Last Modified: 3-10-2010	6.4 L	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000KT1074X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: PRECAUTION (2010 Corolla)		

PRECAUTION

HINT:

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

  The steering pad, front passenger airbag assembly, front seat side airbag assembly*, curtain shield airbag assembly*, center airbag sensor assembly, front airbag sensor, side airbag sensor*, rear airbag sensor*, seat position airbag sensor, front seat inner belt assembly or front seat outer belt assembly are collectively referred to as the SRS parts.

- *: For vehicles equipped with the front seat side airbags and curtain shield airbags.

CAUTION:

- The vehicle is equipped with a Supplemental Restraint System (SRS). It consists of a driver airbag, front passenger airbag, center airbag sensor, front seat side airbags*, curtain shield airbags*, front seat belt pretensioners, seat position airbag sensor, seat belt buckle switch, front airbag sensors, side airbag sensors* and rear airbag sensors*. Failure to carry out service operations in the correct sequence could cause the SRS to unexpectedly deploy during servicing, possibly leading to a serious accident. Further, if a mistake is made when servicing the SRS, it is possible that the SRS may fail to operate when required. Before performing servicing (including removal or installation of parts, inspection or replacement), be sure to read the following items carefully, then follow the procedures exactly as indicated in the repair manual.
- Wait at least 90 seconds after the ignition switch is turned off and the cable is disconnected from the negative (-) battery terminal before starting the operation.

  (The SRS is equipped with a backup power source, so if work is started within 90 seconds after disconnecting the cable from the negative (-) battery terminal, the SRS may be deployed.)
- Do not expose any of the SRS parts directly to hot air or flames.

NOTICE:

- Malfunction symptoms of the SRS are difficult to confirm, so DTCs are the most important source of information when troubleshooting. When troubleshooting the SRS, always inspect DTCs before disconnecting the battery.
- Even in the case of a minor collision that does not cause the SRS to deploy, the SRS parts should be inspected.
- Before beginning repairs, remove the airbag sensors if any kind of shock is likely to occur to the airbag sensors during the operation.
- Never use SRS parts from another vehicle. When replacing parts, replace them with new ones.
- Never disassemble or repair any of the SRS parts in order to reuse them. If any of these parts have been dropped, or any defect is found (e.g. cracks, dents or any other defects) in any of the housings, brackets or connectors, replace the part with a new one.
- Use a volt/ohmmeter with high impedance (10 kΩ/V minimum) for troubleshooting the electrical circuits.
- Information labels are attached near the SRS parts. Follow the instructions noted in the caution.
- After work on the SRS is completed, perform an SRS warning light check 

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- When the cable is disconnected from the negative (-) battery terminal, the memory will be cleared. Because of this, be sure to make a record of the contents memorized in each system before starting work. When work is finished, adjust each system to its previous state. Never use a backup power supply for the purpose of retaining the memory of vehicle electronic systems.
- If the vehicle is equipped with a mobile communication system, refer to the precautions in the INTRODUCTION section.

1. HANDLING PRECAUTIONS FOR AIRBAG SENSORS

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

(1) Replacement of the airbag sensors.

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

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

(c) Do not use airbag sensors which have been dropped.

(d) Do not disassemble the airbag sensors.

2. INSPECTION PROCEDURE FOR VEHICLE INVOLVED IN ACCIDENT

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

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

3. EXPRESSIONS OF IGNITION SWITCH

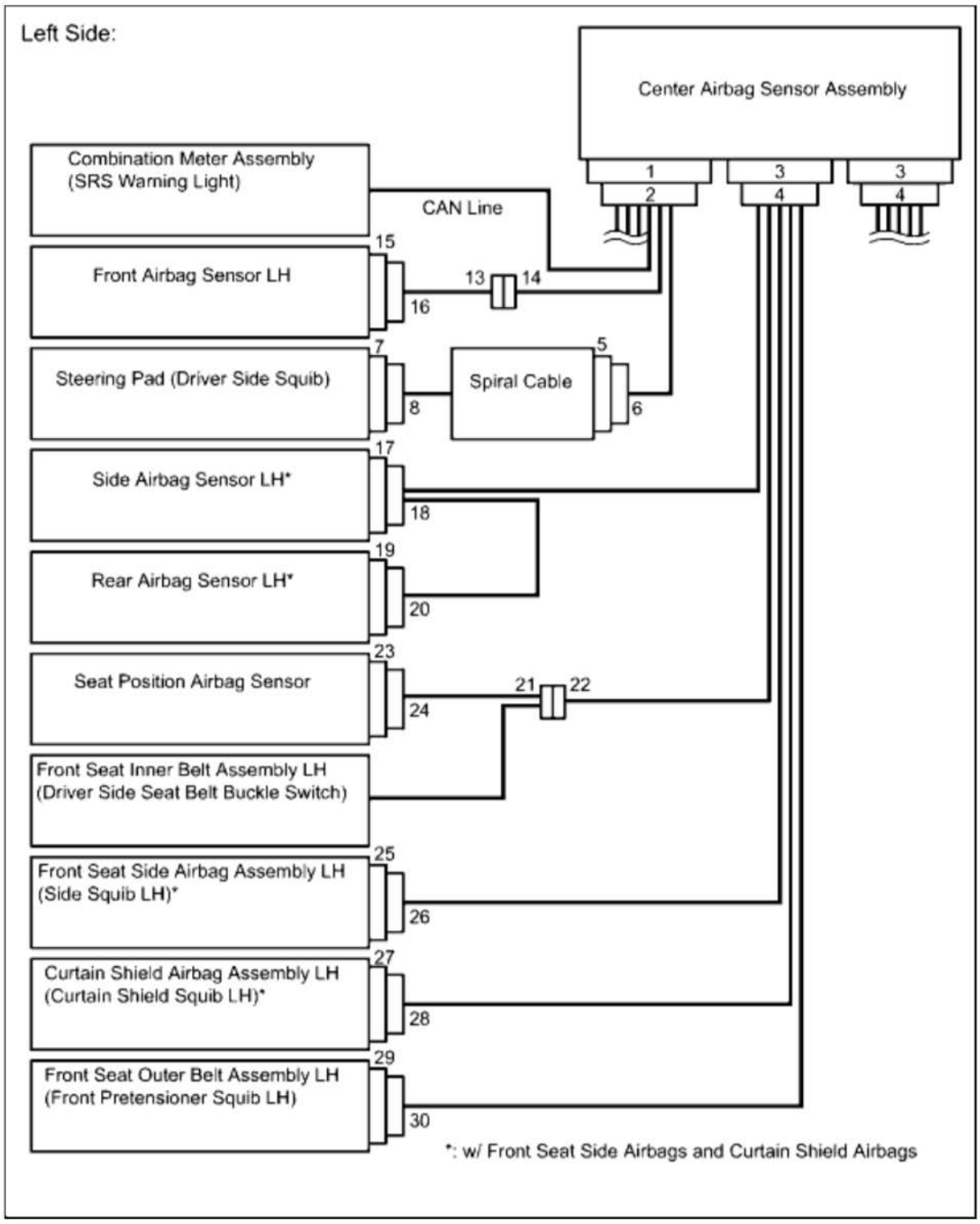
(a) The type of ignition switch used on this model differs according to the specifications of the vehicle. The expressions listed in the table below are used in this section.

EXPRESSION	SWITCH TYPE	
	IGNITION SWITCH (POSITION)	ENGINE SWITCH (CONDITION)
Ignition Switch off	LOCK	Off
Ignition Switch ON	ON	On (IG)
Ignition Switch ACC	ACC	On (ACC)
Engine Start	START	Start

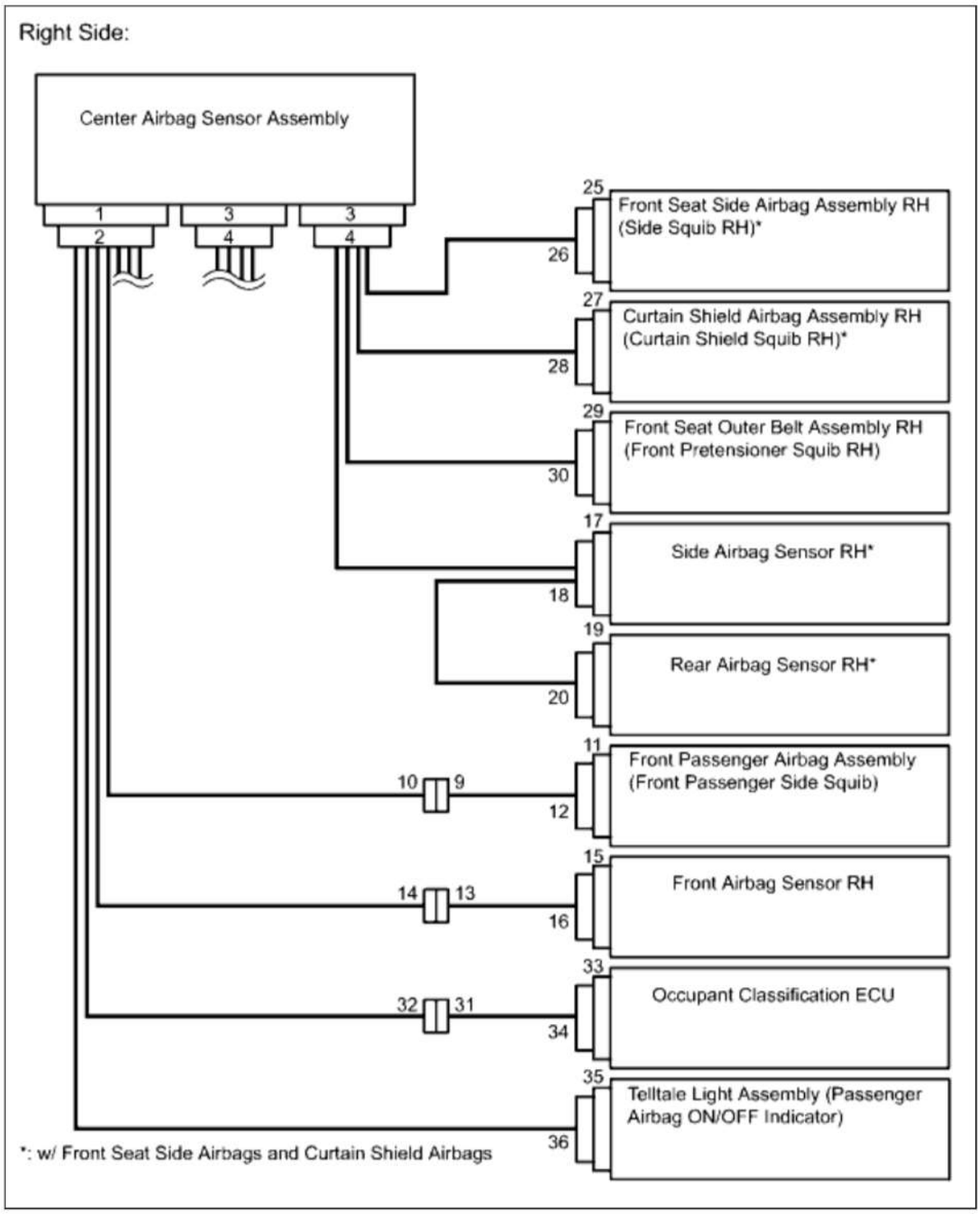
4. FUNCTION OF SRS CONNECTORS

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

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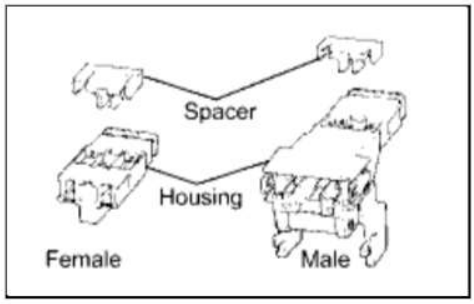


NO.	CONNECTOR TYPE	APPLICATION
(1)	Terminal Twin-Lock Mechanism	Connectors 5, 6, 9, 10, 13, 14, 18, 20
(2)	Activation Prevention Mechanism	Connectors 2, 4, 5, 7, 9, 11, 25, 27, 29
(3)	Half Connection Prevention Mechanism	Connectors 6, 10, 13, 18, 20
(4)	Connector Position Assurance Mechanism	Connectors 16, 26

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NO.	CONNECTOR TYPE	APPLICATION
(5)	Connector Lock Mechanism (1)	Connectors 8, 12, 26, 28
(6)	Connector Lock Mechanism (2)	Connectors 2, 4
(7)	Improper Connection Prevention Lock Mechanism	Connectors 1, 3

(b) Connectors in the SRS are colored yellow to distinguish them from other connectors. These connectors have special functions, and are specially designed for the SRS. All SRS connectors use durable gold-plated terminals, and are placed in the locations shown on the previous page to ensure high reliability.



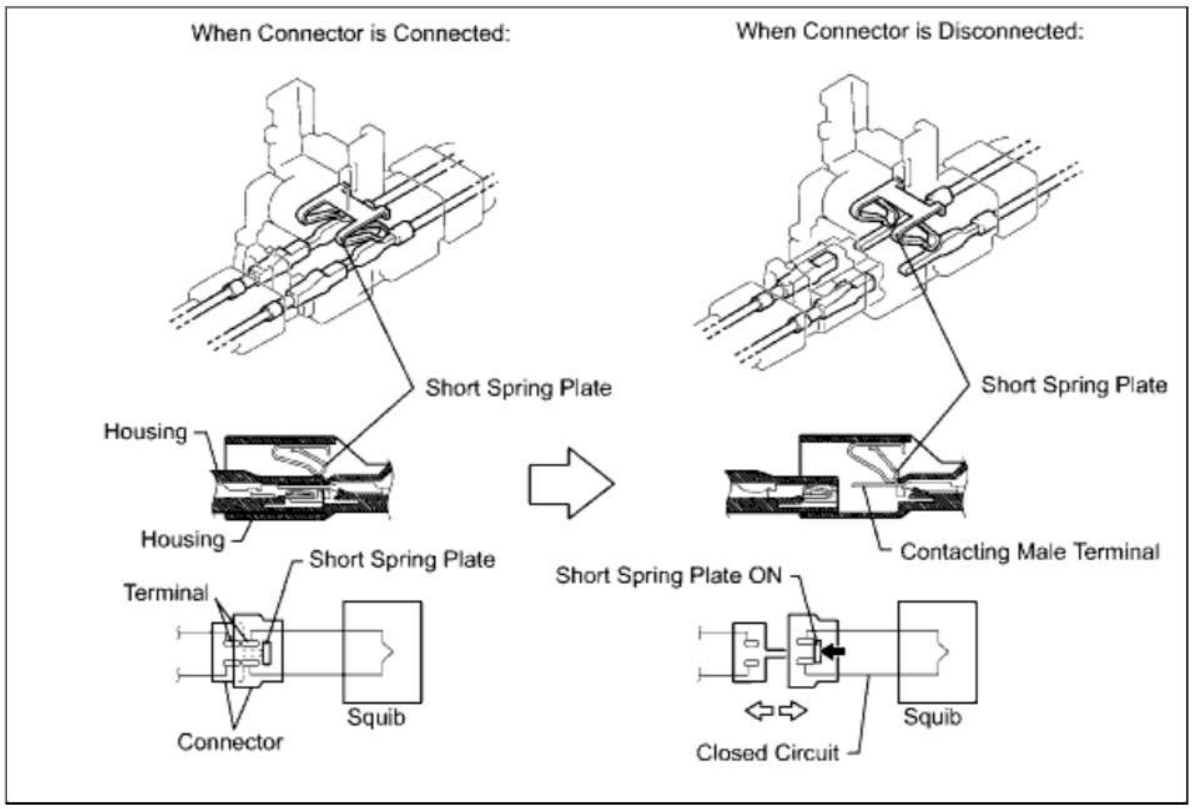
(1) Terminal twin-lock mechanism:

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

(2) Activation prevention mechanism:

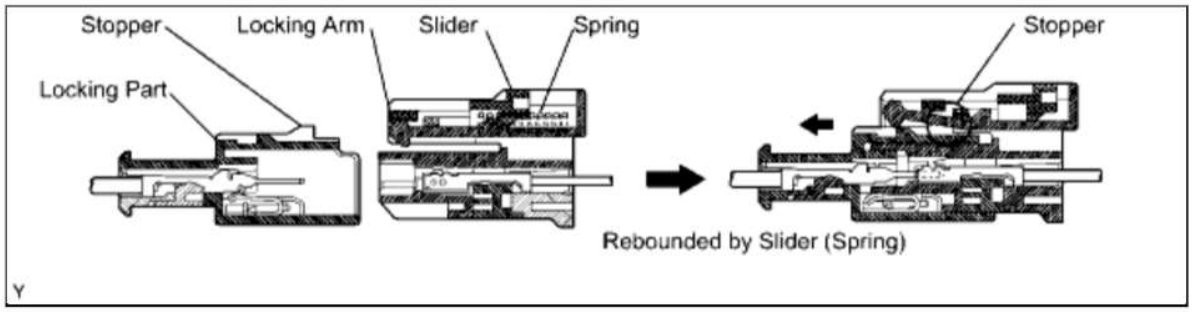
All connectors with an activation prevention mechanism contain a short spring plate. When these connectors are disconnected, the short spring plate creates a short circuit by automatically connecting the positive (+) and negative (-) terminals of the squib.

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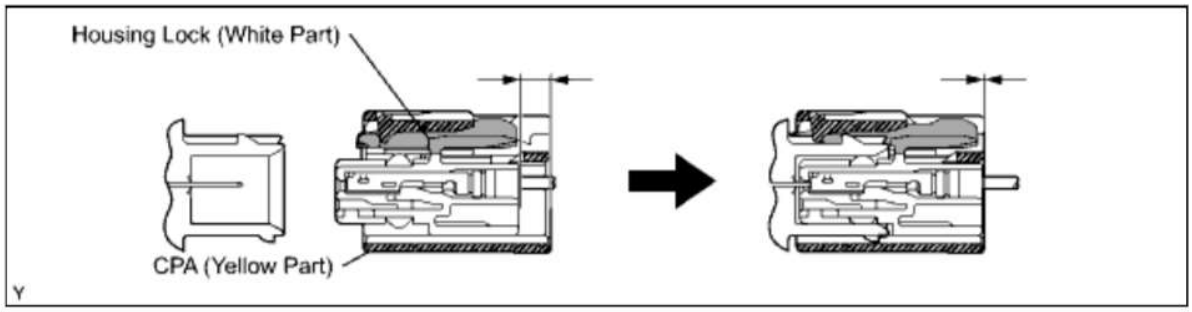
(3) Half connection prevention mechanism:

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



(4) Connector position assurance mechanism:

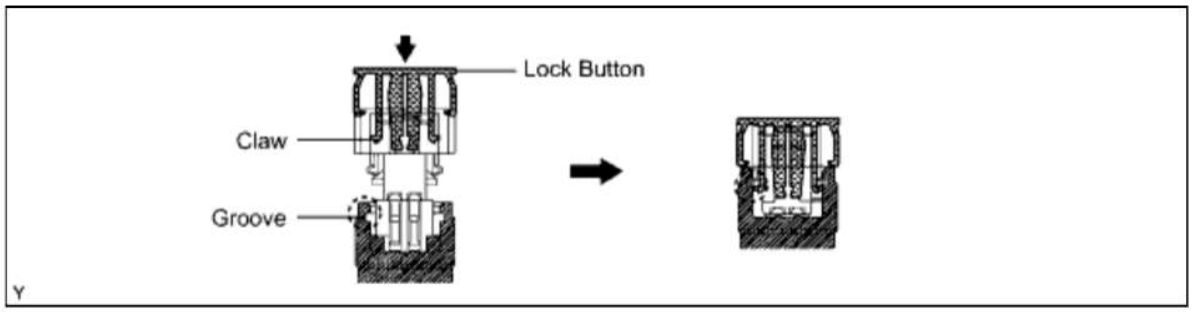
Only when the housing lock (white part) is completely engaged, the CPA (yellow part) slides, which completes the connector engagement.



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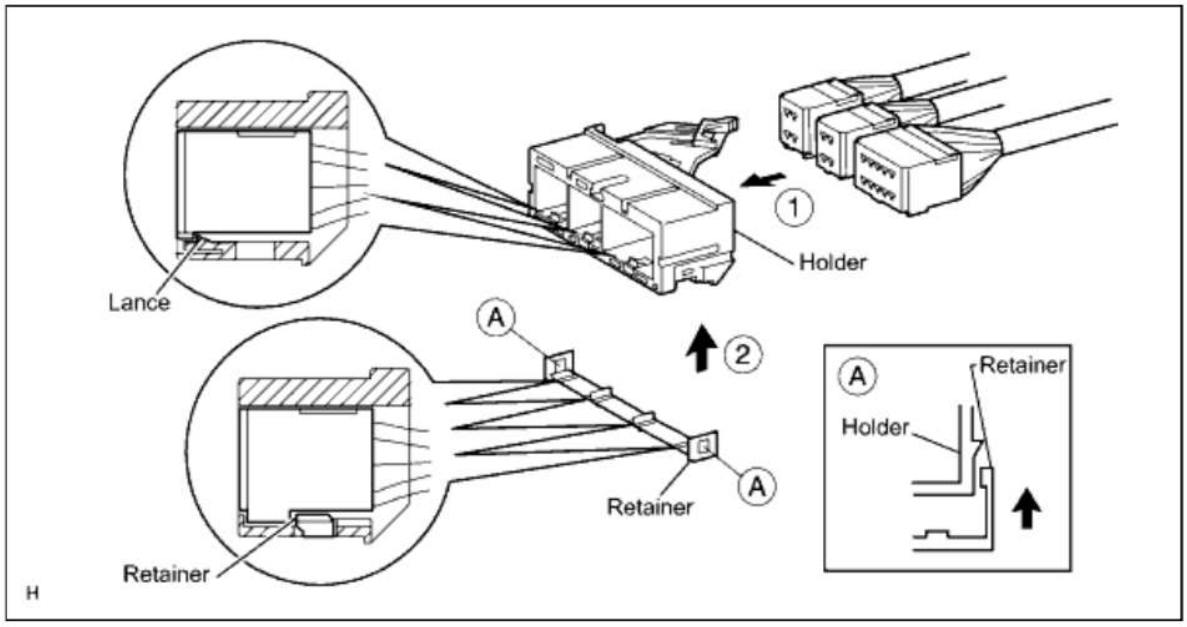
(5) Connector lock mechanism (1):

Locking the connector lock button connects the connector securely.



