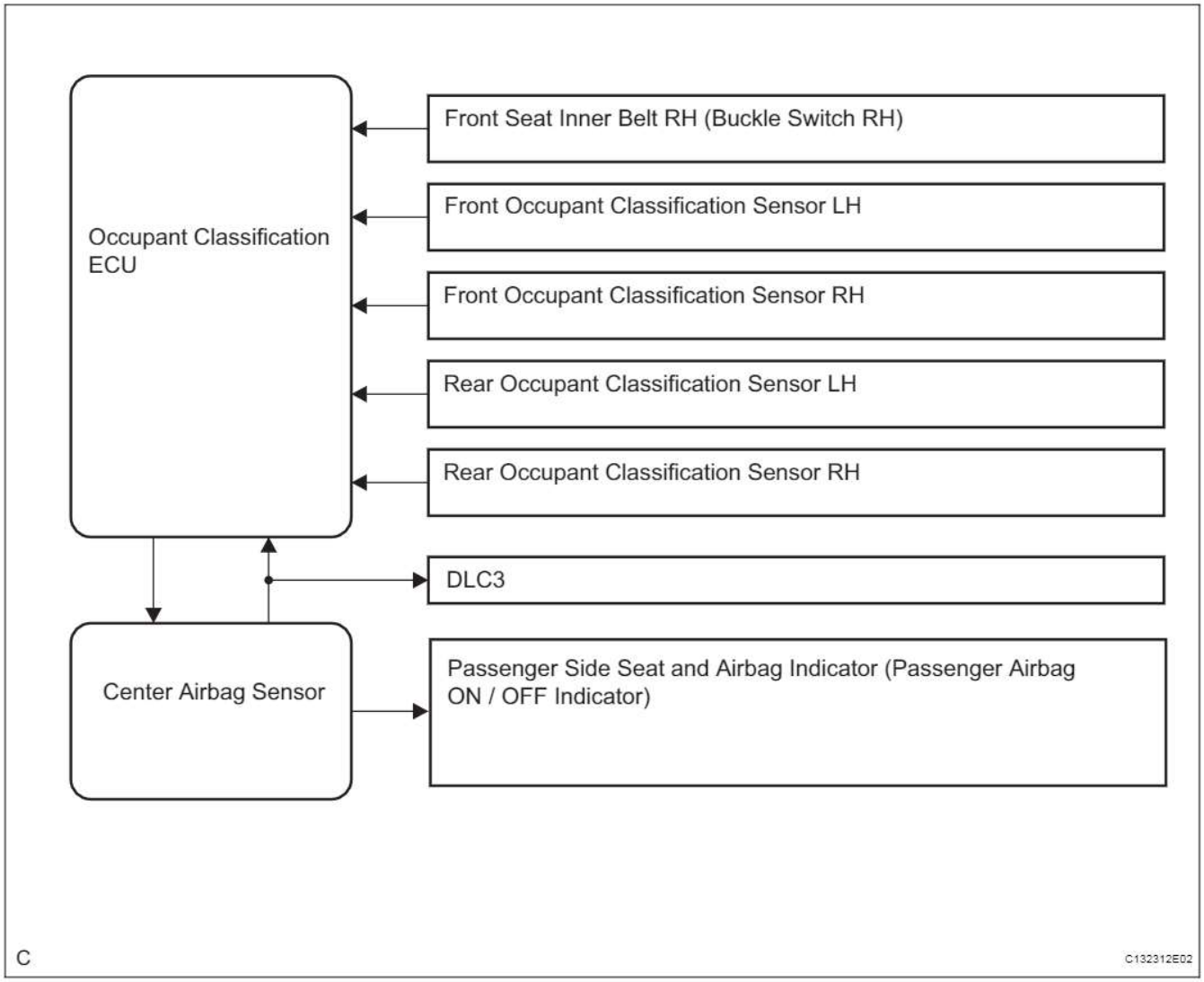
| Tester Connection | Specified Condition |
|---|---|
| D1-13 (TC) - A20-15 (TC) | Below 1 Ω |
| D1-4 (CG) - Body ground | Below 1 Ω |
| A20-15 (TC) - Body ground | 1 MΩ or higher |

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

OK

**REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

# SYSTEM DIAGRAM




RS

RS

# SYSTEM DESCRIPTION

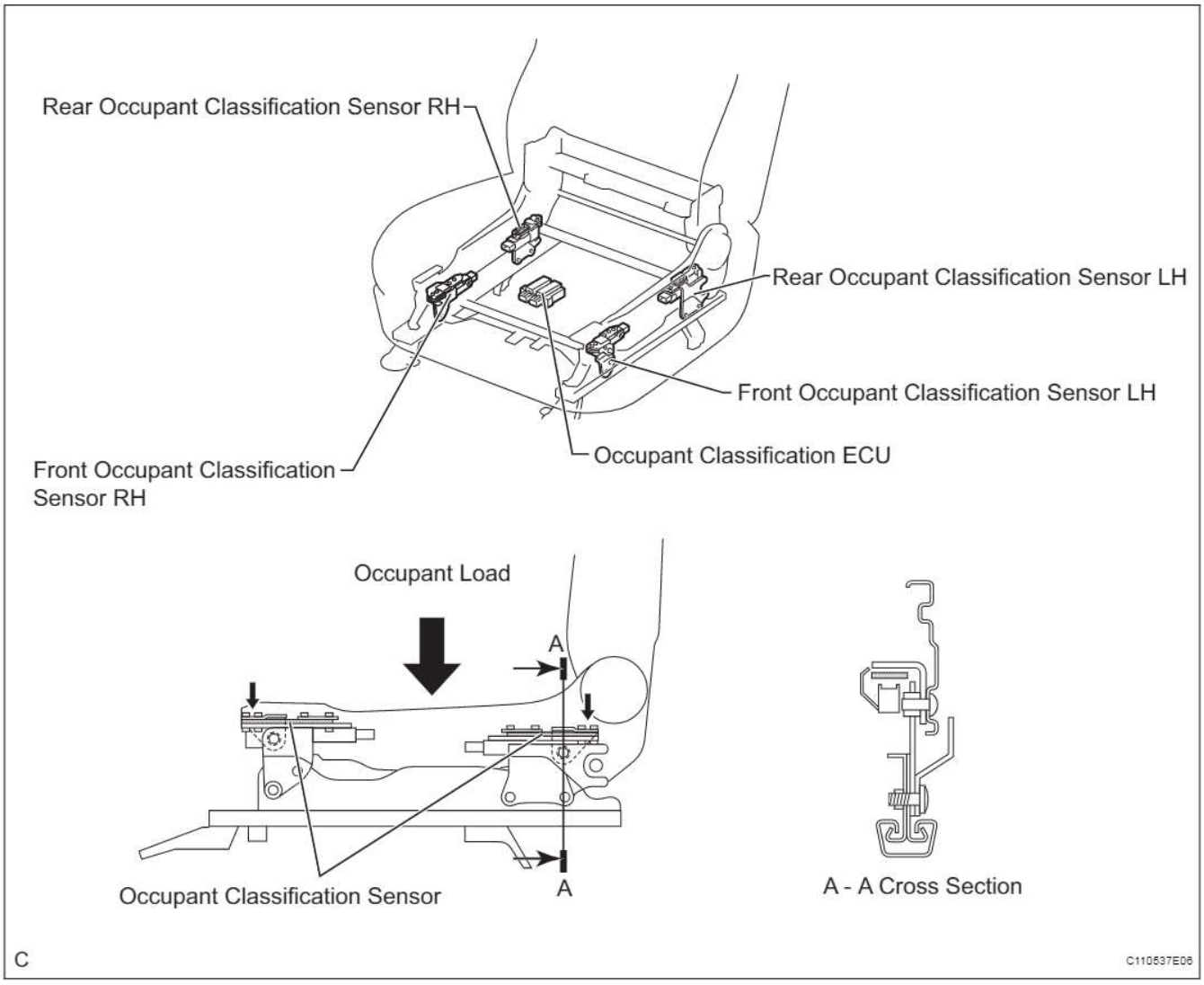
## 1. DESCRIPTION OF OCCUPANT CLASSIFICATION SYSTEM

(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 side airbag (front passenger side).

(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 side airbag (front passenger side).

(b) Occupant classification sensor.



(1) The occupant classification sensors are installed on 4 brackets connecting the seat rail and seat frame. Accordingly, when a load is applied to the front passenger seat by sitting on 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 air conditioning control. This indicator informs the driver whether the occupant classification ECU puts the front passenger airbag and side airbag (front passenger side) into an active state or inactive state.
(2) If a malfunction occurs in the occupant classification system, the "OFF" indication of the passenger airbag ON / OFF indicator and the SRS warning light will come on.

RS

# HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

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

| 1 | VEHICLE BROUGHT TO WORKSHOP |
|---|---|

NEXT

| 2 | INSPECT BATTERY VOLTAGE |
|---|---|

**Standard voltage:**
**11 to 14 V**

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

NEXT

| 3 | PASSENGER AIRBAG ON / OFF INDICATOR CHECK |
|---|---|

NEXT

| 4 | CHECK FOR DTC* |
|---|---|

(a) Check for DTCs and note any codes that are output (see page RS-318).
(b) Delete the DTC.
(c) Recheck for DTCs. Based on the DTC output above, try to force output of the same airbag system DTC or occupant classification system DTC by simulating the operation indicated by the DTC.

**Result:**

| Result | Proceed to |
|---|---|
| Occupant classification system DTC output reoccurs | A |
| DTC output does not reoccur | B |
| Airbag system DTC output reoccurs | C |

B → GO TO PROBLEM SYMPTOMS TABLE

C → GO TO AIRBAG SYSTEM

A

| 5 | DTC CHART |
|---|---|

NEXT

| 6 | CIRCUIT INSPECTION |
|---|---|

NEXT

| 7 | REPAIR OR REPLACE |
|---|---|

NEXT

| 8 | CLEAR DTC (Present and Past DTCs) |
|---|---|

(a) Clear DTCs.

NEXT

| 9 | CHECK FOR DTC (Present and Past DTCs) |
|---|---|

(a) Check for DTCs.

**Result:**

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

B → Go to step 5

A

| 10 | SYMPTOM SIMULATION |
|---|---|

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

**Result:**

| Result | Proceed to |
|---|---|
| Passenger airbag ON / OFF indicator is operating normally. | A |
| Passenger airbag ON / OFF indicator ("OFF") and SRS warning light come on. | B |

B → Go to step 4

A

| 11 | CONFIRMATION TEST |
|---|---|

NEXT

RS

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, 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:

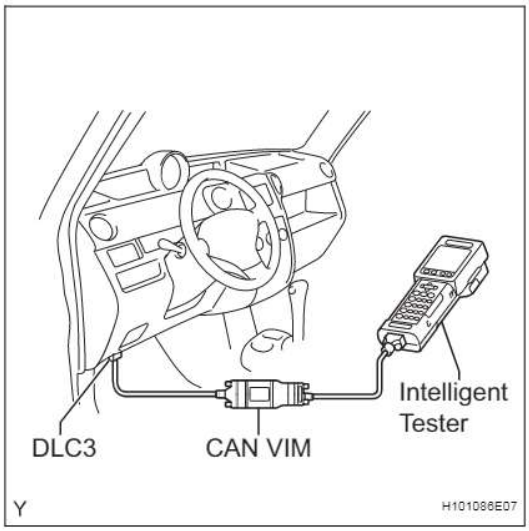
Make sure that zero point calibration has finished normally, and then perform the sensitivity check.

(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 (with CAN VIM) to the DLC3.

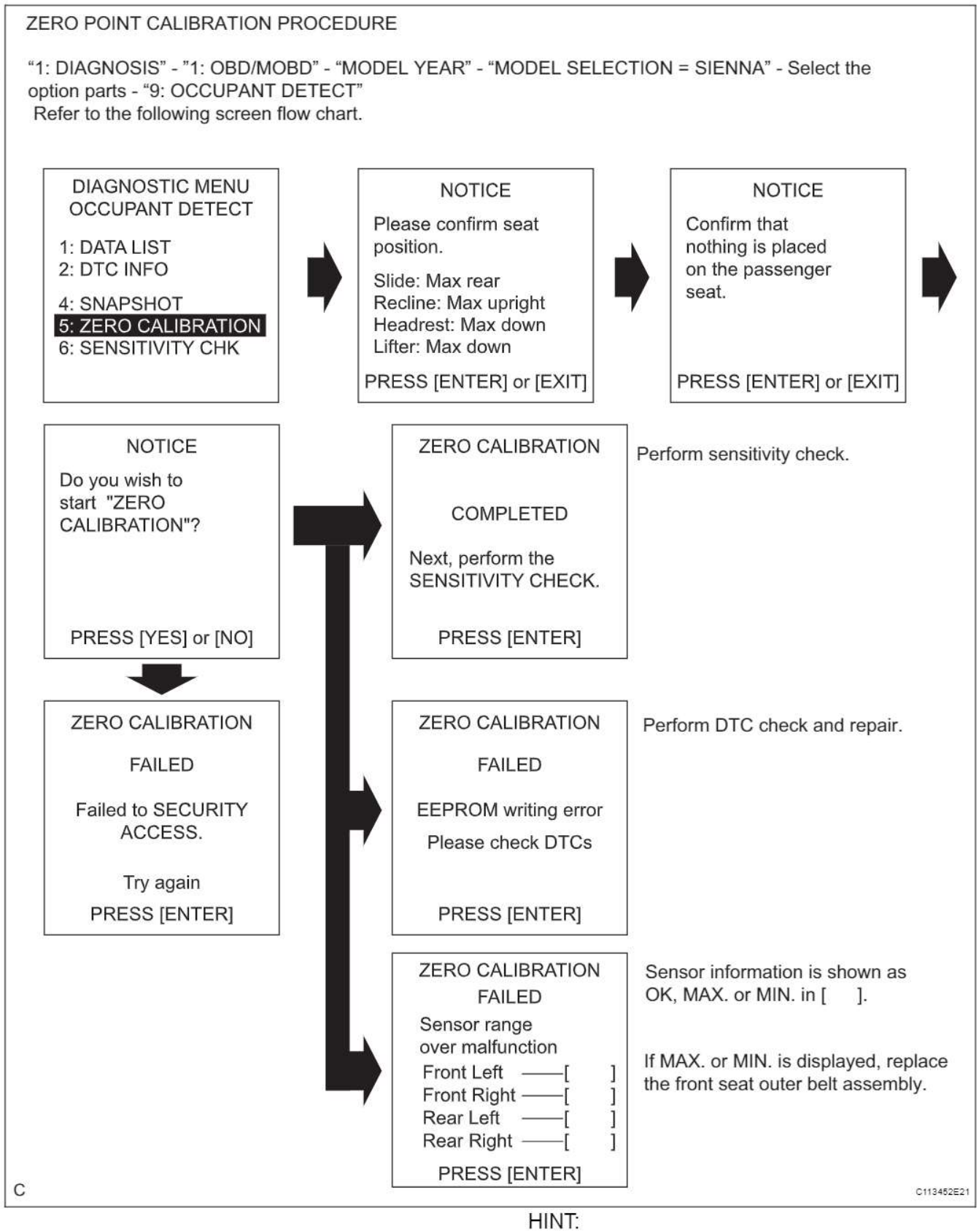
(3) Turn the ignition switch ON.



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

ZERO POINT CALIBRATION PROCEDURE

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




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

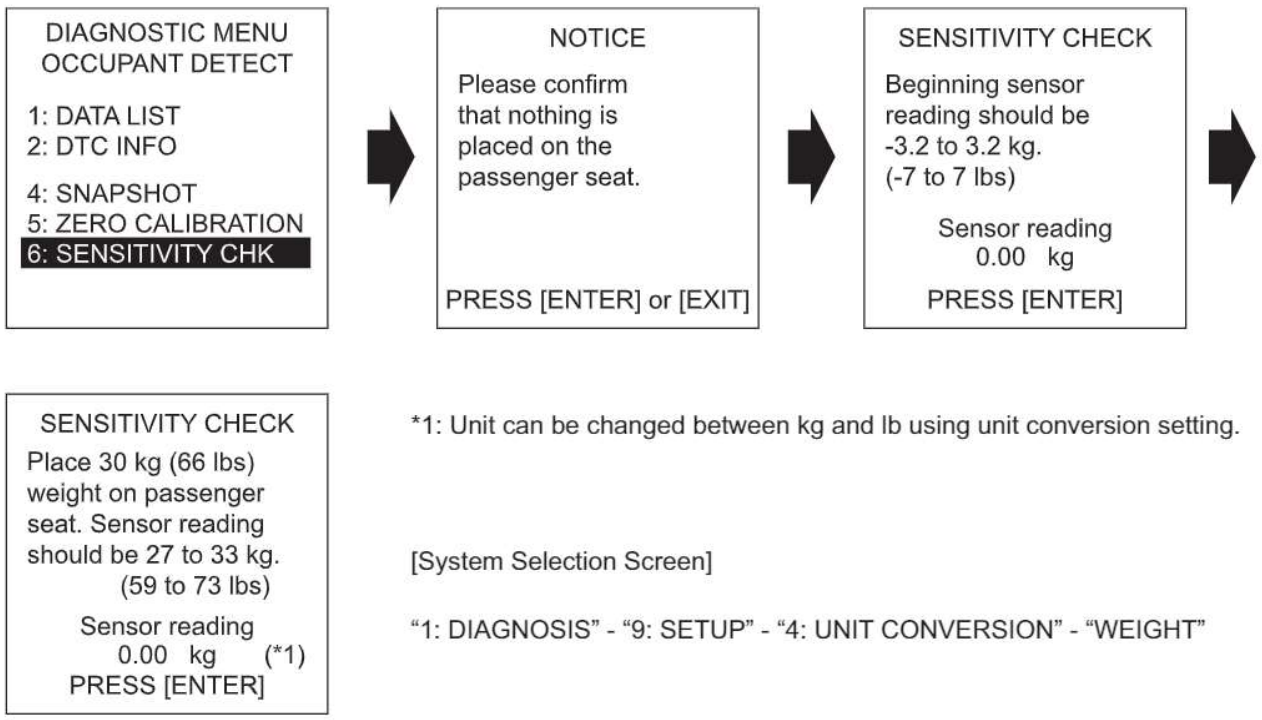
**OK:**
**"COMPLETED" is displayed.**

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



SENSITIVITY CHECK PROCEDURE

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




**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 a liquid weight is used).

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

# PROBLEM SYMPTOMS TABLE

HINT:
Use the table below to help determine the cause of the problem symptom. The potential causes of the symptoms are listed in order of probability in the "Suspected area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.



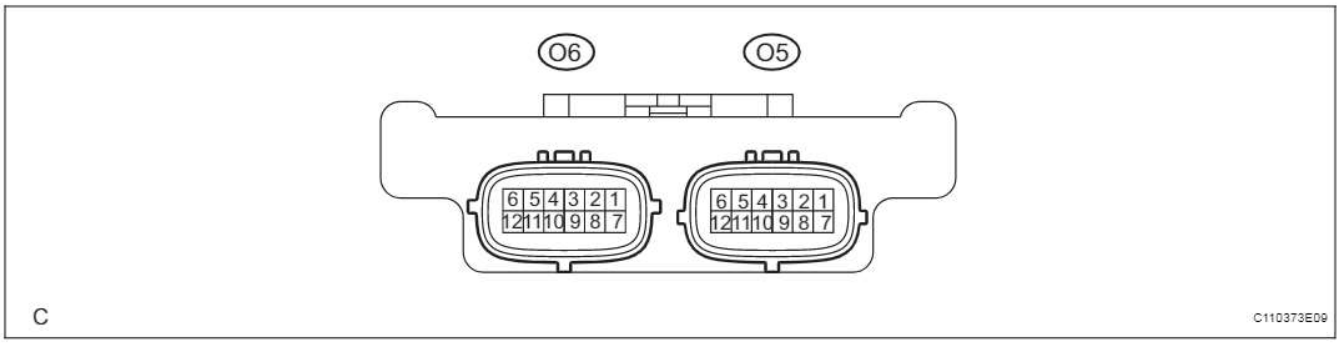
**Occupant classification system:**

| Symptom | Suspected area | See page |
|---|---|---|
| The front passenger seat condition differs from the indication by the airbag ON / OFF indicator (DTC is not output) | Trouble in Passenger Airbag ON / OFF Indicator | RS-396 |

RS

# TERMINALS OF ECU

## 1. CHECK OCCUPANT CLASSIFICATION ECU

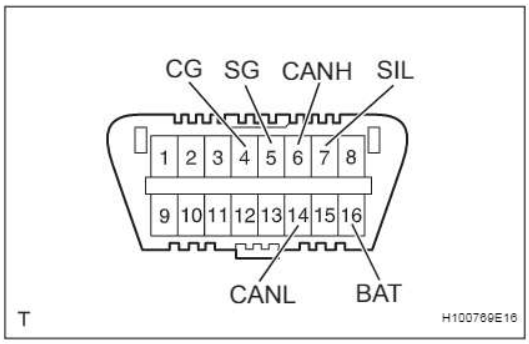



(a) Measure the resistance and voltage of the ECU connectors.

| Symbols (Terminal No.) | Wiring Color | Terminal Description | Condition | Specified Condition |
|---|---|---|---|---|
| +B (O5-1) - GND (O5-3) | W-R - W-B | Power source (ECU-B fuse) | Always | 10 to 14 V |
| DIA (O5-2) - GND (O5-3) | W - W-B | Diagnosis (DLC3) | Ignition switch ON | Pulse generation |
| GND (O5-3) - Body ground | W-B - Body ground | Ground | Always | Below 1 Ω |
| FSR- (O5-4) - GND (O5-3) | Y - W-B | Center airbag sensor communication line (-) | Always | Below 1 Ω |
| BGND (O5-5) - GND (O5-3) | P - W-B | Passenger side buckle switch ground line | Always | Below 1 Ω |
| IG (O5-7) - GND (O5-3) | B - W-B | Power source (IG2 fuse) | Ignition switch ON | 10 to 14 V |
| FSR+ (O5-8) - FSR- (O5-4) | GR - Y | Center airbag sensor communication line | Ignition switch ON | Pulse generation |
| BSW (O5-9) - BGND (O5-5) | O - P | Passenger side buckle switch line | Buckle switch ON<br>Buckle switch OFF | Pulse generation |
| SGD1 (O4-1) - GND (O5-3) | G - W-B | Occupant classification sensor front LH ground line | Always | Below 1 Ω |
| SGD2 (O4-2) - GND (O5-3) | O - W-B | Occupant classification sensor front RH ground line | Always | Below 1 Ω |
| SGD3 (O4-3) - GND (O5-3) | W - W-B | Occupant classification sensor rear LH ground line | Always | Below 1 Ω |
| SGD4 (O4-4) - GND (O5-3) | BR - W-B | Occupant classification sensor rear RH ground line | Always | Below 1 Ω |
| SVC3 (O4-5) - SGD3 (O4-3) | GR - W | Occupant classification sensor rear LH power supply line | Ignition switch ON, a load is applied to occupant classification sensor rear LH | 4.5 to 5.1 V |
| SVC4 (O4-6) - SGD4 (O4-4) | V - BR | Occupant classification sensor rear RH power supply line | Ignition switch ON, a load is applied to occupant classification sensor rear RH | 4.5 to 5.1 V |
| SIG1 (O4-7) - SGD1 (O4-1) | SB - G | Occupant classification sensor front LH signal line | Ignition switch ON, a load is applied to occupant classification sensor front LH | 0.2 to 4.7 V |
| SIG2 (O4-8) - SGD2 (O4-2) | L - O | Occupant classification sensor front RH signal line | Ignition switch ON, a load is applied to occupant classification sensor front RH | 0.2 to 4.7 V |

| Symbols (Terminal No.) | Wiring Color | Terminal Description | Condition | Specified Condition |
|---|---|---|---|---|
| SIG3 (O4-9) - SGD3 (O4-3) | Y - W | Occupant classification sensor rear LH signal line | Ignition switch ON, a load is applied to occupant classification sensor rear LH | 0.2 to 4.7 V |
| SIG4 (O4-10) - SGD4 (O4-4) | R - BR | Occupant classification sensor rear RH signal line | Ignition switch ON, a load is applied to occupant classification sensor rear RH | 0.2 to 4.7 V |
| SVC1 (O4-11) - SGD1 (O4-1) | R - G | Occupant classification sensor front LH power supply line | Ignition switch ON, a load is applied to occupant classification sensor front LH | 4.5 to 5.1 V |
| SVC2 (O4-12) - SGD2 (O4-2) | W - O | Occupant classification sensor front RH power supply line | Ignition switch ON, a load is applied to occupant classification sensor front RH | 4.5 to 5.1 V |

If the result is not as specified, the ECU may have a malfunction.




## DIAGNOSIS SYSTEM

**1. CHECK DLC3**

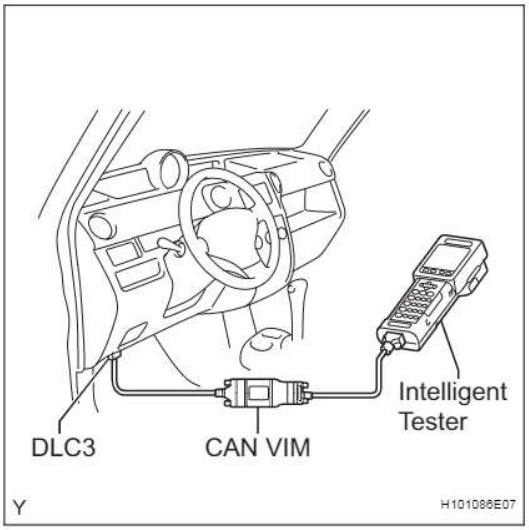
(a) The ECU uses ISO 15765-4 for communication. The terminal arrangement of the DLC3 complies with ISO 15031-3 and matches the ISO 15765-4 format.

| Symbols (Terminal No.) | Terminal Description | Condition | Specified Condition |
|---|---|---|---|
| SIL (7) - SG (5) | Bus "+" line | During transmission | Pulse generation |
| CG (4) - Body ground | Chassis ground | Always | Below 1 Ω |
| SG (5) - Body ground | Signal ground | Always | Below 1 Ω |
| BAT (16) - Body ground | Battery positive | Always | 11 to 14 V |
| CANH (6) - CANL (14) | HIGH-level CAN bus line | Ignition switch OFF* | 54 to 67 Ω |
| CANH (6) - Battery positive | HIGH-level CAN bus line | Ignition switch OFF* | 1 MΩ or higher |
| CANH (6) - CG (4) | HIGH-level CAN bus line | Ignition switch OFF* | 3 MΩ or higher |
| CANL (14) - Battery positive | LOW-level CAN bus line | Ignition switch OFF* | 1 MΩ or higher |
| CANL (14) - CG (4) | LOW-level CAN bus line | Ignition switch OFF* | 3 MΩ or higher |

**NOTICE:**

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

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

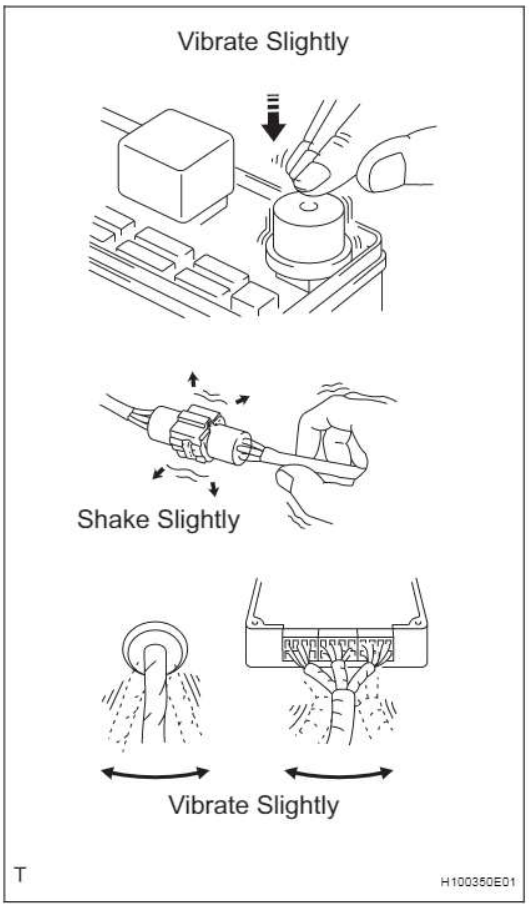



HINT:
If the display shows a communication error message when connecting the cable of the intelligent tester to the DLC3, turning the ignition switch to the ON position and operating the intelligent tester, there is a problem on the vehicle side or tool side.

- 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.

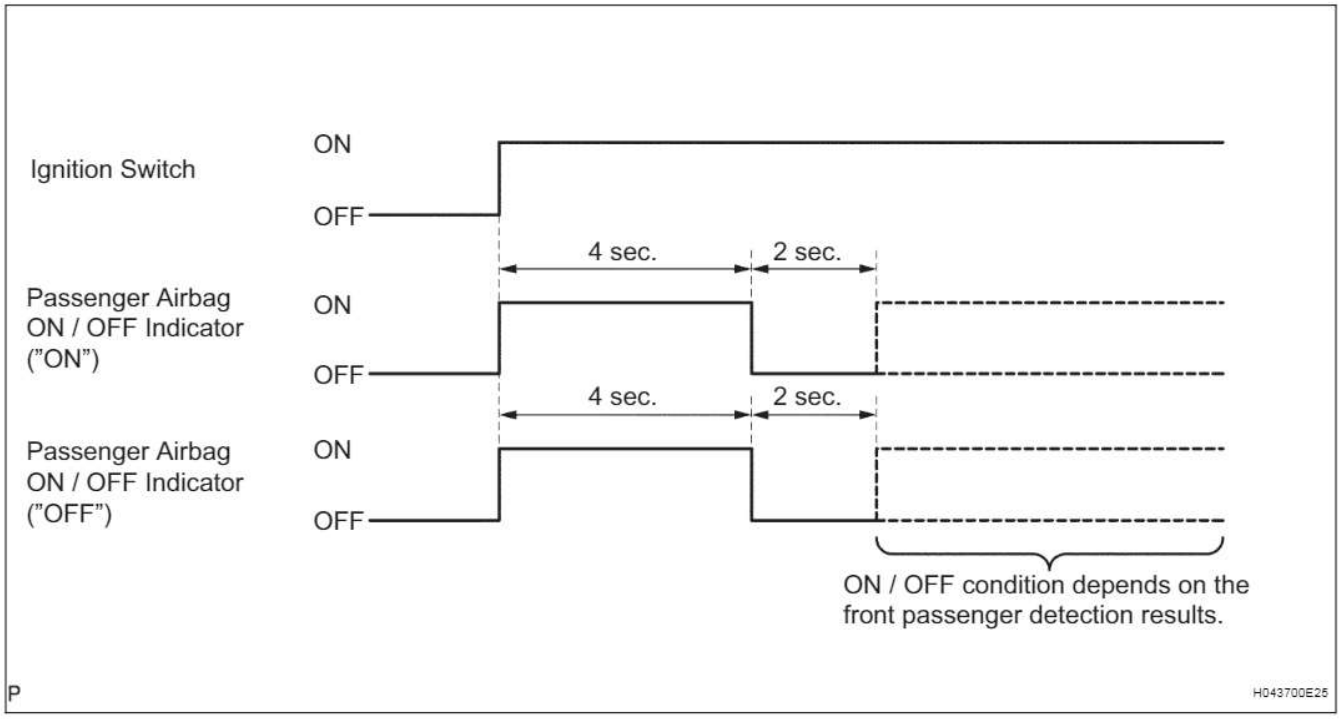



(a) Vibration method:
When vibration seems to be the major cause.
HINT:
Perform the simulation method only during the primary check period (for approximately 6 seconds after the ignition switch ON).
(1) Slightly vibrate the part of the sensor considered to be the problem cause with your fingers and check 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 B1795:
Turn the ignition switch from OFF to ON, hold it for 10 seconds, and then turn it back to OFF. Repeat this procedure 50 times in a now.
HINT:
DTC B1795 is output if the occupant classification ECU receives the ignition switch OFF-ON-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.
(2) The passenger airbag ON / OFF indicator ("ON" and "OFF") comes on for approximately 4 seconds, then goes off for approximately 2 seconds.




HINT:
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.