(6) Connector lock mechanism (2):

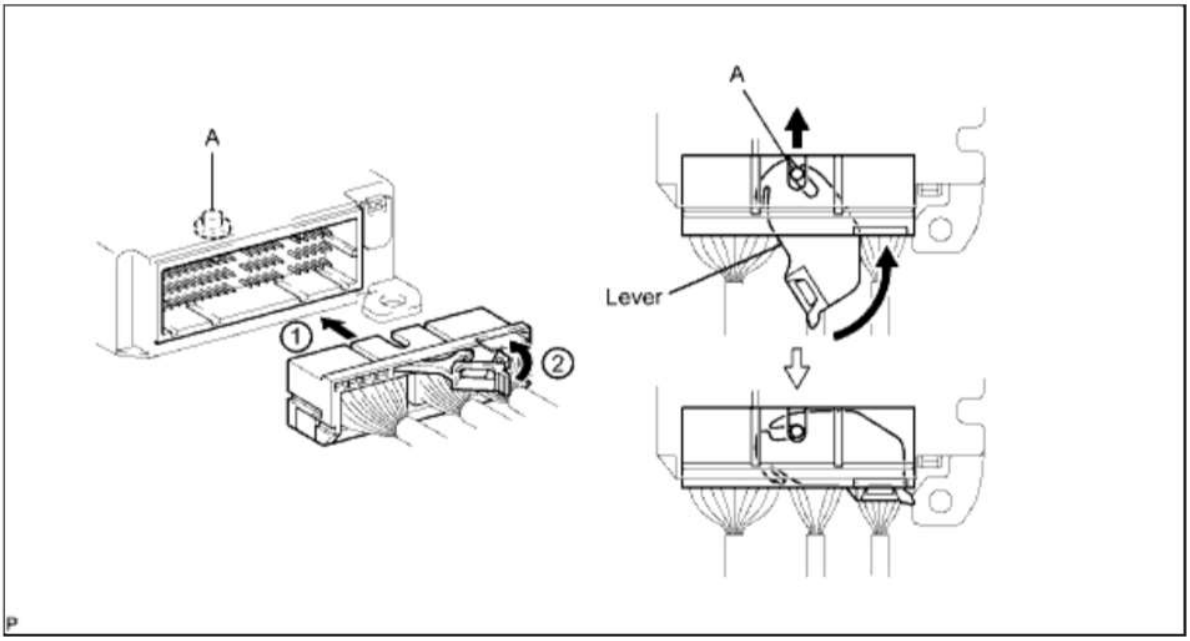
Both the primary lock with holder lances and the secondary lock with retainer prevent the connectors from becoming disconnected.



(7) Improper connection prevention lock mechanism:

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

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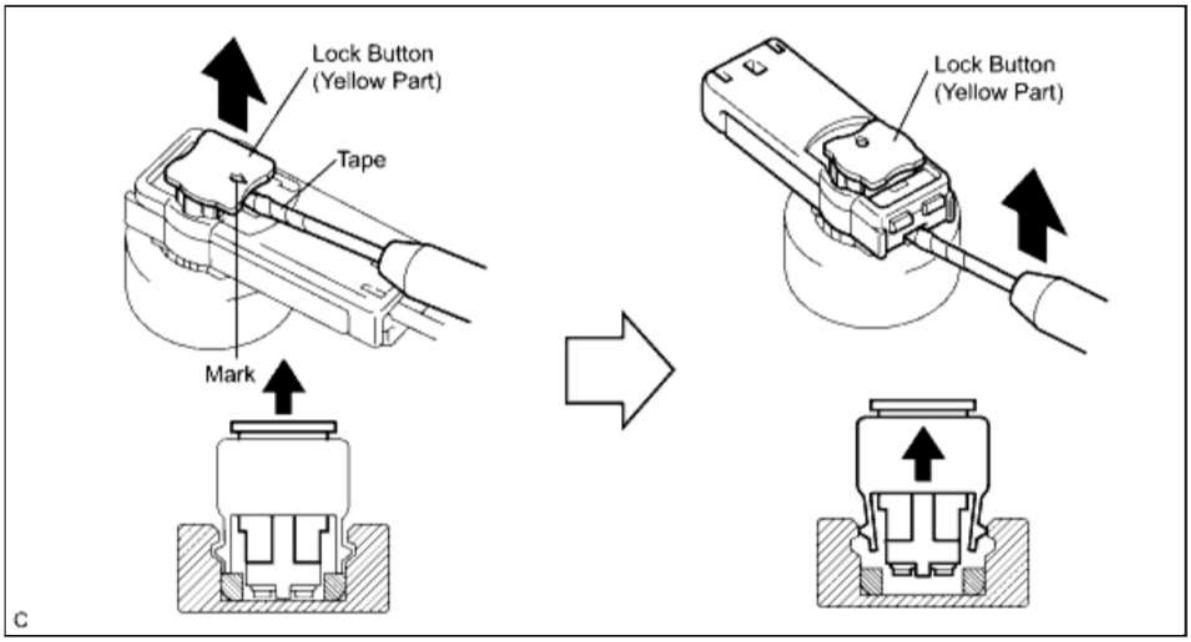
5. DISCONNECTION OF CONNECTORS FOR STEERING PAD, FRONT PASSENGER AIRBAG ASSEMBLY (SQUIB SIDE), CURTAIN SHIELD AIRBAG ASSEMBLY, AND FRONT SEAT OUTER BELT ASSEMBLY

HINT:

Tape the screwdriver tip before use.

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

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

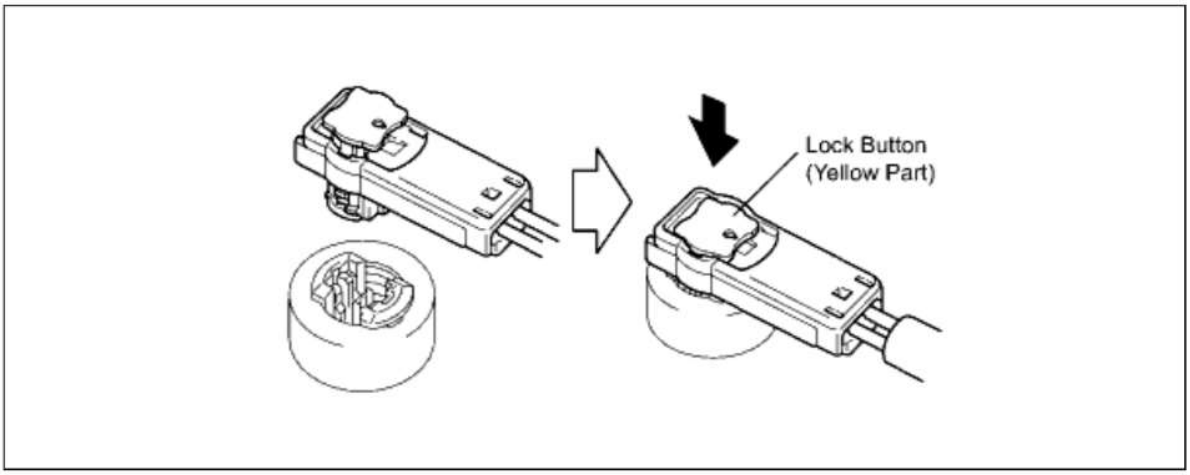


6. CONNECTION OF CONNECTORS FOR STEERING PAD, FRONT PASSENGER AIRBAG ASSEMBLY (SQUIB SIDE), CURTAIN SHIELD AIRBAG ASSEMBLY, AND FRONT SEAT OUTER BELT ASSEMBLY

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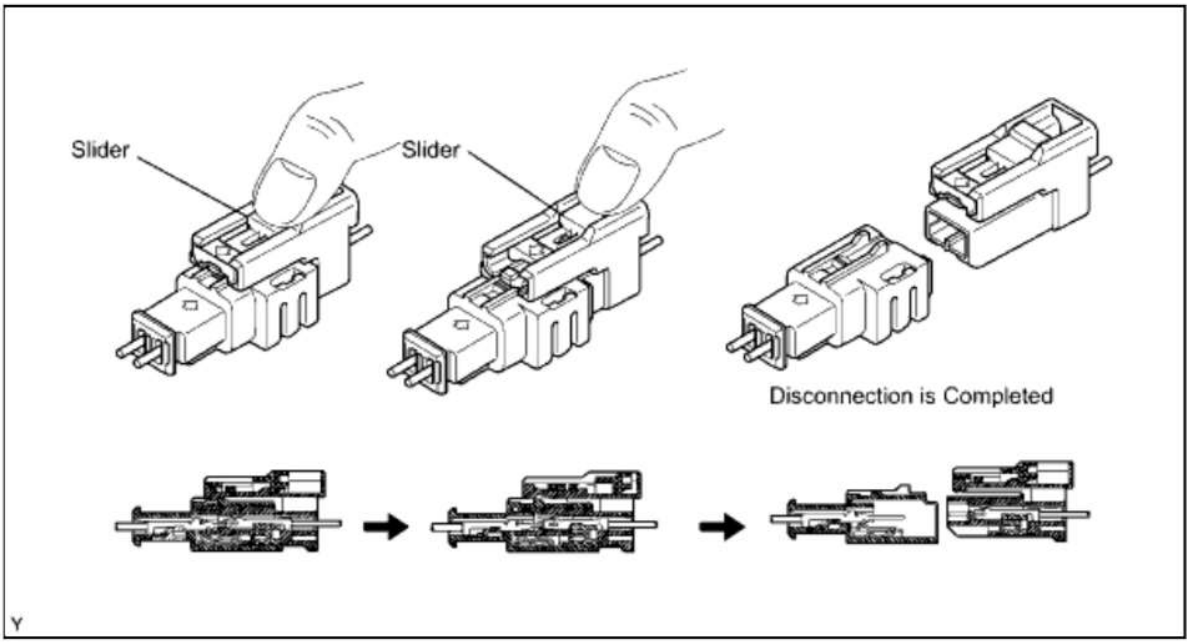
(a) Connect the connector.

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



7. DISCONNECTION OF CONNECTOR FOR SPIRAL CABLE (INSTRUMENT PANEL WIRE SIDE)

(a) Slide the slider to release the lock, and then disconnect the connector.



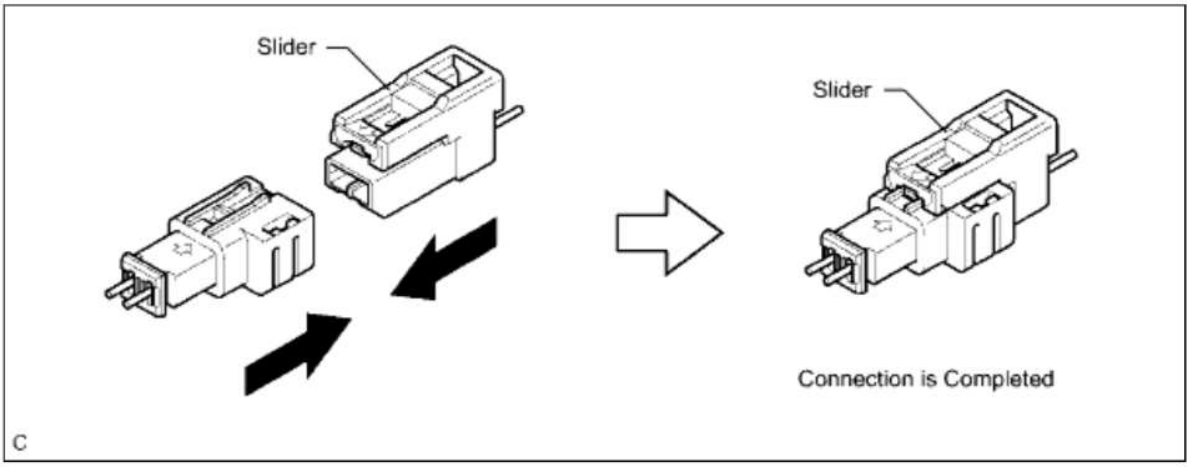
8. CONNECTION OF CONNECTOR FOR SPIRAL CABLE (INSTRUMENT PANEL WIRE SIDE)

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

HINT:

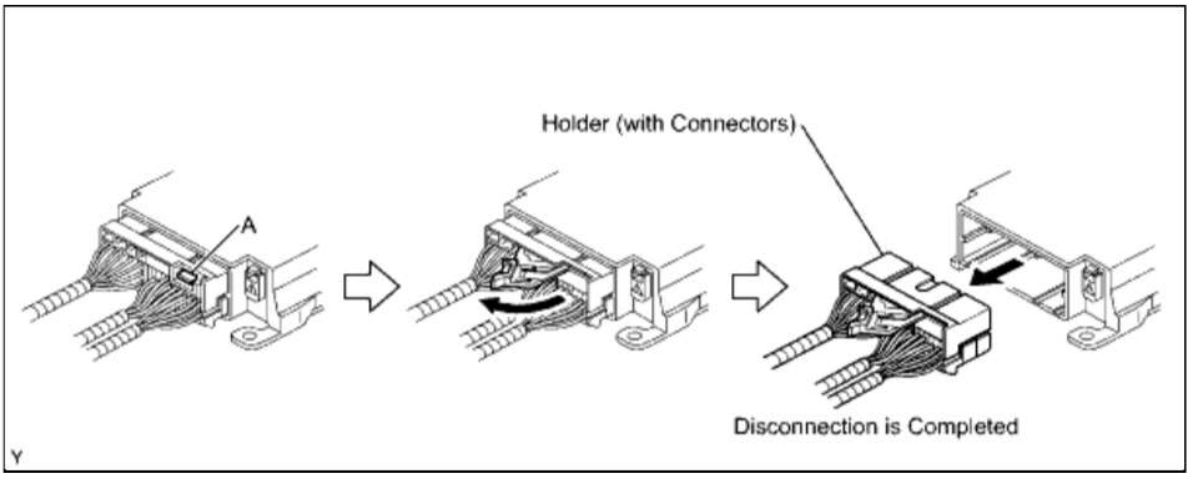
When connected, the slider will slide. Be sure not to touch the slider while connecting, as it may result in an insecure fit.

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9. DISCONNECTION OF CONNECTOR FOR CENTER AIRBAG SENSOR ASSEMBLY

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



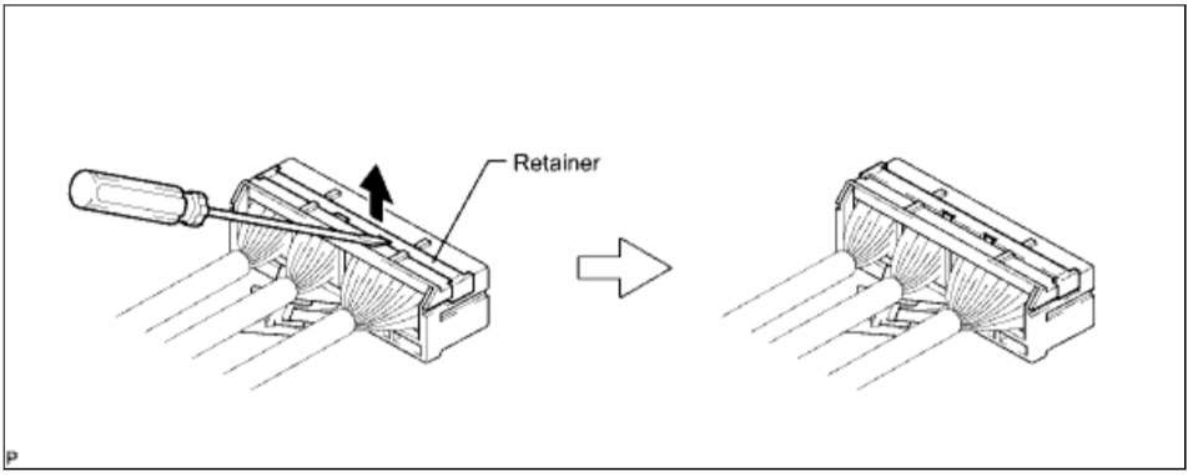
HINT:

Perform the following procedures when replacing the holder.

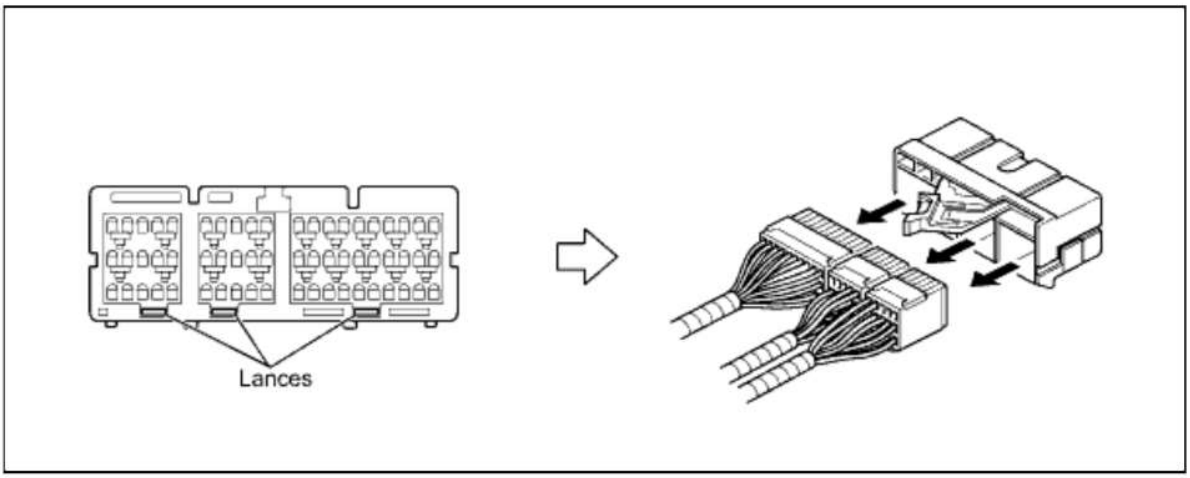
(b) Remove the holder.

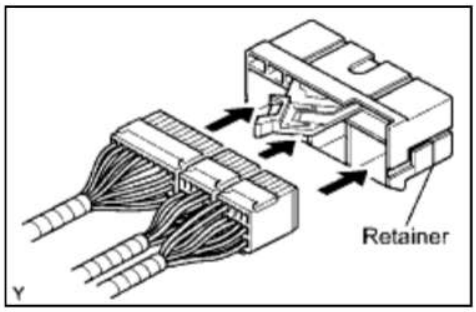
(1) Using a screwdriver, unlock the retainer.

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





(c) Install the holder.

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

HINT:

The retainer is locked when the holder is connected.

10. CONNECTION OF CONNECTOR FOR CENTER AIRBAG SENSOR ASSEMBLY

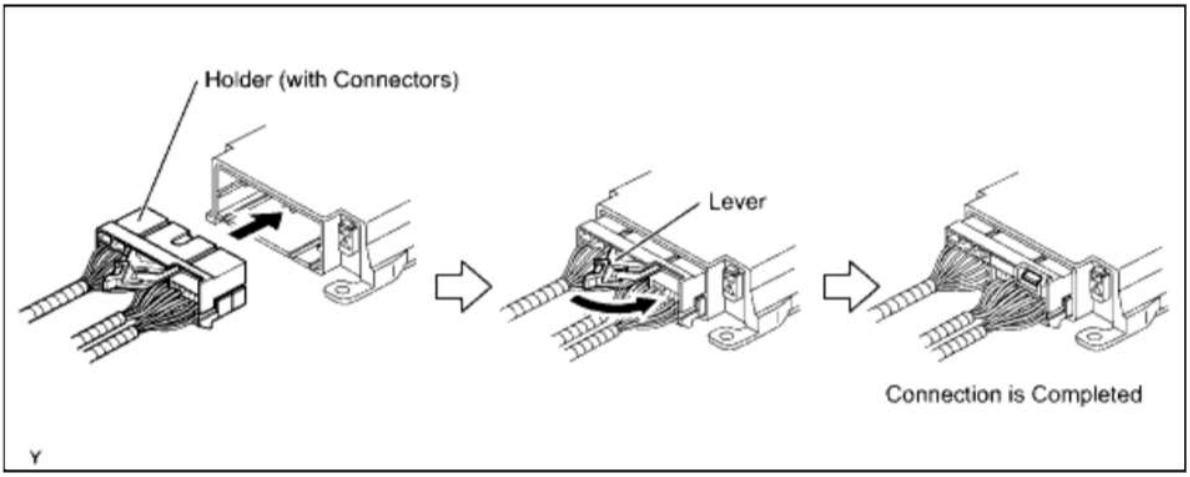
(a) Firmly insert the holder (with connectors) into the center airbag sensor assembly until it cannot be pushed any further.

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

HINT:

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

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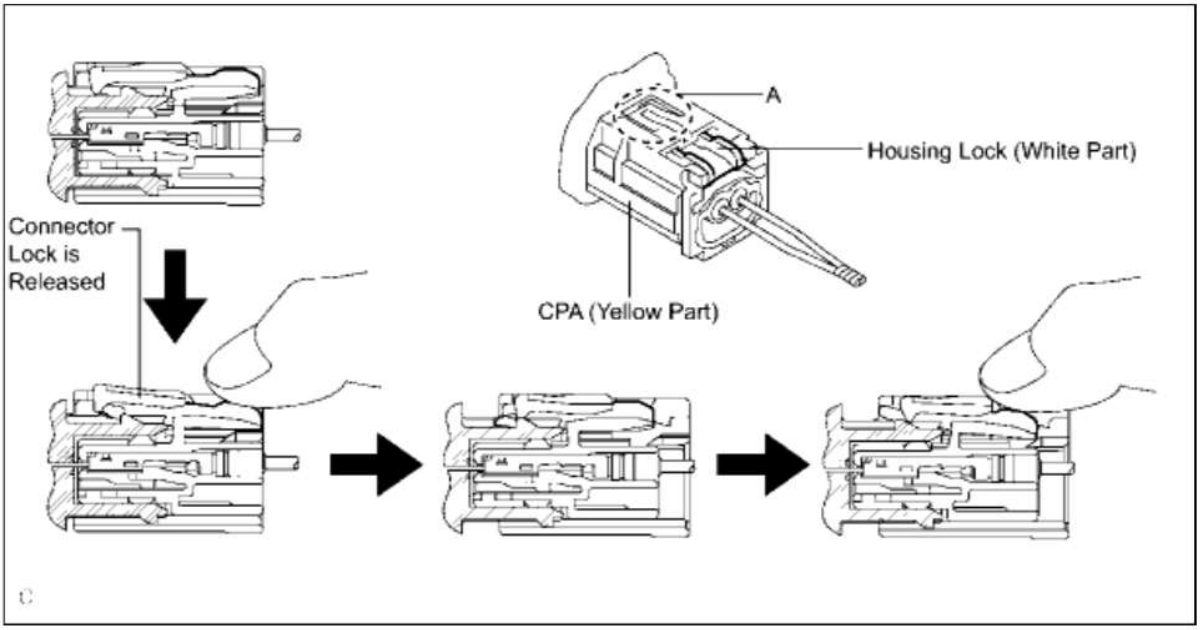
11. DISCONNECTION OF CONNECTORS FOR FRONT AIRBAG SENSOR AND FRONT SEAT SIDE AIRBAG ASSEMBLY

(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.

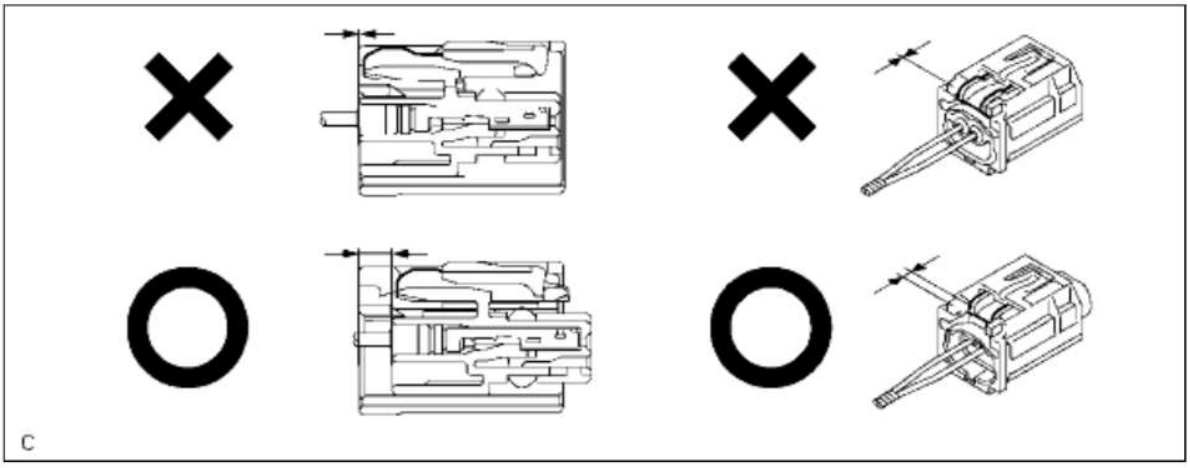
HINT:

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



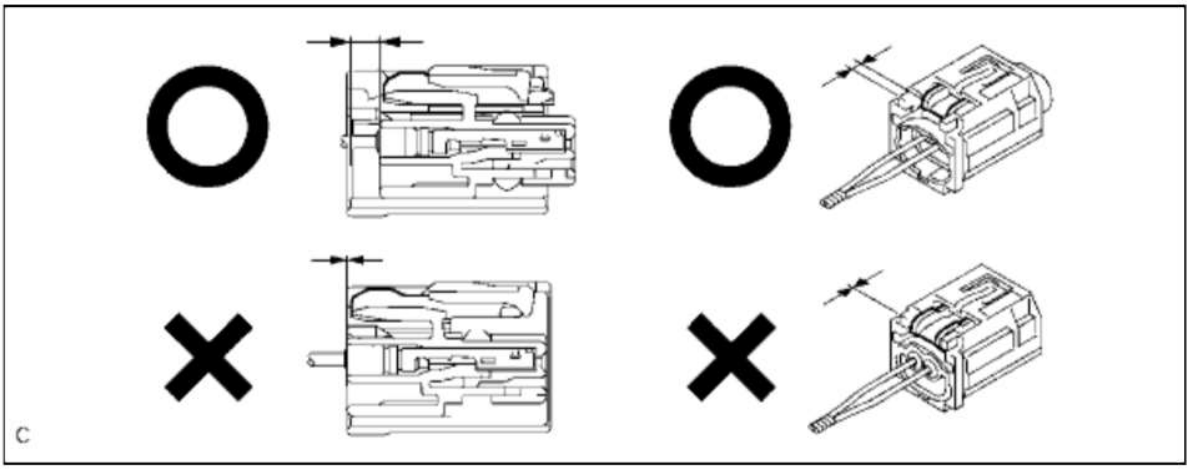
(c) After disconnecting the connector, check that the position of the housing lock (white part) is as shown in the illustration.

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12. CONNECTION OF CONNECTOR FOR FRONT AIRBAG SENSOR AND FRONT SEAT SIDE AIRBAG ASSEMBLY

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

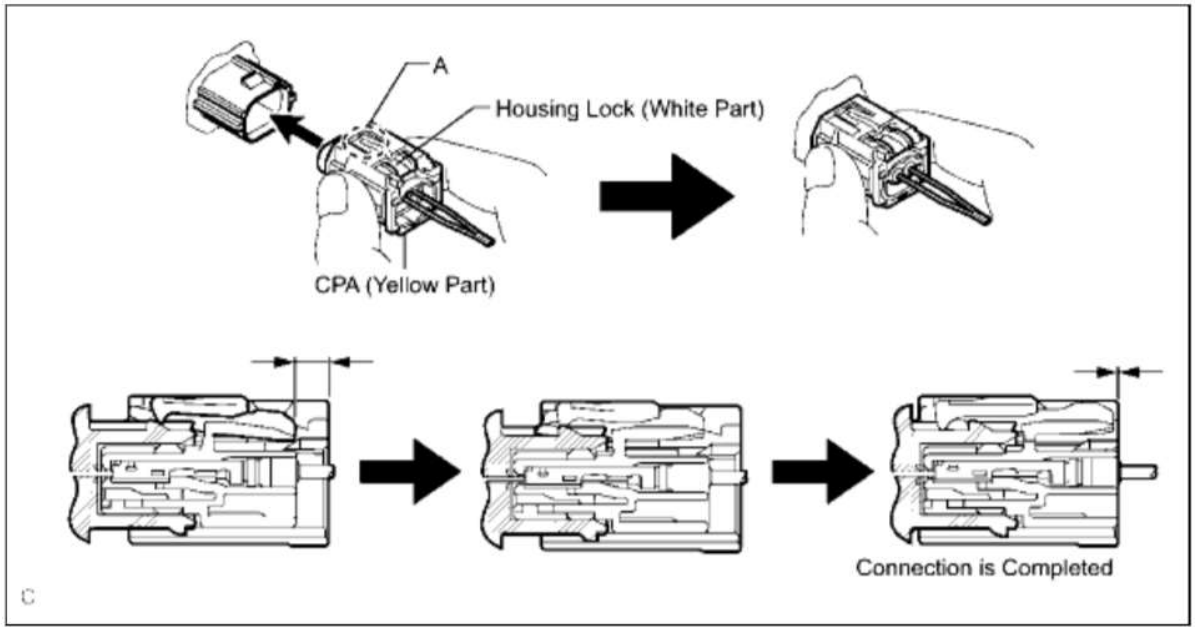


(b) Be sure to engage the connectors until they are locked. (When locking, make sure that a click sound can be heard.)

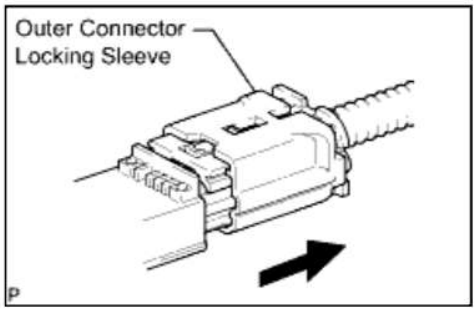
HINT:

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

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

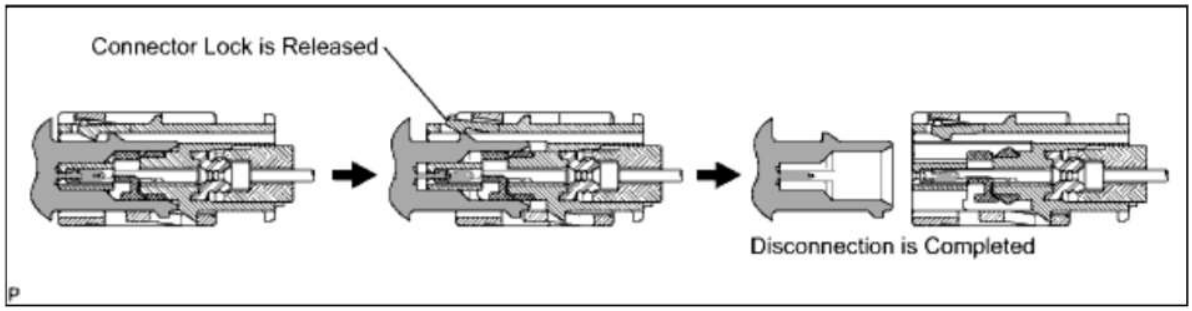


(a) While holding the sides of the outer connector locking sleeve, slide the outer in the direction shown by the arrow.

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

HINT:

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



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

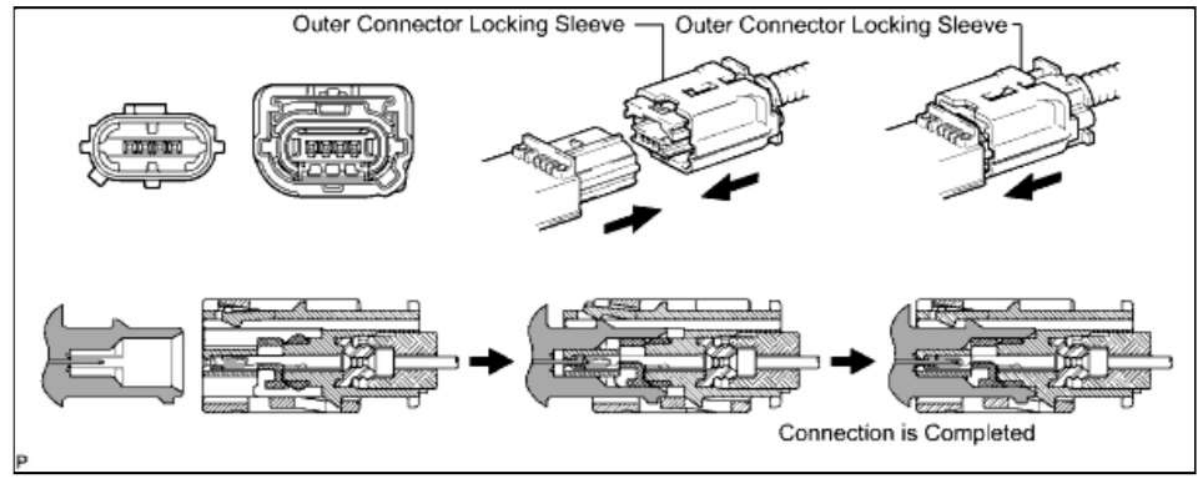
(a) Connect the connector as shown in the illustration (When locking, make sure that the outer

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returns to its original position and a click sound can be heard).

HINT:

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



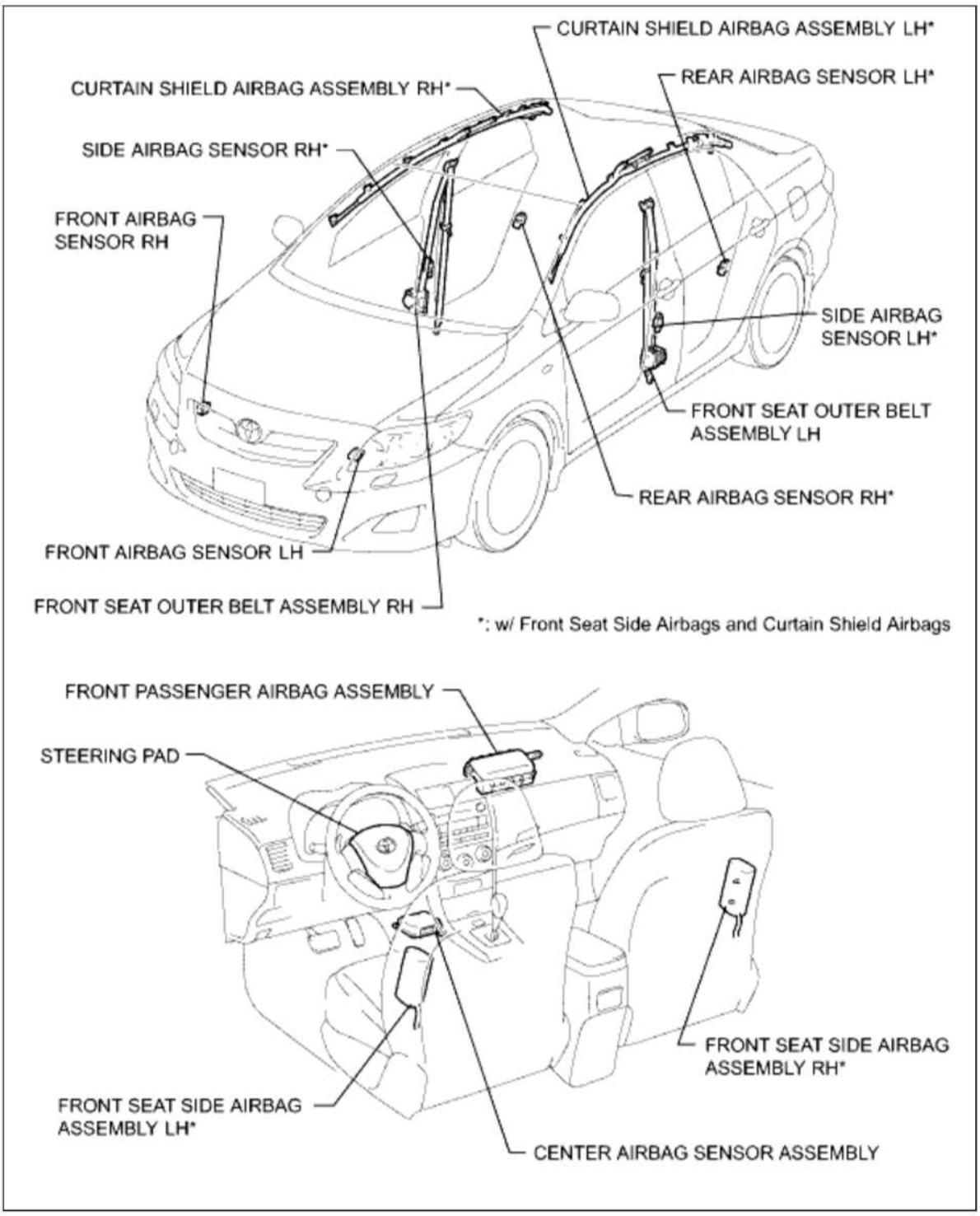
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Last Modified: 3-10-2010	6.4 R	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000XF8031X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: PARTS LOCATION (2010 Corolla)		

PARTS LOCATION

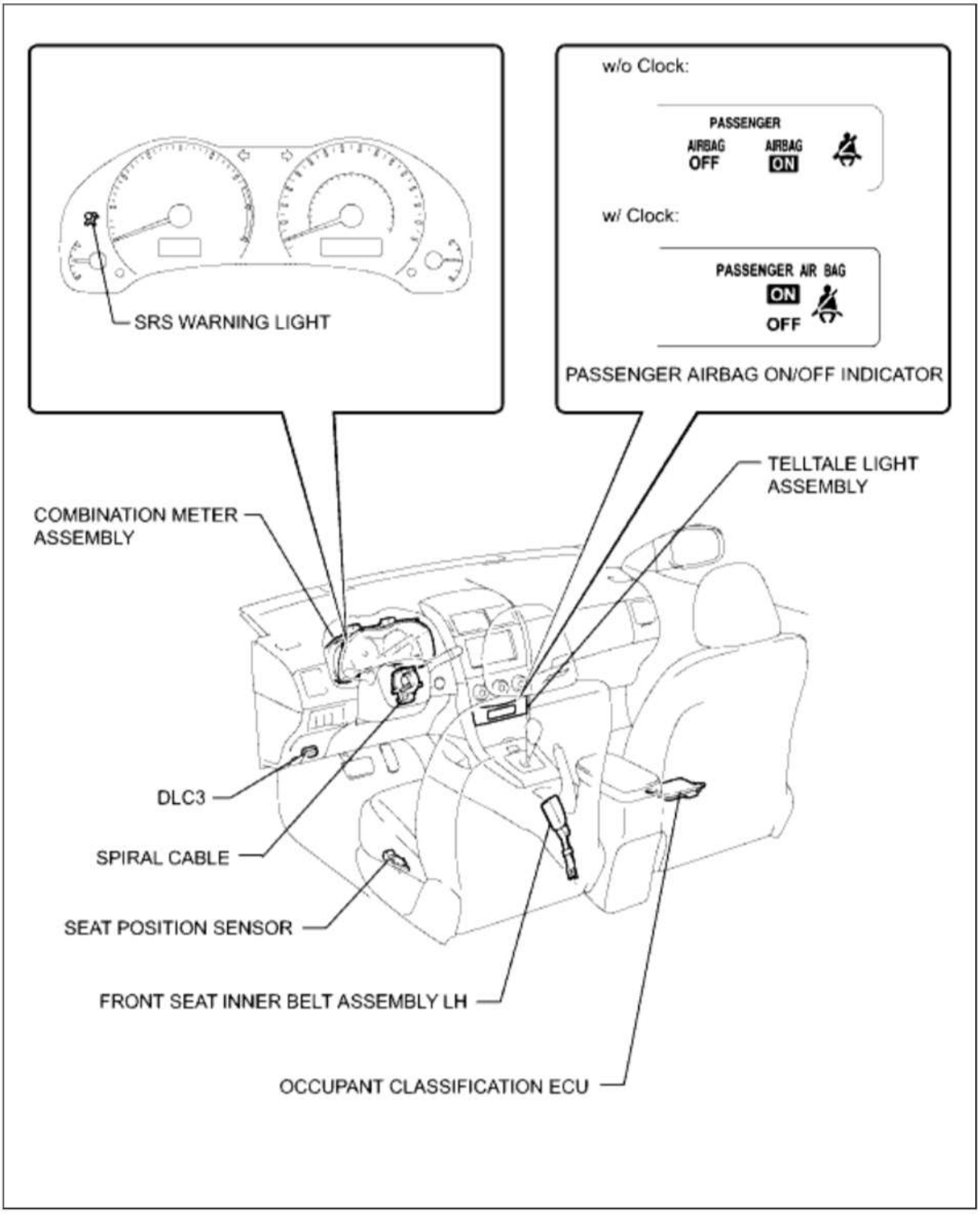
ILLUSTRATION

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ILLUSTRATION

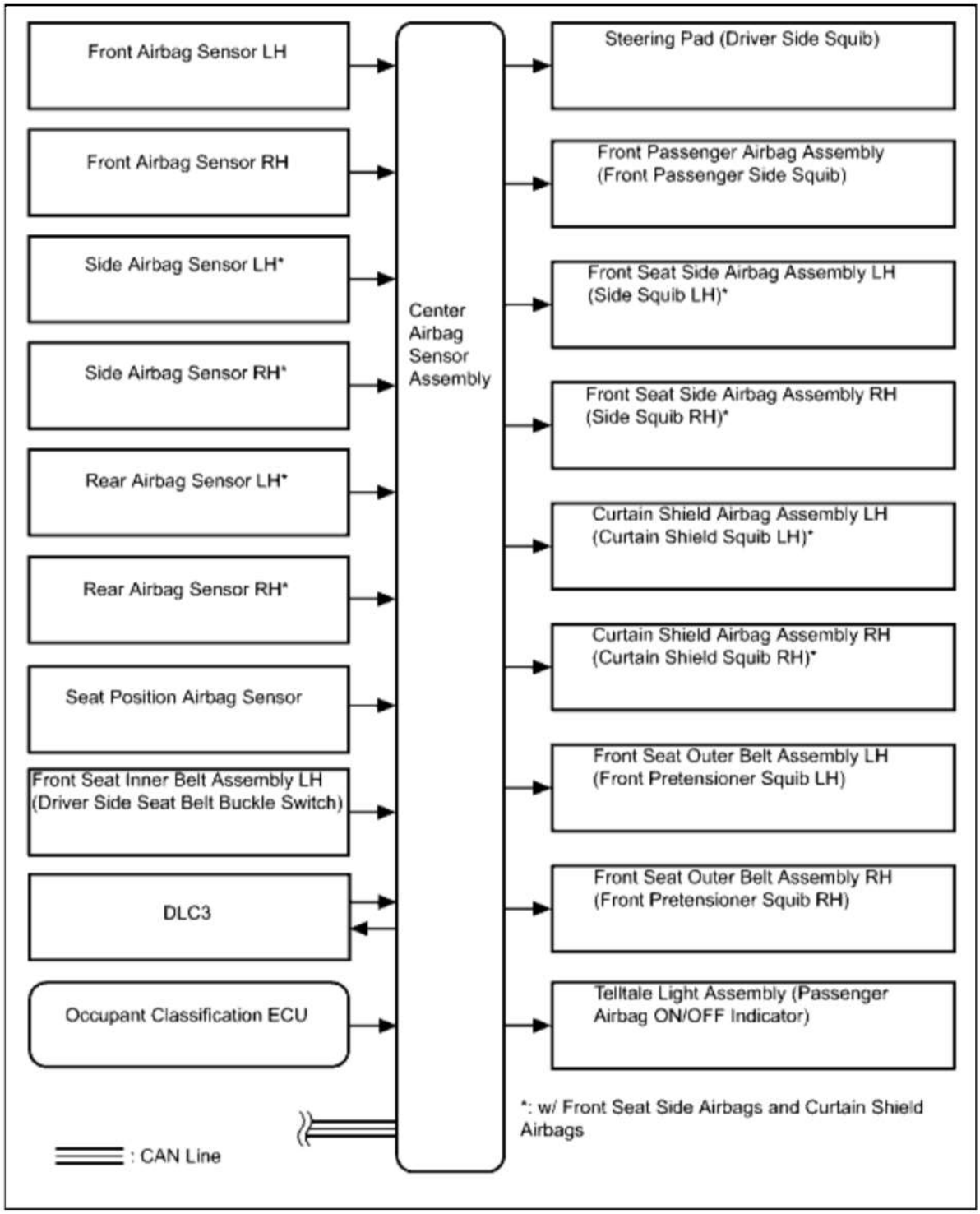
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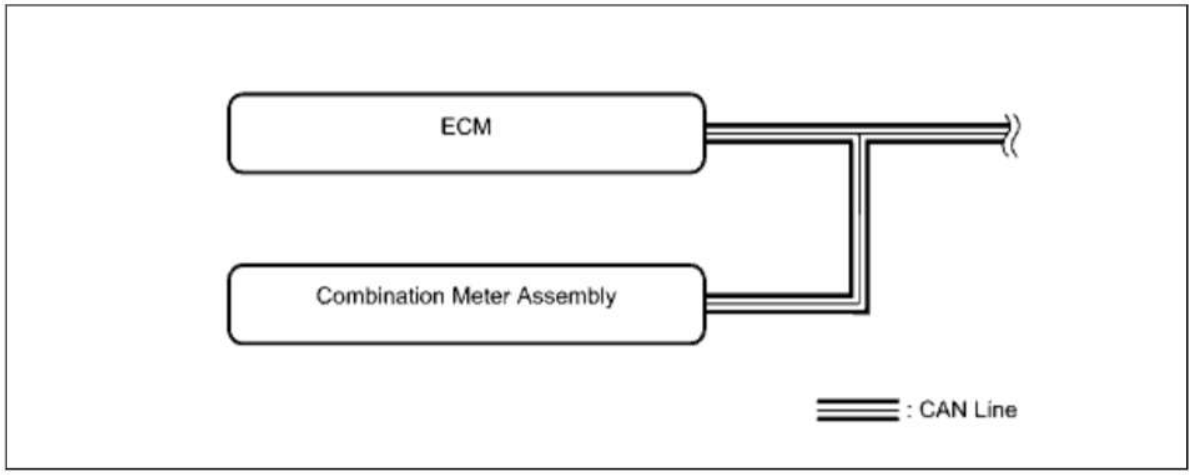
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Last Modified: 3-10-2010	6.4 U	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000XFG053X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: SYSTEM DIAGRAM (2010 Corolla)		

SYSTEM DIAGRAM



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TRANSMITTING ECU (TRANSMITTER)	RECEIVING ECU	SIGNAL	COMMUNICATION METHOD
Center Airbag Sensor Assembly	ECM	Crash detection signal	CAN
Center Airbag Sensor Assembly	Combination Meter Assembly	• SRS warning light ON demand signal • SRS warning light blink demand signal • Passenger seat occupant detection signal • Passenger seat buckle switch signal • Diagnosis signal (DTC)	
Combination Meter Assembly	Center Airbag Sensor Assembly	• Vehicle speed signal • Meter diagnosis polling signal	
ECM	Center Airbag Sensor Assembly	• Engine speed signal • Accelerator opening angle information • Accelerator opening angle signal • Shift position signal • Test mode signal • Stop signal	

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Last Modified: 3-10-2010	6.4 D	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000XFC05RX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: SYSTEM DESCRIPTION (2010 Corolla)		

SYSTEM DESCRIPTION

1. GENERAL

(a) FRONTAL COLLISION

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

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

(b) SIDE COLLISION

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

(2) Side collisions are detected by the side airbag sensor installed in the bottom of the center pillar and the rear airbag sensor installed in the bottom of the rear pillar.