(3) Approximately 6 seconds after the ignition switch is turned ON, the passenger airbag ON / OFF indicator will operate according to the front passenger seat condition shown below.

| Front Passenger Seat Condition | ON Indicator | OFF Indicator |
|---|---|---|
| Vacant | OFF | OFF |
| Adult is seated. | ON | OFF |
| Child is seated. | OFF | ON |

| Front Passenger Seat Condition | ON Indicator | OFF Indicator |
|---|---|---|
| Child restraint system is set. | OFF | ON |
| Front passenger occupant classification system failure | OFF | ON |






**4. CHECK PASSENGER AIRBAG ON / OFF INDICATOR**

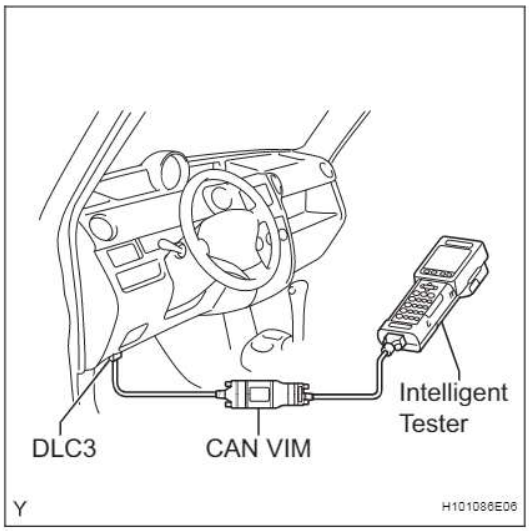
(a) Turn the ignition switch ON.

(b) Check that the passenger airbag ON / OFF indicator ("ON" and "OFF") comes on for approximately 4 seconds, then goes off for approximately 2 seconds.
HINT:
Refer to the table in the previous step regarding the passenger airbag ON / OFF indicator when the ignition switch is ON and approximately 6 seconds have elapsed.

# DTC CHECK / CLEAR

**1. CHECK DTC**

HINT:
When DTC B1150/23 is detected as a result of troubleshooting for the airbag system, perform troubleshooting for the occupant classification system.




(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch ON.
(c) Read the DTC by following the prompts on the tester screen.
HINT:
Refer to the intelligent tester operator's manual for further details.

**2. CLEAR DTC**

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch ON.
(c) Erase the DTC by following the directions on the tester screen.
HINT:
Refer to the intelligent tester operator's manual for further details.

RS

# DATA LIST / ACTIVE TEST

1. **READ DATA LIST**

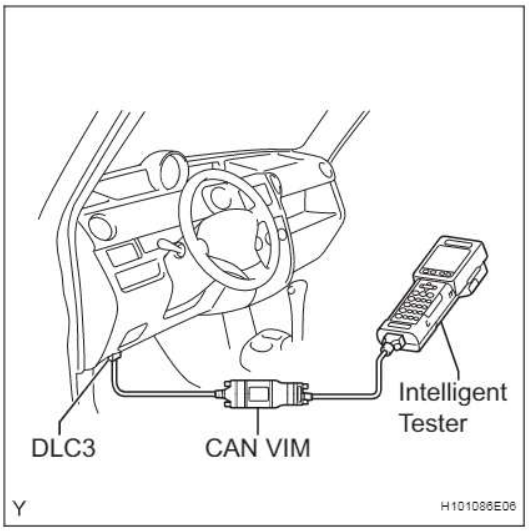
HINT:

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

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

(b) Turn the ignition switch ON and press the intelligent tester main switch on.

(c) Read the DATA LIST by following the directions on the tester screen.




**Occupant classification ECU:**

| Item | Measurement Item/ Range (Display) | Normal Condition | Diagnostic Note |
|---|---|---|---|
| IG SW | Ignition switch condition/ ON or OFF | ON: Ignition switch ON<br>OFF: Ignition switch OFF | - |
| P BUCKLE SW | Buckle switch (Passenger side)/ UNSET, SET or NG | UNSET: Unfasten the passenger side seat belt<br>SET: Fasten the passenger side seat belt<br>NG: Passenger side seat belt has trouble | - |
| PASSENGER CLASS | Passenger classification/ AF05, AM50, CHILD, CRS, OFF | AF05: Adult (36 to 54 kg (79.37 to 119.05 lb)) is seated<br>AM50: Adult more than 54 kg (119.05 lb) is seated<br>CHILD: Child (less than 36 kg (79.37 lb)) is seated<br>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<br>OFF: Vacant | - |
| SENS RANGE INF | Sensor range information/ OK or NG | OK: The value of a sensor is within the range<br>NG: The value of a sensor is over the range | - |
| FL SENS RANGE | Front left sensor range information/ OK, Min. or Max. | OK: Sensor range is -17 to 27 kg (-37.48 to 59.52 lb)<br>Min.: Less than -17 kg (-37.48 lb)<br>Max.: More than 27 kg (59.52 lb) | - |
| FR SENS RANGE | Front right sensor range information/ OK, Min. or Max. | OK: Sensor range is -17 to 27 kg (-37.48 to 59.52 lb)<br>Min.: Less than -17 kg (-37.48 lb)<br>Max.: More than 27 kg (59.52 lb) | - |

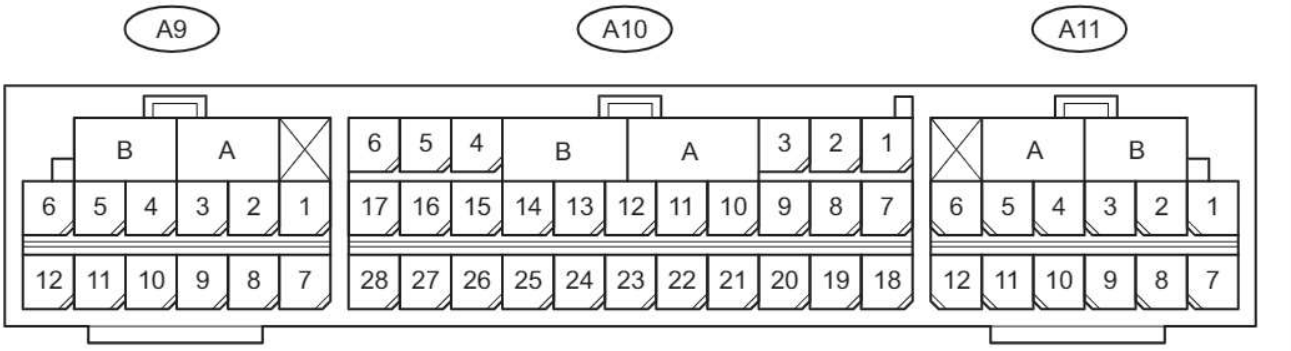
| Item | Measurement Item/ Range (Display) | Normal Condition | Diagnostic Note |
|---|---|---|---|
| RL SENS RANGE | Rear left sensor range information/ OK, Min. or Max. | OK: Sensor range is -17 to 37 kg (-37.48 to 81.57 lb)<br>Min.: Less than -17 kg (-37.48 lb)<br>Max.: More than 37 kg (81.57 lb)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

# TERMINALS OF ECU

(2005/07-2005/12)

## 1. CENTER AIRBAG SENSOR ASSEMBLY

RS




| Terminal No. | Terminal Symbol | Destination |
|---|---|---|
| A | - | (Electrical connector check mechanism) |
| B | - | (Electrical connector check mechanism) |
| A10-3 | LA | Combination meter assembly (SRS warning light) |
| A10-5 | IG2 | AM2 fuse |
| A10-7 | P2- | Front passenger airbag assembly (front passenger side squib, 2nd step) |
| A10-8 | P2+ | |
| A10-9 | +SR | Front airbag sensor RH |
| A10-10 | P+ | Front passenger airbag assembly (front passenger side squib) |
| A10-11 | P- | |
| A10-12 | SIL | DLC3 |
| A10-13 | D- | Steering pad (driver side squib) |
| A10-14 | D+ | |
| A10-15 | +SL | Front airbag sensor LH |
| A10-16 | D2+ | Steering pad (driver side squib, 2nd step) |
| A10-17 | D2- | |
| A10-19 | TC | DLC3 |
| A10-20 | -SR | Front airbag sensor RH |
| A10-23 | GSW2 | ECM |
| A10-26 | -SL | Front airbag sensor LH |
| A10-27 | E1 | Ground |
| A10-28 | E2 | |
| A9-1 | PL- | Front seat outer belt assembly LH (Squib) |
| A9-2 | PL+ | |
| A9-3 | LSP+ | Seat position sensor |
| A9-7 | LBE- | Front seat inner belt assembly |
| A9-8 | LSP- | Seat position sensor |
| A9-11 | LBE+ | Font seat inner belt assembly |
| A11-5 | PR+ | Front seat outer belt assembly RH (Squib) |
| A11-6 | PR- | |

| Terminal No. | Terminal Symbol | Destination |
|---|---|---|
| A11-8 | RBE+ | Front seat inner belt assembly RH |
| A11-12 | RBE- | |

# DIAGNOSTIC TROUBLE CODE CHART

HINT:
If a trouble code is displayed during the DTC check, inspect the trouble areas listed for that code. For details of the code, refer to the "See page" below.

RS

| DTC No. | Detection Item | Trouble Area | See page |
|---|---|---|---|
| B1771 | Passenger Side Buckle Switch Circuit Malfunction | - Front seat inner belt assembly (Buckle switch RH)<br>- Occupant classification ECU<br>- Front seat wire RH | RS-322 |
| B1780 | Front Occupant Classification Sensor LH Circuit Malfunction | - Front seat assembly RH (Front occupant classification sensor LH)<br>- Occupant classification ECU<br>- Front seat wire RH | RS-328 |
| B1781 | Front Occupant Classification Sensor RH Circuit Malfunction | - Front seat assembly RH (Front occupant classification sensor RH)<br>- Occupant classification ECU<br>- Front seat wire RH | RS-336 |
| B1782 | Rear Occupant Classification Sensor LH Circuit Malfunction | - Front seat assembly RH (Rear occupant classification sensor LH)<br>- Occupant classification ECU<br>- Front seat wire RH | RS-343 |
| B1783 | Rear Occupant Classification Sensor RH Circuit Malfunction | - Front seat assembly RH (Front occupant classification sensor RH)<br>- Occupant classification ECU<br>- Front seat wire RH | RS-350 |
| B1785 | Front Occupant Classification Sensor LH Collision Detection | - Front seat assembly RH (Front occupant classification sensor LH)<br>- Occupant classification ECU | RS-358 |
| B1786 | Front Occupant Classification Sensor RH Collision Detection | - Front seat assembly RH (Front occupant classification sensor RH)<br>- Occupant classification ECU | RS-362 |
| B1787 | Rear Occupant Classification Sensor LH Collision Detection | - Front seat assembly RH (Rear occupant classification sensor LH)<br>- Occupant classification ECU | RS-366 |
| B1788 | Rear Occupant Classification Sensor RH Collision Detection | - Front seat assembly RH (Rear occupant classification sensor RH)<br>- Occupant classification ECU | RS-370 |
| B1790 | Center Airbag Sensor Assembly Communication Circuit Malfunction | - Occupant classification ECU<br>- Center airbag sensor assembly<br>- Floor wire<br>- Front seat wire RH | RS-374 |
| B1793 | Occupant Classification Sensor Power Supply Circuit Malfunction | - Front seat assembly RH (Occupant classification sensors)<br>- Occupant classification ECU<br>- Front seat wire RH | RS-380 |
| B1794 | Open in Occupant Classification ECU Battery Positive Line | - Battery<br>- ECU-B fuse<br>- Floor wire<br>- Front seat wire RH<br>- Occupant classification ECU | RS-387 |

| DTC No. | Detection Item | Trouble Area | See page |
|---|---|---|---|
| B1795 | Occupant Classification ECU Malfunction | - Battery<br>- ECU-B fuse<br>- Floor wire<br>- Front seat wire RH<br>- Front seat inner belt assembly RH (Buckle switch RH)<br>- Occupant classification ECU | RS-391 |
| B1796 | Sleep Operation Failure of Occupant Classification ECU | - Occupant classification ECU | RS-394 |

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

## DESCRIPTION

RS

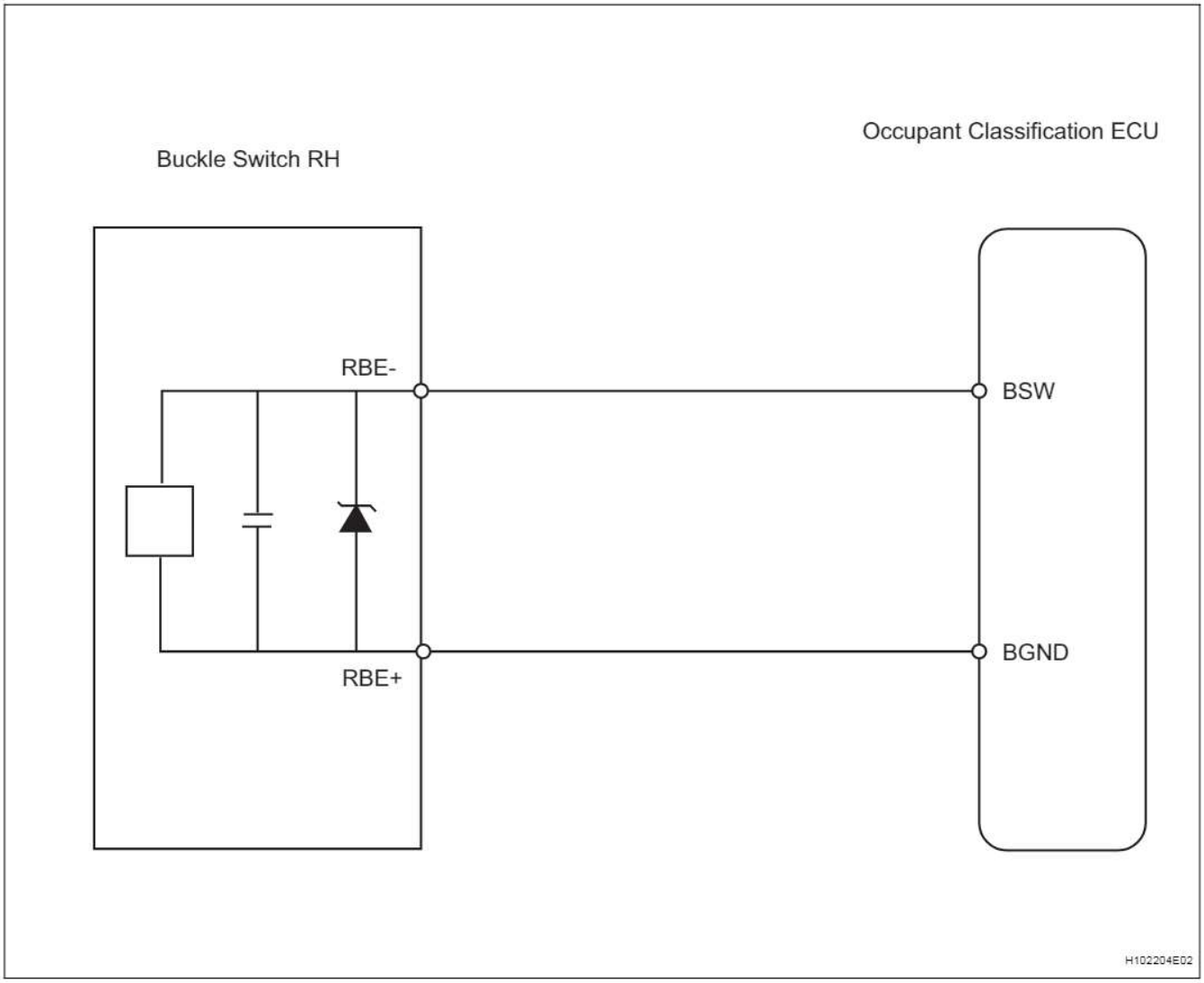
The passenger side buckle switch circuit consists of the occupant classification ECU and the front seat inner belt RH.

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

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1771 | When one of following conditions is met:<br>• 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.<br>• Passenger side buckle switch malfunction<br>• Occupant classification ECU malfunction | • Front seat inner belt assembly RH (Buckle switch RH)<br>• Occupant classification ECU<br>• Front seat wire RH |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not 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 FOR DTC**

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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 CONNECTOR**

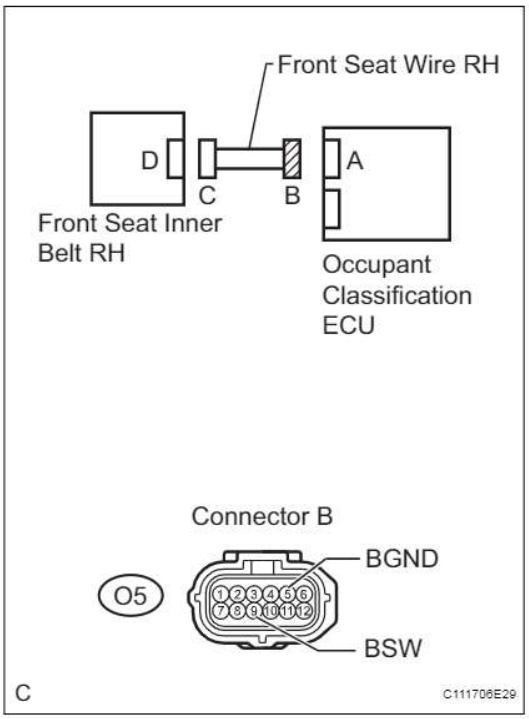
(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Check that the connectors are properly connected to the occupant classification ECU and the front seat inner belt RH.
**OK:**
**The connectors are properly connected.**

NG → **CONNECT CONNECTOR**

OK

RS

## 3 CHECK FRONT SEAT WIRE RH (SHORT TO B+)




(a) Disconnect the connectors from the occupant classification ECU and the front seat inner belt RH.
(b) Connect the cable to the negative (-) battery terminal.
(c) Turn the ignition switch ON.
(d) Measure the voltage of the wire harness side connector.

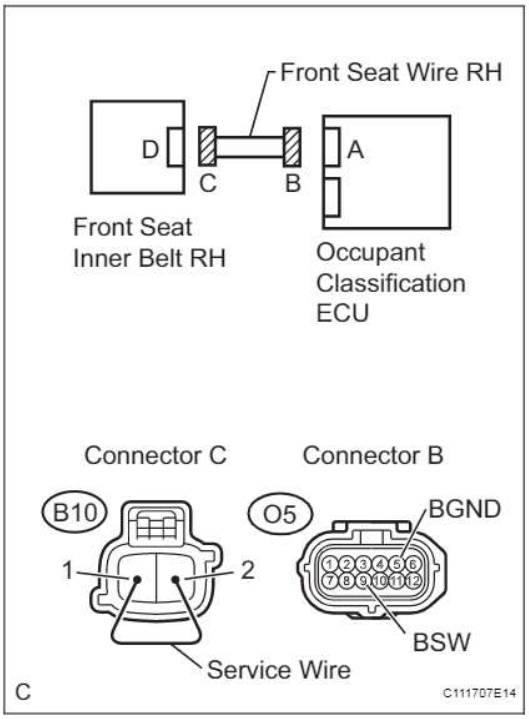
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| O5-9 (BSW) - Body ground | Below 1 V |
| O5-5 (BGND) - Body ground | |

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

OK

## 4 CHECK FRONT SEAT WIRE RH (OPEN)




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Using a service wire, connect B10-2 and B10-1 of connector "C".

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

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

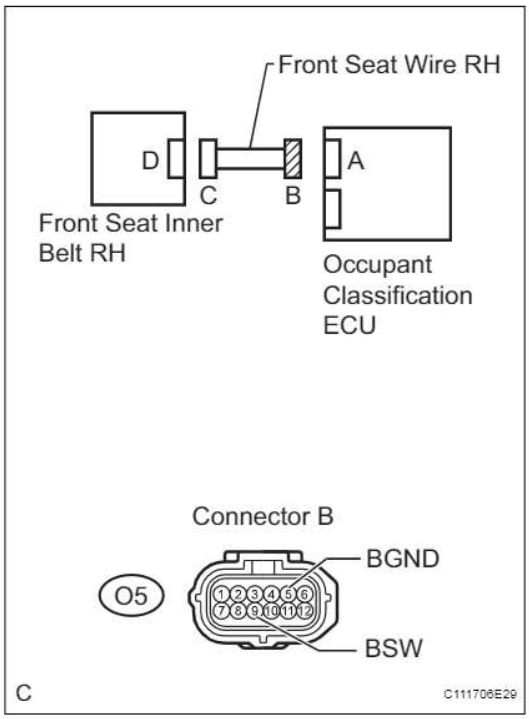
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O5-9 (BSW) - O5-5 (BGND) | Below 1 Ω |

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

OK

## 5 CHECK FRONT SEAT WIRE RH (SHORT)




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

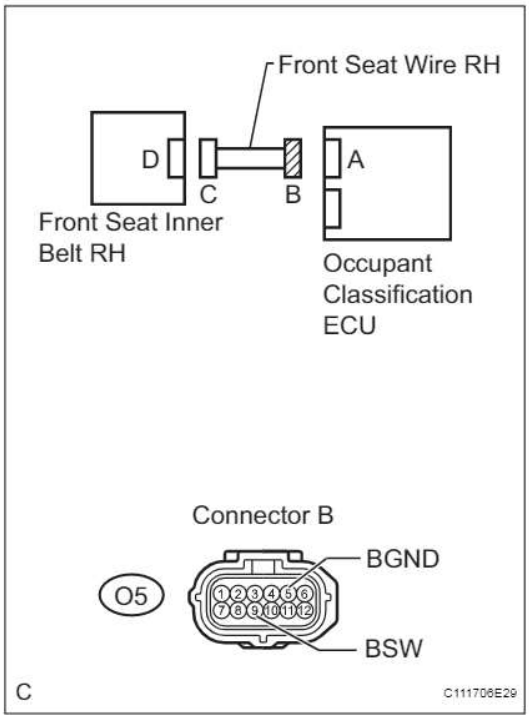
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O5-9 (BSW) - O5-5 (BGND) | 1 MΩ or higher |

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

OK

## 6 CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)




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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O5-9 (BSW) - Body ground | 1 MΩ or higher |
| O5-5 (BGND) - Body ground | |

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

OK

RS

| 7 | CHECK FOR DTC |
|---|---|

(a) Connect the connectors to the occupant classification ECU and the front seat inner belt RH.
(b) Connect the cable to the negative (-) battery terminal.
(c) Turn the ignition switch ON.
(d) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(e) Turn the ignition switch OFF.
(f) Turn the ignition switch ON.
(g) Check the DTCs (see page RS-318).
**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 cable from the negative (-) battery terminal.
(c) Replace the front seat inner belt RH (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.
(d) Connect the cable to the negative (-) battery terminal.
(e) Turn the ignition switch ON.
(f) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(g) Turn the ignition switch OFF.
(h) Turn the ignition switch ON.
(i) Check the DTCs (see page RS-318).
**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 cable from the negative (-) battery terminal.
(c) Replace the occupant classification ECU (see page RS-309).

NEXT

| 10 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
HINT:
"COMPLETED" is displayed on the tester when the calibration is completed.

NEXT

| 11 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

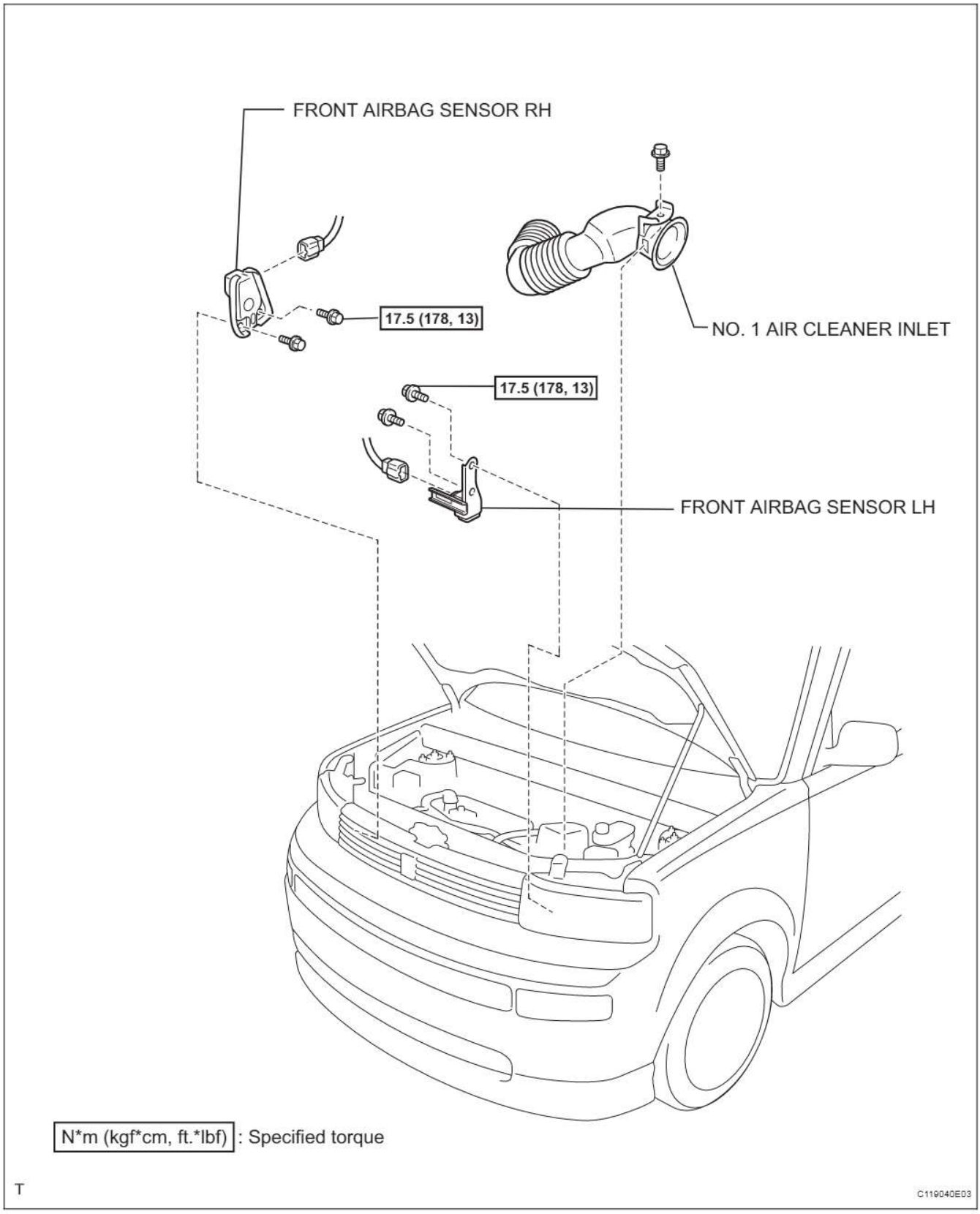
NEXT

END

# FRONT AIRBAG SENSOR

## COMPONENTS





## ON-VEHICLE INSPECTION

1. **CHECK FRONT AIRBAG SENSOR (VEHICLE NOT INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-51).

2. **CHECK FRONT AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-51).
   (b) If the front fender of the vehicle or its periphery are damaged, perform a visual check:
   - Check for cracks, dents or chips in the case.
   - Check for cracks, dents, chips and scratches in the connector.
   - Check for peeling of the label or damage on the serial number.

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

3. **CHECK FRONT AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG DEPLOYED)**
   (a) Replace the front airbag sensor.
   **CAUTION:**
   **For removal and installation of the front airbag sensor, be sure to follow the correct procedures.**
   HINT:
   If the airbags have deployed, replace the front airbag sensor on the side in which the collision occurred. Replace both if necessary.

| DTC | B1780 | Front Occupant Classification Sensor LH Circuit Malfunction |
|---|---|---|

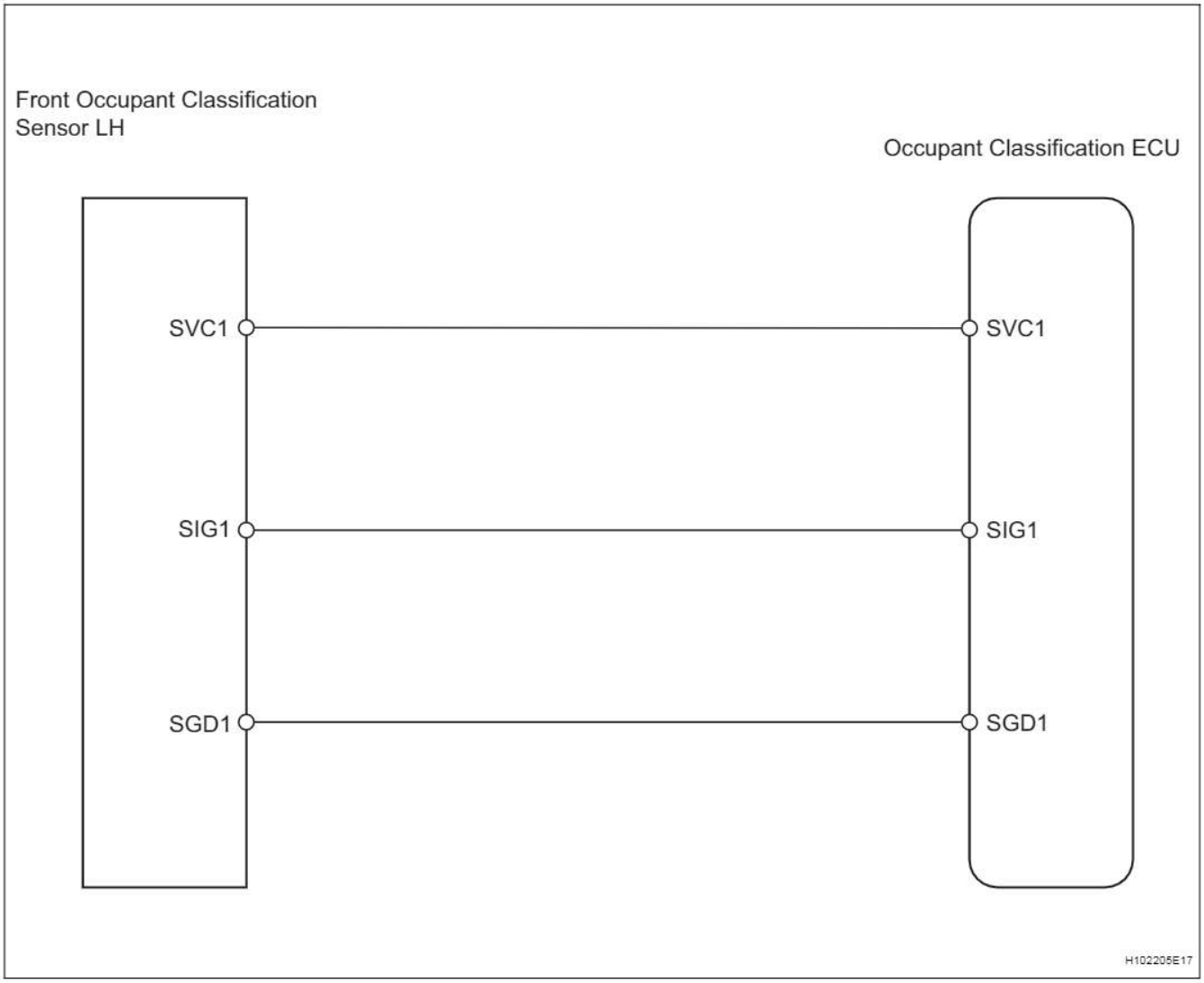
## DESCRIPTION

RS

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1780 | When one of following conditions is met:<br>• 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.<br>• Front occupant classification sensor LH malfunction<br>• Occupant classification ECU malfunction | • Front seat assembly RH (Front occupant classification sensor LH)<br>• Occupant classification ECU<br>• Front seat wire RH |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not 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 FOR DTC**

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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 CONNECTOR**

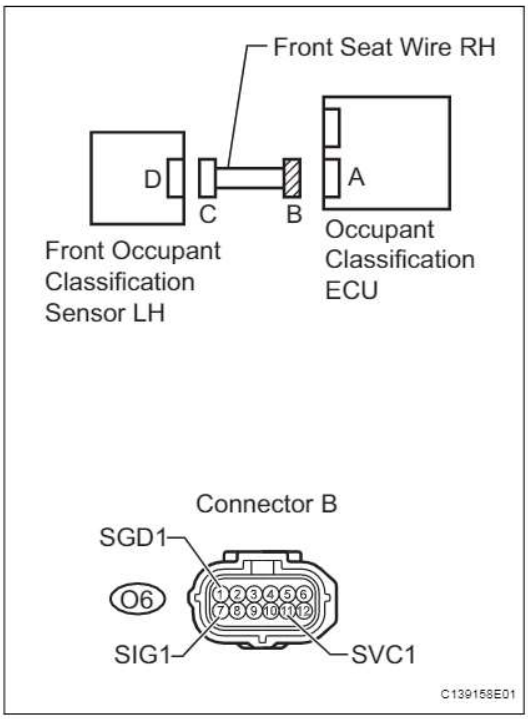
(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Check that the connectors are properly connected to the occupant classification ECU and the front occupant classification sensor LH.
**OK:**
**The connectors are properly connected.**

NG → **CONNECT CONNECTOR**

OK

RS

| 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 cable to the negative (-) battery terminal.
(c) Turn the ignition switch ON.
(d) Measure the voltage of the wire harness side connector.

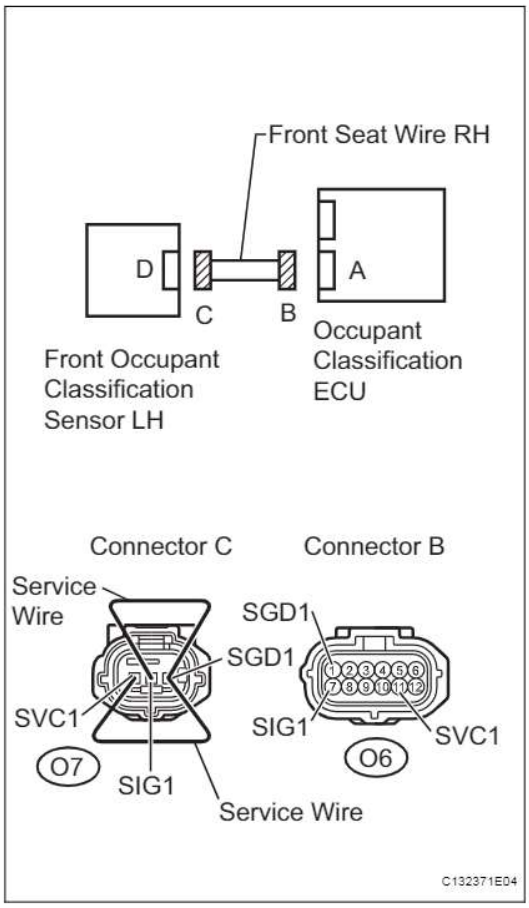
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| O6-1 (SGD1) - Body ground | Below 1 V |
| O6-7 (SIG1) - Body ground | |
| O6-11 (SVC1) - Body ground | |

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

OK

| 4 | CHECK FRONT SEAT WIRE RH (OPEN) |
|---|---|




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Using a service wire, connect O7-1 (SVC1) and O7-3 (SGD1), and connect O7-2 (SIG1) and O7-3 (SGD1) of connector "C".
**NOTICE:**
**Do not forcibly insert a service wire into the terminals of the connector when connecting.**
(d) Measure the resistance of the wire harness side connector.
**Standard resistance**

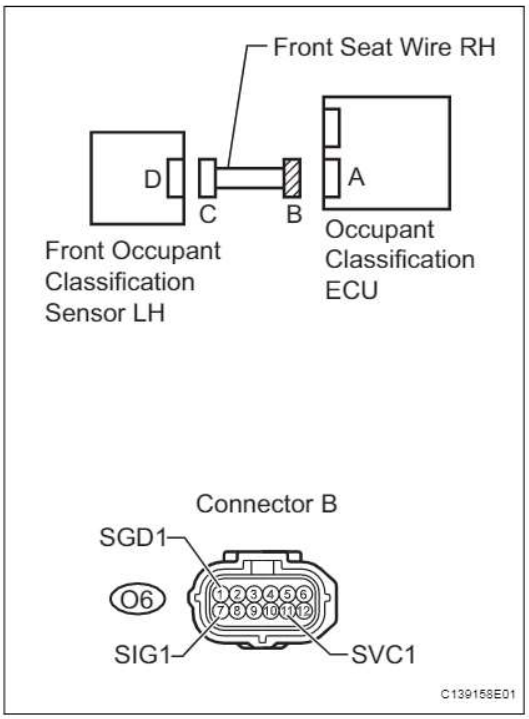
| Tester Connection | Specified Condition |
|---|---|
| O6-7 (SIG1) - O6-1 (SGD1) | Below 1 Ω |
| O6-11 (SVC1) - O6-1 (SGD1) | |

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

OK

RS

| 5 | CHECK FRONT SEAT WIRE RH (SHORT) |
|---|---|




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

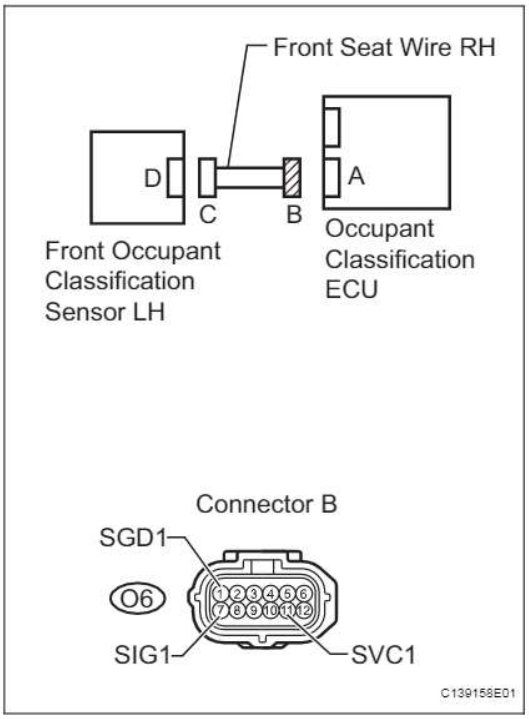
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O6-7 (SIG1) - O6-1 (SGD1) | 1 MΩ or higher |
| O6-11 (SVC1) - O6-1 (SGD1) | |
| O6-7 (SIG1) - O6-11 (SVC1) | |

NG → REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

| 6 | CHECK FRONT SEAT WIRE RH (SHORT TO GROUND) |
|---|---|




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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O6-1 (SGD1) - Body ground | 1 MΩ or higher |
| O6-7 (SIG1) - Body ground | |
| O6-11 (SVC1) - Body ground | |

NG → REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

| 7 | CHECK FOR DTC |
|---|---|

(a) Connect the connectors to the occupant classification ECU and the front occupant classification sensor LH.
(b) Connect the cable to the negative (-) battery terminal.
(c) Turn the ignition switch ON.
(d) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(e) Turn the ignition switch OFF.
(f) Turn the ignition switch ON.
(g) Check the DTCs (see page RS-318).
**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

| 8 | REPLACE OCCUPANT CLASSIFICATION ECU |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Replace the occupant classification ECU (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| 9 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
**OK:**
**"COMPLETED" is displayed.**

| NG | Go to step 12 |
|---|---|

OK

| 10 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NG → **Go to step 12**

OK

| 11 | CHECK FOR DTC |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Turn the ignition switch ON.
(c) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(d) Turn the ignition switch OFF.
(e) Turn the ignition switch ON.
(f) Check the DTCs (see page RS-318).
**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 cable from the negative (-) battery terminal.
(c) Replace the front seat RH (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| 13 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).

**OK:**
**"COMPLETED" is displayed.**

NEXT

| 14 | PERFORM SENSITIVITY CHECK |
|---|---|

RS

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NEXT

END

| DTC | B1781 | Front Occupant Classification Sensor RH Circuit Malfunction |
|---|---|---|

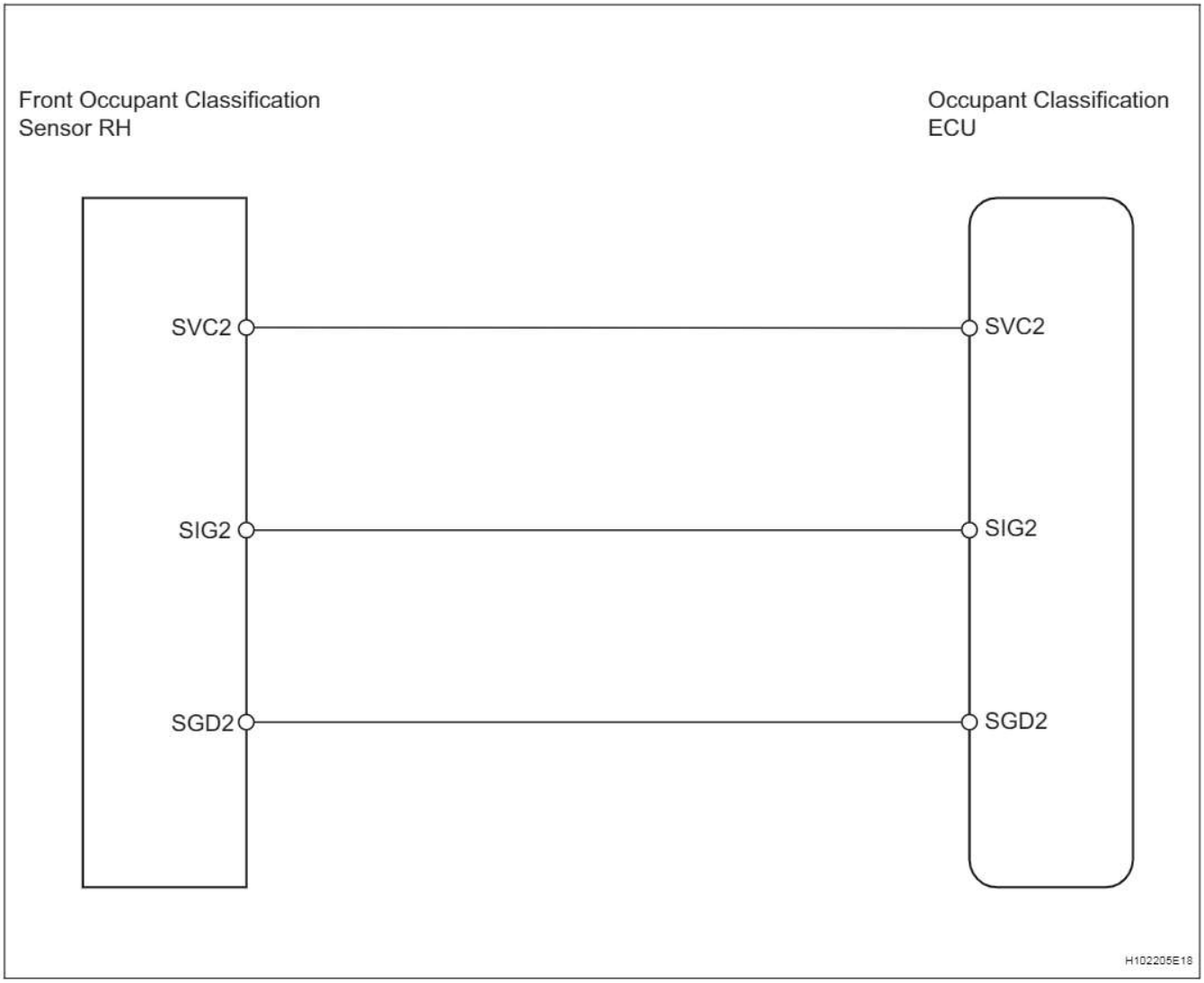
## DESCRIPTION

RS

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1781 | When one of following conditions is met:<br>• 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.<br>• Front occupant classification sensor RH malfunction<br>• Occupant classification ECU malfunction | • Front seat assembly RH (Front occupant classification sensor RH)<br>• Occupant classification ECU<br>• Front seat wire RH |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not 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 FOR DTC**

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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 CONNECTOR**

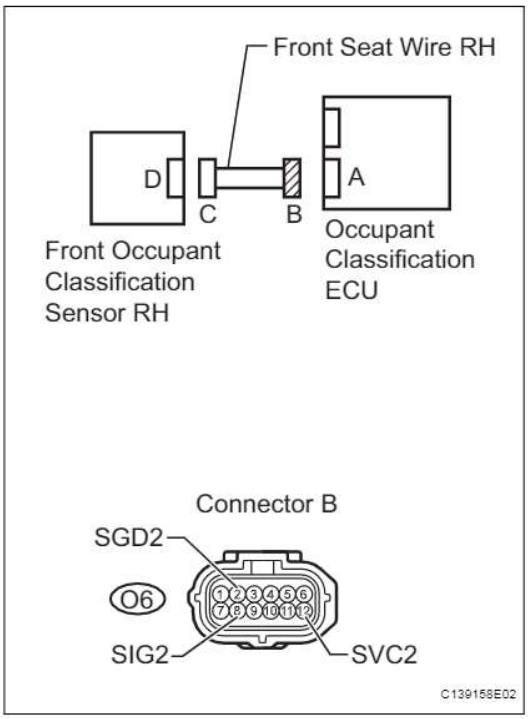
(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Check that the connectors are properly connected to the occupant classification ECU and the front occupant classification sensor RH.
**OK:**
**The connectors are properly connected.**

NG → **CONNECT CONNECTOR**

OK

RS

## 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 cable to the negative (-) battery terminal.
(c) Turn the ignition switch ON.
(d) Measure the voltage of the wire harness side connector.

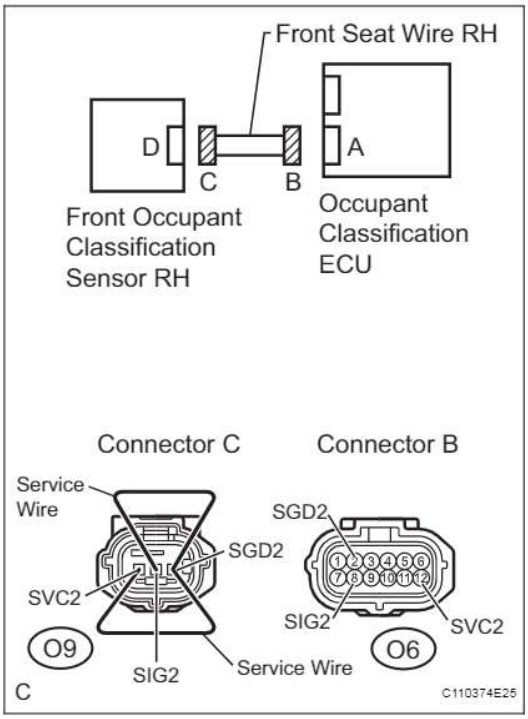
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| O6-2 (SGD2) - Body ground | Below 1 V |
| O6-8 (SIG2) - Body ground | |
| O6-12 (SVC2) - Body ground | |

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

OK

## 4 CHECK FRONT SEAT WIRE RH (OPEN)




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Using a service wire, connect O9-1 (SVC2) and O9-3 (SGD2), and connect O9-2 (SIG2) and O9-3 (SGD2) of connector "C".

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

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

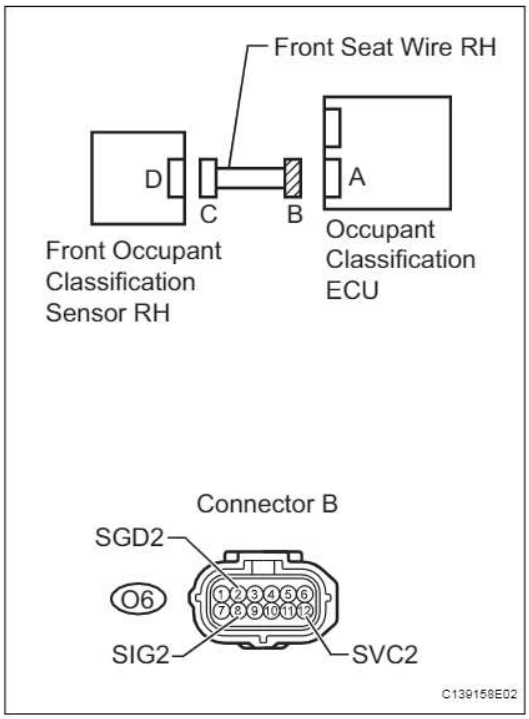
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O6-8 (SIG2) - O6-2 (SGD2) | Below 1 Ω |
| O6-12 (SVC2) - O6-2 (SGD2) | |

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

OK

## 5 CHECK FRONT SEAT WIRE RH (SHORT)




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

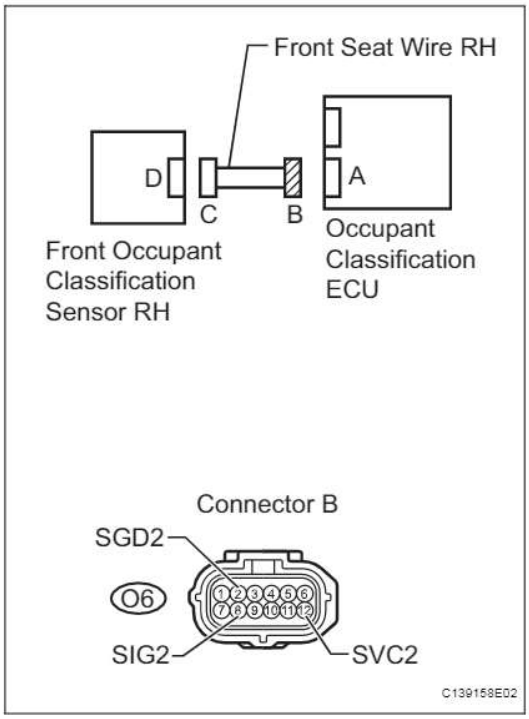
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O6-8 (SIG2) - O6-2 (SGD2) | 1 MΩ or higher |
| O6-12 (SVC2) - O6-2 (SGD2) | |
| O6-8 (SIG2) - O6-12 (SVC2) | |

NG → REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

## 6 CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)




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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O6-2 (SGD2) - Body ground | 1 MΩ or higher |
| O6-8 (SIG2) - Body ground | |
| O6-12 (SVC2) - Body ground | |

NG → REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

RS

| 7 | CHECK FOR DTC |
|---|---|

(a) Connect the connectors to the occupant classification ECU and the front occupant classification sensor RH.
(b) Connect the cable to the negative (-) battery terminal.
(c) Turn the ignition switch ON.
(d) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(e) Turn the ignition switch OFF.
(f) Turn the ignition switch ON.
(g) Check the DTCs (see page RS-318).
**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

| 8 | REPLACE OCCUPANT CLASSIFICATION ECU |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Replace the occupant classification ECU (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| 9 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
**OK:**
**"COMPLETED" is displayed.**

| NG | Go to step 12 |
|---|---|

OK

| 10 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NG → **Go to step 12**

OK

| 11 | CHECK FOR DTC |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Turn the ignition switch ON.
(c) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(d) Turn the ignition switch OFF.
(e) Turn the ignition switch ON.
(f) Check the DTCs (see page RS-318).
**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 → **END**

NG

| 12 | REPLACE FRONT SEAT ASSEMBLY RH |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Replace the front seat RH (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| 13 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).

**OK:**
**"COMPLETED" is displayed.**

NEXT

RS

| 14 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NEXT

END

| DTC | B1782 | Rear Occupant Classification Sensor LH Circuit Malfunction |
|---|---|---|

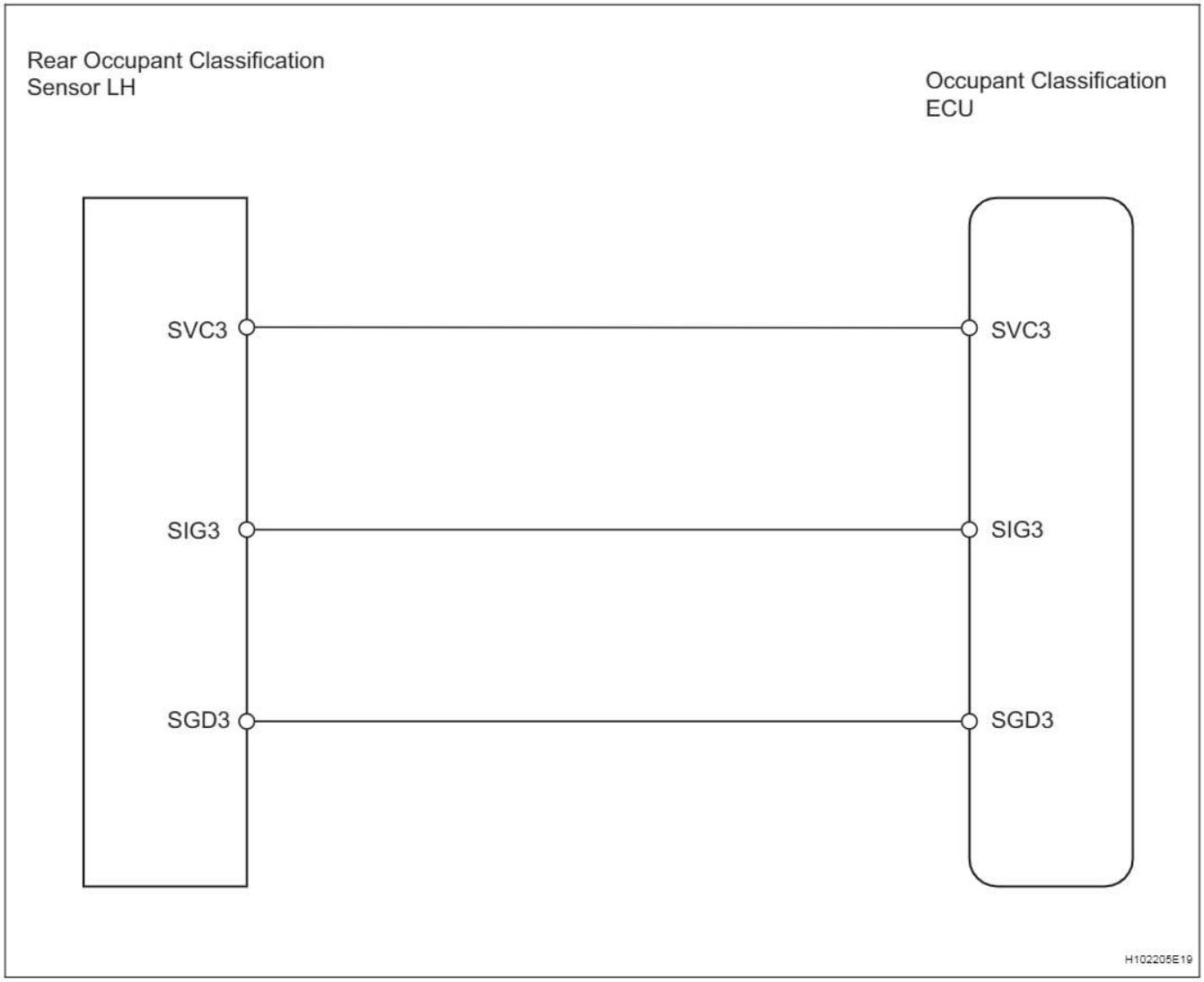
## DESCRIPTION

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 Detection Condition | Trouble Area |
|---|---|---|
| B1782 | When one of following conditions is met:<br>• 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.<br>• Rear occupant classification sensor LH malfunction<br>• Occupant classification ECU malfunction | • Front seat assembly RH (Rear occupant classification sensor LH)<br>• Occupant classification ECU<br>• Front seat wire RH |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not 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.

RS

| 1 | CHECK FOR DTC |
|---|---|

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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 CONNECTOR |
|---|---|

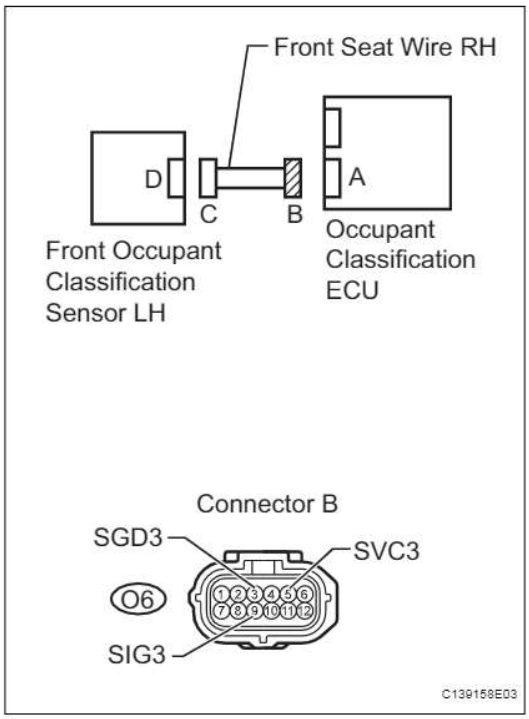
(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Check that the connectors are properly connected to the occupant classification ECU and the rear occupant classification sensor LH.
**OK:**
**The connectors are connected.**

NG → CONNECT CONNECTOR

OK

RS

## 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 cable to the negative (-) battery terminal.
(c) Turn the ignition switch ON.
(d) Measure the voltage of the wire harness side connector.

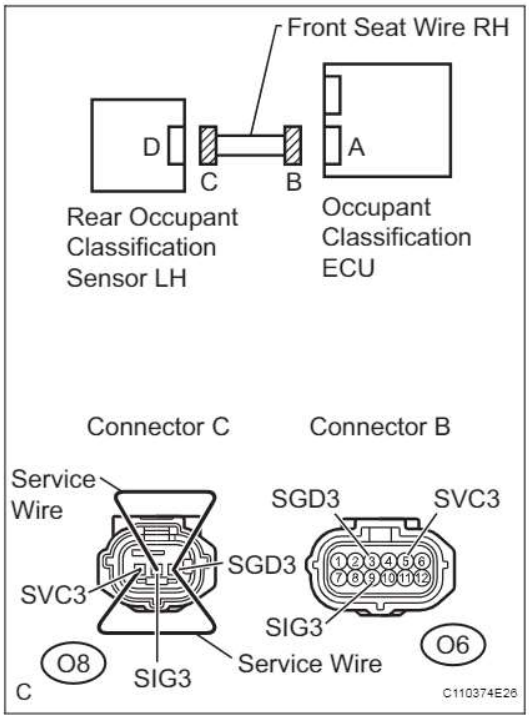
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| O6-3 (SGD3) - Body ground | Below 1 V |
| O6-5 (SVC3) - Body ground | |
| O6-9 (SIG3) - Body ground | |

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

OK

## 4 CHECK FRONT SEAT WIRE RH (OPEN)




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Using a service wire, connect O8-1 (SVC3) and O8-3 (SGD3), and connect O8-2 (SIG3) and O8-3 (SGD3) of connector "C".

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

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

**Standard resistance**

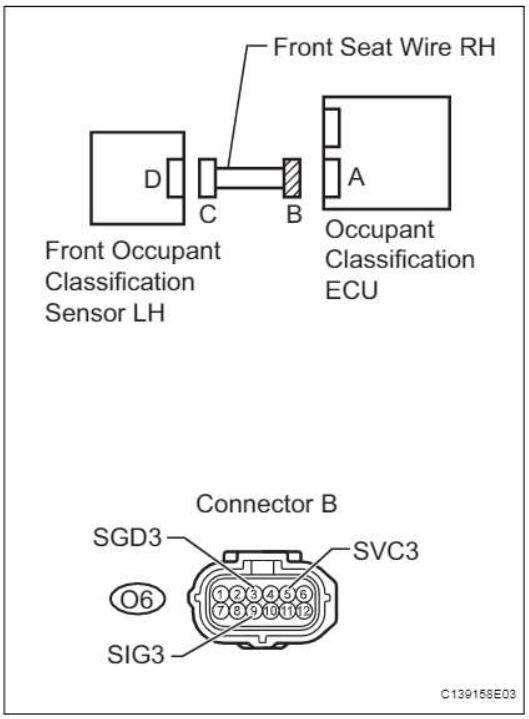
| Tester Connection | Specified Condition |
|---|---|
| O6-5 (SVC3) - O6-3 (SGD3) | Below 1 Ω |
| O6-9 (SIG3) - O6-3 (SGD3) | |

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

OK

RS

| 5 | CHECK FRONT SEAT WIRE RH (SHORT) |
|---|---|




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

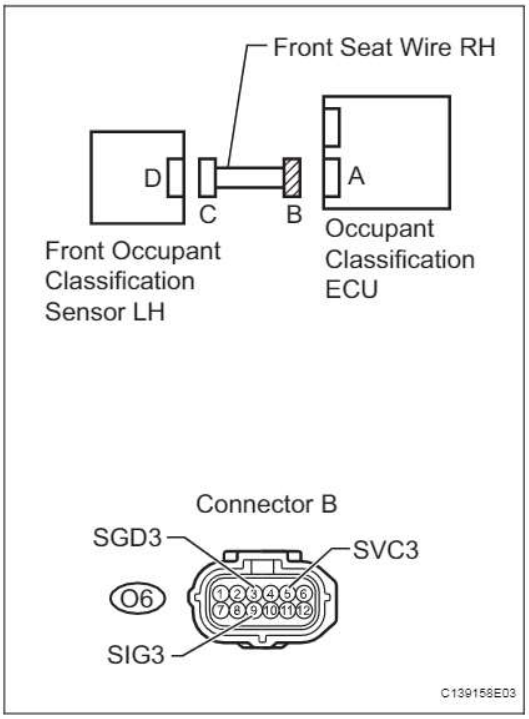
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O6-5 (SVC3) - O6-3 (SGD3) | 1 MΩ or higher |
| O6-9 (SIG3) - O6-3 (SGD3) | |
| O6-5 (SVC3) - O6-9 (SIG3) | |

NG → REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

| 6 | CHECK FRONT SEAT WIRE RH (SHORT TO GROUND) |
|---|---|




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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O6-3 (SGD3) - Body ground | 1 MΩ or higher |
| O6-5 (SVC3) - Body ground | |
| O6-9 (SIG3) - Body ground | |

NG → REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

| 7 | CHECK FOR DTC |
|---|---|

(a) Connect the connectors to the occupant classification ECU and the rear occupant classification sensor LH.
(b) Connect the cable to the negative (-) battery terminal.
(c) Turn the ignition switch ON.
(d) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(e) Turn the ignition switch OFF.
(f) Turn the ignition switch ON.
(g) Check the DTCs (see page RS-318).
**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

| 8 | REPLACE OCCUPANT CLASSIFICATION ECU |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Replace the occupant classification ECU (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| 9 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
**OK:**
**"COMPLETED" is displayed.**

| NG | Go to step 12 |
|---|---|

OK

| 10 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NG → **Go to step 12**

OK

| 11 | CHECK FOR DTC |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Turn the ignition switch ON.
(c) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(d) Turn the ignition switch OFF.
(e) Turn the ignition switch ON.
(f) Check the DTCs (see page RS-318).
**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 → **END**

NG

| 12 | REPLACE FRONT SEAT ASSEMBLY RH |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Replace the front seat RH (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| 13 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).