(3) Front side collisions are detected by the side airbag sensor, causing the front seat side airbag and curtain shield airbag to deploy simultaneously. Rear side collisions are detected by the rear airbag sensor to deploy only the curtain shield airbag.

2. CONSTRUCTION AND OPERATION

(a) FRONT AIRBAG SENSOR

(1) The front airbag sensors are installed on the right and left radiator supports respectively.

(2) The front airbag sensor uses an electrical type deceleration sensor.

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

(b) SIDE AIRBAG SENSOR

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

(2) The side airbag sensor uses an electrical type deceleration sensor.

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

(c) REAR AIRBAG SENSOR

(1) The rear airbag sensors are installed on the right and left rear pillars respectively.

(2) The rear airbag sensor uses an electrical type deceleration sensor.

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

(d) CENTER AIRBAG SENSOR

(1) General

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- The center airbag sensor is installed on the center floor under the instrument panel.
- The center airbag sensor consists of a deceleration sensor, safing sensor, ignition control circuit, and diagnostic circuit, etc.
- The center airbag sensor receives signals from the deceleration sensor and safing sensor built into the center airbag sensor and front airbag sensor, and determines whether the driver airbag, front passenger airbag, and front seat belt pretensioner should be activated. In addition, the center airbag sensor diagnoses system malfunctions.
- The center airbag sensor receives signals from the deceleration sensor and the safing sensor built into the center airbag sensor, the side airbag sensor and the rear airbag sensor, and determines whether the front seat side airbag and the curtain shield airbag should be activated. In addition, the center airbag sensor diagnoses system malfunctions.
- The center airbag sensor sends the airbag deployment signal to the ECM through CAN (Controller Area Network) to operate the fuel pump control.

(2) Deceleration sensor and ignition control circuit

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

(3) Safing sensor

The safing sensor is built into the center airbag sensor. When a frontal, side or rear collision occurs, the sensor turns on and outputs an ON signal to the center airbag sensor if the deceleration rate sent to the safing sensor is greater than the specified value.

(4) Backup power source

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

(5) Diagnostic circuit

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

(6) Memory circuit

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

(e) SRS WARNING LIGHT

(1) The SRS warning light is located on the combination meter assembly. It comes on to inform the driver of system trouble when a malfunction is detected in self-diagnosis of the center airbag sensor. Under normal operating conditions, when the ignition switch is turned to ON, it comes on for approximately 6 seconds and then goes off.

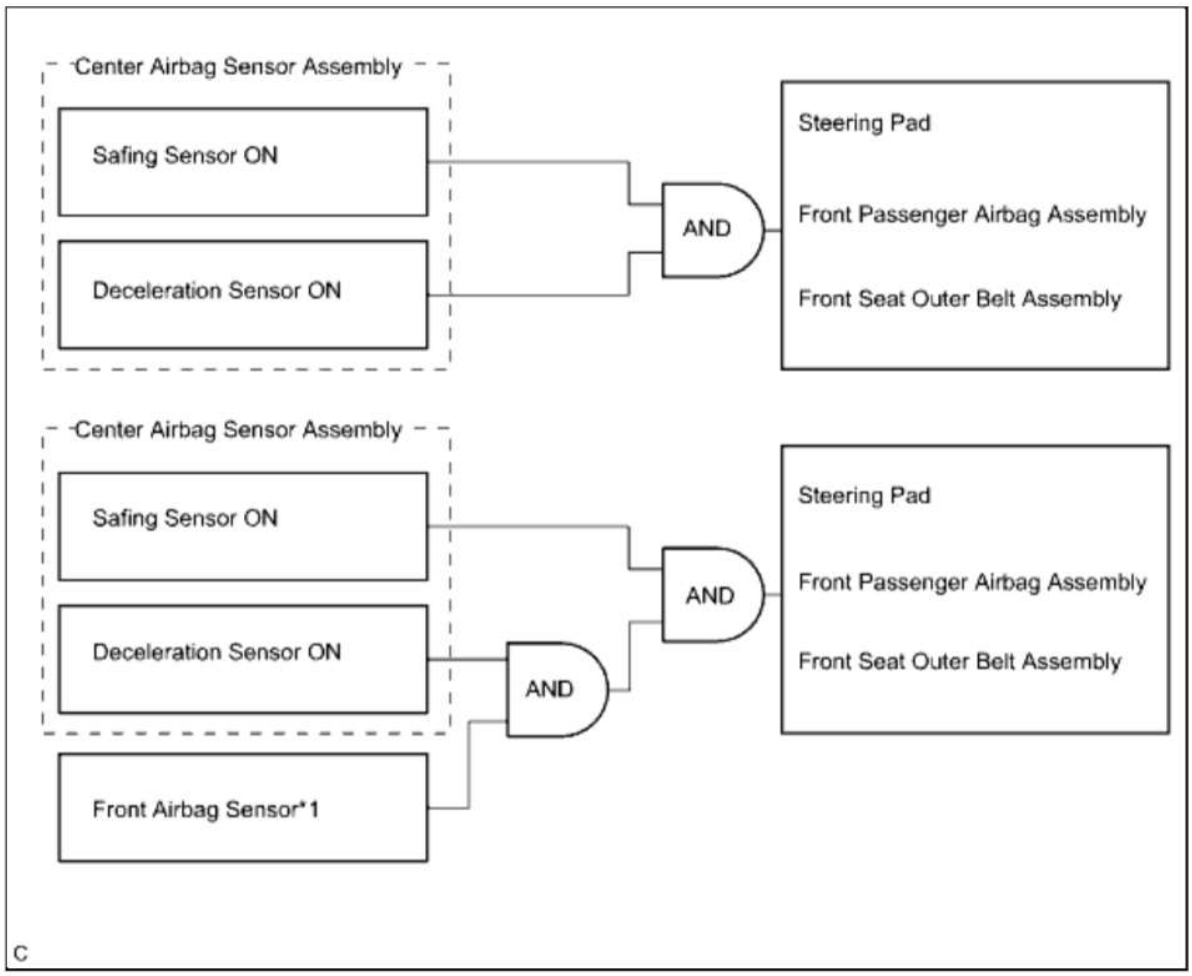
3. DEPLOYMENT CONDITION

If the vehicle collides and the shock is greater than the specified value, the SRS is activated

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automatically. The center airbag sensor assembly includes the safing sensor and deceleration sensor. The safing sensor is designed to turn on at a lower deceleration rate than the deceleration sensor.

(a) The center airbag sensor assembly determines whether ignition is necessary based on signals from the deceleration sensor and the front airbag sensor*1. If the safing sensor turns on simultaneously, current flows to the squibs to deploy the SRS as shown in the illustration below.

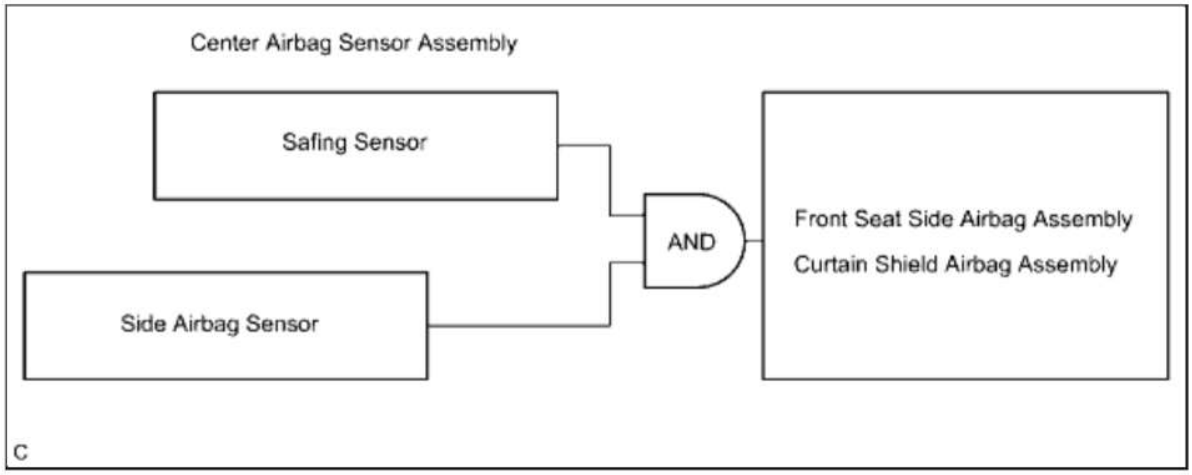


HINT:

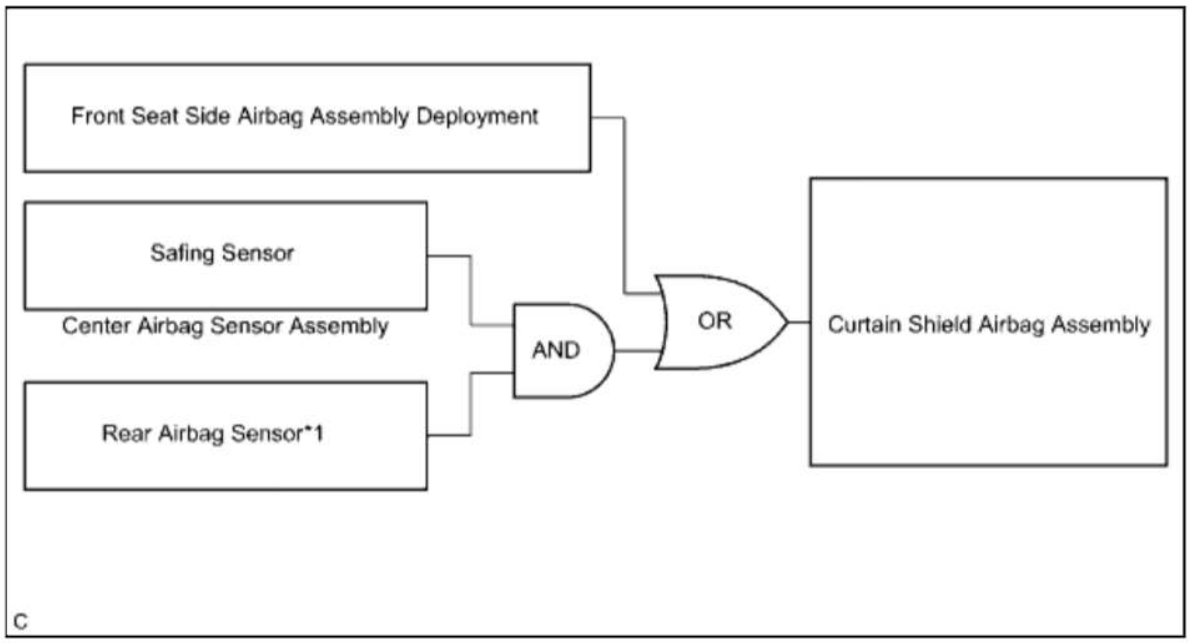
***1: In case of frontal collision, the ignition signal could be output with the deceleration sensor ON signal even without a signal from the front airbag sensor.**

(b) The center airbag sensor assembly determines whether ignition is necessary based on signals from the side airbag sensor. If the safing sensor turns on simultaneously, current flows to the squib to deploy the SRS as shown in the illustration below.

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(c) The center airbag sensor assembly determines whether ignition is necessary based on signals from the rear airbag sensor. If the safing sensor turns on simultaneously, current flows to the squib to deploy the SRS as shown in the illustration below*1.



HINT:

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

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Last Modified: 3-10-2010	6.4 D	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000XF606DX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: HOW TO PROCEED WITH TROUBLESHOOTING (2010 Corolla)		

HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

***: Use the Techstream.**

1.	**VEHICLE BROUGHT TO WORKSHOP**

NEXT

2.	**CUSTOMER PROBLEM ANALYSIS**

(a) Confirm problem symptoms INFO .

NEXT

3.	**CHECK CAN COMMUNICATION SYSTEM***

(a) Use the Techstream to check if the CAN communication system is functioning normally.

HINT:

Refer to Bus Check for the CAN communication system INFO **.**

The center airbag sensor assembly is connected to the CAN communication system. Therefore, before starting troubleshooting, make sure to check that there is no trouble in the CAN communication system.

Result:

RESULT	PROCEED TO

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RESULT	PROCEED TO
CAN communication DTC is not output.	A
CAN communication DTC is output.	B

B ▶ INFO **INSPECT CAN COMMUNICATION CIRCUIT**

A ▼

4.	**SRS WARNING LIGHT CHECK**

(a) Proceed to Diagnosis System INFO.

NEXT ▼

5.	**CHECK FOR DTC***

(a) Proceed to DTC Check / Clear INFO.

Result:

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

B ▶ **GO TO STEP 7**

A ▼

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6.	DIAGNOSTIC TROUBLE CODE CHART

(a) Proceed to Diagnostic Trouble Code Chart INFO .

NEXT GO TO STEP 9

7.	SYMPTOM SIMULATION

(a) Proceed to Diagnosis System INFO .

NEXT

8.	PROBLEM SYMPTOMS TABLE

(a) Proceed to Problem Symptoms Table INFO .

NEXT

9.	CIRCUIT INSPECTION*

NEXT

10.	IDENTIFICATION OF PROBLEM

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NEXT

11.	REPAIR OR REPLACEMENT

NEXT

12.	CONFIRMATION TEST

NEXT END

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Last Modified: 3-10-2010	6.4 D	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000XFD06XX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: DIAGNOSIS SYSTEM (2010 Corolla)		

DIAGNOSIS SYSTEM

1. CHECK DLC3

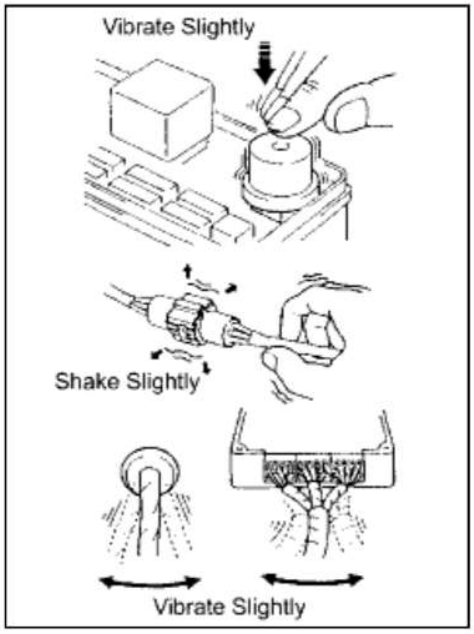
(a) Check the DLC3 INFO .

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 the environment in which the problem occurred in the customer's vehicle should be reproduced. No matter how experienced or skilled a technician may be, if he/she proceeds to troubleshooting without confirming the problem symptoms, he/she 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 of approximately 6 seconds after the ignition switch is turned to 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.

3. FUNCTION OF SRS WARNING LIGHT

(a) Primary check

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

HINT:

If trouble is detected during the primary check, the SRS warning light remains on even after the primary check

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period of approximately 6 seconds.

(b) Constant check

(1) After the primary check, the center airbag sensor assembly constantly monitors the 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.
- The SRS warning light goes off, and then comes on. This blinking pattern indicates a source voltage drop. The SRS warning light goes off 10 seconds after the source voltage returns to normal.

(c) Review

(1) When the airbag system is normal:

The SRS warning light comes on only during the primary check period of approximately 6 seconds after the ignition switch is turned to ON.

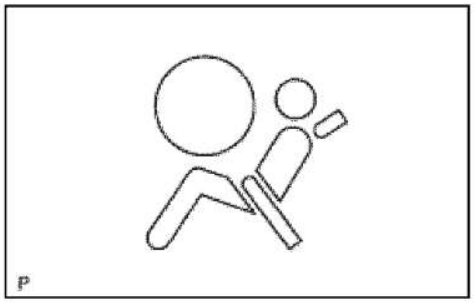
(2) When the airbag system has trouble:

- The SRS warning light remains on even after the primary check period.
- The SRS warning light goes off after the primary check, but comes on again during the constant check.
- The SRS warning light does not come on when turning the ignition switch from off to ON.

HINT:

The center airbag sensor assembly functions to keep the SRS warning light on if the airbag has been deployed.

4. SRS WARNING LIGHT CHECK



(a) Turn the ignition switch to ON, 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 ON (constant check).

HINT:

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

- The SRS warning light comes on occasionally after the primary check period.
- The SRS warning light comes on, but a DTC is not output.
- The ignition switch is turned from off to ON, but the SRS warning light does not come on.

5. FUNCTION OF PASSENGER AIRBAG ON/OFF INDICATOR

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(a) Initial check

(1) Turn the ignition switch to ON.

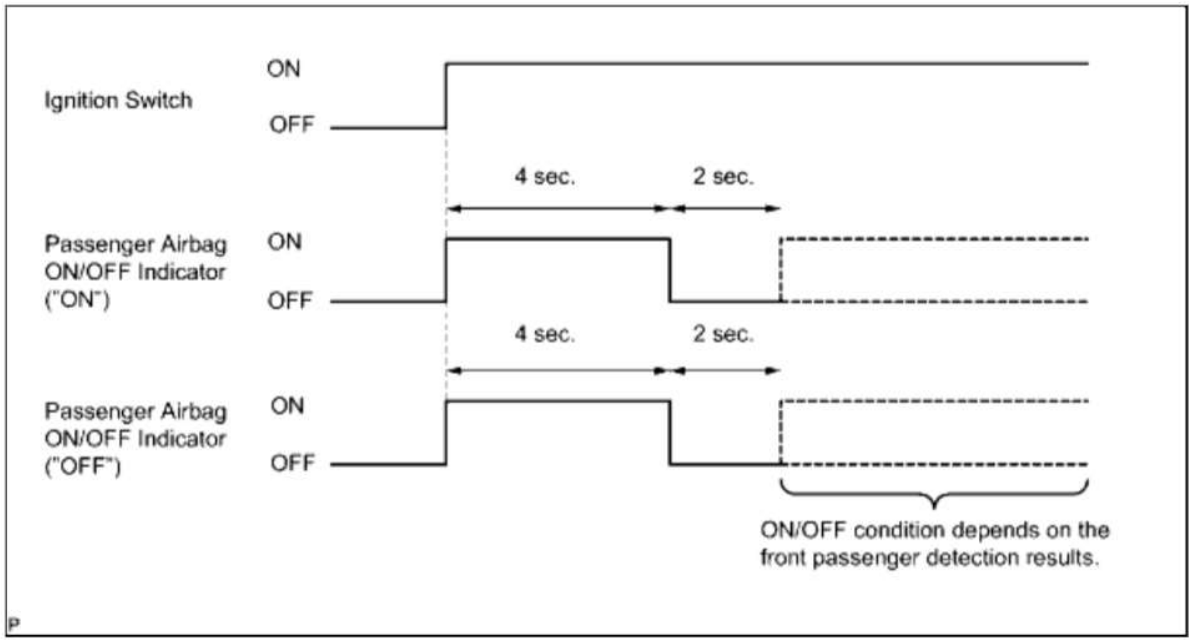
(2) The passenger airbag ON/OFF indicator comes on for approximately 4 seconds, then goes off for approximately 2 seconds.