**OK:**
**"COMPLETED" is displayed.**

NEXT

| 14 | PERFORM SENSITIVITY CHECK |
|---|---|

RS

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NEXT

END

| DTC | B1783 | Rear Occupant Classification Sensor RH Circuit Malfunction |
|---|---|---|

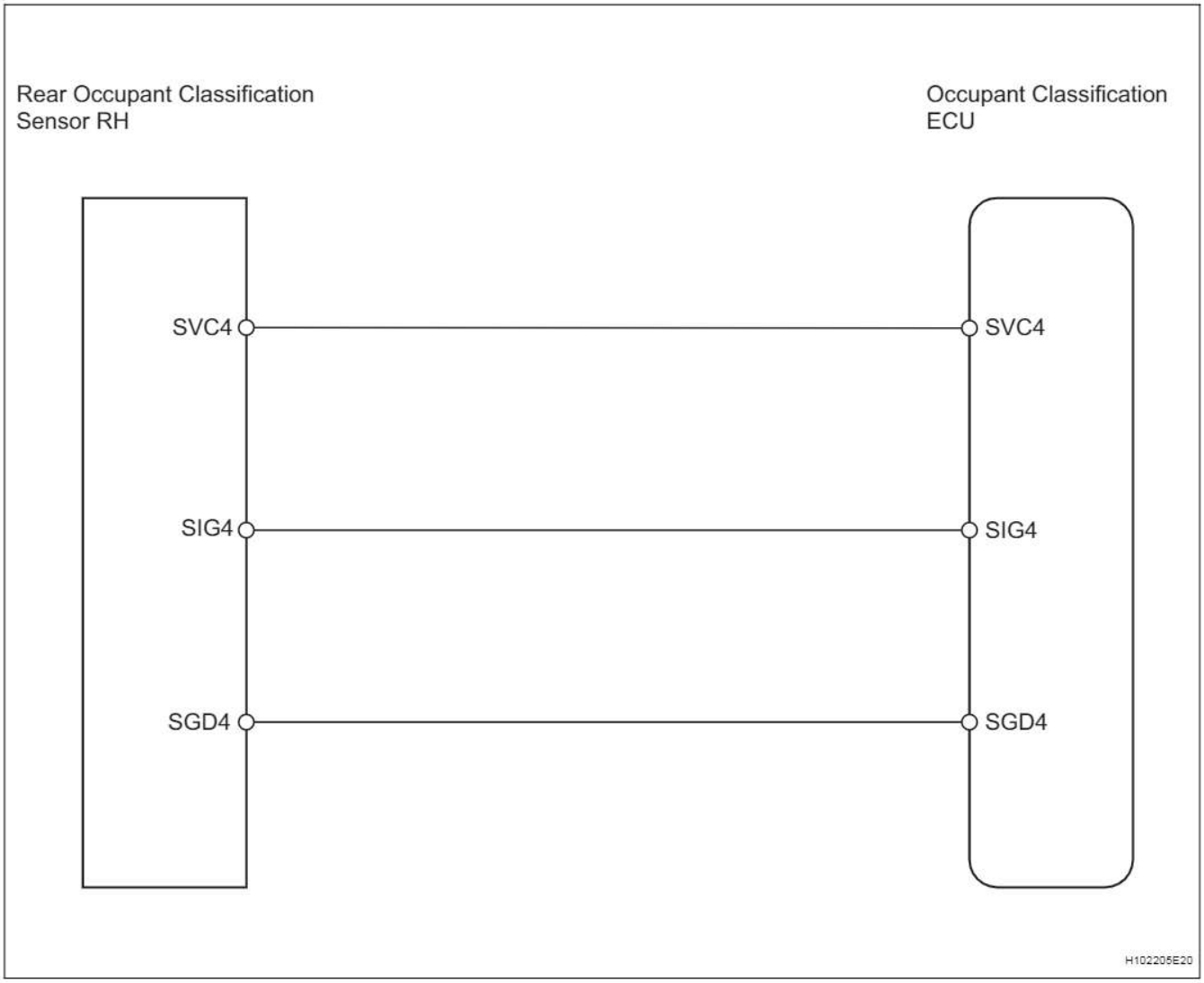
## DESCRIPTION

RS

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1783 | When one of following conditions is met:<br>• 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.<br>• Rear occupant classification sensor RH malfunction<br>• Occupant classification ECU malfunction | • Front seat assembly RH (Rear occupant classification sensor RH)<br>• Occupant classification ECU<br>• Front seat wire RH |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not 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 FOR DTC**

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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 CONNECTOR**

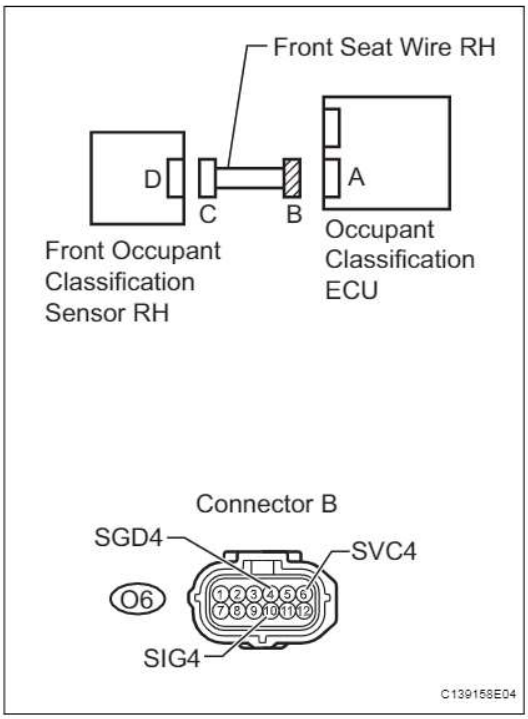
(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Check that the connectors are properly connected to the occupant classification ECU and the rear occupant classification sensor RH.
**OK:**
**The connectors are properly connected.**

NG → **CONNECT CONNECTOR**

OK

RS

| 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 cable to the negative (-) battery terminal.
(c) Turn the ignition switch ON.
(d) Measure the voltage of the wire harness side connector.

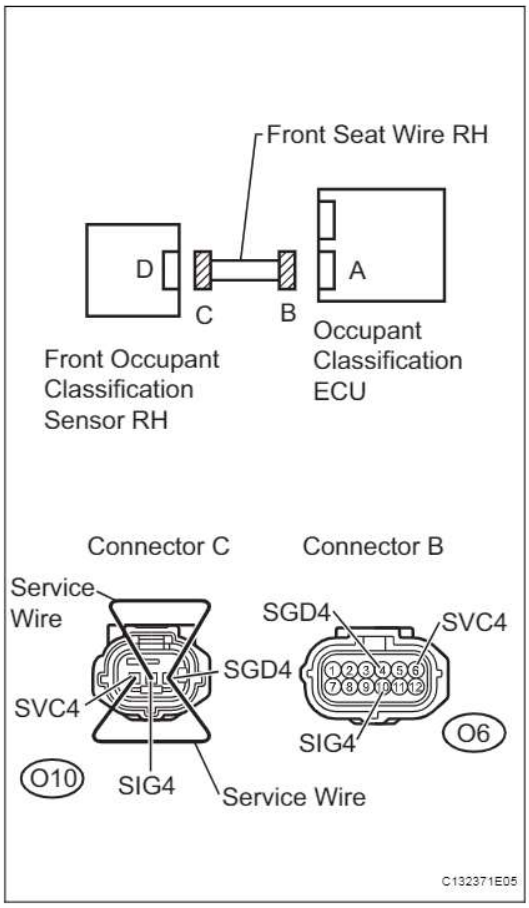
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| O6-4 (SGD4) -Body ground | Below 1 V |
| O6-6 (SVC4) - Body ground | |
| O6-10 (SIG4) - Body ground | |

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

OK

| 4 | CHECK FRONT SEAT WIRE RH (OPEN) |
|---|---|




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Using a service wire, connect O10-1 (SVC4) and O10-3 (SGD4), and connect O10-2 (SIG4) and O10-3 (SGD4) of connector "C".
**NOTICE:**
**Do not forcibly insert a service wire into the terminals of the connector when connecting.**
(d) Measure the resistance of the wire harness side connector.
**Standard resistance**

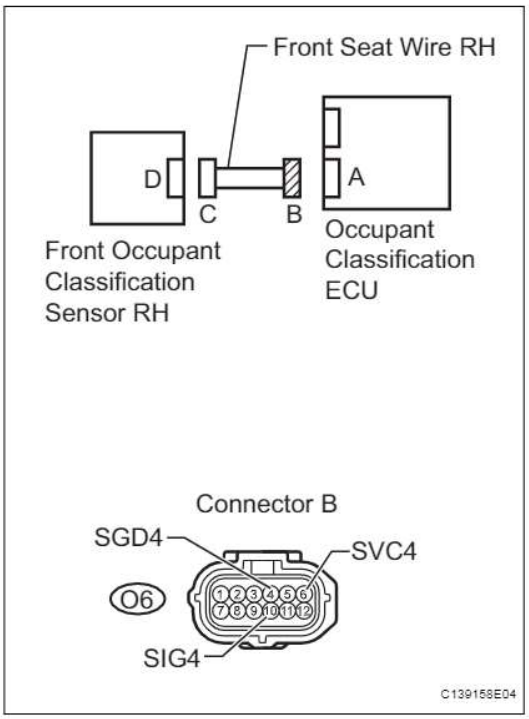
| Tester Connection | Specified Condition |
|---|---|
| O6-6 (SVC4) - O6-4 (SGD4) | Below 1 Ω |
| O6-10 (SIG4) - O6-4 (SGD4) | |

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

OK

RS

## 5 CHECK FRONT SEAT WIRE RH (SHORT)




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

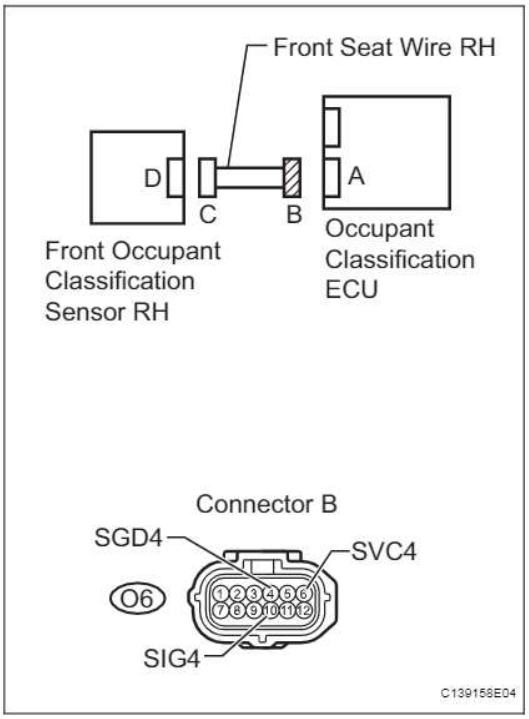
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O6-6 (SVC4) - O6-4 (SGD4) | 1 MΩ or higher |
| O6-10 (SIG4) - O6-4 (SGD4) | |
| O6-6 (SVC4) - O6-10 (SIG4) | |

NG → REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

## 6 CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)




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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O6-4 (SGD4) - Body ground | 1 MΩ or higher |
| O6-6 (SVC4) - Body ground | |
| O6-10 (SIG4) - Body ground | |

NG → REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

| 7 | CHECK FOR DTC |
|---|---|

(a) Connect the connectors to the occupant classification ECU and the rear occupant classification sensor RH.
(b) Connect the cable to the negative (-) battery terminal.
(c) Turn the ignition switch ON.
(d) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(e) Turn the ignition switch OFF.
(f) Turn the ignition switch ON.
(g) Check the DTCs (see page RS-318).
**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 | REPLACE OCCUPANT CLASSIFICATION ECU |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Replace the occupant classification ECU (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| 9 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
**OK:**
**"COMPLETED" is displayed.**

| NG | Go to step 12 |
|---|---|

OK

| 10 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NG → **Go to step 12**

OK

| 11 | CHECK FOR DTC |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Turn the ignition switch ON.
(c) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(d) Turn the ignition switch OFF.
(e) Turn the ignition switch ON.
(f) Check the DTCs (see page RS-318).
**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 → **END**

NG

| 12 | REPLACE FRONT SEAT ASSEMBLY RH |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Replace the front seat RH (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| 13 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).

**OK:**
**"COMPLETED" is displayed.**

NEXT

| 14 | PERFORM SENSITIVITY CHECK |
|---|---|

RS

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NEXT

END

| DTC | B1785 | Front Occupant Classification Sensor LH Collision Detection |
|---|---|---|

## DESCRIPTION

RS

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1785 | When one of following conditions is met:<br>• Front seat RH malfunction<br>• Occupant classification ECU malfunction<br>• Front occupant classification sensor LH detected a large load | • Occupant classification ECU<br>• Front seat assembly RH (Front occupant classification sensor LH) |

## WIRING DIAGRAM

Refer to the DTC B1780 (see page RS-328).

## INSPECTION PROCEDURE

| 1 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch ON.
(c) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
**OK:**
**"COMPLETED" is displayed.**

NG → **Go to step 4**

OK

| 2 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NG → **Go to step 4**

OK

| 3 | CHECK FOR DTC |
|---|---|

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).

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

(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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

| | |
|---|---|
| 4 | REPLACE FRONT SEAT ASSEMBLY RH |

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Replace the front seat RH (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| | |
|---|---|
| 5 | PERFORM ZERO POINT CALIBRATION |

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
**OK:**
**"COMPLETED" is displayed.**

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

OK

| | |
|---|---|
| 6 | PERFORM SENSITIVITY CHECK |

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

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

OK

RS

| 7 | CHECK FOR DTC |
|---|---|

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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 cable from the negative (-) battery terminal.
(c) Replace the occupant classification ECU (see page SE-5).

NEXT

| 9 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
HINT:
"COMPLETED" is displayed on the tester when the calibration is completed.

NEXT

| 10 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NEXT

END

| DTC | B1786 | Front Occupant Classification Sensor RH Collision Detection |
|---|---|---|

## DESCRIPTION

RS

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1786 | When one of following conditions is met:<br>• Front seat RH malfunction<br>• Occupant classification ECU malfunction<br>• Front occupant classification sensor RH detected a large load | • Occupant classification ECU<br>• Front seat assembly RH (Front occupant classification sensor RH) |

## WIRING DIAGRAM

Refer to the DTC B1781 (see page RS-336).

## INSPECTION PROCEDURE

| 1 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch ON.
(c) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
**OK:**
**"COMPLETED" is displayed.**

NG → **Go to step 4**

OK

| 2 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NG → **Go to step 4**

OK

| 3 | CHECK FOR DTC |
|---|---|

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).

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

(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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 cable from the negative (-) battery terminal.
(c) Replace the front seat RH (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| | |
|---|---|
| 5 | PERFORM ZERO POINT CALIBRATION |

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
**OK:**
**"COMPLETED" is displayed.**

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

OK

| | |
|---|---|
| 6 | PERFORM SENSITIVITY CHECK |

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

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

OK

| 7 | CHECK FOR DTC |
|---|---|

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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 cable from the negative (-) battery terminal.
(c) Replace the occupant classification ECU (see page SE-5).

NEXT

| 9 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
HINT:
"COMPLETED" is displayed on the tester when the calibration is completed.

NEXT

| 10 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NEXT

END

| DTC | B1787 | Rear Occupant Classification Sensor LH Collision Detection |
|---|---|---|

## DESCRIPTION

RS

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1787 | When one of following conditions is met:<br>• Front seat RH malfunction<br>• Occupant classification ECU malfunction<br>• Rear occupant classification sensor LH detected a large load | • Occupant classification ECU<br>• Front seat assembly RH (Rear occupant classification sensor LH) |

## WIRING DIAGRAM

Refer to the DTC B1782 (see page RS-343).

## INSPECTION PROCEDURE

| 1 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch ON.
(c) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
**OK:**
**"COMPLETED" is displayed.**

NG → **Go to step 4**

OK

| 2 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NG → **Go to step 4**

OK

| 3 | CHECK FOR DTC |
|---|---|

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).

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

(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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 cable from the negative (-) battery terminal.
(c) Replace the front seat RH (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| | |
|---|---|
| 5 | PERFORM ZERO POINT CALIBRATION |

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
**OK:**
**"COMPLETED" is displayed.**

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

OK

| | |
|---|---|
| 6 | PERFORM SENSITIVITY CHECK |

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

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

OK

RS

| 7 | CHECK FOR DTC |
|---|---|

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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 cable from the negative (-) battery terminal.
(c) Replace the occupant classification ECU (see page SE-5).

NEXT

| 9 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
HINT:
"COMPLETED" is displayed on the tester when the calibration is completed.

NEXT

| 10 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NEXT

END

| DTC | B1788 | Rear Occupant Classification Sensor RH Collision Detection |
|---|---|---|

## DESCRIPTION

RS

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1788 | When one of following conditions is met:<br>• Front seat RH malfunction<br>• Occupant classification ECU malfunction<br>• Rear occupant classification sensor RH detected a large load | • Occupant classification ECU<br>• Front seat assembly RH (Rear occupant classification sensor RH) |

## WIRING DIAGRAM

Refer to the DTC B1783 (see page RS-350).

## INSPECTION PROCEDURE

| 1 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch ON.
(c) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
**OK:**
**"COMPLETED" is displayed.**

NG → **Go to step 4**

OK

| 2 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NG → **Go to step 4**

OK

| 3 | CHECK FOR DTC |
|---|---|

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).

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

(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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 cable from the negative (-) battery terminal.
(c) Replace the front seat RH (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| | |
|---|---|
| 5 | PERFORM ZERO POINT CALIBRATION |

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
**OK:**
**"COMPLETED" is displayed.**

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

OK

| | |
|---|---|
| 6 | PERFORM SENSITIVITY CHECK |

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

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

OK

RS

| 7 | CHECK FOR DTC |
|---|---|

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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 cable from the negative (-) battery terminal.
(c) Replace the occupant classification ECU (see page SE-5).

NEXT

| 9 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
HINT:
"COMPLETED" is displayed on the tester when the calibration is completed.

NEXT

| 10 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NEXT

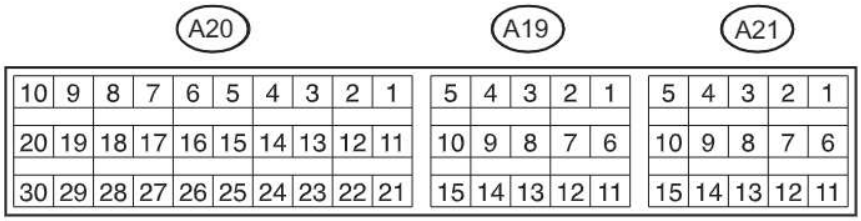
END

# TERMINALS OF ECU

(2005/12- )

## 1. CENTER AIRBAG SENSOR ASSEMBLY

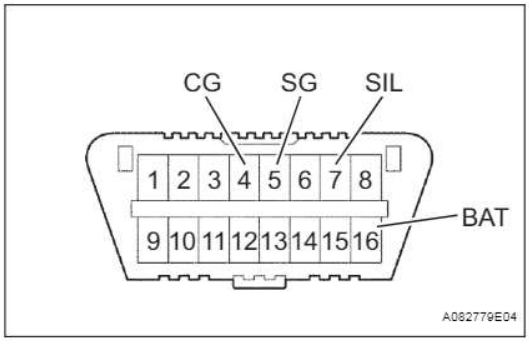
RS




T H100357E07

| Terminal No. | Symbol | Destination |
|---|---|---|
| A20-1 | P2+ | Front passenger airbag (Passenger squib 2nd step) |
| A20-2 | P2- | Front passenger airbag (Passenger squib 2nd step) |
| A20-3 | P- | Front passenger airbag (Passenger squib) |
| A20-4 | P+ | Front passenger airbag (Passenger squib) |
| A20-5 | D+ | Steering pad (Driver squib) |
| A20-6 | D- | Steering pad (Driver squib) |
| A20-7 | D2- | Steering pad (Driver squib 2nd step) |
| A20-8 | D2+ | Steering pad (Driver squib 2nd step) |
| A20-13 | PBEW | A/C control panel (Passenger side seat belt warning light) |
| A20-14 | LA | Combination meter (SRS warning light) |
| A20-15 | TC | DLC3 |
| A20-16 | SIL | DLC3 |
| A20-17 | P-AB | A/C control panel (Passenger side SRS OFF indicator light) |
| A20-21 | IG2 | IGN fuse |
| A20-22 | GSW2 | ECM |
| A20-23 | PAON | A/C control panel (Passenger side SRS ON indicator light) |
| A20-25 | E1 | Ground |
| A20-26 | E2 | Ground |
| A20-27 | -SR | Front airbag sensor RH |
| A20-28 | -SL | Front airbag sensor LH |
| A20-29 | +SR | Front airbag sensor RH |
| A20-30 | +SL | Front airbag sensor LH |
| A19-1 | PD- | Front seat outer belt LH with pretensioner (Driver side) |
| A19-2 | PD+ | Front seat outer belt LH with pretensioner (Driver side) |
| A19-11 | DBE+ | Front seat inner belt LH (Driver seat buckle switch) |
| A19-12 | DBE- | Front seat inner belt LH (Driver seat buckle switch) |
| A19-13 | DSP- | Front seat inner belt LH (Driver seat position sensor) |
| A19-14 | DSP+ | Front seat inner belt LH (Driver seat position sensor) |
| A21-4 | PP+ | Front seat outer belt with pretensioner (Front passenger side) |
| A21-5 | PP- | Front seat outer belt with pretensioner (Front passenger side) |
| A21-12 | ESP+ | Occupant classification ECU |

| Terminal No. | Symbol | Destination |
|---|---|---|
| A21-13 | ESP- | Occupant classification ECU |



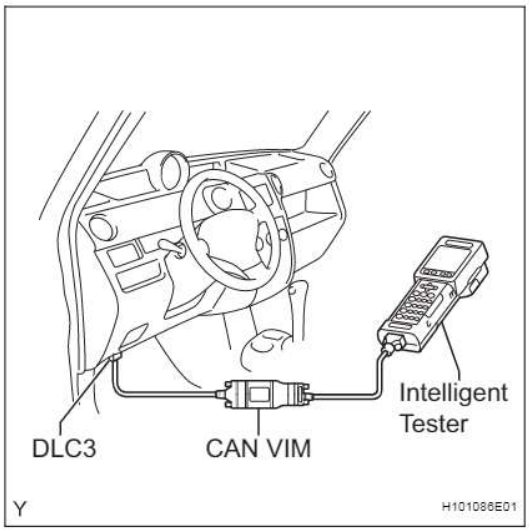

# DIAGNOSIS SYSTEM

(2005/07-2005/12)

**1. CHECK DLC3**



| Symbols (Terminal No.) | Terminal Description | Condition | Specified Condition |
|---|---|---|---|
| SIL (7) - SG (5) | Bus "+" line | During transmission | Pulse generation |
| BAT (16) - Body ground | Battery positive | Always | 10 to 14 V |
| CG (4) - Body ground | Chassis ground | | Below 1 Ω |
| SG (5) - Body ground | Signal ground | | |




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

HINT:

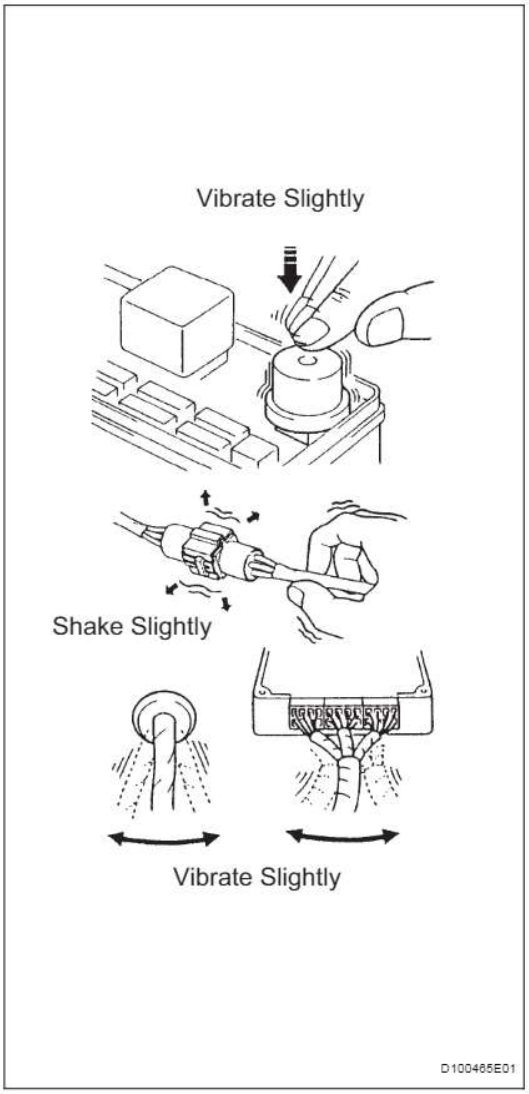
Connect the cable of the intelligent tester (with CAN VIM) to the DLC3, turn the ignition switch ON and attempt to use the tester. If the screen displays the message UNABLE TO CONNECT TO VEHICLE, there is a problem either with the vehicle or with the tester.

- If communication is normal when the tester is connected to another vehicle, inspect the DLC3 of the original vehicle.
- If communication is still not possible when the tester is connected to another vehicle, the problem may be in the tester itself. Consult the Service Department listed in the tester'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 to the ON position).
(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.

**3. FUNCTION OF SRS LIGHT**

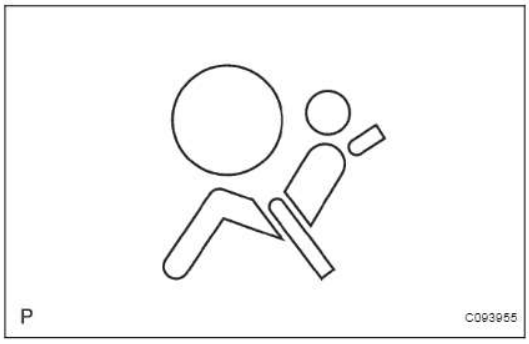
(a) Primary check
(1) Turn the ignition switch to the LOCK position. Wait for at least 2 seconds, then turn the ignition switch to the ON position. The SRS warning light comes on for approximately 6 seconds and the SRS airbag system diagnosis (including the seat belt) is performed.
HINT:
If trouble is detected during the primary check, the SRS warning light remains on even after the primary check period (approximately 6 seconds) has elapsed.

(b) Constant check
(1) After the primary check, the center airbag sensor assembly constantly monitors the SRS airbag system for trouble.
HINT:
If trouble is detected during the constant check, the center airbag sensor assembly functions as follows:
- The SRS warning light comes on or blinks.
- The SRS warning light comes on, and then goes off. This blinking pattern indicates the source voltage drop.
- The SRS warning light goes off 10 seconds after the source voltage returns to normal.

(c) Review
(1) When the airbag system is normal:
The SRS warning light comes on only during the primary check period (for approximately 6 seconds after the ignition switch is turned to the ON position).

(2) When the airbag system has trouble:
- The SRS warning light remains on or blinks even after the primary check period has elapsed.
- The SRS warning light goes off after the primary check, but comes on or blinks again during the constant check.
- The SRS warning light does not come on when turning the ignition switch from the LOCK to ON position.

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




**4. SRS WARNING LIGHT CHECK**

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

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

HINT:
When any of the following symptoms occur, refer to the "Problem Symptoms Table" (see page RS-34).
- When the SRS warning light comes on occasionally even after the primary check period has elapsed, an open or short in the SRS warning light circuit is suspected.
- When the SRS warning light comes on even when the ignition switch is in the LOCK position, trouble in the power source or combination meter assembly is suspected.
- When the ignition switch is turned from the LOCK to ON position, the SRS warning light does not come on.

| DTC | B1790 | Center Airbag Sensor Assembly Communication Circuit Malfunction |
|---|---|---|

## DESCRIPTION

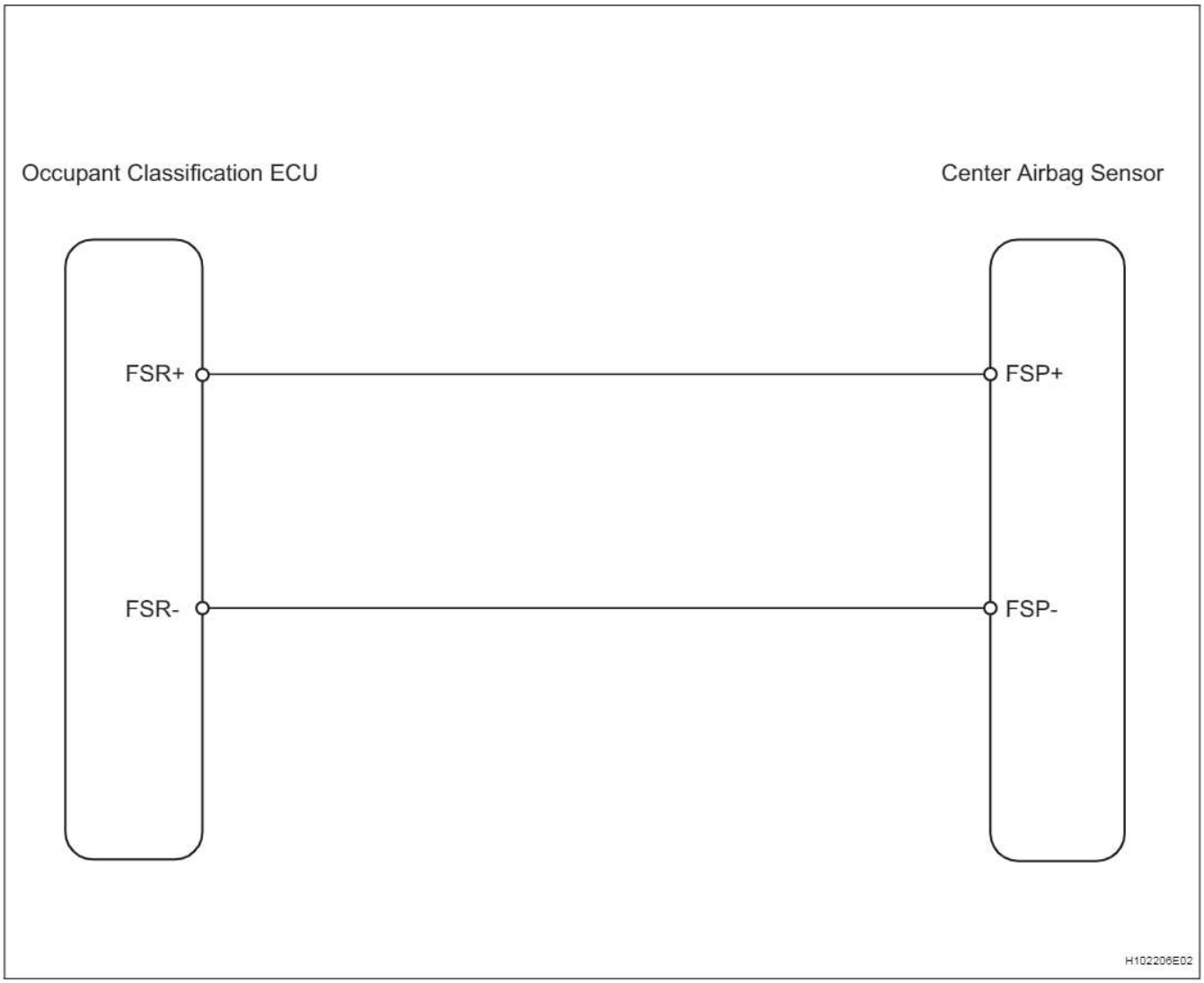
RS

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1790 | When one of following conditions is met:<br>• 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 communication circuit for 2 seconds.<br>• Center airbag sensor malfunction<br>• Occupant classification ECU malfunction | • Occupant classification ECU<br>• Center airbag sensor assembly<br>• No. 2 floor wire<br>• Front seat wire RH |

HINT:
When DTC B1150/23 is detected as a result of troubleshooting for the supplemental restraint system, perform troubleshooting for DTC B1790 of the occupant classification system.

## WIRING DIAGRAM



## INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not 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 FOR DTC |
|---|---|

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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 |
|---|---|

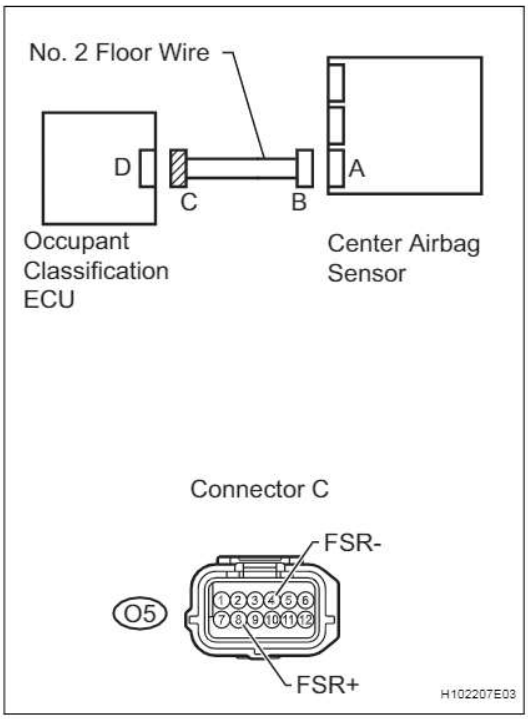
(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Check that the connectors are properly connected to the occupant classification ECU and the center airbag sensor.
**OK:**
**The connectors are properly connected.**

NG → CONNECT CONNECTOR

OK

RS

## 3 CHECK OCCUPANT CLASSIFICATION ECU CIRCUIT (SHORT TO B+)



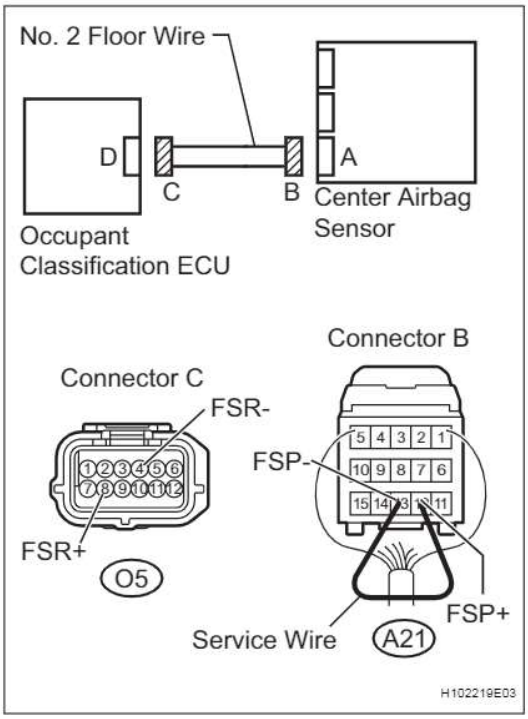

(a) Disconnect the connectors from the occupant classification ECU and the center airbag sensor.
(b) Connect the cable to the negative (-) battery terminal.
(c) Turn the ignition switch ON.
(d) Measure the voltage of the wire harness side connector.
**Standard voltage**

| Tester Connection | Specified Condition |
|---|---|
| O5-8 (FSR+) - Body ground | Below 1 V |
| O5-4 (FSR-) - Body ground | |

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

OK

## 4 CHECK OCCUPANT CLASSIFICATION ECU CIRCUIT (OPEN)



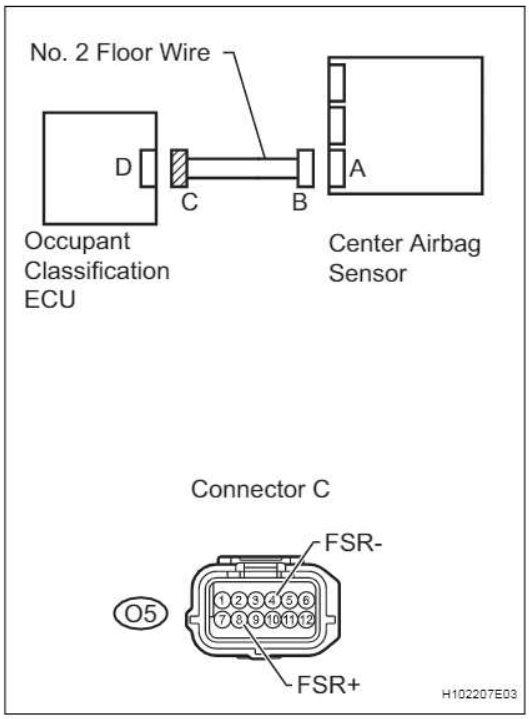

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Using a service wire, connect A21-12 (FSP+) and A21-13 (FSP-) of connector "B".
**NOTICE:**
**Do not forcibly insert a service wire into the terminals of the connector when connecting.**
(d) Measure the resistance of the wire harness side connector.
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O5-8 (FSR+) - O5-4 (FSR-) | Below 1 Ω |

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

OK

## 5 CHECK OCCUPANT CLASSIFICATION ECU CIRCUIT (SHORT)




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

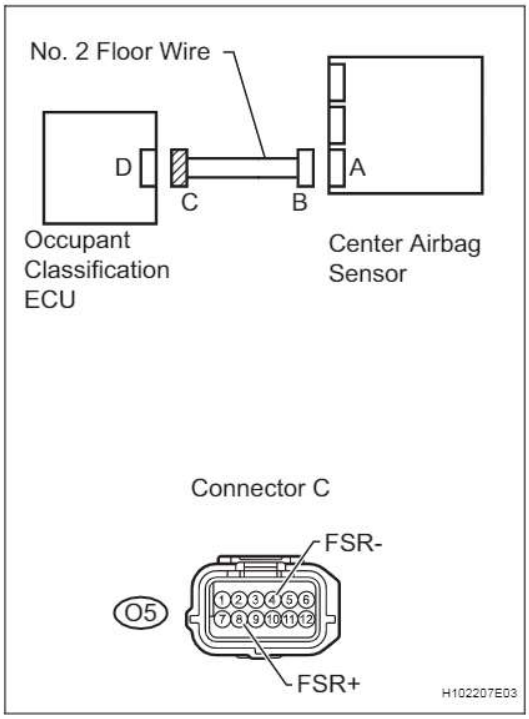
**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O5-8 (FSR+) - O5-4 (FSR-) | 1 MΩ or higher |

NG → REPAIR OR REPLACE NO. 2 FLOOR WIRE

OK

## 6 CHECK OCCUPANT CLASSIFICATION ECU CIRCUIT (SHORT TO GROUND)




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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O5-8 (FSR+) - Body ground | 1 MΩ or higher |
| O5-4 (FSR-) - Body ground | |

NG → REPAIR OR REPLACE NO. 2 FLOOR WIRE

OK

| 7 | REPLACE OCCUPANT CLASSIFICATION ECU |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Replace the occupant classification ECU (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| 8 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
HINT:
"COMPLETED" is displayed on the tester when the calibration is completed.

NEXT

| 9 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NEXT

| 10 | CHECK FOR DTC |
|---|---|

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**OK:**
**DTC B1790 is not output.**
HINT:
Codes other than DTC B1790 may be output at this time, but they are not related to this check.

NG → REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK

REPLACE OCCUPANT CLASSIFICATION ECU

| DTC | B1793 | Occupant Classification Sensor Power Supply Circuit Malfunction |
|---|---|---|

## DESCRIPTION

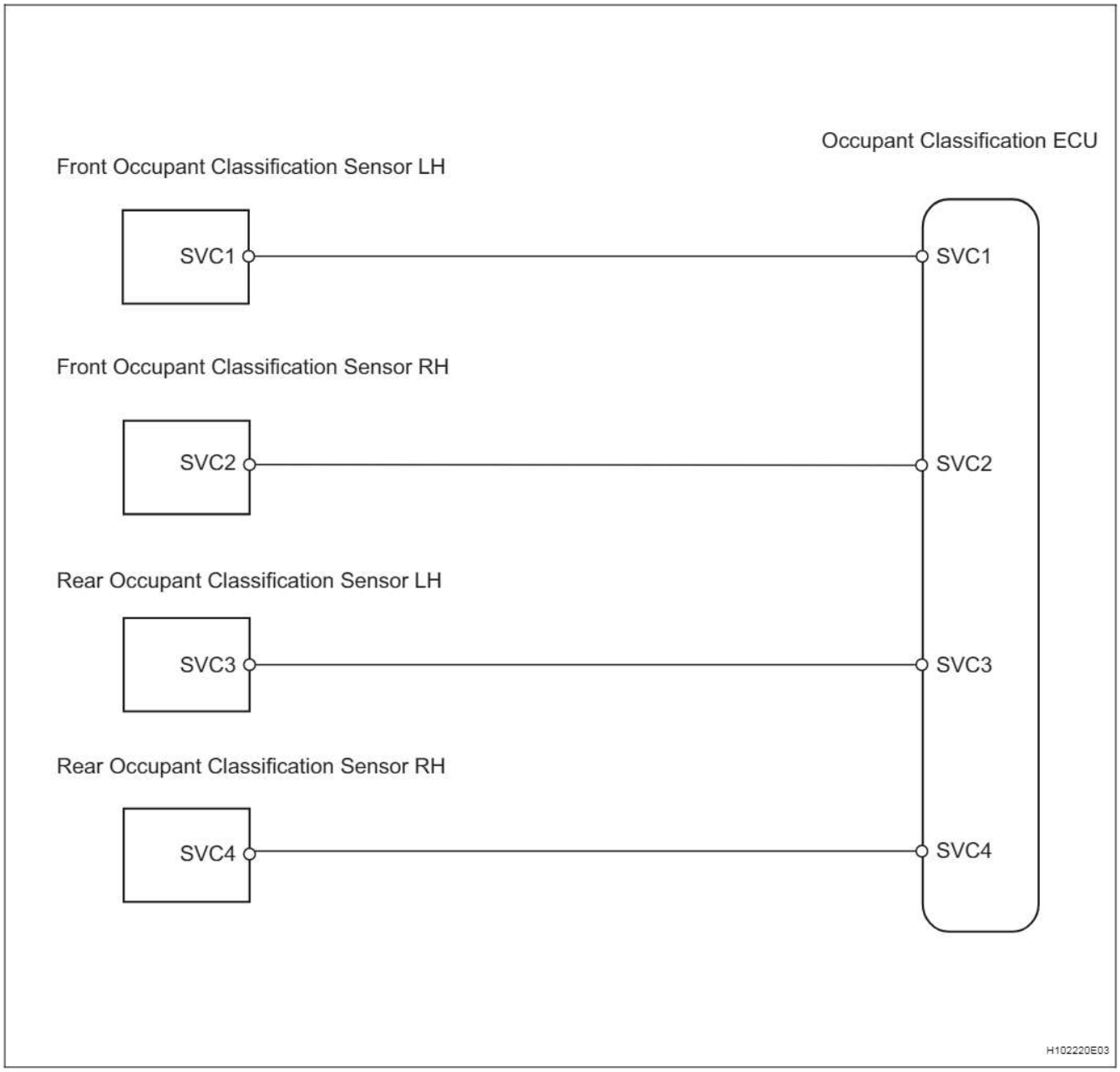
RS

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

| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1793 | When either conditions below is met:<br>• 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.<br>• Occupant classification ECU malfunction | • Front seat assembly RH (Occupant classification sensors)<br>• Occupant classification ECU<br>• Front seat wire RH |

HINT:
When DTC B1150/23 is detected as a result of troubleshooting for the supplemental restraint system, perform troubleshooting for DTC B1793 of the occupant classification system.

## WIRING DIAGRAM




## INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to see the undersurface of the seat cushion.
- In the above case, hold the seat so that it does not 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 FOR DTC |
|---|---|

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in the memory (see page RS-318).

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

(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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

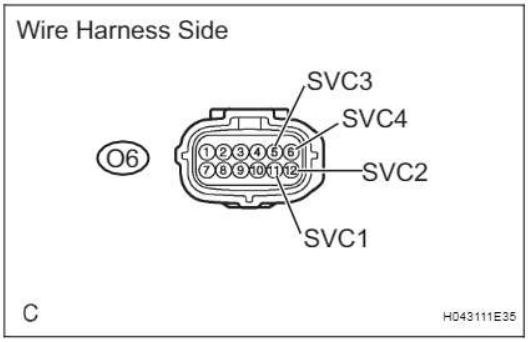
## 2 CHECK CONNECTION OF CONNECTOR

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

| | |
|---|---|
| NG | CONNECT CONNECTOR |

OK

## 3 CHECK FRONT SEAT WIRE RH (SHORT TO B+)




(a) Disconnect the connectors from the occupant classification ECU and the 4 occupant classification sensors.
(b) Connect the cable to the negative (-) battery terminal.
(c) Turn the ignition switch ON.
(d) Measure the voltage of the wire harness side connector.
**Standard voltage**

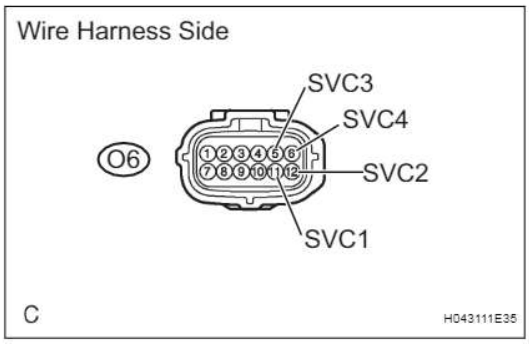
| Tester Connection | Specified Condition |
|---|---|
| O6-5 (SVC3) - Body ground | Below 1 V |
| O6-6 (SVC4) - Body ground | |
| O6-11 (SVC1) - Body ground | |
| O6-12 (SVC2) - Body ground | |

| | |
|---|---|
| NG | REPAIR OR REPLACE FRONT SEAT WIRE RH |

OK

RS

| 4 | CHECK FRONT SEAT WIRE RH (SHORT TO GROUND) |
|---|---|




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Measure the resistance of the wire harness side connector.

**Standard resistance**

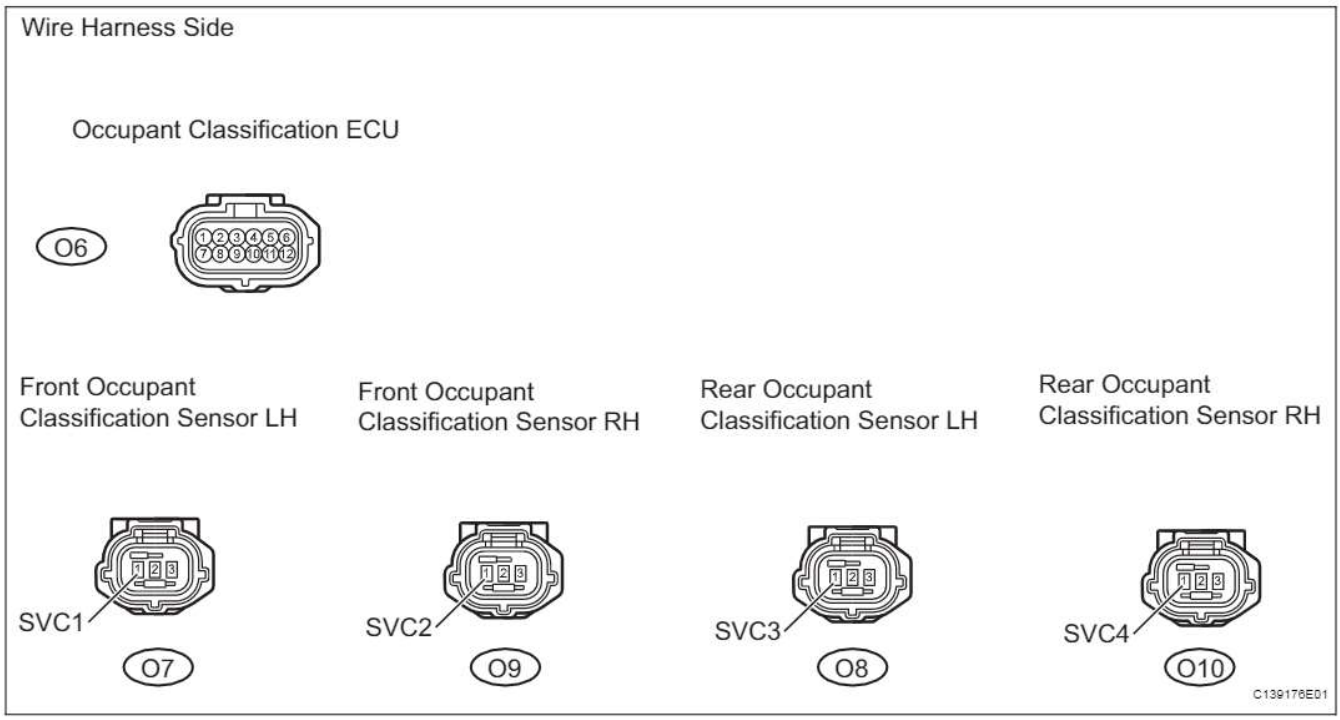
| Tester Connection | Specified Condition |
|---|---|
| O6-5 (SVC3) - Body ground | 1 MΩ or higher |
| O6-6 (SVC4) - Body ground | |
| O6-11 (SVC1) - Body ground | |
| O6-12 (SVC2) - Body ground | |

NG → REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

| 5 | CHECK FRONT SEAT WIRE RH (OPEN) |
|---|---|

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




**Standard resistance**

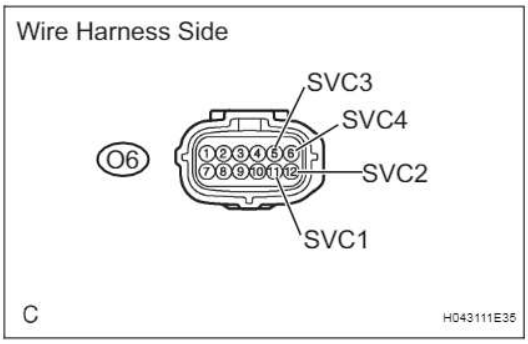
| Tester Connection | Specified Condition |
|---|---|
| O6-5 (SVC3) - O8-1 (SVC3) | Below 1 Ω |
| O6-6 (SVC4) - O10- 1 (SVC4) | |
| O6-11 (SVC1) - O7-1 (SVC1) | |
| O6-12 (SVC2) - O9-1 (SVC2) | |

NG → REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

RS

**6 CHECK FRONT SEAT WIRE RH (SHORT)**




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

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O6-5 (SVC3) - O6-6 (SVC4) | 1 MΩ or higher |
| O6-6 (SVC4) - O6-11 (SVC1) | |
| O6-11 (SVC1) - O6-12 (SVC2) | |
| O6-12 (SVC2) - O6-5 (SVC3) | |
| O6-12 (SVC2) - O6-6 (SVC4) | |
| O6-11 (SVC1) - O6-5 (SVC3) | |

NG → REPAIR OR REPLACE FRONT SEAT WIRE RH

OK

**7 CHECK FOR DTC**

(a) Connect the connectors to the occupant classification ECU and the 4 occupant classification sensors.
(b) Connect the cable to the negative (-) battery terminal.
(c) Turn the ignition switch ON.
(d) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(e) Turn the ignition switch OFF.
(f) Turn the ignition switch ON.
(g) Check the DTCs (see page RS-318).
**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

**8 REPLACE OCCUPANT CLASSIFICATION ECU**

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the occupant classification ECU (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

RS

| 9 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
**OK:**
**"COMPLETED" is displayed.**

NG → **Go to step 12**

OK

| 10 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NG → **Go to step 12**

OK

| 11 | CHECK FOR DTC |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Turn the ignition switch ON.
(c) Clear the DTCs stored in the memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(d) Turn the ignition switch OFF.
(e) Turn the ignition switch ON.
(f) Check the DTCs (see page RS-318).
**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 → **END**

NG

| 12 | REPLACE FRONT SEAT ASSEMBLY RH |
|---|---|

RS

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Replace the front seat RH (see page SE-5).

NEXT

| 13 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
HINT:
"COMPLETED" is displayed on the tester when the calibration is completed.

NEXT

| 14 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

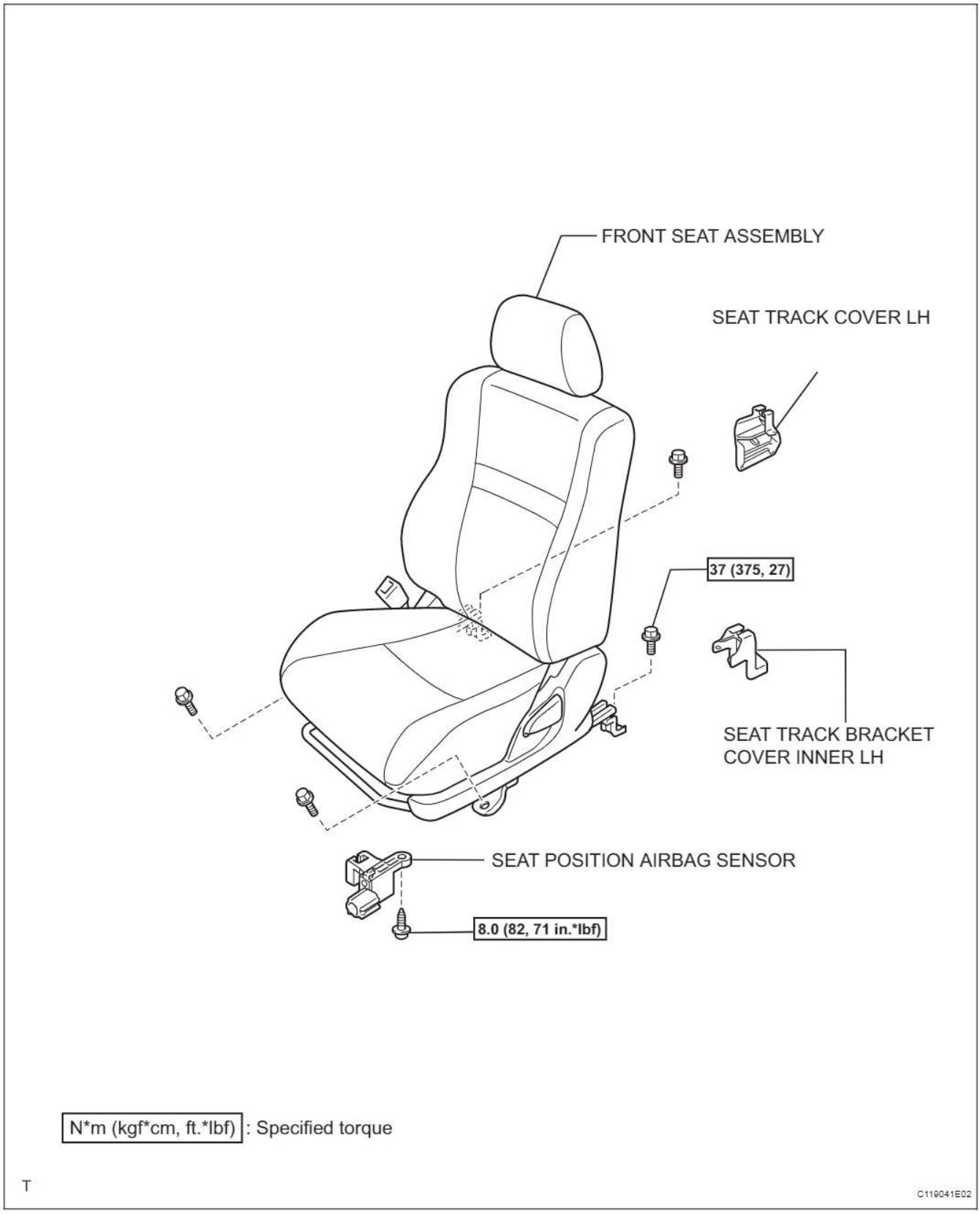
NEXT

END

# SEAT POSITION SENSOR

## COMPONENTS





# ON-VEHICLE INSPECTION

1. **CHECK SEAT POSITION SENSOR (VEHICLE NOT INVOLVED IN COLLISION)**
   (a) Perform a diagnostic system check (see page RS-51).

2. **CHECK SEAT POSITION SENSOR (VEHICLE INVOLVED IN COLLISION)**
   (a) Perform a diagnostic system check (see page RS-51).
   (b) Even if the airbag was not deployed, check if there is any damage to the seat position sensor.
   If there are any defects as mentioned below, replace the seat position sensor with a new one:
   - Cracks, dents or chips on the sensor housing.
   - Cracks or other damage to the connector.

   **CAUTION:**
   **For removal and installation procedures of the seat position sensor, be sure to follow the correct procedures.**

| DTC | B1794 | Open in Occupant Classification ECU Battery Positive Line |
|---|---|---|

## DESCRIPTION



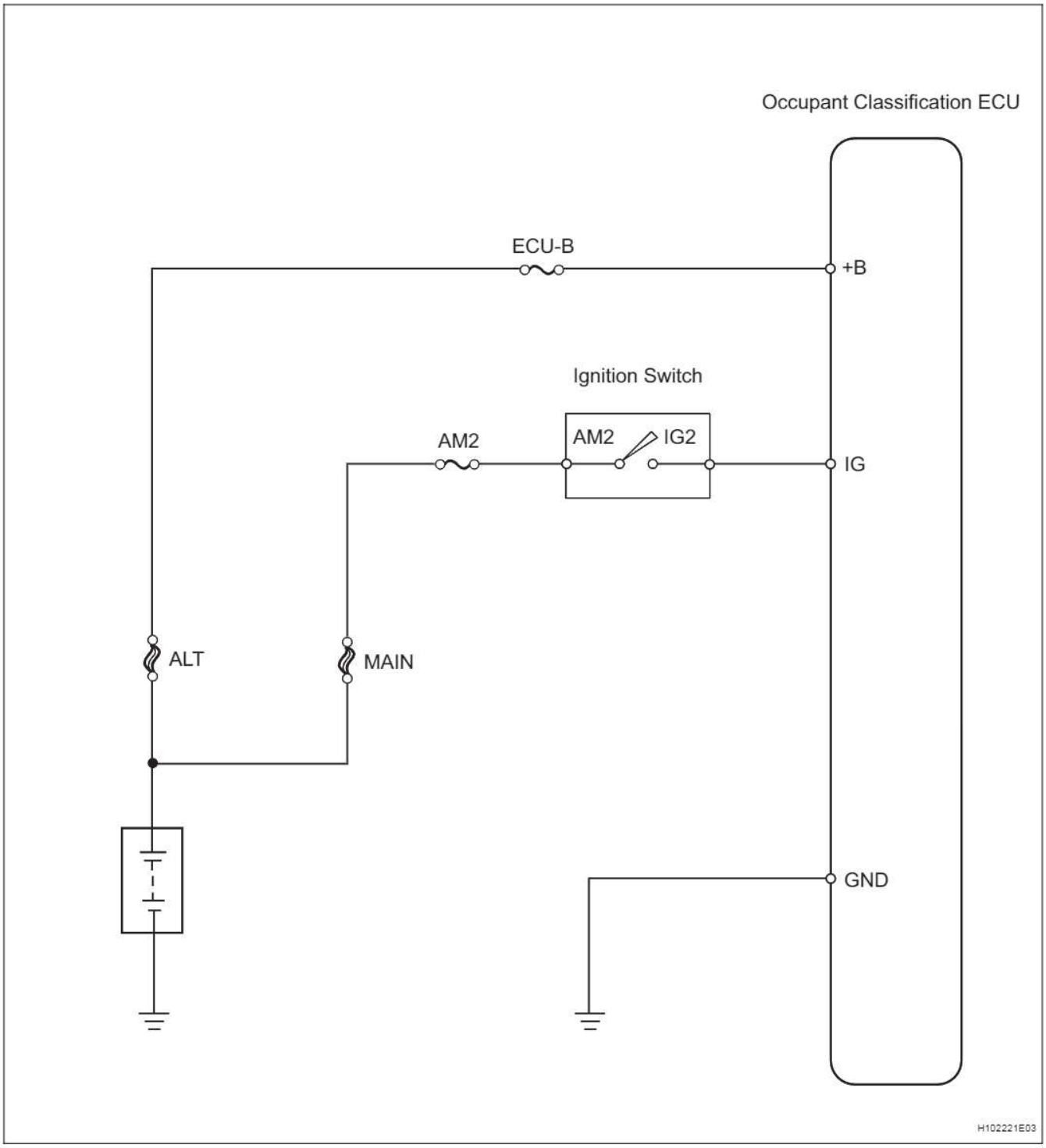
This circuit consists of the occupant classification ECU and the power source circuit (battery, fuse, wire harness).
DTC B1794 is recorded when a malfunction is detected in the occupant classification ECU or the power source circuit.
HINT:
When DTC B1794 is output after switching the ignition switch OFF-ON-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 Detection Condition | Trouble Area |
|---|---|---|
| B1794 | When either conditions below is met:<br>• The ignition switch is turned from OFF to ON, hold for 10 seconds or more, and back to OFF again 50 times in a row when a malfunction occurs in the power circuit for the occupant classification system.<br>• Occupant classification ECU malfunction | • Battery<br>• ECU-B fuse<br>• Floor wire<br>• Front seat wire RH<br>• Occupant classification ECU |

HINT:
When DTC B1650/32 is detected as a result of troubleshooting for the supplemental restraint system, perform troubleshooting for DTC B1794 of the occupant classification system.

RS

## WIRING DIAGRAM




## INSPECTION PROCEDURE

| | |
|---|---|
| 1 | INSPECT FUSE (ECU-B, AM2) |

(a) Remove the ECU-B fuse from the instrument panel junction block.
(b) Remove the AM2 fuse from the engine room relay block.
(c) Measure the resistance of the fuses.

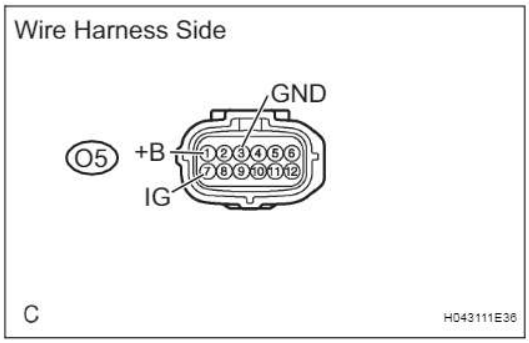
**Standard resistance:**
**Below 1 Ω**

NG → **REPLACE FUSE**

OK

RS

## 2 CHECK WIRE HARNESS (OCCUPANT CLASSIFICATION ECU - BATTERY AND BODY GROUND)




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Disconnect the connector from the occupant classification ECU.
(d) Connect the cable to the negative (-) battery terminal.
(e) Measure the voltage and resistance of the wire harness side connector.

**Standard voltage**

| Tester Connection | Condition | Specified Condition |
|---|---|---|
| O3-1 (+B) - Body ground | Always | 10 to 14 V |
| O3-7 (IG) - Body ground | Ignition switch ON | |

**Standard resistance**

| Tester Connection | Specified Condition |
|---|---|
| O3-3 (GND) - Body ground | Below 1 Ω |

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

OK

## 3 CHECK FOR DTC

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the ignition switch OFF.
(d) Turn the ignition switch ON, and wait for at least 10 seconds.
(e) Using the intelligent tester, check the DTCs of the occupant classification ECU (see page RS-318).
**OK:**
**DTC B1794 is not output.**
HINT:
Codes other than code B1794 may be output at this time, but they are not related to this check.

OK → **USE SIMULATION METHOD TO CHECK**

NG

| 4 | REPLACE OCCUPANT CLASSIFICATION ECU |
|---|---|

RS

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
(c) Replace the occupant classification ECU (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| 5 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
HINT:
"COMPLETED" is displayed on the tester when the calibration is completed.

NEXT

| 6 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NEXT

END

| DTC | B1795 | Occupant Classification ECU Malfunction |
|---|---|---|

## DESCRIPTION

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



| DTC No. | DTC Detection Condition | Trouble Area |
|---|---|---|
| B1795 | When one of following conditions is met:<br>• Occupant classification ECU circuit malfunction<br>• The occupant classification ECU receives a short circuit to ground signal in the passenger side buckle switch circuit for 2 seconds.<br>• Occupant classification ECU malfunction | • Front seat wire RH<br>• Front seat inner belt assembly RH (Buckle switch RH)<br>• Occupant classification ECU |

HINT:
When DTC B1150/23 is detected as a result of troubleshooting for the supplemental restraint system, perform troubleshooting for DTC B1795 of the occupant classification system.

## WIRING DIAGRAM

Refer to the DTC B1794 (see page RS-388).

## INSPECTION PROCEDURE

**1 CHECK FOR DTC**

(a) Turn the ignition switch ON, and wait for at least 10 seconds.
(b) Check the DTCs (see page RS-318).
**Result:**

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

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**

B →

**2 INSPECT FUSE (ECU-B)**

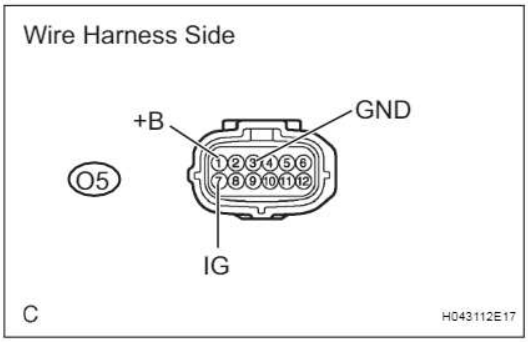
(a) Remove the ECU-B fuse from the instrument panel junction block.
(b) Remove the AM2 fuse from the engine room relay block.
(c) Measure the resistance of the fuses.
**Standard resistance:**
**Below 1 Ω**

NG → **REPLACE FUSE**

OK →

RS

| 3 | CHECK WIRE HARNESS (OCCUPANT CLASSIFICATION ECU - BATTERY AND BODY GROUND) |
|---|---|




(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Disconnect the connector from the occupant classification ECU.
(d) Connect the cable to the negative (-) battery terminal.
(e) Measure the voltage of the wire harness side connector.
**Standard voltage**

| Tester Connection | Condition | Specified Condition |
|---|---|---|
| O3-1 (+B) - Body ground | Always | 10 to 14 V |
| O3-7 (IG) - Body ground | Ignition switch ON | |

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

| Tester Connection | Specified Condition |
|---|---|
| O3-3 (GND) - Body ground | Below 1 Ω |

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

OK

| 4 | REPLACE OCCUPANT CLASSIFICATION ECU |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Replace the occupant classification ECU (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| 5 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
HINT:
"COMPLETED" is displayed on the tester when the calibration is completed.