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

FRONT PASSENGER SEAT CONDITION	PASSENGER AIRBAG ON/OFF INDICATOR		SRS WARNING LIGHT
	ON INDICATOR	OFF INDICATOR	
Vacant	OFF	OFF	OFF
Adult is seated.	ON	OFF	OFF
Child is seated.	OFF	ON	OFF
Child restraint system is set.	OFF	ON	OFF
Front passenger occupant classification failure	OFF	ON	ON

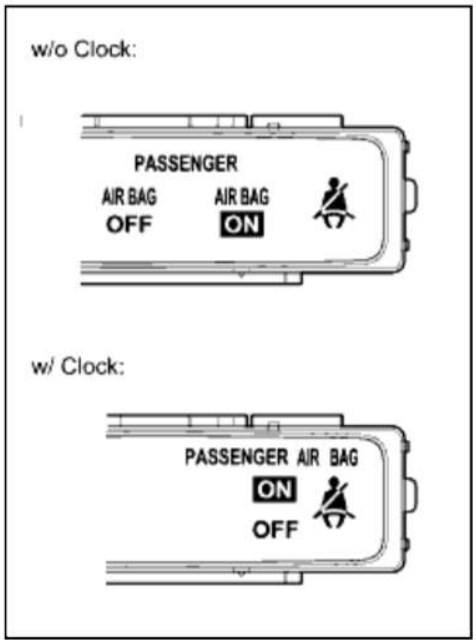
HINT:

- The passenger airbag ON/OFF indicator is based on the timing chart below in order to check the indicator light circuit.
- When the occupant classification system has trouble, both the SRS warning light and the passenger airbag ON/OFF indicator ("OFF") come on. In this case, check the DTCs in the airbag system first. Then troubleshoot the occupant classification system if DTC B1650/32 is detected, and troubleshoot the passenger airbag ON/OFF indicator if DTC B1660/43 is detected.



6. PASSENGER AIRBAG ON/OFF INDICATOR CHECK

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(a) Turn the ignition switch to 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 step 5 regarding the passenger airbag ON/OFF indicator when the ignition switch is turned to ON and approximately 6 seconds pass.

7. ACTIVATION PREVENTION MECHANISM

(a) FUNCTION OF ACTIVATION PREVENTION MECHANISM

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

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

(b) RELEASING OF ACTIVATION PREVENTION MECHANISM

(1) To release the activation prevention mechanism, insert a piece of paper with the same thickness as the male terminal (approximately 0.5 mm (0.0197 in.)) between the terminals and the short spring to break the connection.

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

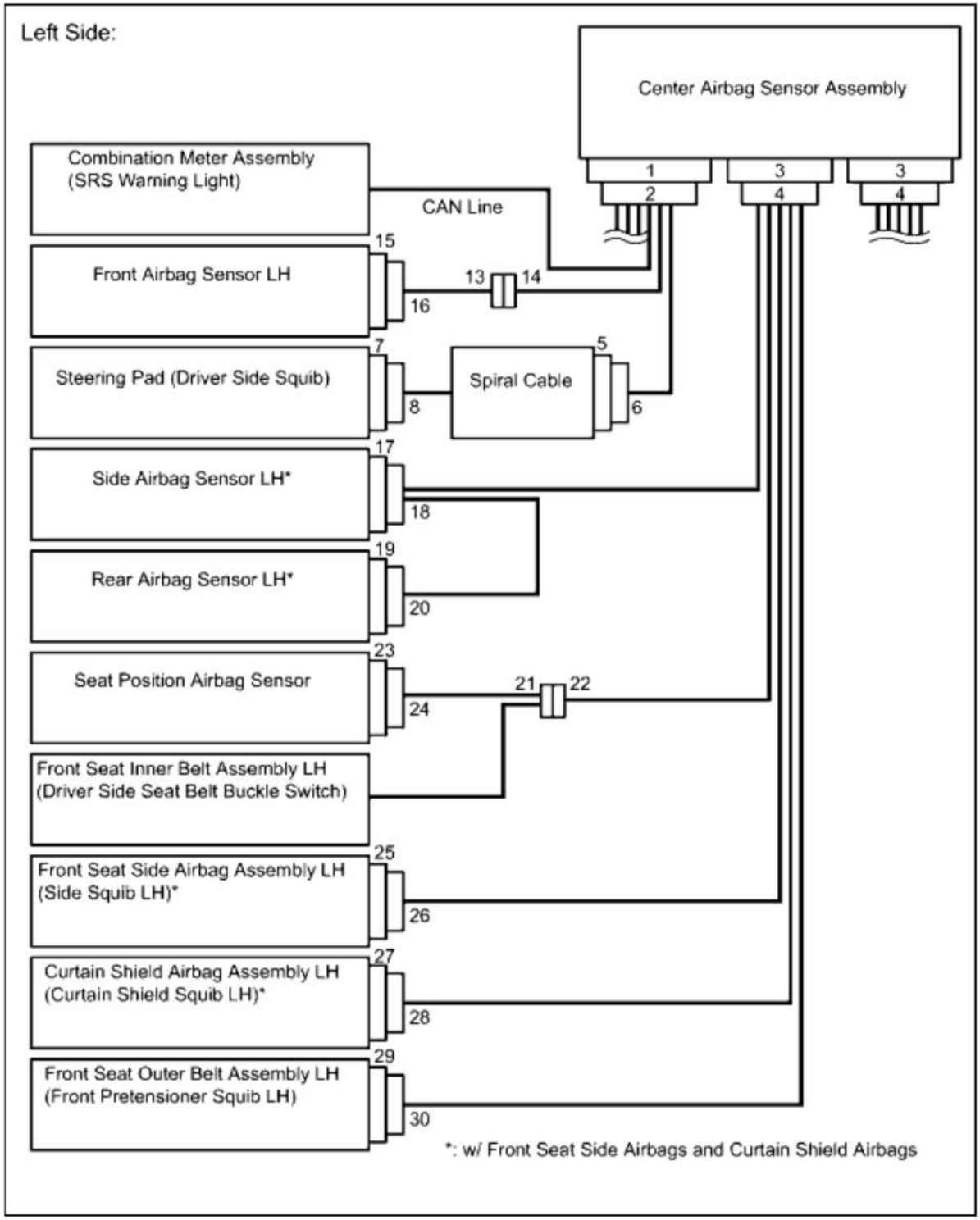
CAUTION:

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

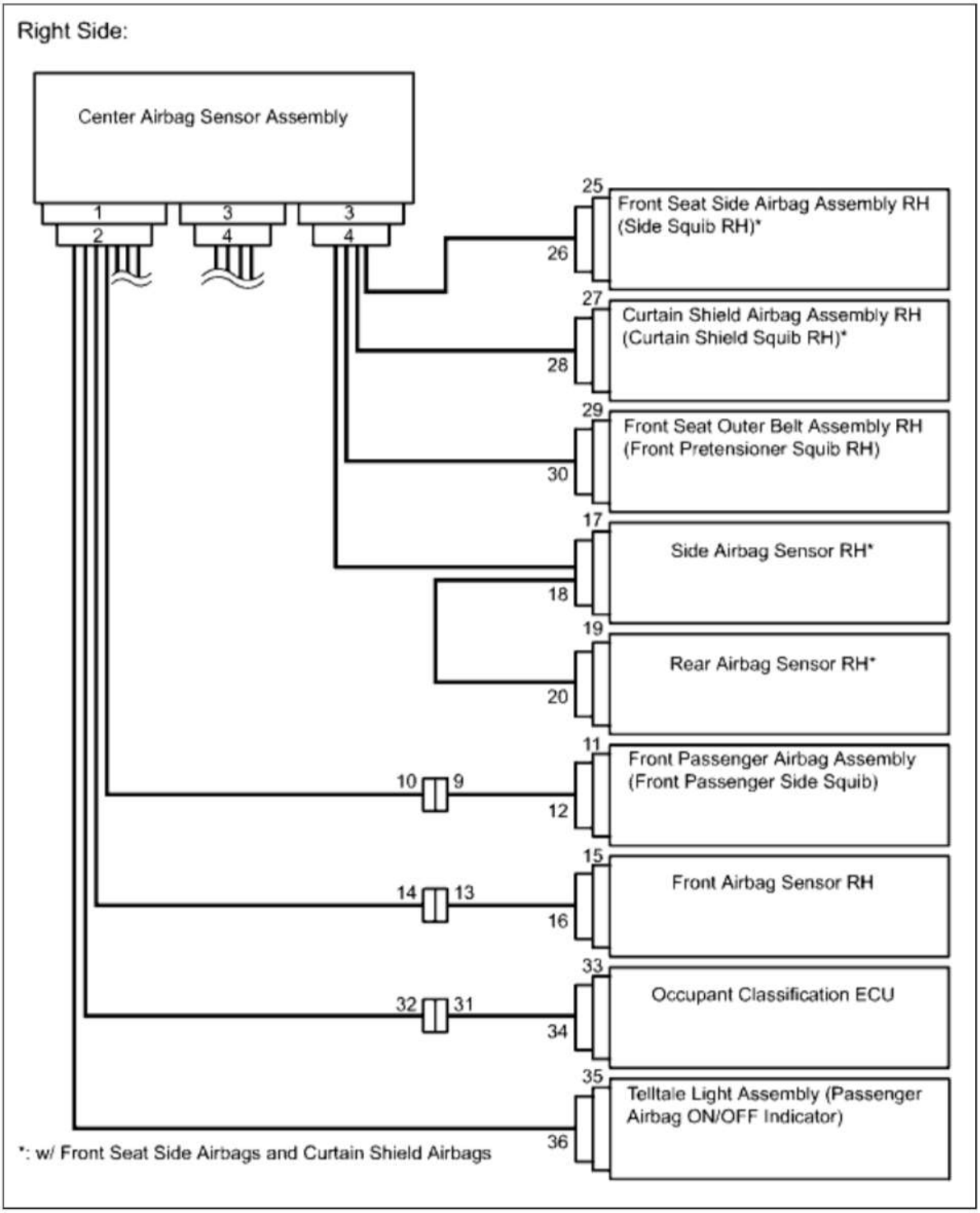
NOTICE:

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

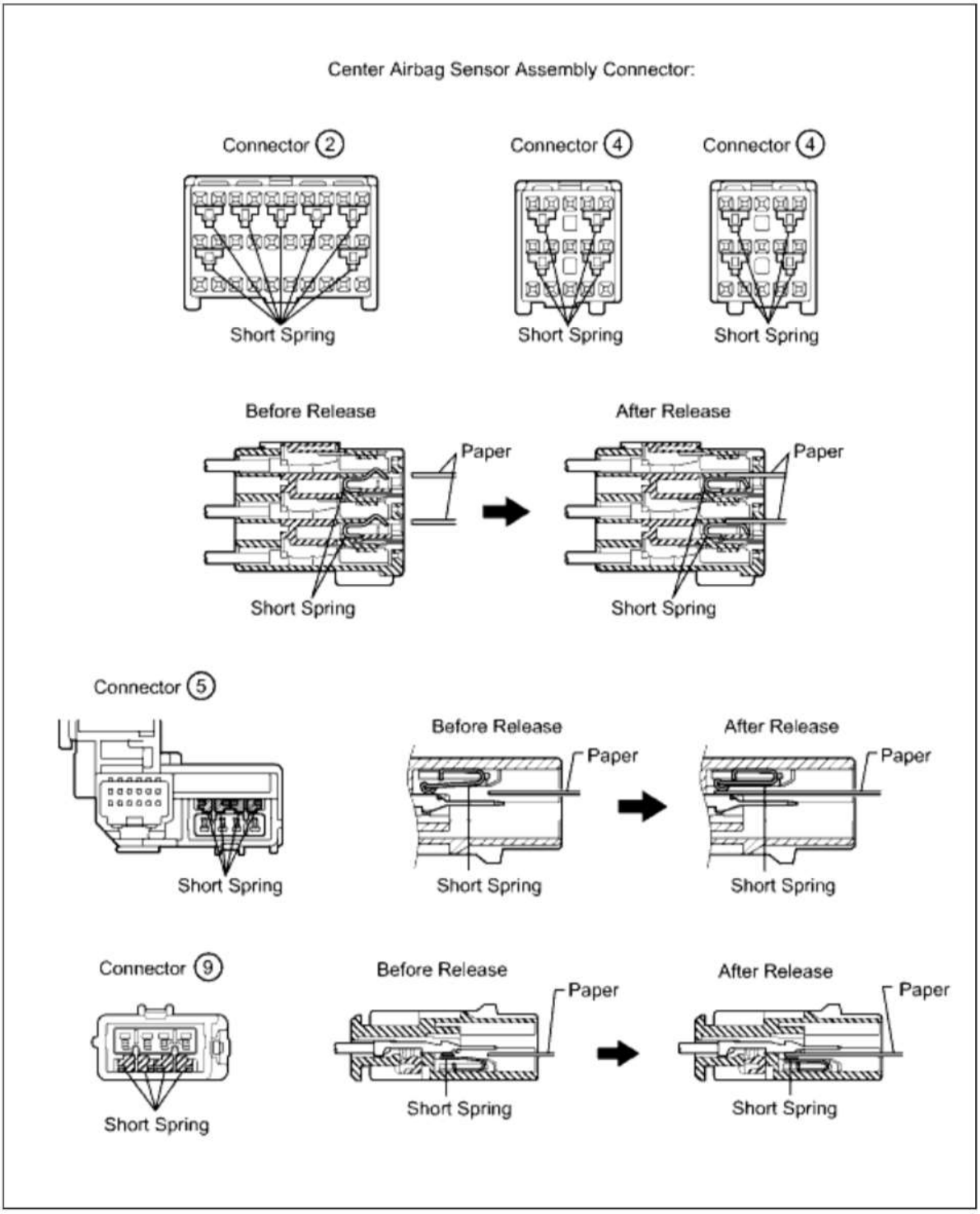
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Last Modified: 3-10-2010	6.4 T	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000XFA047X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: PROBLEM SYMPTOMS TABLE (2010 Corolla)		

PROBLEM SYMPTOMS TABLE

HINT:

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

Airbag System

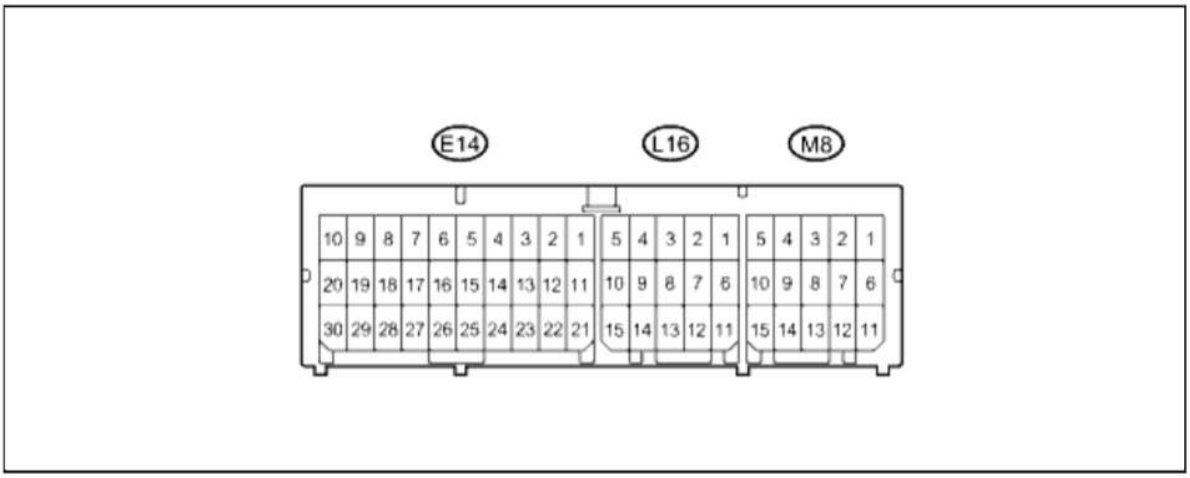
SYMPTOM	SUSPECTED AREA	SEE PAGE
The SRS warning light goes off after the primary check, but then comes on.	SRS Warning Light Remains ON	INFO
When the ignition switch is turned to ON, the SRS warning light sometimes comes on after approximately 6 seconds.	SRS Warning Light Remains ON	INFO
The SRS warning light always comes on even when DTC is not output.	SRS Warning Light Remains ON	INFO
When the ignition switch is turned to ON, the SRS warning light does not come on.	SRS Warning Light does not Come ON	INFO
Although the SRS warning light operates normally, DTC or a normal system code is not displayed.	TC and CG Terminal Circuit	INFO
Although terminals TC and CG of DLC3 are not connected, DTC or a normal system code is displayed.	TC and CG Terminal Circuit	INFO

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Last Modified: 3-10-2010	6.4 U	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000XF904EX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: TERMINALS OF ECU (2010 Corolla)		

TERMINALS OF ECU

1. CENTER AIRBAG SENSOR ASSEMBLY



TERMINAL NO.	TERMINAL SYMBOL	DESTINATION
E14-1	P2+	Front passenger airbag assembly (Front passenger side squib 2nd step)
E14-2	P2-	Front passenger airbag assembly (Front passenger side squib 2nd step)
E14-3	P-	Front passenger airbag assembly (Front passenger side squib)
E14-4	P+	Front passenger airbag assembly (Front passenger side squib)
E14-5	D+	Steering pad (Driver side squib)
E14-6	D-	Steering pad (Driver side squib)
E14-7	D2-	Steering pad (Driver side squib 2nd step)
E14-8	D2+	Steering pad (Driver side squib 2nd step)
E14-13	CANH	CAN communication line
E14-16	SIL	DLC3
E14-17	P-AB	Telltale light assembly (Passenger airbag ON/OFF indicator)
E14-21	IG2	IGN fuse
E14-22	CANL	CAN communication line
E14-23	PAON	Telltale light assembly (Passenger airbag ON/OFF indicator)

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TERMINAL NO.	TERMINAL SYMBOL	DESTINATION
E14-25	E1	Ground
E14-26	E2	Ground
E14-27	-SR	Front airbag sensor RH
E14-28	-SL	Front airbag sensor LH
E14-29	+SR	Front airbag sensor RH
E14-30	+SL	Front airbag sensor LH
L16-1	PL-	Front seat outer belt assembly LH (Front pretensioner squib LH)
L16-2	PL+	Front seat outer belt assembly LH (Front pretensioner squib LH)
L16-6*	ICL-	Curtain shield airbag assembly LH (Curtain shield squib LH)
L16-7*	ICL+	Curtain shield airbag assembly LH (Curtain shield squib LH)
L16-8*	BBL+	Side airbag sensor LH
L16-9*	SFL+	Front seat side airbag assembly LH (Side squib LH)
L16-10*	SFL-	Front seat side airbag assembly LH (Side squib LH)
L16-11	LBE+	Front seat inner belt assembly LH (Seat belt buckle switch LH)
L16-12	LBE-	Front seat inner belt assembly LH (Seat belt buckle switch LH)
L16-13	LSP-	Seat position airbag sensor
L16-14	LSP+	Seat position airbag sensor
L16-15*	BBL-	Side airbag sensor LH
M8-4	PR+	Front seat outer belt assembly RH (Front pretensioner squib RH)
M8-5	PR-	Front seat outer belt assembly RH (Front pretensioner squib RH)
M8-6*	SFR-	Front seat side airbag assembly RH (Side squib RH)
M8-7*	SFR+	Front seat side airbag assembly RH (Side squib RH)
M8-8*	BBR+	Side airbag sensor RH
M8-9*	ICR+	Curtain shield airbag assembly RH (Curtain shield squib RH)
M8-10*	ICR-	Curtain shield airbag assembly RH (Curtain shield squib RH)
M8-11*	BBR-	Side airbag sensor RH
M8-12	FSR+	Occupant classification ECU
M8-13	FSR-	Occupant classification ECU

HINT:

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***: w/ Front seat side airbags and curtain shield airbags**

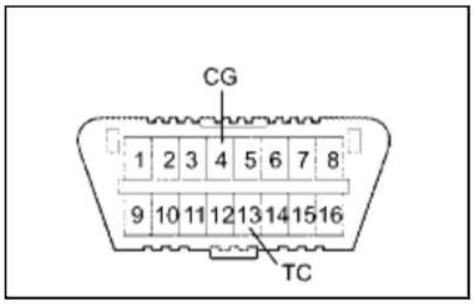


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Last Modified: 3-10-2010	6.4 D	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000XFE076X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: DTC CHECK / CLEAR (2010 Corolla)		

DTC CHECK / CLEAR

1. DTC CHECK (USING SST CHECK WIRE)



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

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

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

SST: 09843-18040

NOTICE:

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

(b) Check the DTCs (Past trouble code).

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

SST: 09843-18040

NOTICE:

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

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

(c) Read the DTCs.

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

- Normal system code indication (without past trouble code)

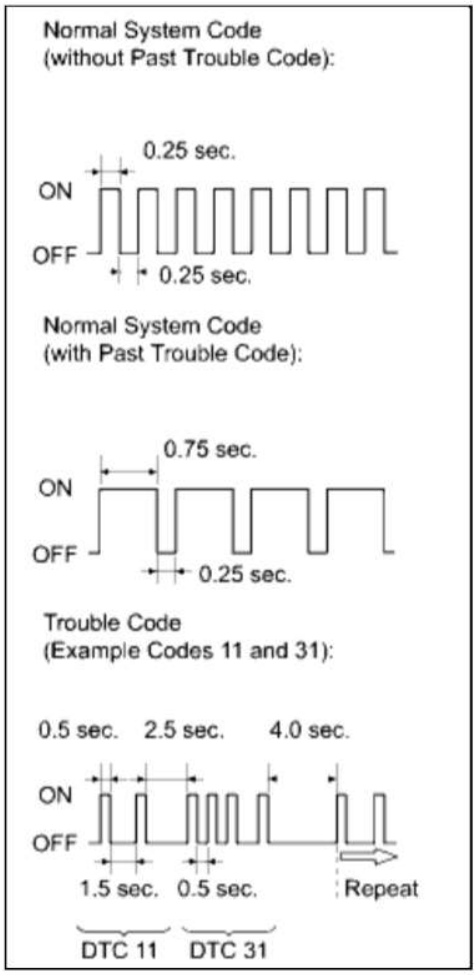
  The light blinks twice per second.
- Normal system code indication (with past trouble code)

  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 blinks indicate the first DTC. The second blinks occur after a 1.5-second pause.

If there is more than 1 code, there will be a 2.5-second pause between each code. After all codes are shown,

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there will be a 4.0-second pause, and then all codes 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 TC and CG Terminal Circuit INFO .

2. DTC CLEAR (USING SST CHECK WIRE)

(a) Clear the DTCs.

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

HINT:

Depending on the DTC, the code may not be cleared by turning off the ignition switch. In this case, proceed to the next procedure.