NEXT

| 6 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**



NEXT

END

| DTC | B1796 | Sleep Operation Failure of Occupant Classification ECU |
|---|---|---|

## DESCRIPTION

RS

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

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

## INSPECTION PROCEDURE

| 1 | CHECK FOR DTC |
|---|---|

(a) Turn the ignition switch ON.
(b) Clear the DTCs stored in memory (see page RS-318).
HINT:
First clear DTCs stored in the occupant classification ECU and then in the center airbag sensor.
(c) Turn the ignition switch OFF, and wait for at least 10 seconds.
(d) Turn the ignition switch ON.
(e) Check the DTCs (see page RS-318).
**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.

OK → USE SIMULATION METHOD TO CHECK

NG

| 2 | REPLACE OCCUPANT CLASSIFICATION ECU |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Replace the occupant classification ECU (see page SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| 3 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.

(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
HINT:
"COMPLETED" is displayed on the tester when the calibration is completed.

NEXT



| 4 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard values:**
**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 condition (activated/not activated) by the passenger airbag ON / OFF indicator.

RS

Approximately 6 seconds after the ignition switch is turned ON, the passenger airbag ON / OFF indicator will operate according to the front passenger seat condition shown below.

| Front Passenger Seat Condition | ON Indicator | OFF Indicator |
|---|---|---|
| Vacant | OFF | OFF |
| Adult is seated. | ON | OFF |
| Child is seated. | OFF | ON |
| Child restraint system is set. | OFF | ON |
| Front passenger occupant classification system failure | OFF | ON |

## INSPECTION PROCEDURE

**1 CHECK SRS WARNING LIGHT**

(a) Turn the ignition switch ON, 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.
**OK:**
**The SRS warning light does not come on.**

NG → **Go to step 9**

OK

**2 CHECK PASSENGER AIRBAG ON / OFF INDICATOR CONDITION**

(a) Turn the ignition switch ON.
(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 |
|---|---|---|
| **Vacant** | **OFF** | **OFF** |
| **Adult is seated.** | **ON** | **OFF** |
| **Child is seated.** | **OFF** | **ON** |
| **Child restraint system is set.** | **OFF** | **ON** |
| **Front passenger occupant classification system failure** | **OFF** | **ON** |

OK → **END**

NG

| 3 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Turn the ignition switch OFF.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
**OK:**
**"COMPLETED" is displayed.**

NG → **Go to step 5**

OK ↓

| 4 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

OK → **END**

NG ↓

| 5 | RETIGHTEN FRONT SEAT ASSEMBLY RH BOLT |
|---|---|

(a) Turn the ignition switch OFF.
(b) Loosen the 4 installation bolts of the front seat RH.
(c) Tighten the 4 installation bolts of the front seat RH to the specified torque.
**Torque: 37 N*m (380 kgf*cm, 27 ft.*lbf)**

NG → **Go to step 8**

OK ↓

| 6 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch ON.
(c) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
**OK:**
**"COMPLETED" is displayed.**

NG → **Go to step 8**

OK ↓

RS

| 7 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

OK → END

NG

| 8 | CHECK CONNECTOR |
|---|---|

(a) Turn the ignition switch OFF.
(b) Disconnect the cable from the negative (-) battery terminal.
(c) Check that the connectors are properly connected to the occupant classification ECU and the 4 occupant classification sensors.
**OK:**
**The connectors are properly connected.**
(d) Disconnect the connectors from the occupant classification ECU and the 4 occupant classification sensors.
(e) Check that the connectors are not damaged or deformed.
**OK:**
**The connectors are normal.**

NG → REPAIR OR REPLACE CONNECTOR

OK

| 9 | CHECK FOR DTC |
|---|---|

(a) Connect the connectors to the occupant classification ECU and the 4 occupant classification sensors.
(b) Connect the cable to the negative (-) battery terminal.
(c) Turn the ignition switch ON, and wait for at least 60 seconds.
(d) Turn the ignition switch OFF.
(e) Clear the DTCs stored in the memory (see page RS-318).
(f) Turn the ignition switch ON, and wait for at least 60 seconds.
(g) Check the DTCs (see page RS-318).
**OK:**
**DTC is not output.**

NG → REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK

| 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 SE-5).
HINT:
Perform the inspection using parts from a normal vehicle if possible.

NEXT

| 11 | PERFORM ZERO POINT CALIBRATION |
|---|---|

(a) Connect the cable to the negative (-) battery terminal.
(b) Connect the intelligent tester to the DLC3.
(c) Turn the ignition switch ON.
(d) Using the intelligent tester, perform "Zero point calibration" (see page RS-309).
HINT:
"COMPLETED" is displayed on the tester when the calibration is completed.

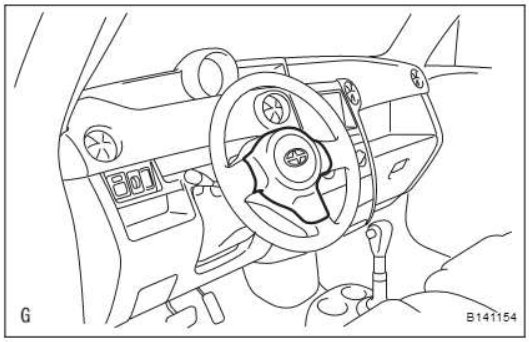
NEXT

| 12 | PERFORM SENSITIVITY CHECK |
|---|---|

(a) Using the intelligent tester, perform the "Sensitivity check" (see page RS-309).
**Standard value:**
**27 to 33 kg (59.52 to 72.75 lb)**

NEXT

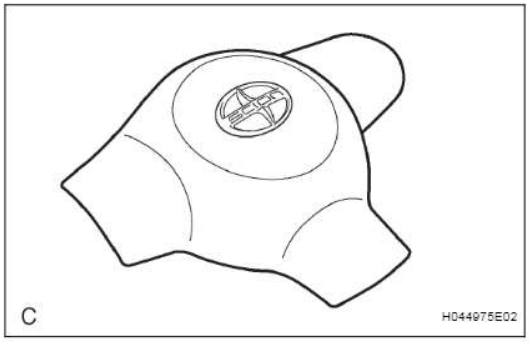
END




# ON-VEHICLE INSPECTION

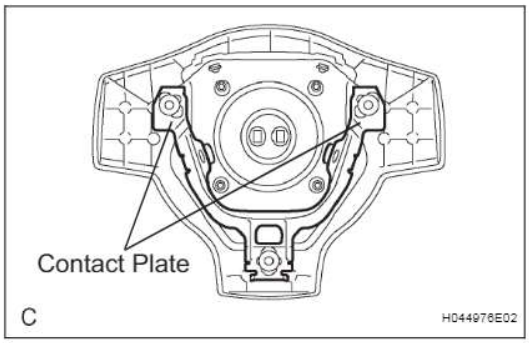
(2005/12- )

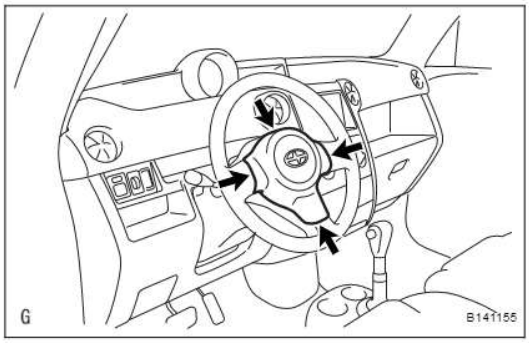
1. **CHECK STEERING PAD ASSEMBLY (VEHICLE NOT INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-51).
   (b) With the steering pad (with airbag) installed on the vehicle, perform a visual check:
   Check for cuts, cracks or discoloration on the steering pad outer surface and in the grooved portion.
   If any of the defects mentioned above are present, replace the steering pad assembly with a new one.
   **CAUTION:**
   **For removal and installation of the steering pad assembly, be sure to follow the correct procedures.**




2. **CHECK STEERING PAD ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG NOT DEPLOYED)**
   (a) Perform a diagnostic system check (see page RS-51).
   (b) With the steering pad (with airbag) removed from the vehicle, perform a visual check:
   - Check for cuts, cracks or discoloration on the steering pad outer surface and in the grooved portion.
   - Check for cuts and cracks in the wire harness, and chipping on the connectors.
   - Check for deformation on the steering wheel.
   - Check for deformation of the steering pad contact plates.

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



RS

# REMOVAL

(2005/07-2005/12)

**CAUTION:**

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

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**

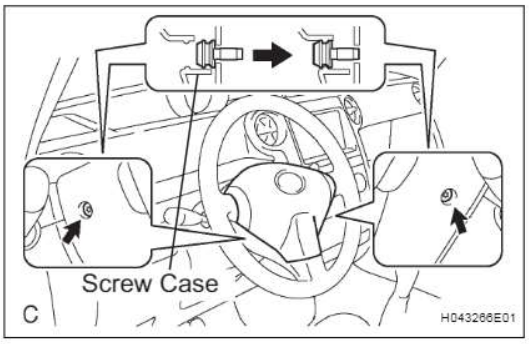
   **CAUTION:**

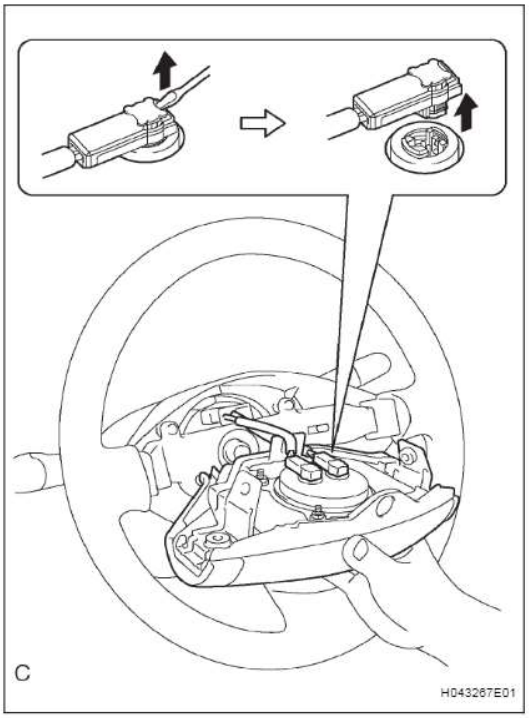
   **Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.**

2. **REMOVE STEERING PAD ASSEMBLY**

   (a) Straighten the front wheels.

   (b) Using a T30 "torx" socket, loosen the 2 screws until the groove along each screw circumference catches on the screw case.




   (c) Pull out the steering pad from the steering wheel and support the steering pad with one hand as shown in the illustration.

   **NOTICE:**

   **When removing the steering pad, do not pull the airbag wire harness.**

   (d) Using a screwdriver, disconnect the 2 airbag connectors.

   **NOTICE:**

   **When handling the airbag connectors, do not damage the airbag wire harness.**

   (e) Disconnect the horn connector and remove the steering pad.

# REMOVAL

(2005/12- )

**CAUTION:**

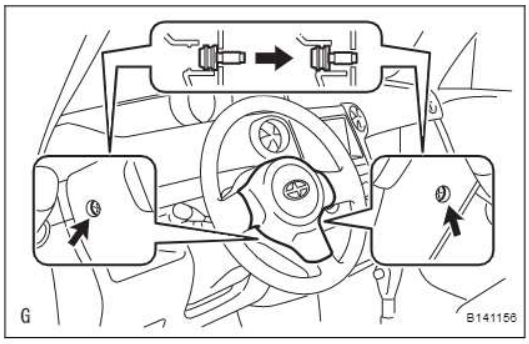
**Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-11).**



1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**

   **CAUTION:**

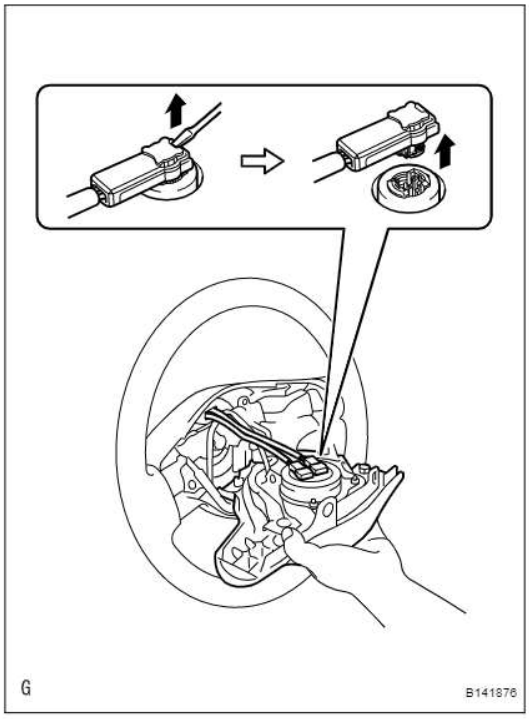
   **Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.**




2. **REMOVE STEERING PAD ASSEMBLY**

   (a) Straighten the front wheels.

   (b) Using a T30 "torx" socket, loosen the 2 screws until the groove along each screw circumference catches on the screw case.




   (c) Pull out the steering pad from the steering wheel and support the steering pad with one hand as shown in the illustration.

   **NOTICE:**

   **When removing the steering pad, do not pull the airbag wire harness.**

   (d) Using a screwdriver, disconnect the 2 airbag connectors.

   **NOTICE:**

   **When handling the airbag connectors, do not damage the airbag wire harness.**

   (e) Disconnect the horn connector and remove the steering pad.

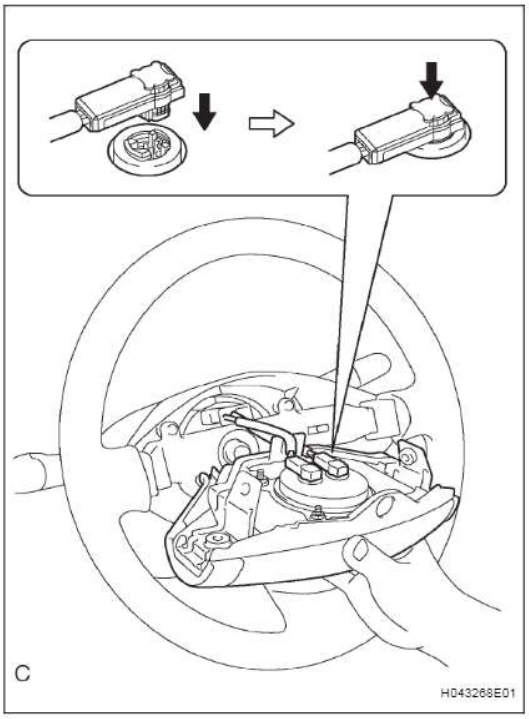
RS

# INSTALLATION

(2005/07-2005/12)

**CAUTION:**

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



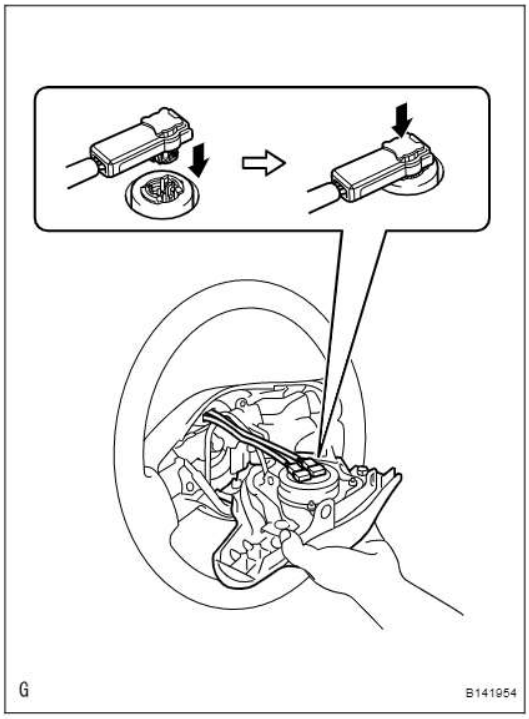

1. **INSTALL STEERING PAD ASSEMBLY**
   (a) Support the steering pad with one hand as shown in the illustration.
   (b) Connect the 2 airbag connectors.
   **NOTICE:**
   **When handling the airbag connectors, do not damage the airbag wire harness.**
   (c) Connect the horn connector.
   (d) Install the steering pad after confirming that the circumference grooves of the screws are caught on the screw case.
   (e) Using a T30 "torx" socket, install the 2 screws.
   **Torque: 8.8 N*m (90 kgf*cm, 78 in.*lbf)**
2. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
3. **INSPECT STEERING PAD ASSEMBLY**
   (a) Check for cuts, cracks or discoloration on the steering pad outer surface and in the grooved portion.
   (b) Check that the horn sounds.
4. **CHECK SRS WARNING LIGHT**
   (a) Check the SRS warning light (see page RS-37).

# INSTALLATION

(2005/12- )

**CAUTION:**

**Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-11).**




1. **INSTALL STEERING PAD ASSEMBLY**
   (a) Support the steering pad with one hand as shown in the illustration.
   (b) Connect the 2 airbag connectors.
   **NOTICE:**
   **When handling the airbag connectors, do not damage the airbag wire harness.**
   (c) Connect the horn connector.
   (d) Install the steering pad after confirming that the circumference grooves of the screws are caught on the screw case.
   (e) Using a T30 "torx" socket, install the 2 screws.
   **Torque: 8.8 N*m (90 kgf*cm, 78 in.*lbf)**
2. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
3. **INSPECT STEERING PAD ASSEMBLY**
   (a) Check for cuts, cracks or discoloration on the steering pad outer surface and in the grooved portion.
   (b) Check that the horn sounds.
4. **CHECK SRS WARNING LIGHT**
   (a) Check the SRS warning light (see page RS-39).

RS

# DISPOSAL

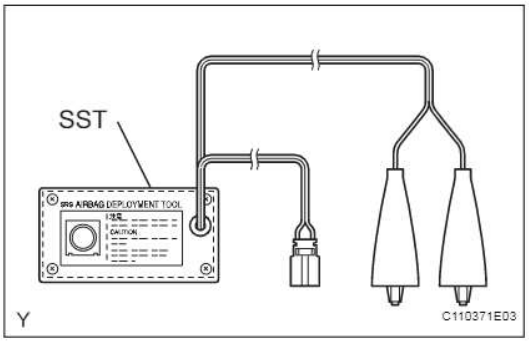
(2005/07-2005/12)

HINT:

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

**CAUTION:**

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

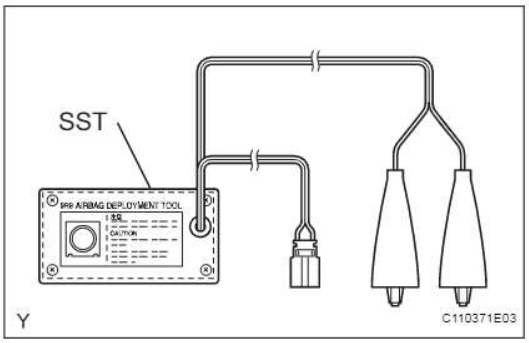


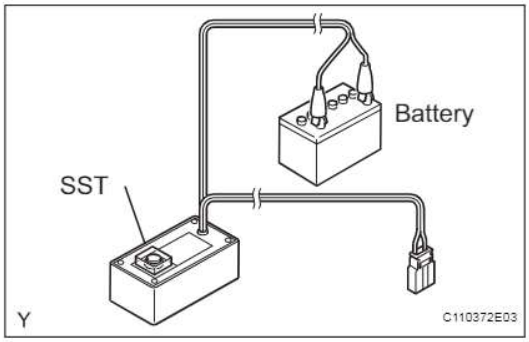

1. **DISPOSE OF STEERING PAD ASSEMBLY TOGETHER WITH VEHICLE**

   HINT:

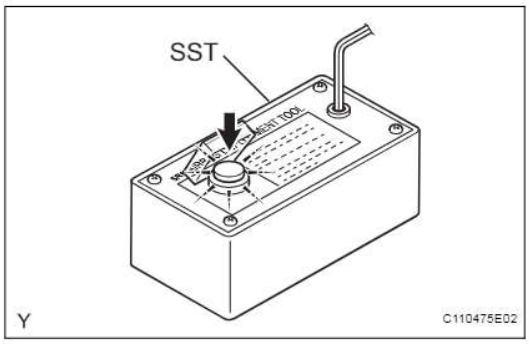
   Prepare a battery as the power source to deploy the airbag.

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





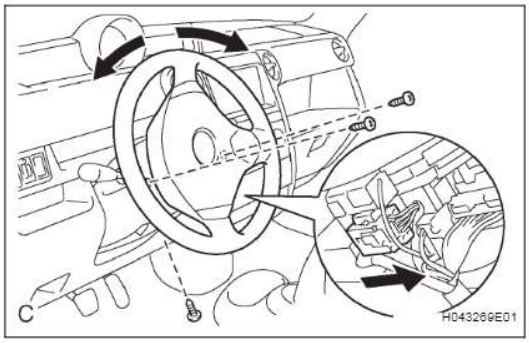

(1) Connect the SST's red clip to the positive (+) battery terminal and the black clip to the negative (-) battery terminal.
HINT:
The yellow connector will be used to connect to another SST in a later step.



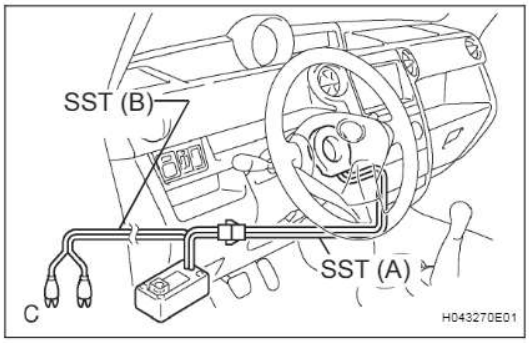

(2) Press the SST activation switch, and check that the LED of the SST activation switch illuminates.
**CAUTION:**
**If the LED illuminates when the activation switch is not pressed, SST may have a malfunction, in which case that SST should not be used.**
(3) Disconnect SST from the battery.

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

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

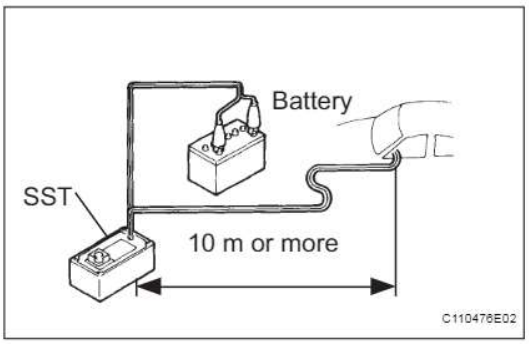



(d) Remove the steering column cover lower.
(1) Turn the steering wheel to the right and left as necessary to remove the 2 screws.
(2) Remove the screw and cover lower.




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

RS




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

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

(4) Maintain a small opening in the front side window for the SST wire harness. Close the remaining windows of the vehicle. Close all doors.
**NOTICE:**
**Take care not do damage the SST wire harness.**

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

(f) Deploy the airbag.

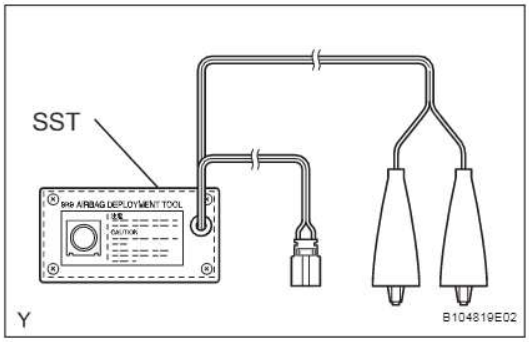
(1) Check that no one is inside the vehicle or within a 10 m (33 ft.) radius of the vehicle.

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

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

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

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

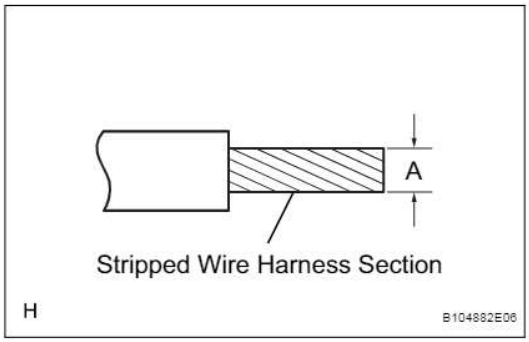



(a) Check if SST is functioning properly (see previous step).

(b) Remove the steering pad (see page RS-404).

**CAUTION:**

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




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

**Wire harness:**

**Stripped wire harness section A**

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

**NOTICE:**

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

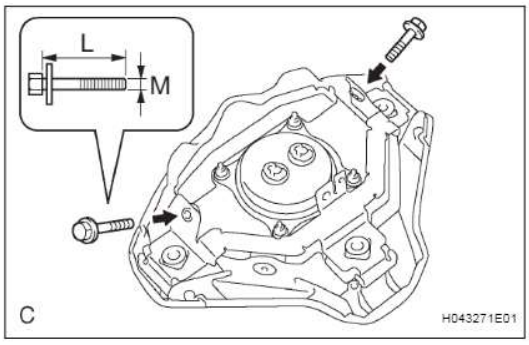
**CAUTION:**

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

HINT:

To calculate the area of the stripped wire harness section:

Area = 3.14 x $Diameter^2/4$




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

**Bolt:**

**L:**

**35.0 mm (1.378 in.)**

**M:**

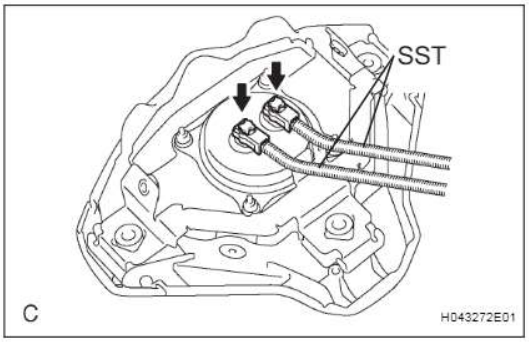
**6.0 mm (0.236 in.)**

**Pitch:**

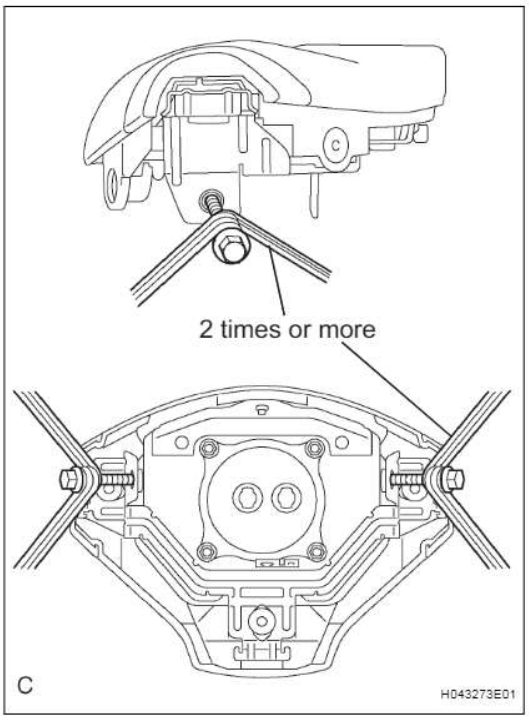
**1.0 mm (0.039 in.)**

**NOTICE:**

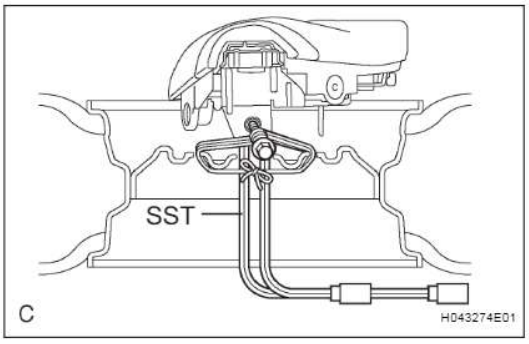
- **Tighten the bolts by hand until they become difficult to turn.**
- **Do not tighten the bolts excessively.**



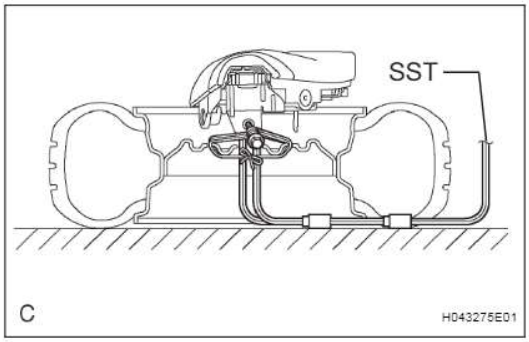

(2) After connecting SST to each other, connect them to the steering pad.
**SST 09082-00802 (09082-10801, 09082-30801)**




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




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

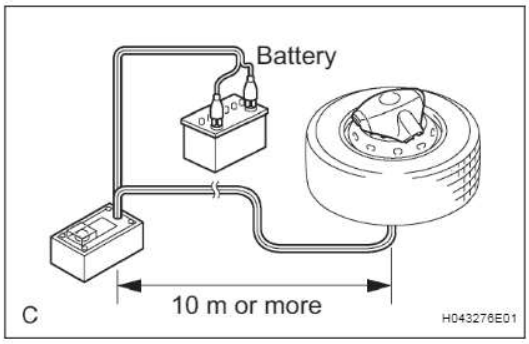


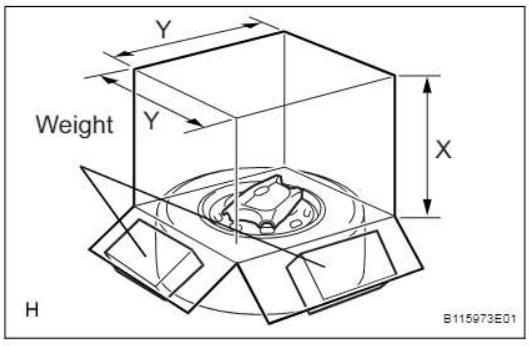

(d) Install SST.

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

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

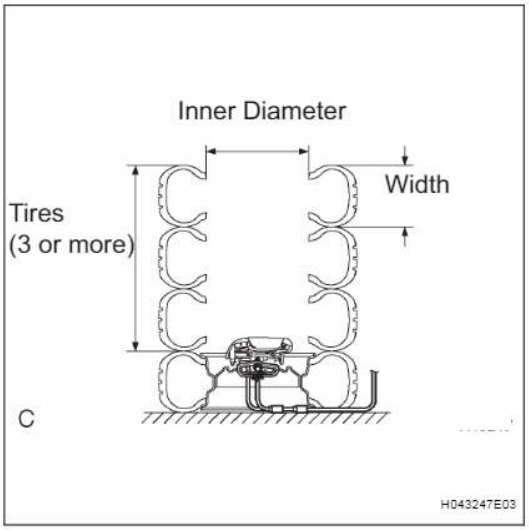
(2) Move SST at least 10 m (33 ft.) away from the steering pad.



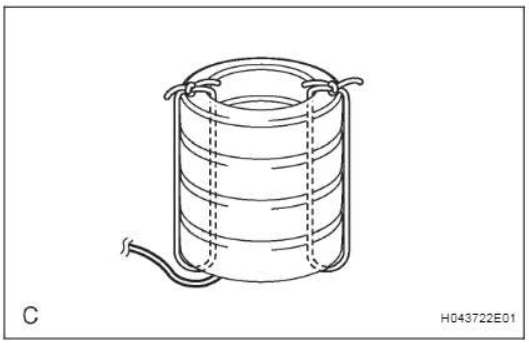




(e) Cover the steering pad with a cardboard box or tires.

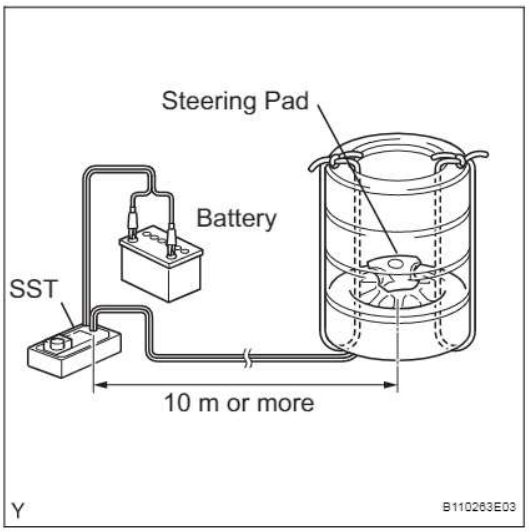
(1) Covering method using a cardboard box:
Cover the steering pad with the cardboard box and place weights of at least 19 kg (43 lb) on the cardboard box in 4 places.
**Cardboard box size:**
**X minimum = 460 mm (18.11 in.)**
**Y minimum = 650 mm (25.59 in.)**
**NOTICE:**
- **When dimension Y of the cardboard box exceeds the tire dimension, X should be the following size.**
  **X minimum = 460 mm (18.11 in.) + width of tire**
- **If using a cardboard box that is smaller than the specified size, the cardboard box will break during airbag deployment.**




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




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




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




(g) Dispose of the steering pad.

**CAUTION:**

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

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

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

RS

# DISPOSAL

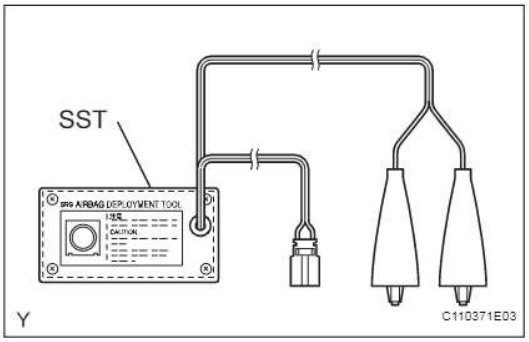
(2005/12- )

HINT:

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

**CAUTION:**

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

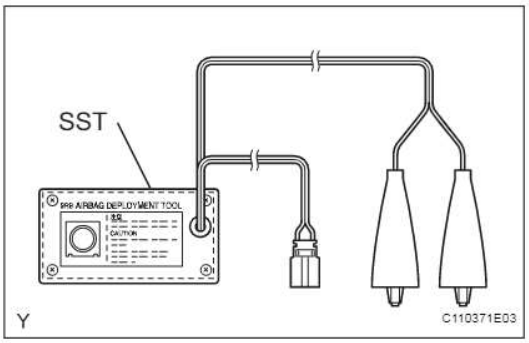


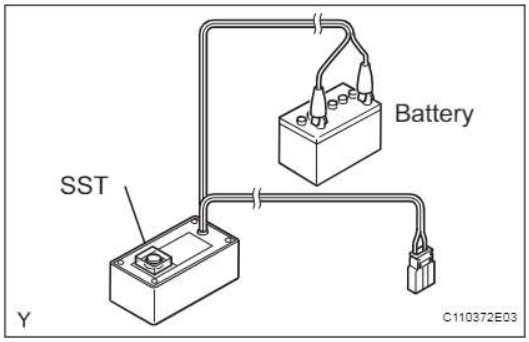

1. **DISPOSE OF STEERING PAD ASSEMBLY TOGETHER WITH VEHICLE**

   HINT:

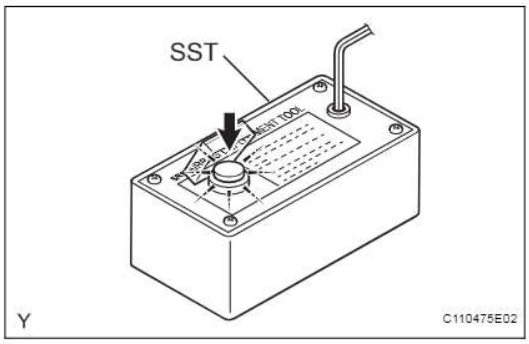
   Prepare a battery as the power source to deploy the airbag.

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





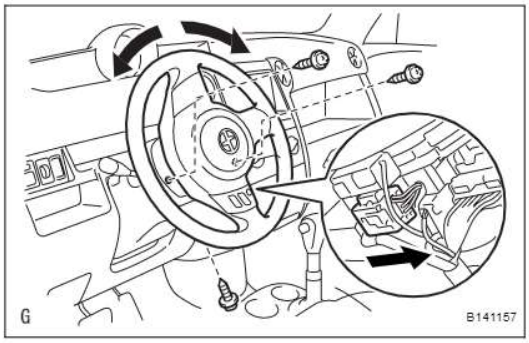

(1) Connect the SST's red clip to the positive (+) battery terminal and the black clip to the negative (-) battery terminal.
HINT:
The yellow connector will be used to connect to another SST in a later step.



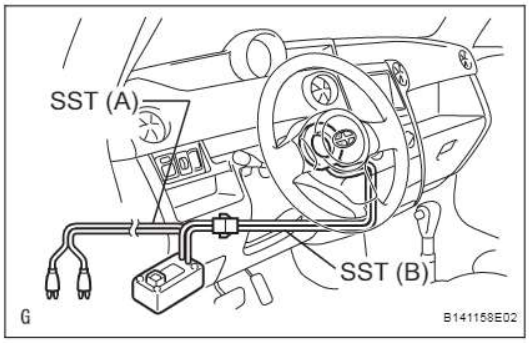

(2) Press the SST activation switch, and check that the LED of the SST activation switch illuminates.
**CAUTION:**
**If the LED illuminates when the activation switch is not pressed, SST may have a malfunction, in which case that SST should not be used.**
(3) Disconnect SST from the battery.

(b) Follow the "Precaution" (see page RS-11).

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

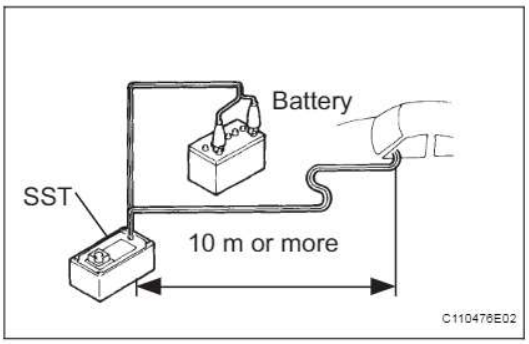



(d) Remove the steering column cover lower.
(1) Turn the steering wheel to the right and left as necessary to remove the 2 screws.
(2) Remove the screw and cover lower.




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

RS




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

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

(4) Maintain a small opening in the front side window for the SST wire harness. Close the remaining windows of the vehicle. Close all doors.
**NOTICE:**
**Take care not do damage the SST wire harness.**

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

(f) Deploy the airbag.

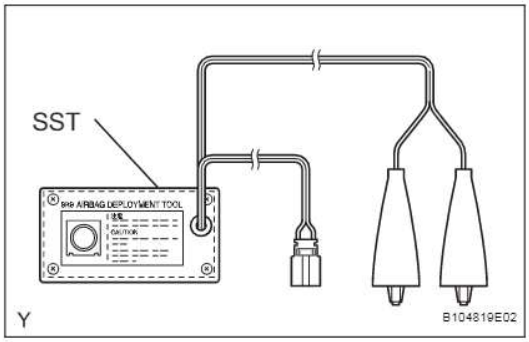
(1) Check that no one is inside the vehicle or within a 10 m (33 ft.) radius of the vehicle.

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

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

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

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

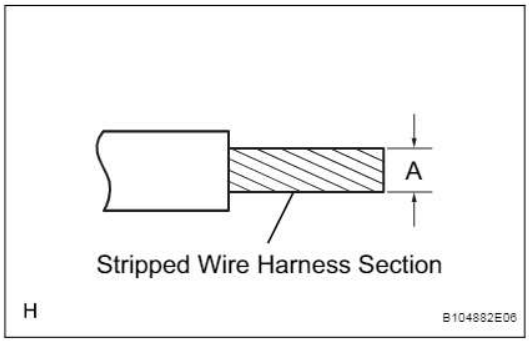



(a) Check if SST is functioning properly (see previous step).

(b) Remove the steering pad (see page RS-404).

**CAUTION:**

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




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

**Wire harness:**

**Stripped wire harness section A**

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

**NOTICE:**

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

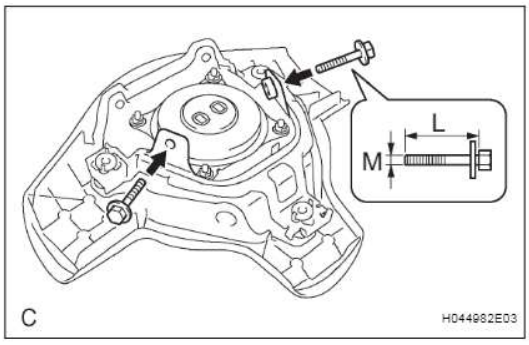
**CAUTION:**

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

HINT:

To calculate the area of the stripped wire harness section:

Area = 3.14 x $Diameter^2/4$




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

**Bolt:**

**L:**

**35.0 mm (1.378 in.)**

**M:**

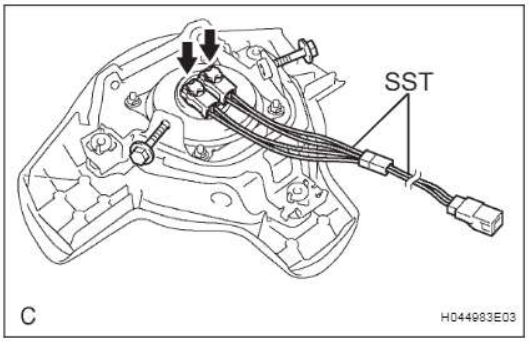
**6.0 mm (0.236 in.)**

**Pitch:**

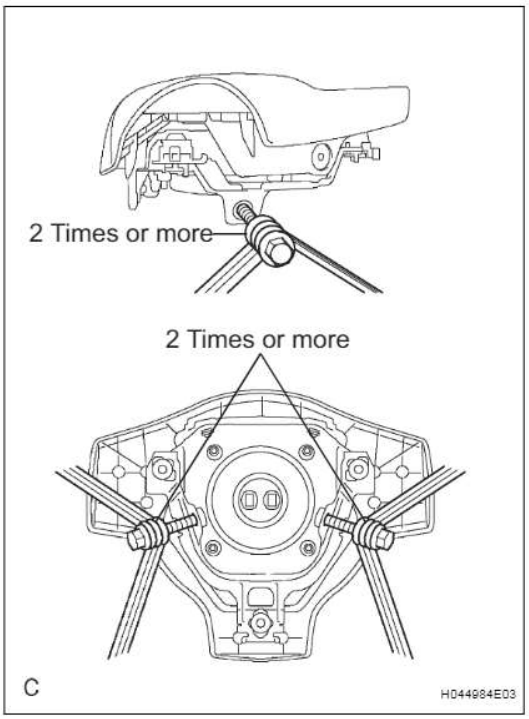
**1.0 mm (0.039 in.)**

**NOTICE:**

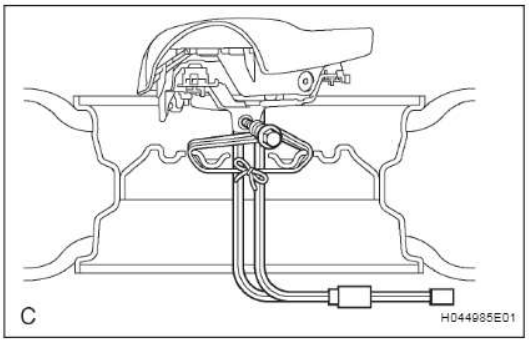
- **Tighten the bolts by hand until they become difficult to turn.**
- **Do not tighten the bolts excessively.**



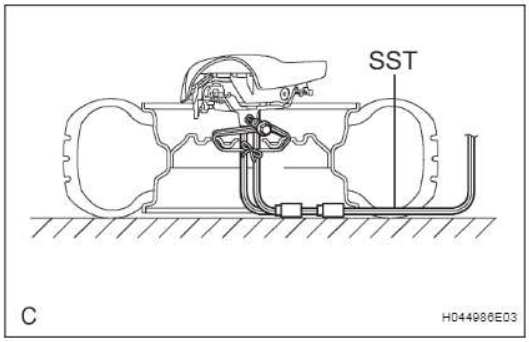

(2) After connecting SST to each other, connect them to the steering pad.
**SST 09082-00802 (09082-10801, 09082-30801)**




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




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




(d) Install SST.

**CAUTION:**

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

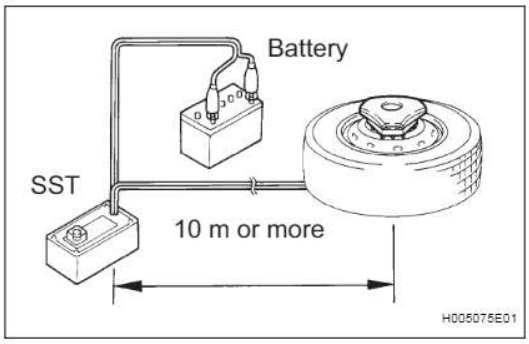
(1) Connect the connector of SST.

**SST 09082-00700**

**NOTICE:**

**To avoid damaging the SST connector and wire harness, do not lock the secondary lock of the twin lock. Also, secure some slack for the SST wire harness inside the disc wheel.**

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




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

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

**Cardboard box size:**

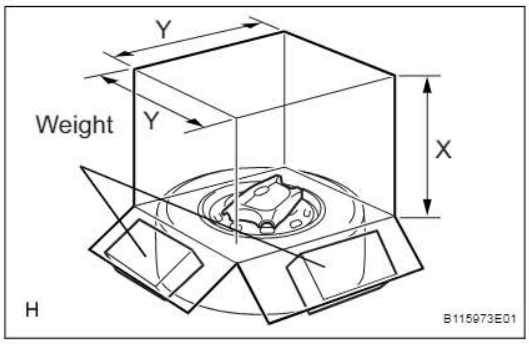
**X minimum = 460 mm (18.11 in.)**

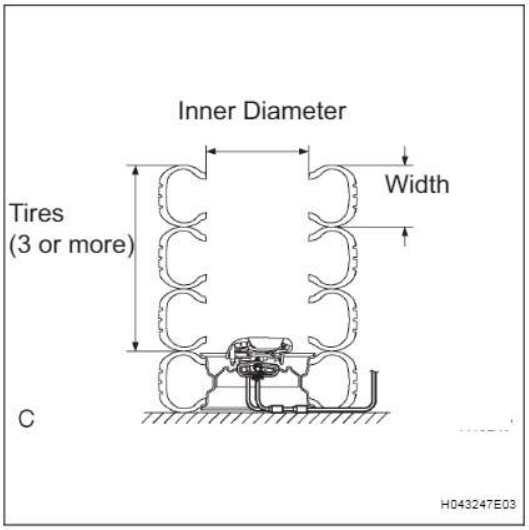
**Y minimum = 650 mm (25.59 in.)**

**NOTICE:**

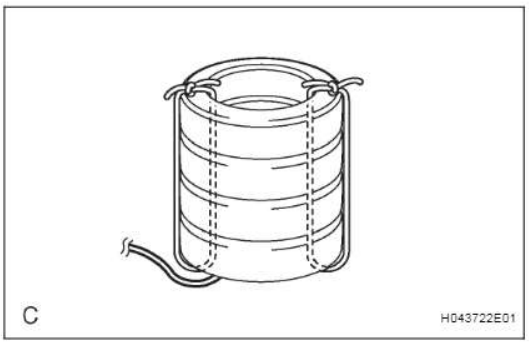
- **When dimension Y of the cardboard box exceeds the tire dimension, X should be the following size.**

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

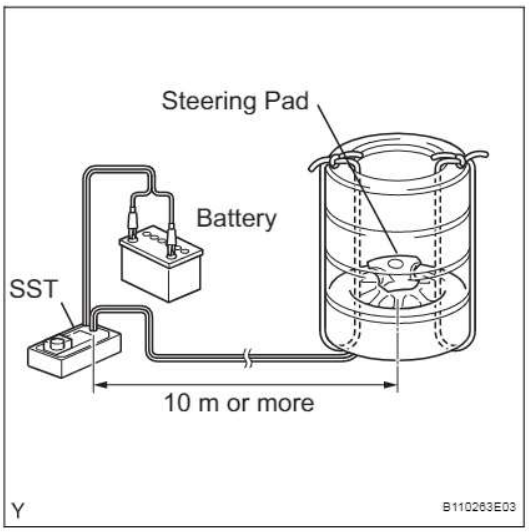




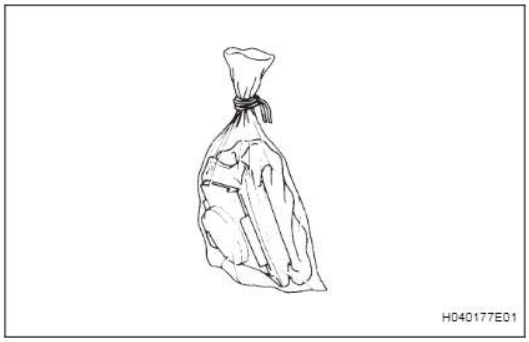

(2) Covering method using tires:
Place at least 3 tires (without disc wheels) on top of the tire (with disc wheel and steering pad).
**Tire size:**
**Width minimum:**
**185 mm (7.28 in.)**
**Inner diameter minimum:**
**360 mm (14.17 in.)**
**CAUTION:**
**Do not use tires with disc wheels to cover the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




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




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




(g) Dispose of the steering pad.

**CAUTION:**

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

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

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

# INSPECTION

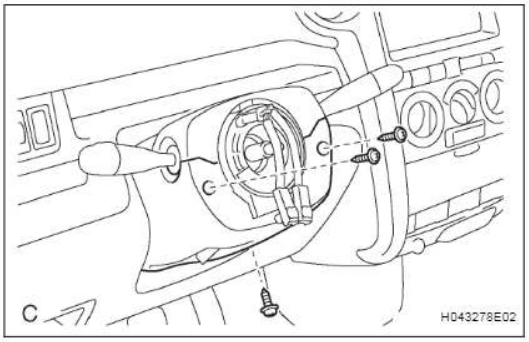
1. **INSPECT SPIRAL CABLE SUB-ASSEMBLY**
   (a) Check that there are no scratches or cracks on its connector, and that the cable does not have cracks, dents or chipping.

RS

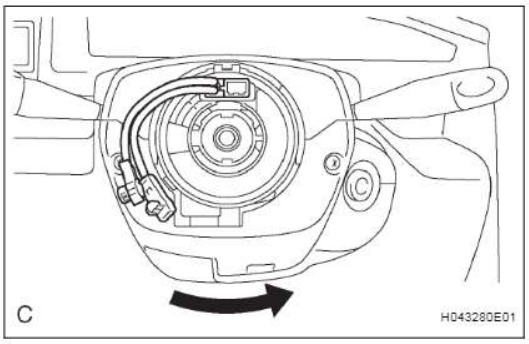
# INSTALLATION

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

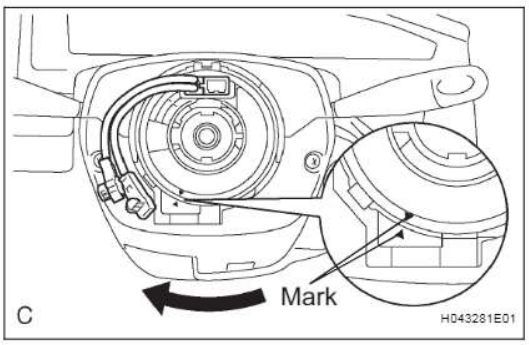
1. **INSTALL SPIRAL CABLE SUB-ASSEMBLY**
   (a) Check that the front wheels are facing straight ahead.
   (b) Set the turn signal switch to the neutral position.
   **NOTICE:**
   **Make sure that the turn signal switch is in the neutral position, as the pin of the turn signal switch may be snapped.**
   (c) Install the spiral cable.
   **NOTICE:**
   **When replacing the spiral cable with a new one, remove the lock pin before installing the steering wheel.**
   (d) Connect the connector to the spiral cable.
   **NOTICE:**
   **When handling the airbag connector, do not damage the airbag wire harness.**




2. **INSTALL STEERING COLUMN COVER**
   (a) Install the steering column covers with the 3 screws.




3. **POSITION SPIRAL CABLE**
   (a) Slowly rotate the spiral cable counterclockwise by hand until it feels firm.
   **NOTICE:**
   **Do not use the airbag wire harness to turn the spiral cable.**




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

4. **INSTALL STEERING WHEEL ASSEMBLY (See page SR-18)**

5. **INSTALL STEERING PAD ASSEMBLY (See page RS-405)**
6. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
7. **INSPECT STEERING PAD ASSEMBLY (See page RS-405)**
8. **CHECK SRS WARNING LIGHT**
   (a) Check the SRS warning light (see page RS-37).
9. **INSPECT STEERING WHEEL POSITION**

RS

# DIAGNOSIS SYSTEM

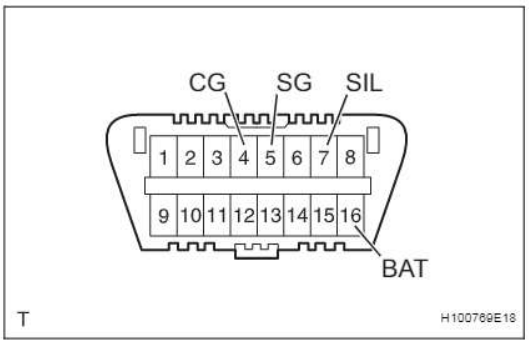
(2005/12- )

## 1. DESCRIPTION

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

## 2. CHECK DLC3

(a) The ECU uses ISO 15765-4 for communication. The terminal arrangement of the DLC3 complies with ISO 15031-3 and matches the ISO 15765-4 format.



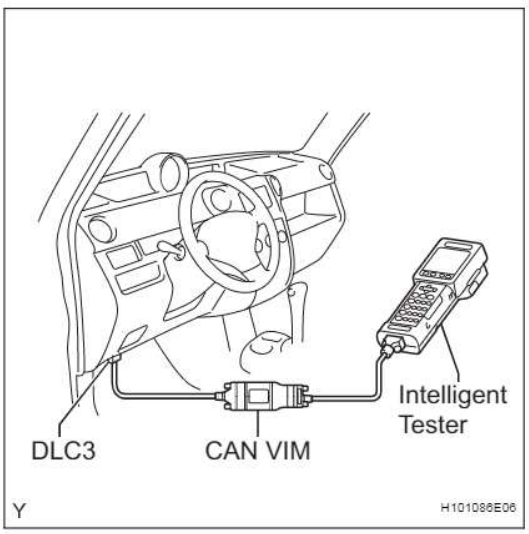

| Symbols (Terminal No.) | Terminal Description | Connection | Specified Condition |
|---|---|---|---|
| SIL (7) - SG (5) | Bus "+" line | During transmission | Pulse generation |
| CG (4) - Body ground | Chassis ground | Always | Below 1 Ω |
| SG (5) - Body ground | Signal ground | Always | Below 1 Ω |
| BAT (16) - Body ground | Battery positive | Always | Below 1 Ω |

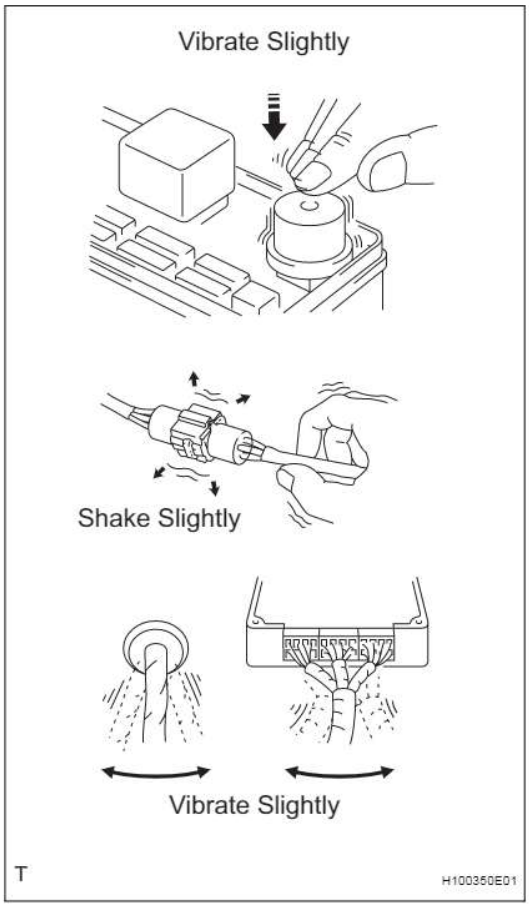
If the result is not as specified, the DLC3 may have a malfunction. Repair or replace the harness and connector.

HINT:

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

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






### 3. SYMPTOM SIMULATION

HINT:

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

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

(1) Apply slight vibration with a finger to the part of the sensor considered to be the cause of the problem and check whether or not the malfunction occurs.

**NOTICE:**

**Applying strong vibration to relays may open relays.**

(2) Slightly shake the connector vertically and horizontally.

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

HINT:

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

### 4. FUNCTION OF SRS WARNING LIGHT

(a) Primary check:

(1) Turn the ignition switch OFF. Wait at least 2 seconds and then turn the ignition switch ON. The SRS warning light illuminates for approximately 6 seconds and the SRS diagnosis is performed.

HINT:

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

(b) Constant check:

(1) After the primary check, the center airbag sensor constantly monitors the SRS for malfunctions.

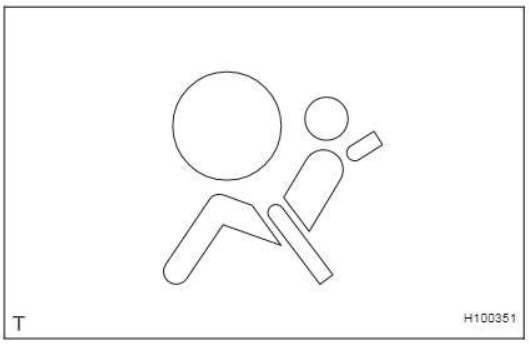
HINT:

If malfunctions are detected during the constant check, the center airbag sensor functions as follows:

- The SRS warning light illuminates.
- The SRS warning light turns off, and then illuminates. This blinking pattern indicates the source voltage drop. After the source voltage returns to normal for 10 seconds, the SRS warning light turns off.

(c) Review:
(1) When the SRS is normal:
The SRS warning light illuminates only during the primary check period (approximately 6 seconds after the ignition switch is turned ON).
(2) When the SRS is malfunctioning, one of the following may occur:
- The SRS warning light remains on even after the primary check period has elapsed.
- The SRS warning light turns off after the primary check, but illuminates again during the constant check.
- The SRS warning light does not illuminate when turning the ignition switch from OFF to ON.

HINT:
The center airbag sensor keeps the SRS warning light illuminated after an airbag has been deployed.




**5. SRS WARNING LIGHT CHECK**

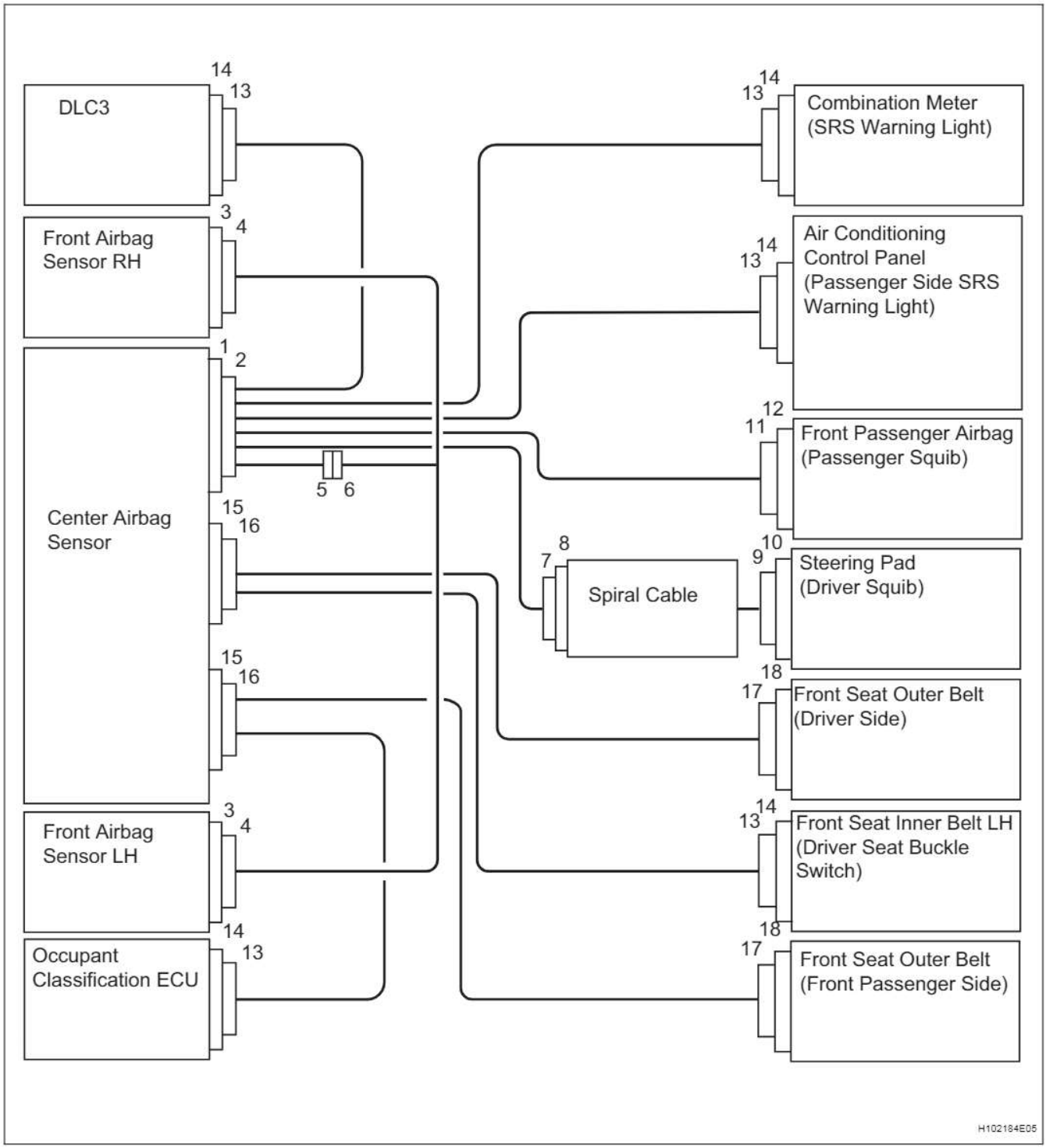
(a) Turn the ignition switch ON, and check that the SRS warning light illuminates for approximately 6 seconds (primary check).
(b) Check that the SRS warning light turns off approximately 6 seconds after the ignition switch is turned ON (constant check).
HINT:
When any of the following symptoms occur, refer to the Problem Symptoms Table (see page RS-34).
- The SRS warning light illuminates occasionally after the primary check period has elapsed.
- The SRS warning light illuminates but a DTC is not output.
- The ignition switch is turned from OFF to ON but the SRS warning light does not illuminate.