(2) Using SST, connect terminals TC and CG of the DLC3, and then turn the ignition switch to ON.

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.

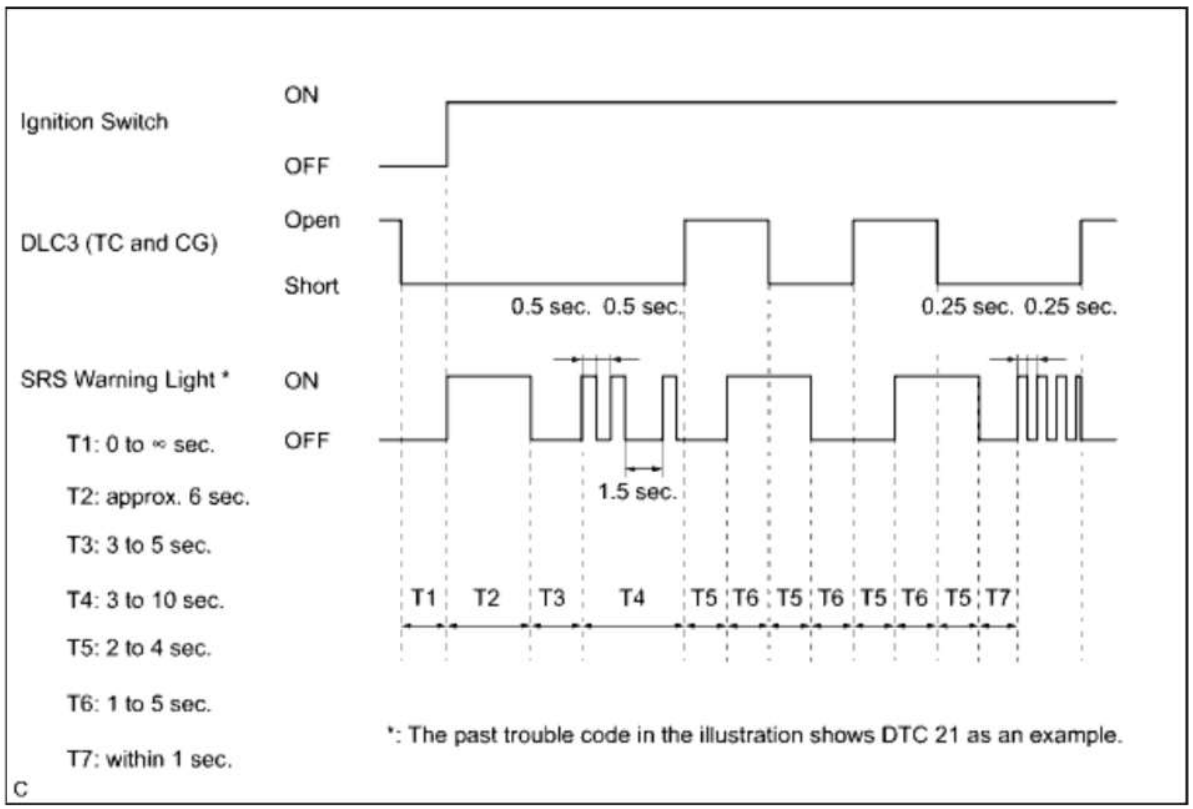
(5) The SRS warning light should go off within 2 to 4 seconds after connecting terminals TC and CG of the DLC3. Then, disconnect terminal TC within 2 to 4 seconds after the SRS warning light goes off.

(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.

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

If DTCs are not cleared, repeat this procedure until the codes are cleared.



3. DTC CHECK (USING TECHSTREAM)

(a) Turn the ignition switch off.

(b) Connect the Techstream to the DLC3.

(c) Turn the ignition switch to ON and turn the Techstream on.

(d) Enter the following menus: Body Electrical / SRS Airbag / Trouble Code.

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

HINT:

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

4. DTC CLEAR (USING TECHSTREAM)

(a) Turn the ignition switch off.

(b) Connect the Techstream to the DLC3.

(c) Turn the ignition switch to ON and turn the Techstream on.

(d) Enter the following menus: Body Electrical / SRS Airbag / Trouble Code.

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

HINT:

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



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Last Modified: 3-10-2010	6.4 D	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000XFF05UX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: CHECK MODE PROCEDURE (2010 Corolla)		

CHECK MODE PROCEDURE

1. CHECK MODE (SIGNAL CHECK): DTC CHECK

(a) Turn the ignition switch off.

(b) Connect the Techstream to the DLC3.

(c) Turn the ignition switch to ON and turn the Techstream on.

(d) Enter the following menus: Body Electrical / SRS Airbag / Utility / Signal Check.

(e) Select Signal Check, and proceed with checking using the Techstream.

NOTICE:

Select Signal Check from the Trouble Code screen displayed on the Techstream to clear the output DTCs (both present and past).

HINT:

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

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000YTM03LX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1610/13: Front Airbag Sensor RH Circuit Malfunction (2010 Corolla)		

DTC	**B1610/13**	**Front Airbag Sensor RH Circuit Malfunction**

DESCRIPTION

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

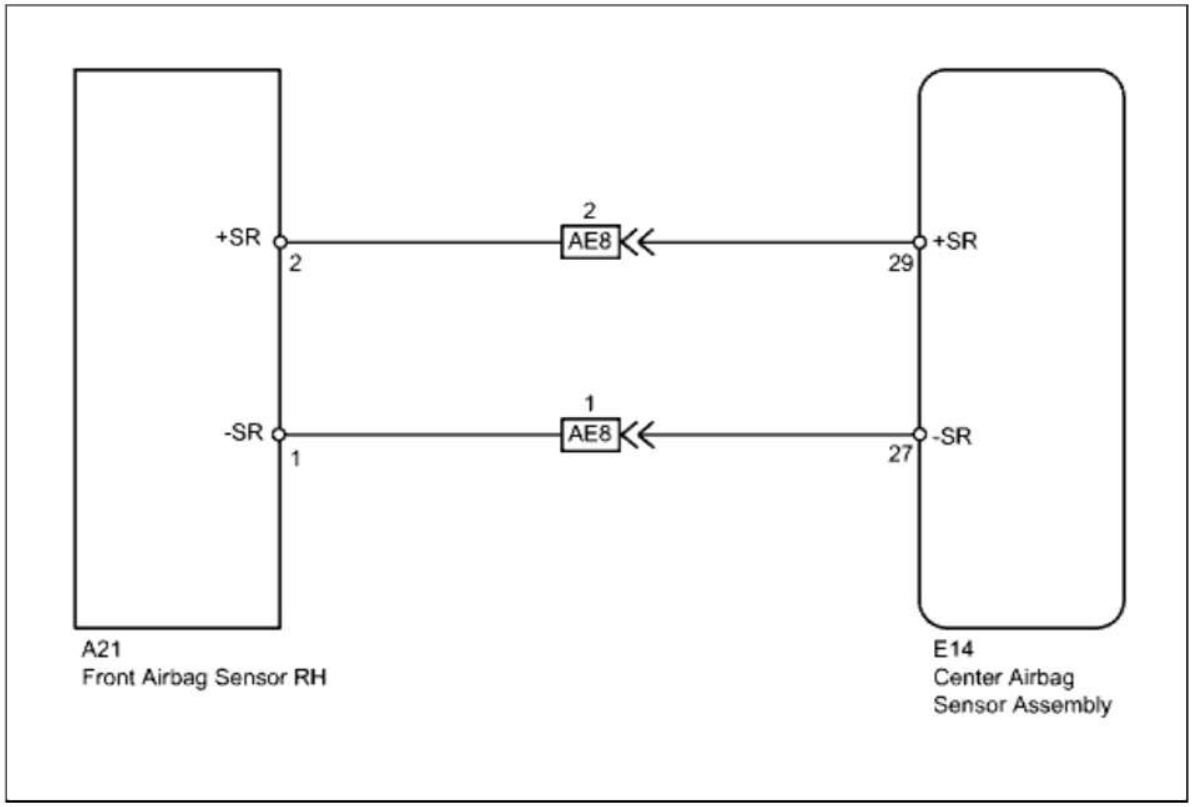
The front airbag sensor RH detects impacts to the vehicle and sends signals to the center airbag sensor assembly to determine if the airbag should be deployed.

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

DTC NO.	DTC DETECTING CONDITION	TROUBLE AREA
B1610/13	• The center airbag sensor assembly receives a short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the front airbag sensor RH circuit for 2 seconds. • Front airbag sensor RH malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Engine room main wire • Front airbag sensor RH • Center airbag sensor assembly

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK CONNECTORS**

(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 assembly and the front airbag sensor RH. Also check that the connectors that link the engine room main wire and instrument panel wire are properly connected.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the center airbag sensor assembly and the front airbag sensor RH. Also disconnect the connectors that link the engine room main wire and instrument panel wire.

(e) Check that the terminals of the connectors are not damaged.

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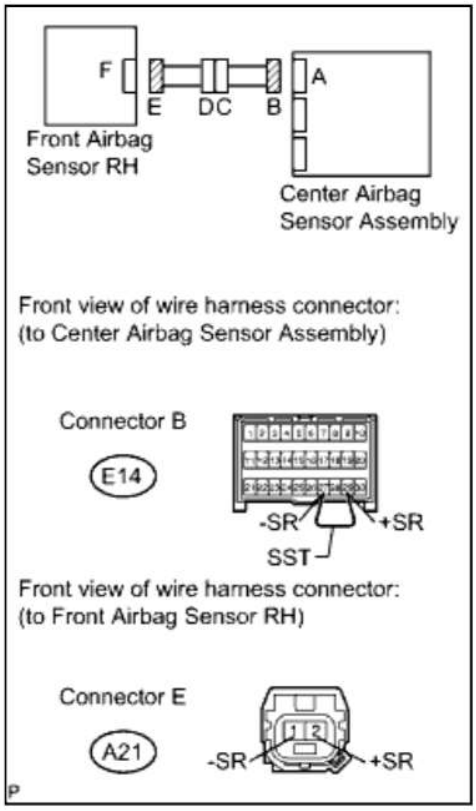
OK:

The terminals are not deformed or damaged.

NG ▶ **REPLACE WIRE HARNESS**

OK ▼

2.	CHECK FRONT AIRBAG SENSOR RH CIRCUIT (OPEN)



(a) Connect the connectors that link the engine room main wire and instrument panel wire.

(b) Using SST, connect terminals 29 (+SR) and 27 (-SR) of connector B.

NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

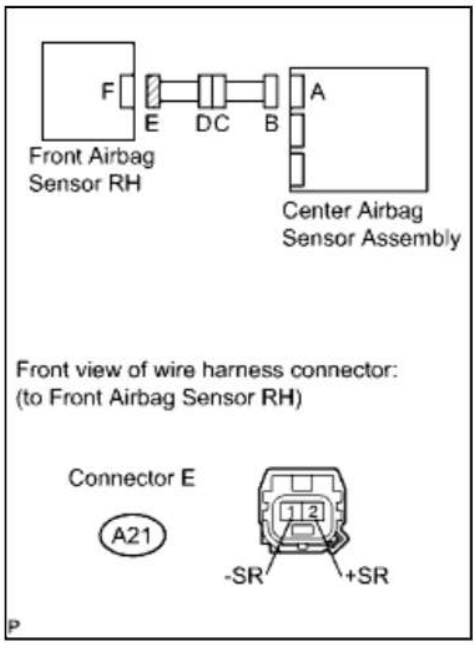
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A21-2 (+SR) - A21-1 (-SR)	Always	Below 1 Ω

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NG ▶ CHECK INSTRUMENT PANEL WIRE (OPEN)

OK ▼

3.	CHECK FRONT AIRBAG SENSOR RH CIRCUIT (SHORT)



(a) Disconnect SST from connector B.

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

Standard Resistance:

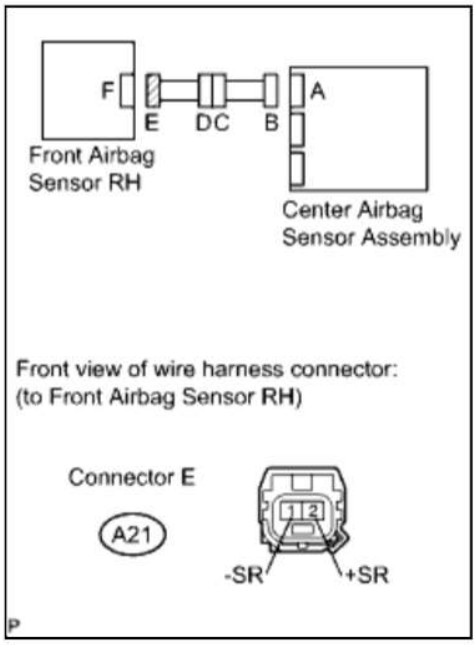
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A21-2 (+SR) - A21-1 (-SR)	Always	1 MΩ or higher

NG ▶ CHECK INSTRUMENT PANEL WIRE (SHORT)

OK ▼

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

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(a) Connect the cable to the negative (-) battery terminal.

(b) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
A21-2 (+SR) - Body ground	Ignition switch ON	Below 1 V
A21-1 (-SR) - Body ground	Ignition switch ON	Below 1 V

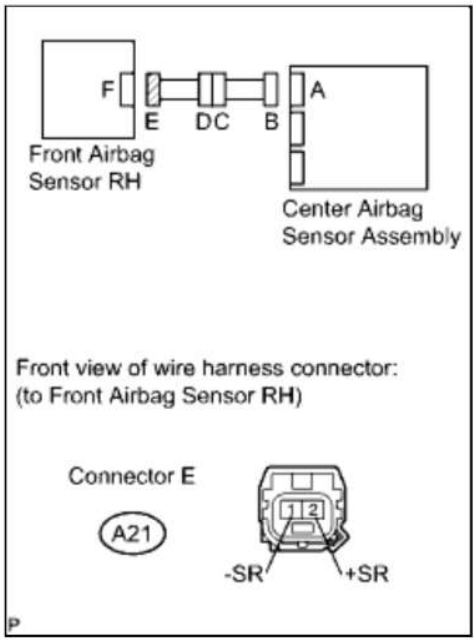
NG ▶ **CHECK INSTRUMENT PANEL WIRE (SHORT TO B+)**

OK ▼

5.	**CHECK FRONT AIRBAG SENSOR RH CIRCUIT (SHORT TO GROUND)**

(a) Turn the ignition switch off.

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A21-2 (+SR) - Body ground	Always	1 MΩ or higher
A21-1 (-SR) - Body ground	Always	1 MΩ or higher

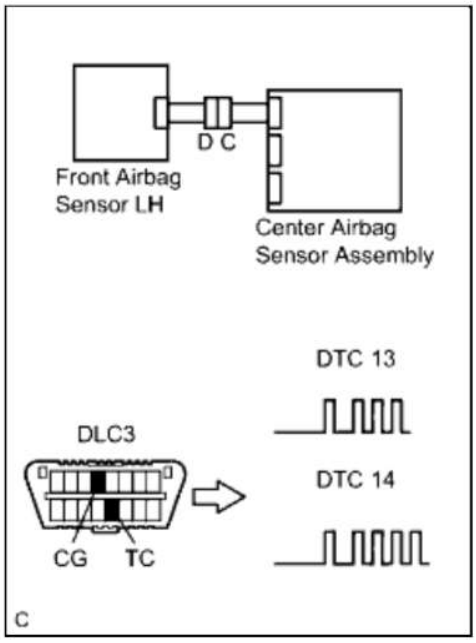
NG ▶ **CHECK INSTRUMENT PANEL WIRE (SHORT TO GROUND)**

OK ▼

6.	**CHECK FRONT AIRBAG SENSOR RH**

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

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

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

Result:

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

HINT:

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

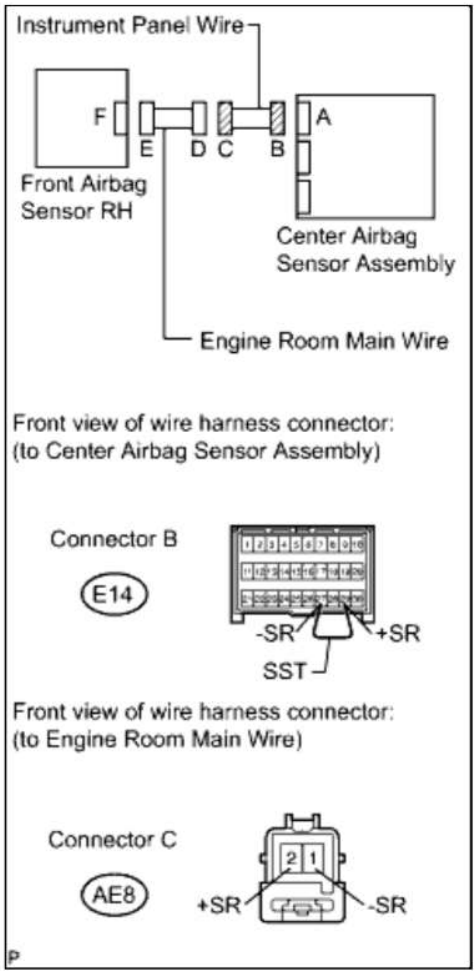
C ▶ REPLACE FRONT AIRBAG SENSOR RH

B ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

A ▶ USE SIMULATION METHOD TO CHECK

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7.	CHECK INSTRUMENT PANEL WIRE (OPEN)



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

HINT:

SST has already been inserted into connector B.

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

Standard Resistance:

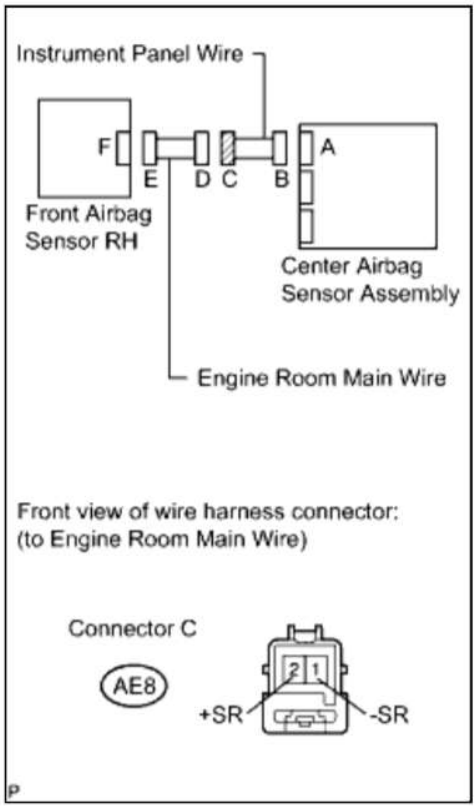
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
AE8-2 (+SR) - AE8-1 (-SR)	Always	Below 1 Ω

NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▶ **REPLACE ENGINE ROOM MAIN WIRE**

8.	CHECK INSTRUMENT PANEL WIRE (SHORT)

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
AE8-2 (+SR) - AE8-1 (-SR)	Always	1 MΩ or higher

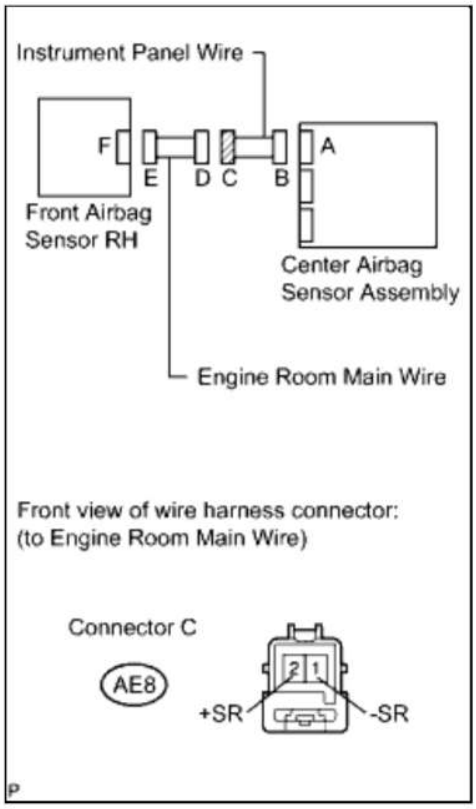
NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▶ **REPLACE ENGINE ROOM MAIN WIRE**

9.	**CHECK INSTRUMENT PANEL WIRE (SHORT TO B+)**

(a) Turn the ignition switch off.