**6. RELEASE METHOD OF ACTIVATION PREVENTION MECHANISM**

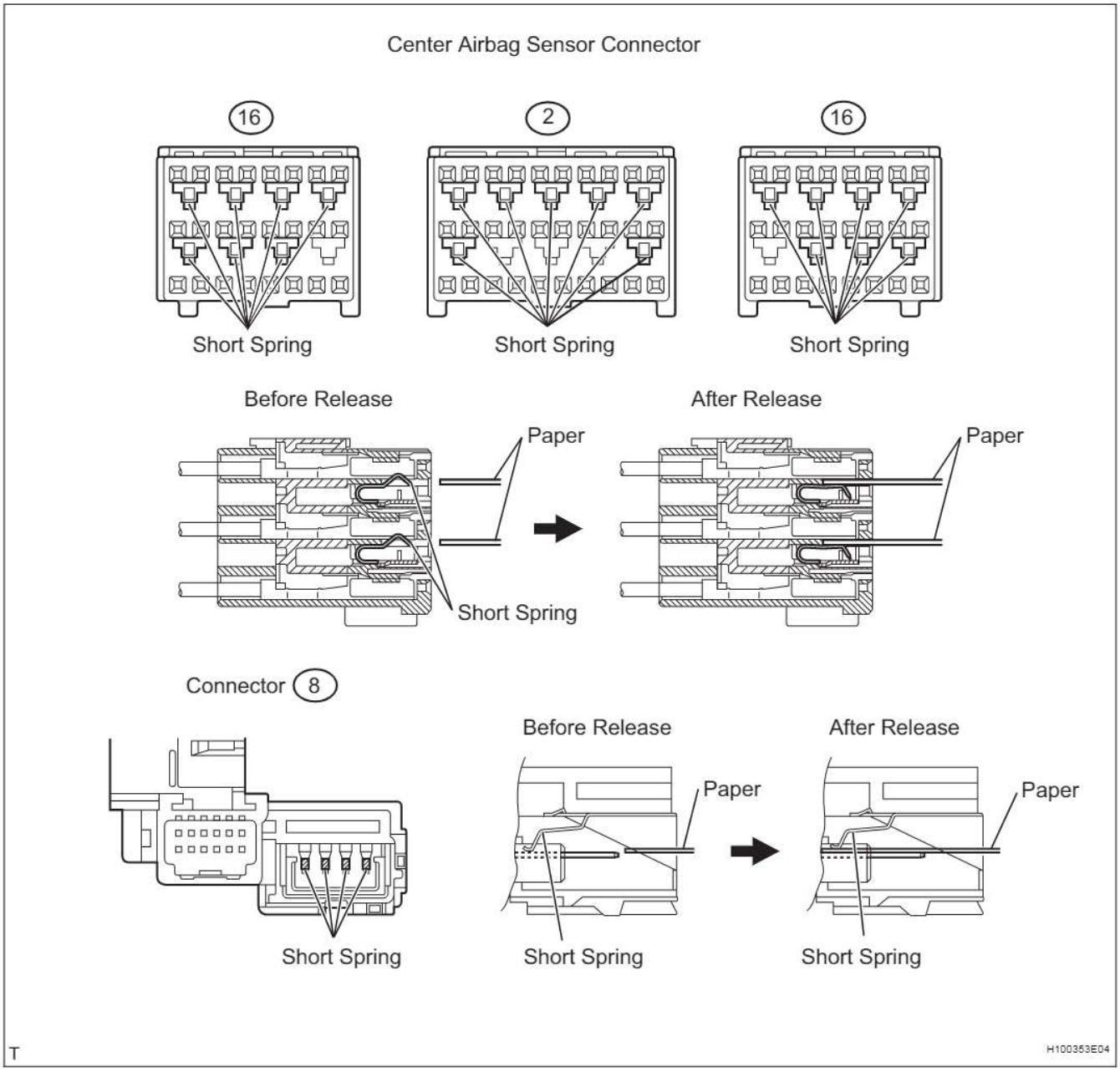
(a) The activation prevention mechanism is built into the connector for the squib circuit of the SRS. As explained in the troubleshooting section, insert a piece of paper that is the same thickness as the male terminal between the terminal and short spring to release the mechanism (refer to the illustrations below).
**CAUTION:**
**Never release the mechanism on the squib side connector.**
**NOTICE:**
- **Do not release the mechanism unless instructed to do so in the troubleshooting procedure.**

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





RS

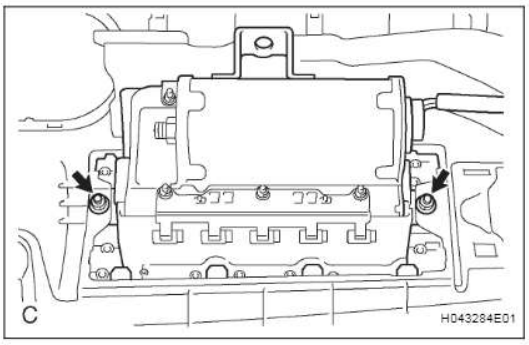

Center Airbag Sensor Connector
16
2
16
Short Spring
Short Spring
Short Spring
Before Release
After Release
Paper
Paper
Short Spring
Connector 8
Before Release
After Release
Paper
Paper
Short Spring
Short Spring
Short Spring
T
H100353E04

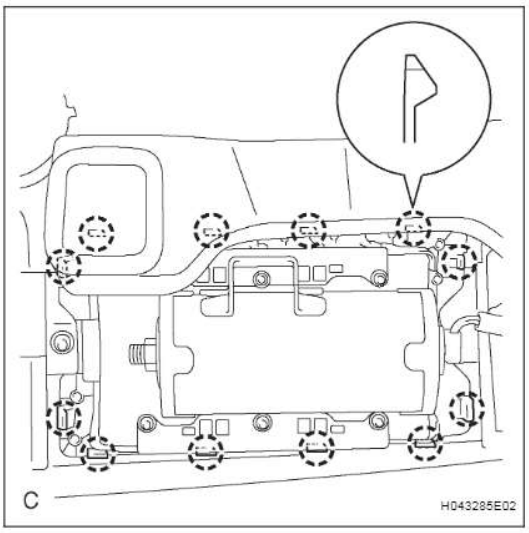
RS

# REMOVAL

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

1. **REMOVE NO. 1 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY**
2. **REMOVE NO. 2 INSTRUMENT PANEL SPEAKER PANEL SUB-ASSEMBLY**
3. **REMOVE INSTRUMENT PANEL SUB-ASSEMBLY**
   (a) Remove the instrument panel (see page IP-4).
   **NOTICE:**
   **When handling the airbag connector, do not damage the airbag wire harness.**
4. **REMOVE FRONT PASSENGER AIRBAG ASSEMBLY**
   (a) Remove the 2 nuts.

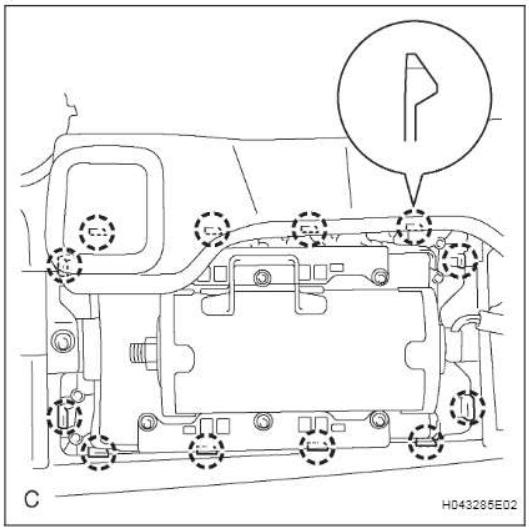


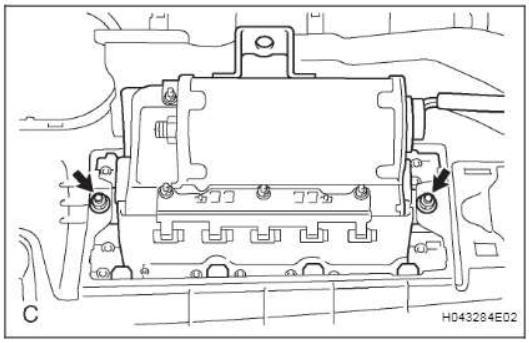

   (b) Detach the 12 claws and remove the front passenger airbag.

# INSTALLATION

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




1. **INSTALL FRONT PASSENGER AIRBAG ASSEMBLY**
   (a) Attach the 12 claws to install the front passenger airbag.




   (b) Install the 2 nuts.

2. **INSTALL INSTRUMENT PANEL SUB-ASSEMBLY**
   (a) Install the instrument panel (see page IP-10).
   **NOTICE:**
   **When handling the airbag connector, do not damage the airbag wire harness.**

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

4. **CHECK SRS WARNING LIGHT**
   (a) Check the SRS warning light (see page RS-37).

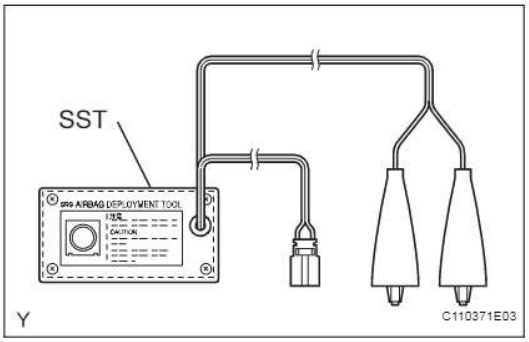
RS

# DISPOSAL

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

**CAUTION:**

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

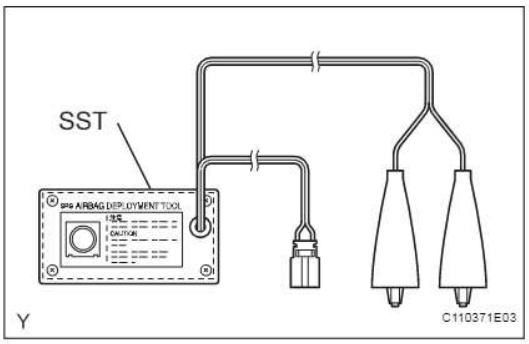



**1. DISPOSE OF FRONT PASSENGER AIRBAG ASSEMBLY TOGETHER WITH VEHICLE**

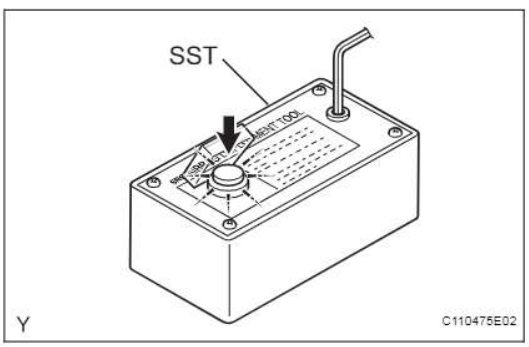
HINT:
Prepare a battery as the power source to deploy the airbag.

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

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




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



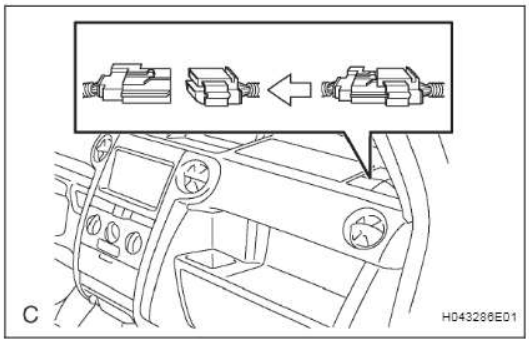

(3) Disconnect SST from the battery.

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

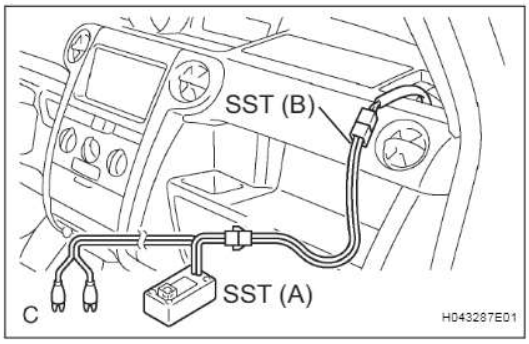
(c) Disconnect the cable from the negative (-) battery terminal.
**CAUTION:**
**Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.**

(d) Remove the No. 1 instrument panel speaker (see page IP-5).

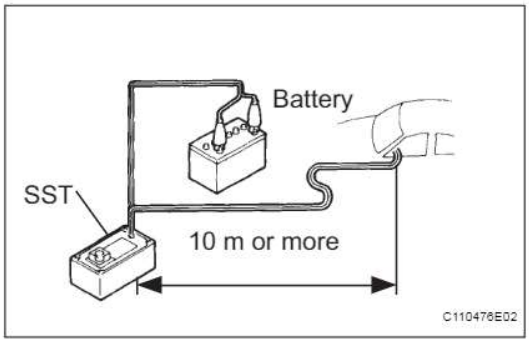
(e) Install SST.




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




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




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

(4) Maintain a small opening in the front side window for the SST wire harness. Close the remaining windows of the vehicle. Close all doors.
**NOTICE:**
**Take care not to damage the SST wire harness.**

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

(f) Deploy the airbag.

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

(2) Press the SST activation switch and deploy the airbag.
**CAUTION:**
- **When deploying the airbag, make sure that no one is near the vehicle.**
- **The airbag becomes extremely hot when it is deployed. Do not touch it for at least 30 minutes after deployment.**

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

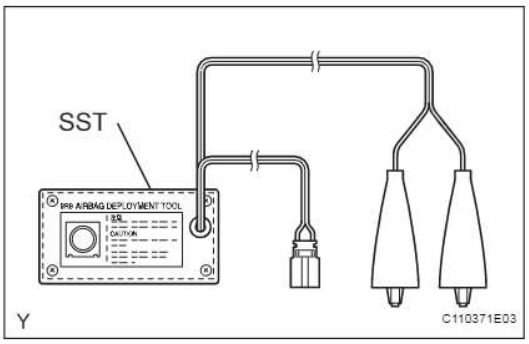
HINT:
The airbag is deployed as the SST activation switch LED illuminates.

**2. DISPOSE OF ONLY FRONT PASSENGER AIRBAG ASSEMBLY**

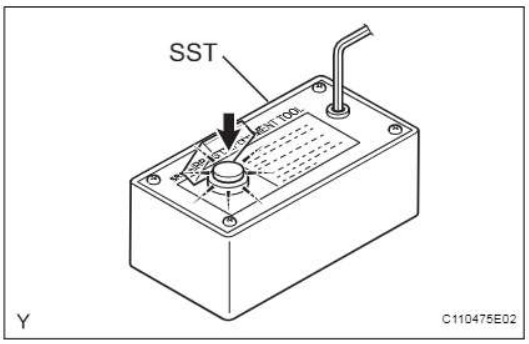
**NOTICE:**

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

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



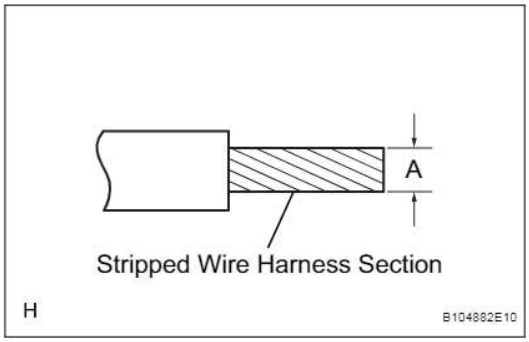

(a) Check if SST is functioning properly.
**SST 09082-00700**
(1) Connect the SST red clip to the positive (+) battery terminal and the black clip to the negative (-) battery terminal.
HINT:
The yellow connector will be used to connect to another SST in a later step.




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

(b) Remove the front passenger airbag (see page RS-425).
**CAUTION:**

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




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

**Wire harness:**

**A:**

**Stripped wire harness section**

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

**NOTICE:**

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

**CAUTION:**

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

HINT:

To calculate the area of the stripped wire harness section:

Area = 3.14 x Diameter$^2$ /4

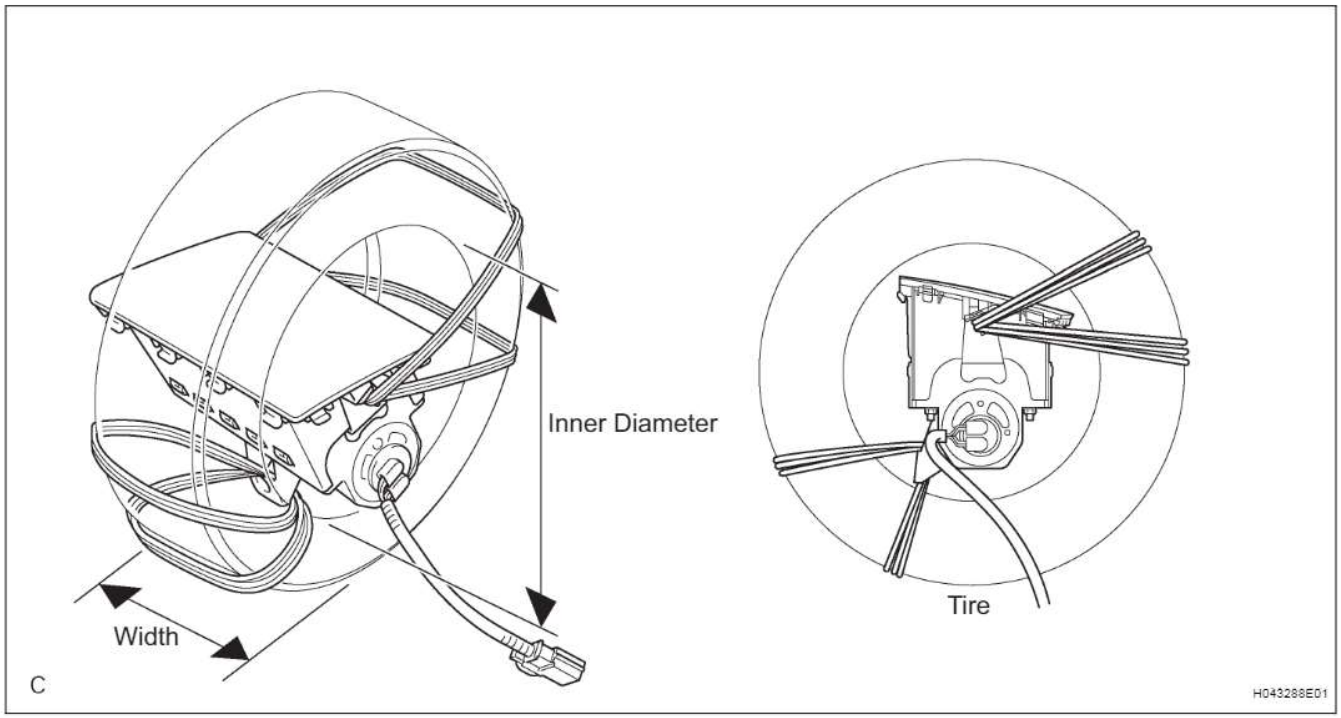
(1) Position the airbag inside the tire so that the brackets contact the tire.

**Tire size:**

**Width minimum: 185 mm (7.28 in.)**

**Inner diameter minimum: 360 mm (14.17 in.)**

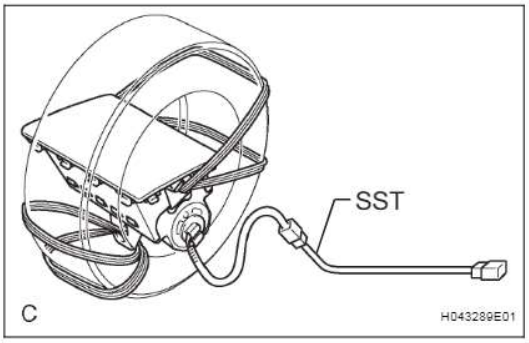
(2) Wind 3 wire harnesses at least twice around the airbag brackets and tire.



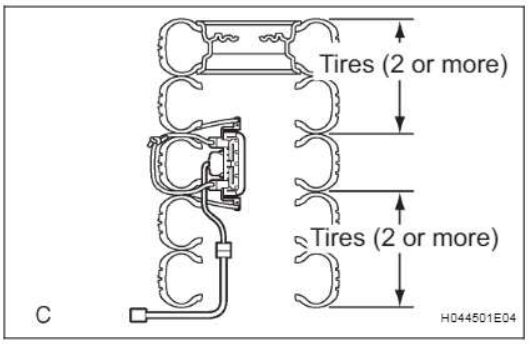

**CAUTION:**

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

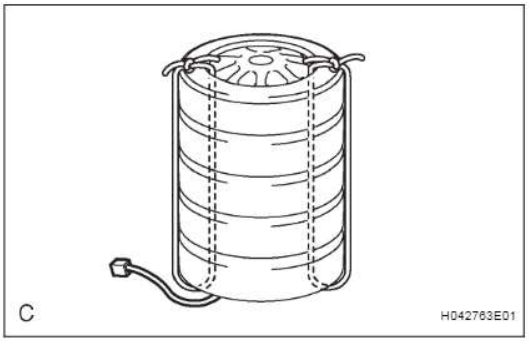
- **Make sure that the wire harnesses are tight. If there is slack in a wire harness, the airbag may come loose when it is deployed.**
- **Always tie down the airbag with the airbag deployment side facing inside the tire.**



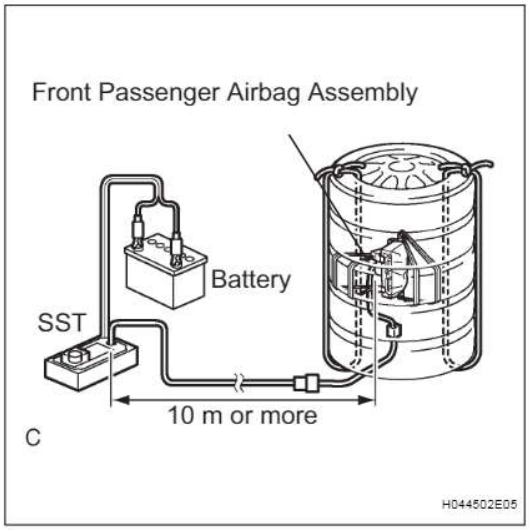

(d) Install SST.
(1) Connect the SST connector to the airbag.
**SST 09082-00780**




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

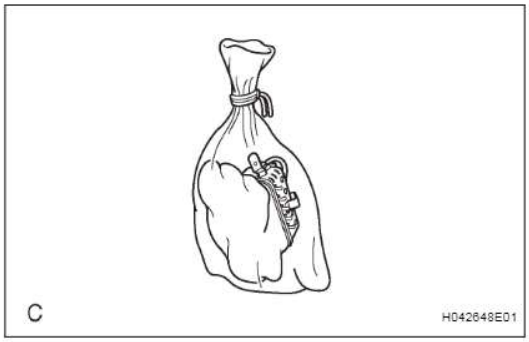



(3) Tie the tires together with 2 wire harnesses.
**CAUTION:**
**Make sure that the wire harnesses are tight. If there is slack in a wire harness, the tires may come loose when the airbag is deployed.**




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

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




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

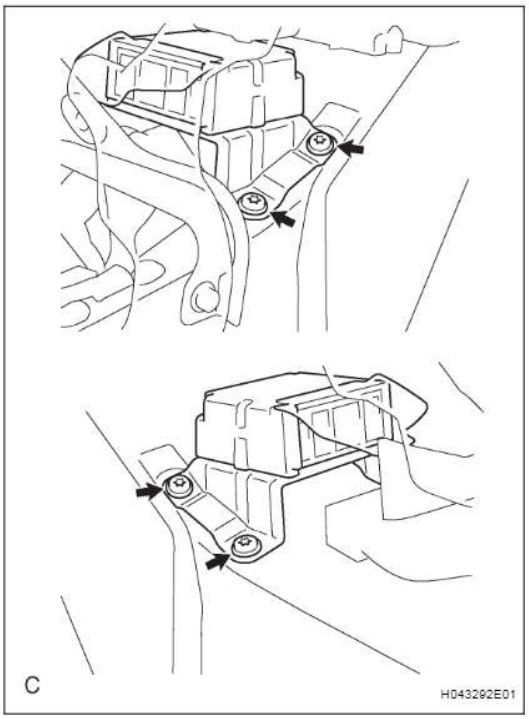
(1) Remove the airbag from the tire.
(2) Place the airbag in a plastic bag, tie it tightly and dispose of it in the same way as other general parts.

RS

# REMOVAL

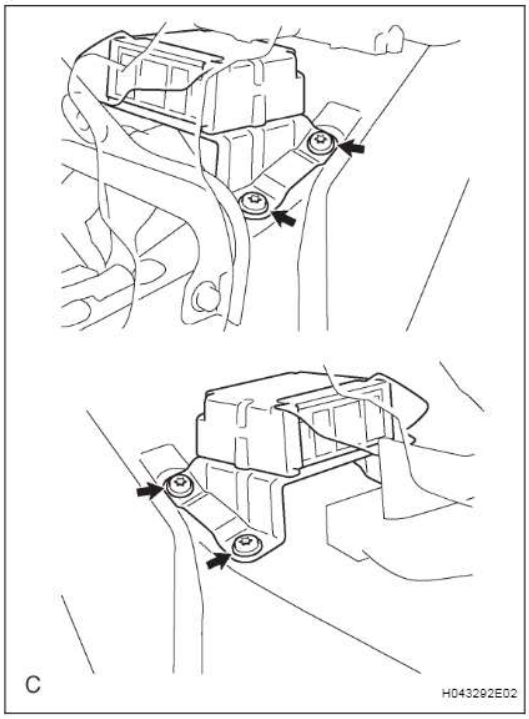
**CAUTION:**
**Be sure to read the precautionary notices concerning the SRS airbag system before servicing it (see page RS-1).**

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
   **CAUTION:**
   **Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.**
2. **REMOVE INSTRUMENT PANEL FINISH PANEL LOWER CENTER (See page IP-22)**
3. **REMOVE CENTER AIRBAG SENSOR ASSEMBLY**
   (a) Disconnect the airbag sensor connectors.
   (b) Using a T40 "torx" socket, remove the 4 screws and airbag sensor.



# INSTALLATION

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



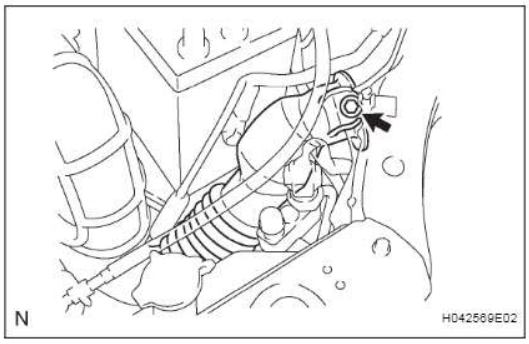

1. **INSTALL CENTER AIRBAG SENSOR ASSEMBLY**
   (a) Using a T40 "torx" socket, install the airbag sensor with the 4 screws.
   **Torque: 20 N*m (200 kgf*cm, 14 ft.*lbf)**
   **CAUTION:**
   - **If the airbag sensor has been dropped, or there are any cracks, dents or other defects in the case, bracket or connector, replace it with a new one.**
   - **When installing the airbag sensor, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.**
   (b) Connect the airbag sensor connectors.
2. **INSTALL INSTRUMENT PANEL FINISH PANEL LOWER CENTER (See page IP-35)**
3. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
4. **CHECK SRS WARNING LIGHT**
   (a) Check the SRS warning light (see page RS-37).

RS

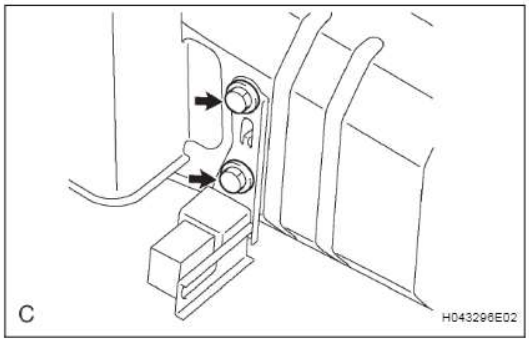
# REMOVAL

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

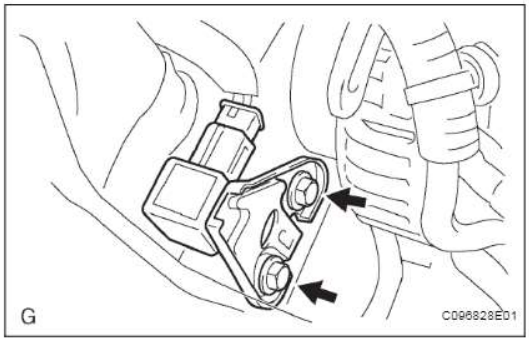
1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
   **CAUTION:**
   **Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.**




2. **REMOVE NO. 1 AIR CLEANER INLET**
   (a) Remove the bolt and air cleaner inlet.




3. **REMOVE FRONT AIRBAG SENSOR LH**
   (a) Disconnect the sensor connector.
   (b) Remove the 2 bolts and sensor.

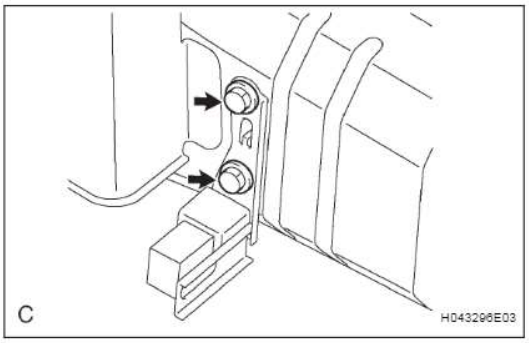



4. **REMOVE FRONT AIRBAG SENSOR RH**
   (a) Disconnect the sensor connector.
   (b) Remove the 2 bolts and sensor.

RS

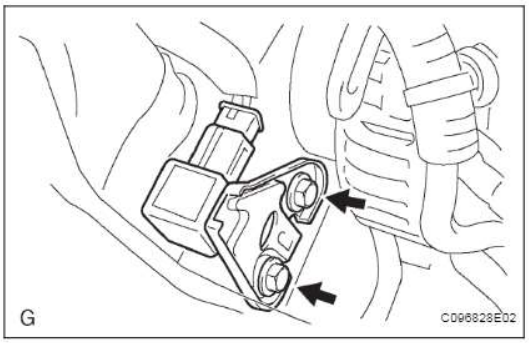
# INSTALLATION

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



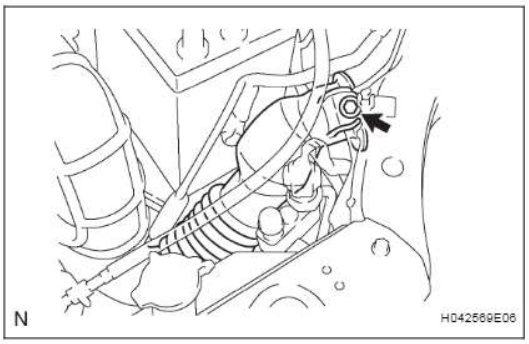

1. **INSTALL FRONT AIRBAG SENSOR LH**
   (a) Install the sensor with the 2 bolts.
   **Torque: 17.5 N*m (178 kgf*cm, 13 ft.*lbf)**
   **CAUTION:**
   - **If the airbag sensor has been dropped, or there are any cracks, dents or other defects in the case or connector, replace it with a new one.**
   - **When installing the airbag sensor, make sure that the SRS wiring does not interfere with other parts and is not pinched between other parts.**

   (b) Check that there is no free play in the installation parts of the sensor.
   (c) Connect the sensor connector.




2. **INSTALL FRONT AIRBAG SENSOR RH**
   (a) Install the sensor with the 2 bolts.
   **Torque: 17.5 N*m (178 kgf*cm, 13 ft.*lbf)**
   **NOTICE:**
   - **If the airbag sensor has been dropped, or there are any cracks, dents or other defects in the case or connector, replace it with a new one.**
   - **When installing the airbag sensor, make sure that the SRS wiring does not interfere with other parts and is not pinched between other parts.**

   (b) Check that there is no free play in the installation parts of the sensor.
   (c) Connect the sensor connector.




3. **INSTALL NO. 1 AIR CLEANER INLET**
   (a) Install the air cleaner inlet with the bolt.

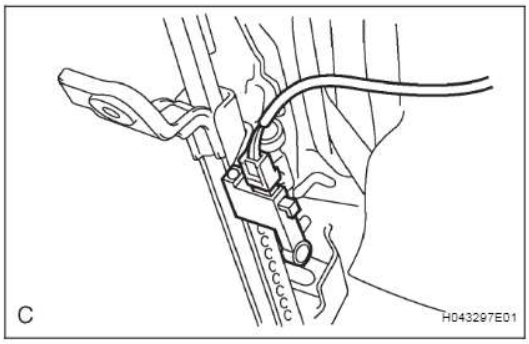
4. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

5. **CHECK SRS WARNING LIGHT**
   (a) Check the SRS warning light (see page RS-37).

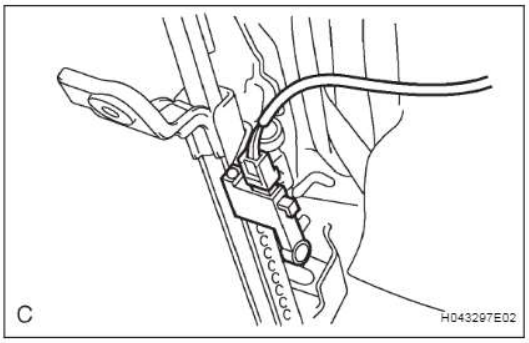
# REMOVAL

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

1. **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
   **CAUTION:**
   **Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.**
2. **REMOVE FRONT SEAT ASSEMBLY**
   (a) Remove the front seat assembly (see page SE-5).
3. **REMOVE SEAT POSITION AIRBAG SENSOR**
   (a) Disconnect the connector.
   (b) Using a T30 "torx" socket, remove the screw and seat position sensor.



RS




# INSTALLATION

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

1. **INSTALL SEAT POSITION AIRBAG SENSOR**
   (a) Connect the connector.
   (b) Install the sensor.
   (c) Using a T30 "torx" socket, install the screw.
   **Torque: 8.0 N*m (82 kgf*cm, 71 in.*lbf)**
   **CAUTION:**
   - **If the sensor has been dropped, or there are any cracks, dents or other defects in the case or connector, replace the sensor with a new one.**
   - **When installing the sensor, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.**
2. **INSTALL FRONT SEAT ASSEMBLY**
   (a) Install the front seat assembly (see page SE-17).
3. **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**
4. **CHECK SRS WARNING LIGHT**
   (a) Check the SRS warning light (see page RS-37).