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

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

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
AE8-2 (+SR) - Body ground	Ignition switch ON	Below 1 V
AE8-1 (-SR) - Body ground	Ignition switch ON	Below 1 V

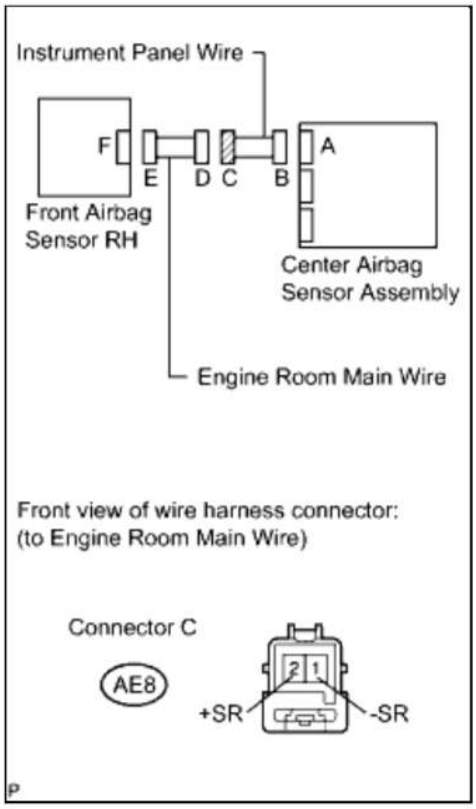
NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▶ **REPLACE ENGINE ROOM MAIN WIRE**

10.	**CHECK INSTRUMENT PANEL WIRE (SHORT TO GROUND)**

(a) Disconnect the instrument panel wire connector from

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the engine room main wire.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
AE8-2 (+SR) - Body ground	Always	1 MΩ or higher
AE8-1 (-SR) - Body ground	Always	1 MΩ or higher

NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▶ **REPLACE ENGINE ROOM MAIN WIRE**

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000YTN03EX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1615/14: Front Airbag Sensor LH Circuit Malfunction (2010 Corolla)		

DTC	**B1615/14**	**Front Airbag Sensor LH Circuit Malfunction**

DESCRIPTION

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

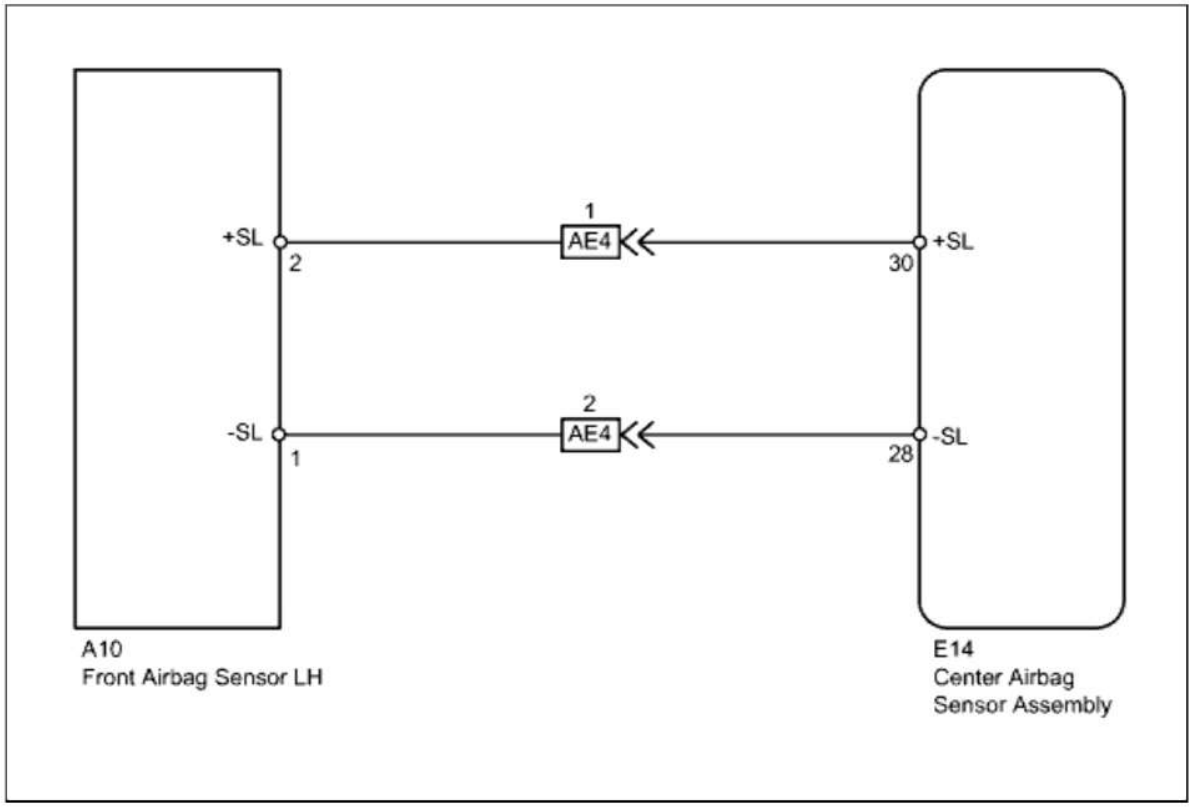
The front airbag sensor LH detects impacts to the vehicle and sends signals to the center airbag sensor assembly to determine if the airbag should be deployed.

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

DTC NO.	DTC DETECTING CONDITION	TROUBLE AREA
B1615/14	• The center airbag sensor assembly receives a short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the front airbag sensor LH circuit for 2 seconds. • Front airbag sensor LH malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Engine room main wire • Front airbag sensor LH • Center airbag sensor assembly

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK CONNECTORS**

(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 assembly and the front airbag sensor LH. Also check that the connectors that link the engine room main wire and instrument panel wire are properly connected.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the center airbag sensor assembly and the front airbag sensor LH. Also disconnect the connectors that link the engine room main wire and instrument panel wire.

(e) Check that the terminals of the connectors are not damaged.

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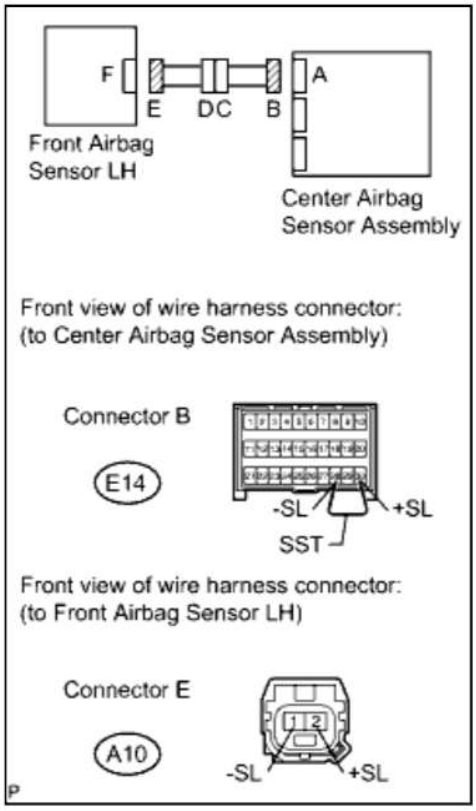
OK:

The terminals are not deformed or damaged.

NG ▶ **REPLACE WIRE HARNESS**

OK ▼

2.	**CHECK FRONT AIRBAG SENSOR LH CIRCUIT (OPEN)**



(a) Connect the connectors that link the engine room main wire and instrument panel wire.

(b) Using SST, connect connectors 30 (+SL) and 28 (-SL) of connector B.

NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

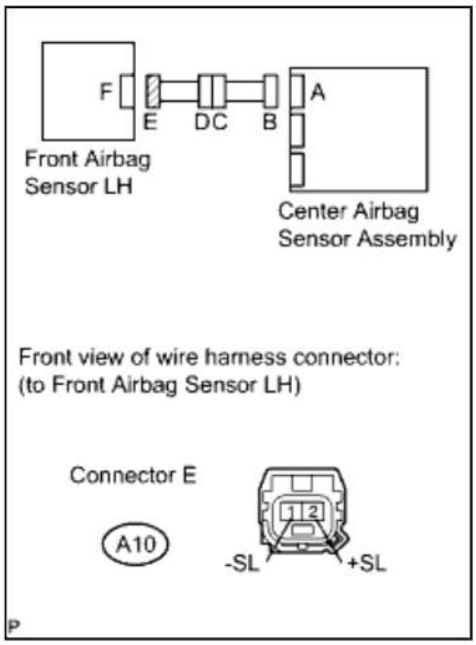
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A10-2 (+SL) - A10-1 (-SL)	Always	Below 1 Ω

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NG ▶ CHECK INSTRUMENT PANEL WIRE (OPEN)

OK ▼

3.	CHECK FRONT AIRBAG SENSOR LH CIRCUIT (SHORT)



(a) Disconnect SST from connector B.

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

Standard Resistance:

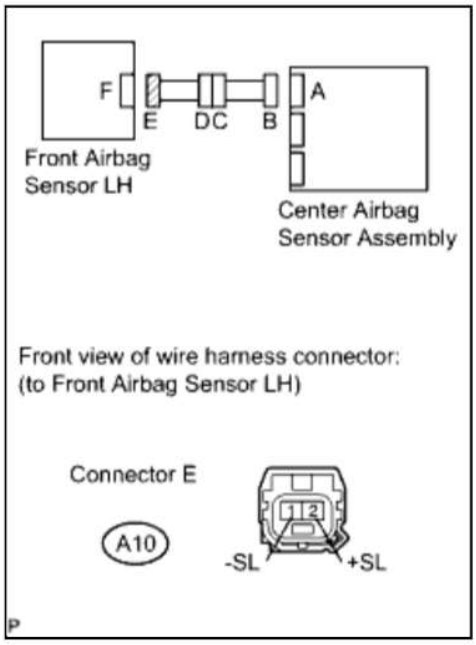
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A10-2 (+SL) - A10-1 (-SL)	Always	1 MΩ or higher

NG ▶ CHECK INSTRUMENT PANEL WIRE (SHORT)

OK ▼

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

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(a) Connect the cable to the negative (-) battery terminal.

(b) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
A10-2 (+SL) - Body ground	Ignition switch ON	Below 1 V
A10-1 (-SL) - Body ground	Ignition switch ON	Below 1 V

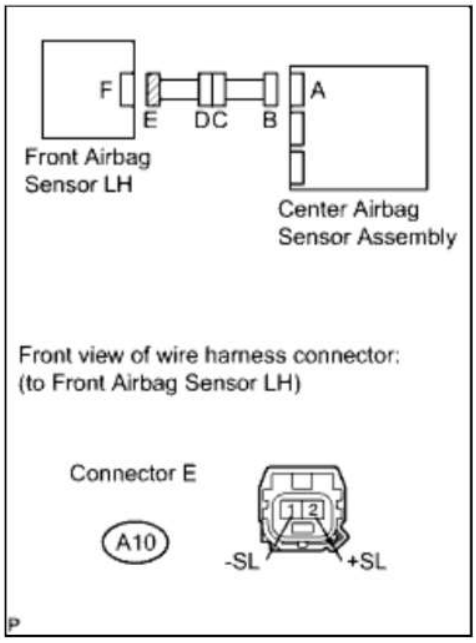
NG ▶ **CHECK INSTRUMENT PANEL WIRE (SHORT TO B+)**

OK ▼

5.	**CHECK FRONT AIRBAG SENSOR LH CIRCUIT (SHORT TO GROUND)**

(a) Turn the ignition switch off.

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A10-2 (+SL) - Body ground	Always	1 MΩ or higher
A10-1 (-SL) - Body ground	Always	1 MΩ or higher

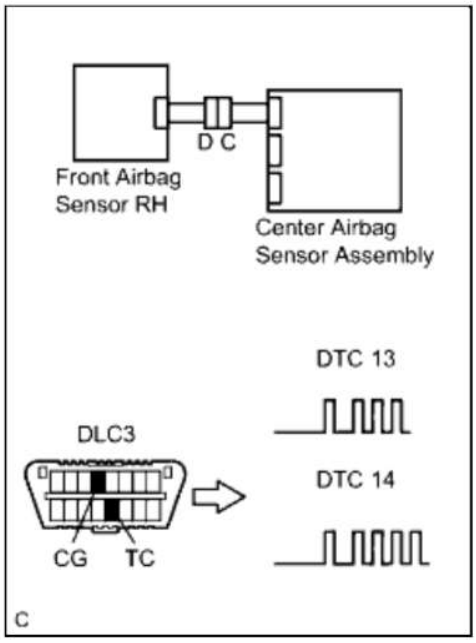
NG ▶ **CHECK INSTRUMENT PANEL WIRE (SHORT TO GROUND)**

OK ▼

6.	**CHECK FRONT AIRBAG SENSOR LH**

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

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

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

Result:

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

HINT:

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

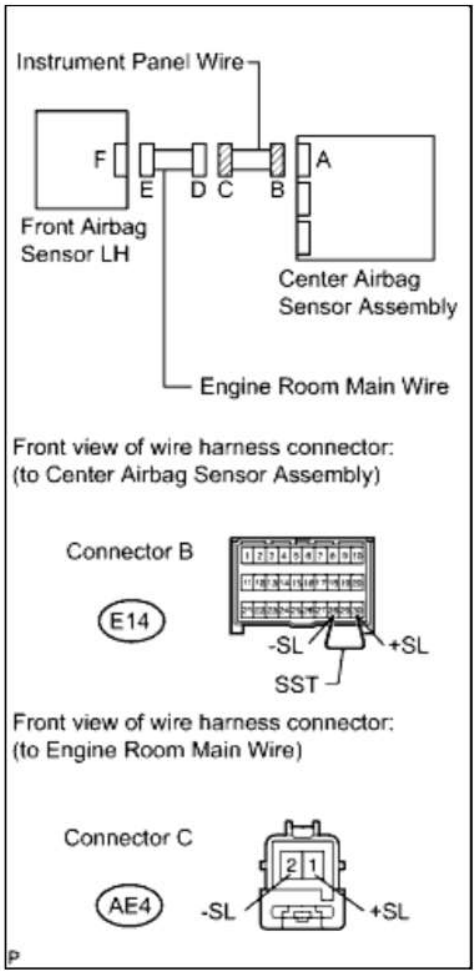
C ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

B ▶ REPLACE FRONT AIRBAG SENSOR LH

A ▶ USE SIMULATION METHOD TO CHECK

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7.	CHECK INSTRUMENT PANEL WIRE (OPEN)



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

HINT:

SST has already been inserted into connector B.

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

Standard Resistance:

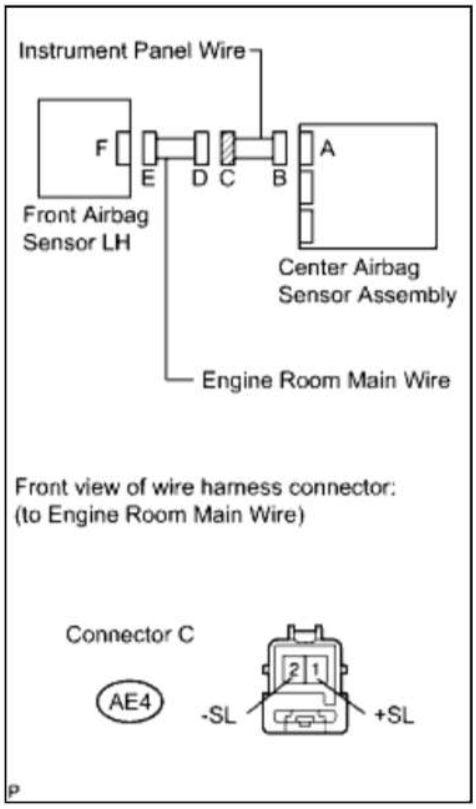
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
AE4-1 (+SL) - AE4-2 (-SL)	Always	Below 1 Ω

NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▶ **REPLACE ENGINE ROOM MAIN WIRE**

8.	CHECK INSTRUMENT PANEL WIRE (SHORT)

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
AE4-1 (+SL) - AE4-2 (-SL)	Always	1 MΩ or higher

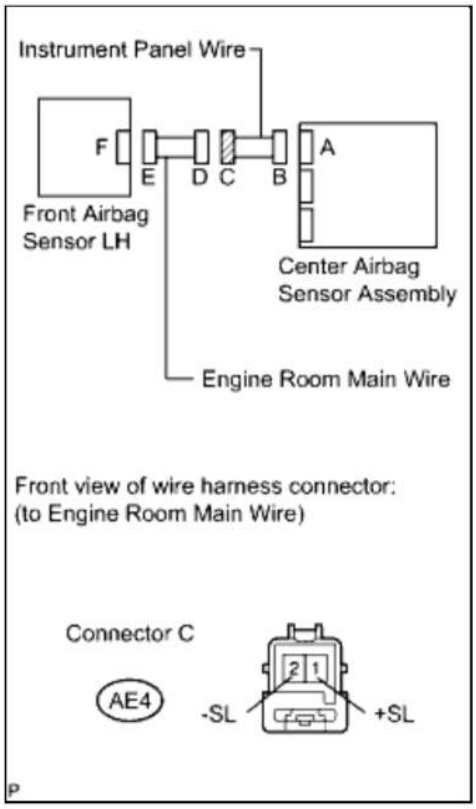
NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▶ **REPLACE ENGINE ROOM MAIN WIRE**

9.	**CHECK INSTRUMENT PANEL WIRE (SHORT TO B+)**

(a) Turn the ignition switch off.

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

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

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
AE4-1 (+SL) - Body ground	Ignition switch ON	Below 1 V
AE4-2 (-SL) - Body ground	Ignition switch ON	Below 1 V

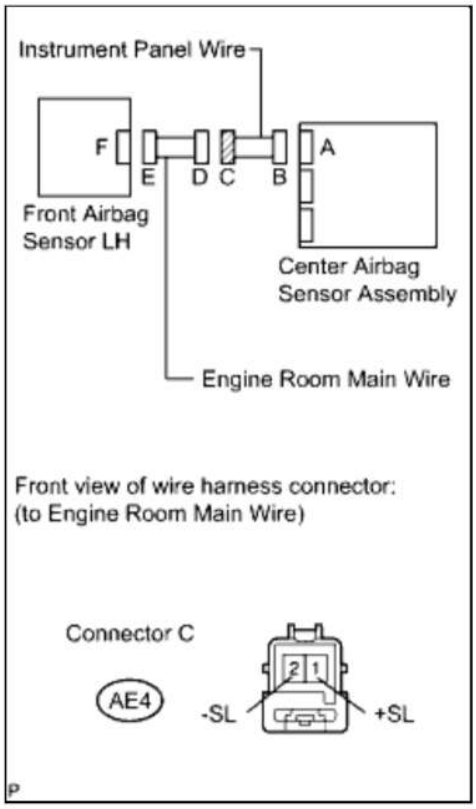
NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▶ **REPLACE ENGINE ROOM MAIN WIRE**

10.	**CHECK INSTRUMENT PANEL WIRE (SHORT TO GROUND)**

(a) Disconnect the instrument panel wire connector from

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the engine room main wire.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
AE4-1 (+SL) - Body ground	Always	1 MΩ or higher
AE4-2 (-SL) - Body ground	Always	1 MΩ or higher

NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▶ **REPLACE ENGINE ROOM MAIN WIRE**

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Last Modified: 3-10-2010	6.4 S	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000XF7042X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: DIAGNOSTIC TROUBLE CODE CHART (2010 Corolla)		

DIAGNOSTIC TROUBLE CODE CHART

If a trouble code is displayed during the DTC check, check the circuit listed for the code in the table below (refer to the appropriate page).

HINT:

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

  *1: DTC does not correspond to check mode.

  *2: DTC corresponds to check mode.
- DTCs marked *3 are output only on vehicles equipped with the front seat side airbags and curtain shield airbags.

Airbag System

DTC CODE	DETECTION ITEM	TROUBLE AREA	CHECK MODE	SEE PAGE
B1000/31	Center Airbag Sensor Assembly Malfunction	Center airbag sensor assembly	*1	INFO
B1610/13	Front Airbag Sensor RH Circuit Malfunction	1. Instrument panel wire 2. Engine room main wire 3. Front airbag sensor RH 4. Center airbag sensor assembly	*1	INFO
B1615/14	Front Airbag Sensor LH Circuit Malfunction	1. Instrument panel wire 2. Engine room main wire 3. Front airbag sensor LH 4. Center airbag sensor assembly	*1	INFO
B1620/21 *3	Side Airbag Sensor RH Circuit Malfunction	1. No. 2 floor wire 2. Side airbag sensor RH 3. Rear airbag sensor RH 4. Center airbag sensor assembly	*1	INFO

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DTC CODE	DETECTION ITEM	TROUBLE AREA	CHECK MODE	SEE PAGE
B1625/22 *3	Side Airbag Sensor LH Circuit Malfunction	1. Floor wire 2. Side airbag sensor LH 3. Rear airbag sensor LH 4. Center airbag sensor assembly	*1	INFO
B1630/23 *3	Rear Airbag Sensor RH Circuit Malfunction	1. No. 2 floor wire 2. Rear airbag sensor RH 3. Side airbag sensor RH 4. Center airbag sensor assembly	*1	INFO
B1635/24 *3	Rear Airbag Sensor LH Circuit Malfunction	1. Floor wire 2. Rear airbag sensor LH 3. Side airbag sensor LH 4. Center airbag sensor assembly	*1	INFO
B1650/32	Occupant Classification System Malfunction	1. No. 2 floor wire 2. Front seat wire RH 3. Occupant classification system 4. Center airbag sensor assembly	*1	INFO
B1653/35	Seat Position Airbag Sensor Circuit Malfunction	1. Floor wire 2. Front seat inner belt assembly LH 3. Seat position airbag sensor 4. Center airbag sensor assembly	*1	INFO
B1655/37	Driver Side Seat Belt Buckle Switch Circuit Malfunction	1. Floor wire 2. Front seat inner belt assembly LH (Driver side seat belt buckle switch) 3. Center airbag sensor assembly	*1	INFO
B1660/43	Passenger Airbag ON/OFF Indicator Circuit Malfunction	1. Instrument panel wire 2. Telltale light assembly (Passenger airbag ON/OFF indicator) 3. Center airbag sensor assembly	*1	INFO
B1800/51	Short in Driver Side Squib Circuit	1. Instrument panel wire 2. Spiral cable 3. Steering pad (Driver side squib) 4. Center airbag sensor assembly	*2	INFO
B1801/51	Open in Driver Side Squib Circuit	Same as DTC B1800/51	*2	INFO
B1802/51	Short to GND in Driver Side Squib Circuit	Same as DTC B1800/51	*2	INFO
B1803/51	Short to B+ in Driver Side Squib Circuit	Same as DTC B1800/51	*2	INFO

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DTC CODE	DETECTION ITEM	TROUBLE AREA	CHECK MODE	SEE PAGE
B1805/52	Short in Front Passenger Side Squib Circuit	1. Instrument panel wire 2. Instrument panel wire assembly 3. Front passenger airbag assembly (Front passenger side squib) 4. Center airbag sensor assembly	*2	INFO
B1806/52	Open in Front Passenger Side Squib Circuit	Same as DTC B1805/52	*2	INFO
B1807/52	Short to GND in Front Passenger Side Squib Circuit	Same as DTC B1805/52	*2	INFO
B1808/52	Short to B+ in Front Passenger Side Squib Circuit	Same as DTC B1805/52	*2	INFO
B1810/53	Short in Driver Side Squib 2nd Step Circuit	1. Instrument panel wire 2. Spiral cable 3. Steering pad (Driver side squib 2nd step) 4. Center airbag sensor assembly	*2	INFO
B1811/53	Open in Driver Side Squib 2nd Step Circuit	Same as DTC B1810/53	*2	INFO
B1812/53	Short to GND in Driver Side Squib 2nd Step Circuit	Same as DTC B1810/53	*2	INFO
B1813/53	Short to B+ in Driver Side Squib 2nd Step Circuit	Same as DTC B1810/53	*2	INFO
B1815/54	Short in Front Passenger Side Squib 2nd Step Circuit	1. Instrument panel wire 2. Instrument panel wire assembly 3. Front passenger airbag assembly (Front passenger side squib 2nd step) 4. Center airbag sensor assembly	*2	INFO
B1816/54	Open in Front Passenger Side Squib 2nd Step Circuit	Same as DTC B1815/54	*2	INFO
B1817/54	Short to GND in Front Passenger Side Squib 2nd Step Circuit	Same as DTC B1815/54	*2	INFO
B1818/54	Short to B+ in Front Passenger Side Squib 2nd Step Circuit	Same as DTC B1815/54	*2	INFO
B1820/55 *3	Short in Side Squib RH Circuit	1. No. 2 floor wire 2. Front seat side airbag assembly RH (Side squib RH) 3. Center airbag sensor assembly	*2	INFO

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DTC CODE	DETECTION ITEM	TROUBLE AREA	CHECK MODE	SEE PAGE
B1821/55 *3	Open in Side Squib RH Circuit	Same as DTC B1820/55	*2	INFO
B1822/55 *3	Short to GND in Side Squib RH Circuit	Same as DTC B1820/55	*2	INFO
B1823/55 *3	Short to B+ in Side Squib RH Circuit	Same as DTC B1820/55	*2	INFO
B1825/56 *3	Short in Side Squib LH Circuit	1. Floor wire 2. Front seat side airbag assembly LH (Side squib LH) 3. Center airbag sensor assembly	*2	INFO
B1826/56 *3	Open in Side Squib LH Circuit	Same as DTC B1825/56	*2	INFO
B1827/56 *3	Short to GND in Side Squib LH Circuit	Same as DTC B1825/56	*2	INFO
B1828/56 *3	Short to B+ in Side Squib LH Circuit	Same as DTC B1825/56	*2	INFO
B1830/57 *3	Short in Curtain Shield Squib RH Circuit	1. No. 2 floor wire 2. Curtain shield airbag assembly RH (Curtain shield squib RH) 3. Center airbag sensor assembly	*2	INFO
B1831/57 *3	Open in Curtain Shield Squib RH Circuit	Same as DTC B1830/57	*2	INFO
B1832/57 *3	Short to GND in Curtain Shield Squib RH Circuit	Same as DTC B1830/57	*2	INFO
B1833/57 *3	Short to B+ in Curtain Shield Squib RH Circuit	Same as DTC B1830/57	*2	INFO
B1835/58 *3	Short in Curtain Shield Squib LH Circuit	1. Floor wire 2. Curtain shield airbag assembly LH (Curtain shield squib LH) 3. Center airbag sensor assembly	*2	INFO
B1836/58 *3	Open in Curtain Shield Squib LH Circuit	Same as DTC B1835/58	*2	INFO
B1837/58 *3	Short to GND in Curtain Shield Squib LH Circuit	Same as DTC B1835/58	*2	INFO
B1838/58 *3	Short to B+ in Curtain Shield Squib LH Circuit	Same as DTC B1835/58	*2	INFO
B1900/73	Short in Front Pretensioner Squib RH Circuit	1. No. 2 floor wire 2. Front seat outer belt assembly RH (Front pretensioner squib RH)	*2	INFO

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DTC CODE	DETECTION ITEM	TROUBLE AREA	CHECK MODE	SEE PAGE
		3. Center airbag sensor assembly		
B1901/73	Open in Front Pretensioner Squib RH Circuit	Same as DTC B1900/73	*2	INFO
B1902/73	Short to GND in Front Pretensioner Squib RH Circuit	Same as DTC B1900/73	*2	INFO
B1903/73	Short to B+ in Front Pretensioner Squib RH Circuit	Same as DTC B1900/73	*2	INFO
B1905/74	Short in Front Pretensioner Squib LH Circuit	1. Floor wire 2. Front seat outer belt assembly LH (Front pretensioner squib LH) 3. Center airbag sensor assembly	*2	INFO
B1906/74	Open in Front Pretensioner Squib LH Circuit	Same as DTC B1905/74	*2	INFO
B1907/74	Short to GND in Front Pretensioner Squib LH Circuit	Same as DTC B1905/74	*2	INFO
B1908/74	Short to B+ in Front Pretensioner Squib LH Circuit	Same as DTC B1905/74	*2	INFO

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001NZU01WX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1620/21: Side Airbag Sensor RH Circuit Malfunction (2010 Corolla)		

DTC	**B1620/21**	**Side Airbag Sensor RH Circuit Malfunction**

DESCRIPTION

The side airbag sensor RH circuit consists of the center airbag sensor assembly, side airbag sensor RH and rear airbag sensor RH.

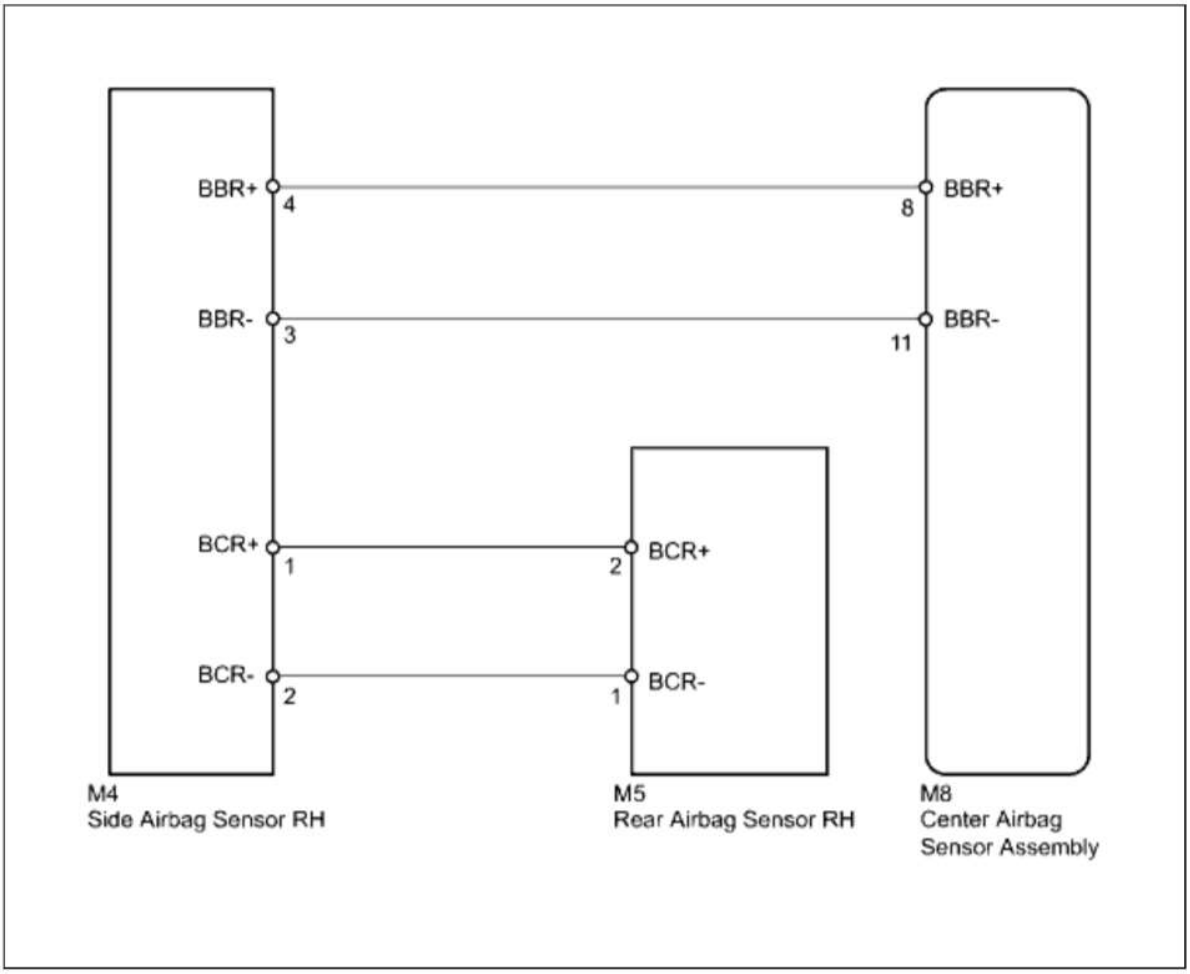
The side airbag sensor RH and rear airbag sensor RH detect impacts to the vehicle and send signals to the center airbag sensor assembly to determine if the airbag should be deployed.

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

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1620/21	• The center airbag sensor assembly receives a short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the side airbag RH sensor circuit for 2 seconds. • Side airbag sensor RH malfunction • Rear airbag sensor RH malfunction • Center airbag sensor assembly malfunction	• No. 2 floor wire • Side airbag sensor RH • Rear airbag sensor RH • Center airbag sensor assembly

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK CONNECTORS**

(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 assembly, side airbag sensor RH and rear airbag sensor RH.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the center airbag sensor assembly, side airbag sensor

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RH and rear airbag sensor RH.

(e) Check that the terminals of the connectors are not damaged.

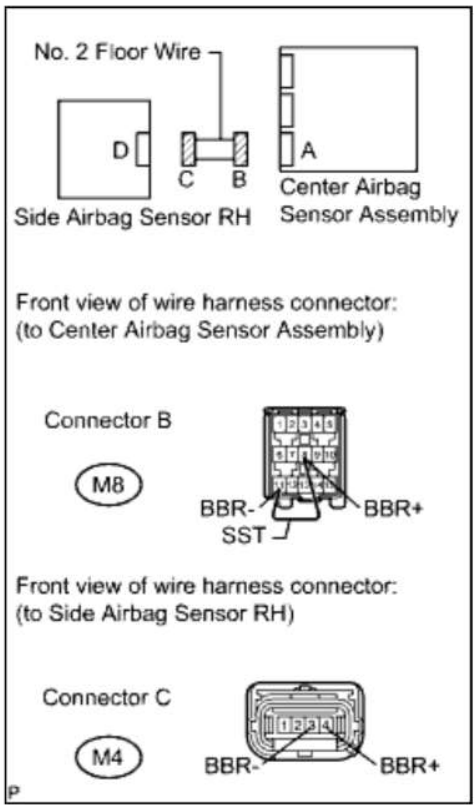
OK:

The terminals are not deformed or damaged.

NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

2.	CHECK NO. 2 FLOOR WIRE (OPEN)



(a) Using SST, connect terminals 8 (BBR+) and 11 (BBR-) of connector B.

NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

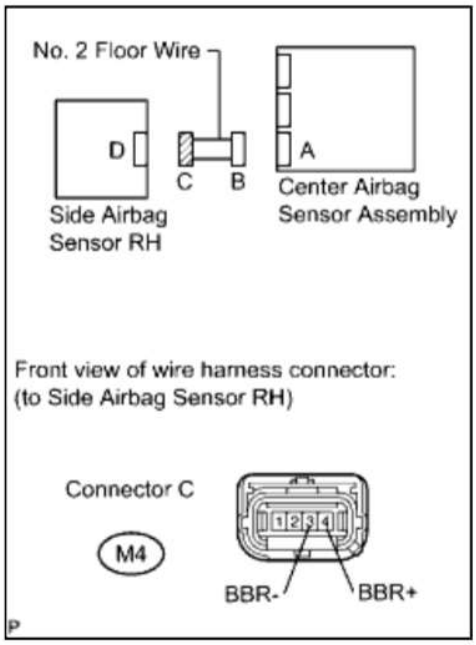
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M4-4 (BBR+) - M4-3 (BBR-)	Always	Below 1 Ω

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NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

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



(a) Disconnect SST from connector B.

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

Standard Resistance:

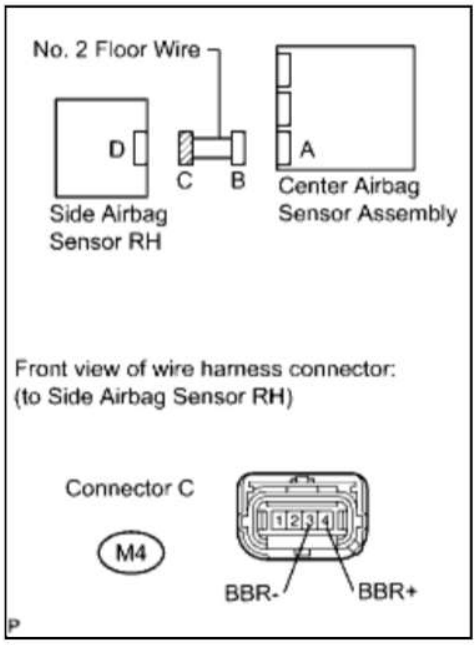
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M4-4 (BBR+) - M4-3 (BBR-)	Always	1 MΩ or higher

NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

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

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(a) Connect the cable to the negative (-) battery terminal.

(b) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
M4-4 (BBR+) - Body ground	Ignition switch ON	Below 1 V
M4-3 (BBR-) - Body ground	Ignition switch ON	Below 1 V

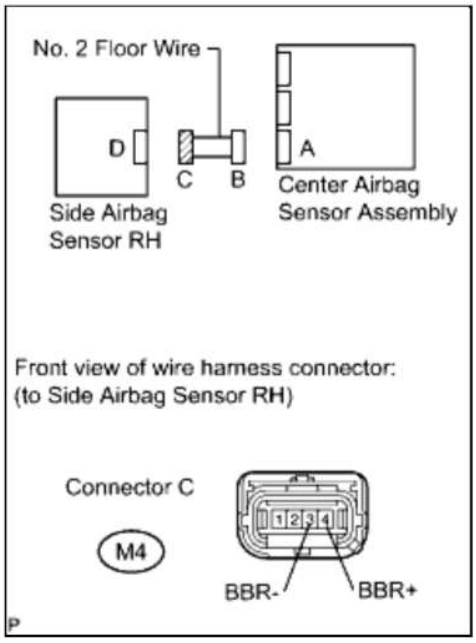
NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

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

(a) Turn the ignition switch off.

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M4-4 (BBR+) - Body ground	Always	1 MΩ or higher
M4-3 (BBR-) - Body ground	Always	1 MΩ or higher

NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

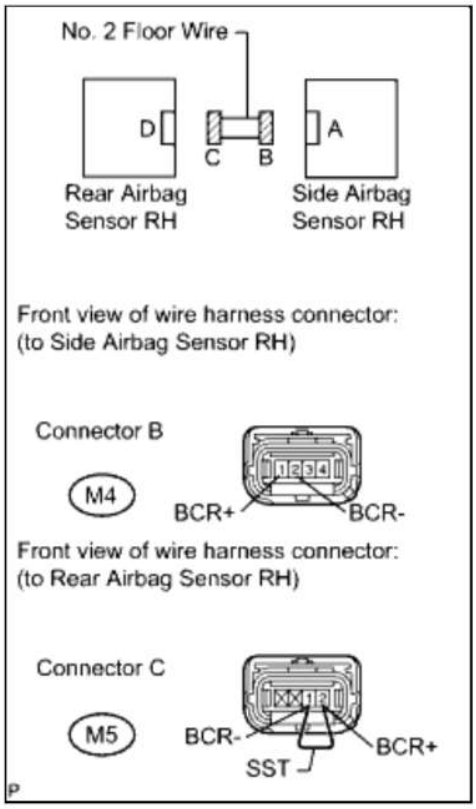
6.	**CHECK NO. 2 FLOOR WIRE (OPEN)**

(a) Using SST, connect terminals 2 (BCR+) and 1 (BCR-) of connector C.

NOTICE:

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

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SST: 09843-18040

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M4-1 (BCR+) - M4-2 (BCR-)	Always	Below 1 Ω

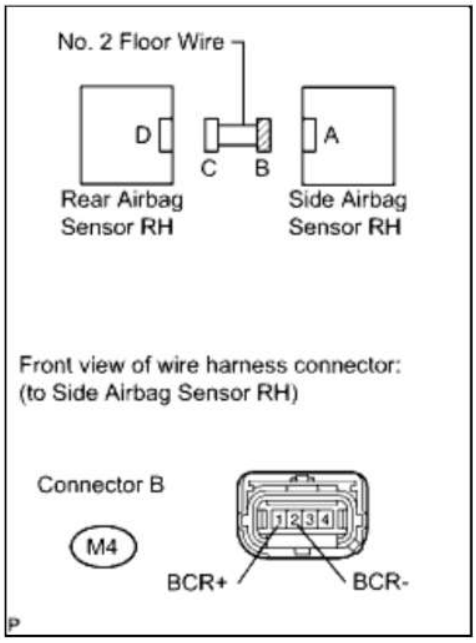
NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

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

(a) Disconnect SST from connector C.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M4-1 (BCR+) - M4-2 (BCR-)	Always	1 MΩ or higher

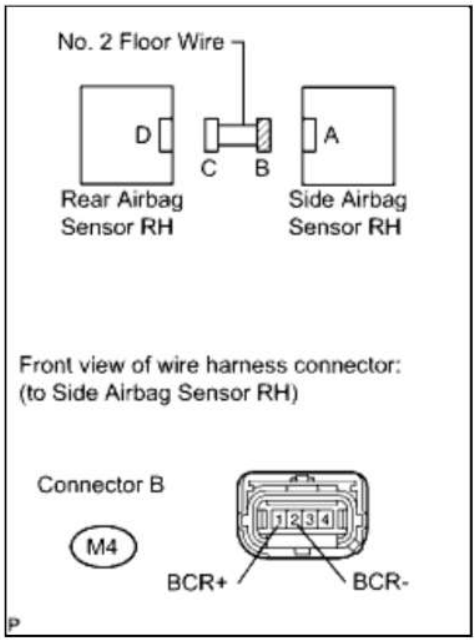
NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

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

(a) Connect the cable to the negative (-) battery terminal.

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(b) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
M4-1 (BCR+) - Body ground	Ignition switch ON	Below 1 V
M4-2 (BCR-) - Body ground	Ignition switch ON	Below 1 V

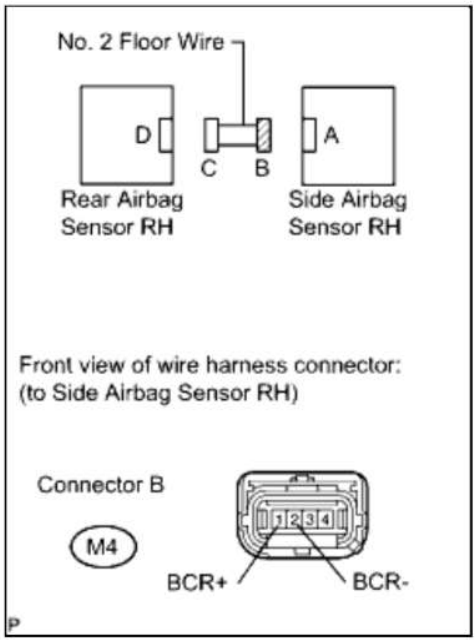
NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

9.	**CHECK NO. 2 FLOOR WIRE (SHORT TO GROUND)**

(a) Turn the ignition switch off.

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M4-1 (BCR+) - Body ground	Always	1 MΩ or higher
M4-2 (BCR-) - Body ground	Always	1 MΩ or higher

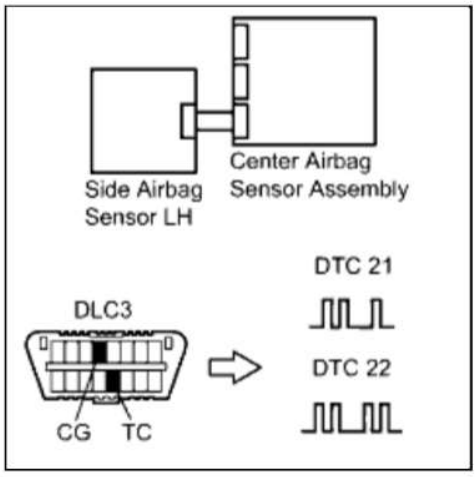
NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

10.	**CHECK SIDE AIRBAG SENSOR RH**

(a) Connect the connectors to the center airbag sensor assembly and rear airbag sensor RH.

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

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

Result:

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

HINT:

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

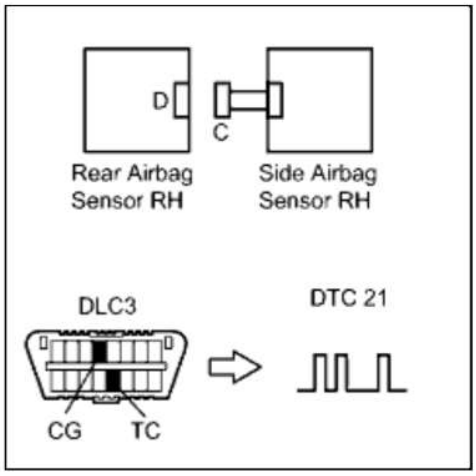
C ▶ USE SIMULATION METHOD TO CHECK

B ▶ REPLACE SIDE AIRBAG SENSOR RH

A ▼

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11.	CHECK REAR AIRBAG SENSOR RH



(a) Turn the ignition switch off.

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

(c) Return the side airbag sensors LH and RH to their original positions and connect the connectors.

(d) Disconnect the connector from the rear airbag sensor RH.

(e) Connect the cable to the negative (-) battery terminal.

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

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

(h) Turn the ignition switch off.

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

(j) Check for DTCs INFO .

OK:
DTC B1620/21 is not output.

HINT:

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

NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **REPLACE REAR AIRBAG SENSOR RH**

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Last Modified: 3-10-2010	6.4 U	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000XFH059X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: DATA LIST / ACTIVE TEST (2010 Corolla)		

DATA LIST / ACTIVE TEST

HINT:

Using the Techstream to read the Data List allows the values or states of switches, sensors, actuators and other items to be read without removing any parts. This non-intrusive inspection can be very useful because intermittent conditions or signals may be discovered before parts or wiring is disturbed. Reading the Data List information early in troubleshooting is one way to save diagnostic time.

NOTICE:

In the table below, the values listed under "Normal Condition" are reference values. Do not depend solely on these reference values when deciding whether a part is faulty or not.

1. DATA LIST FOR CENTER AIRBAG SENSOR ASSEMBLY

(a) Turn the ignition switch off.

(b) Connect the Techstream to the DLC3.

(c) Turn the ignition switch to ON and turn the Techstream on.

(d) Enter the following menus: Body Electrical / SRS Airbag / Data List.

(e) Check the values by referring to the table below.

Data List

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Driver Seat Position	Driver Seat Position/ Forward: Seat position is forward Bkward: Seat position is backward FAIL: Failure detected	Forward/Bkward	-
Passenger Classification	Passenger Classification/ NG: Data is not determined OFF: Vacant CHILD: Child (less than 36 kg (79.3 lb)) is seated AF05: Adult (36 to 54 kg (79.3 to 119.0 lb) is seated AM50: Adult (more than 54 kg (119.0 lb)) is seated	OFF/CHILD /AF05/AM50	-
Left Side Buckle SW	Left Side Buckle SW/ Unset: The seat belt is not fastened Set: The seat belt is fastened NG: Data is not determined	Unset/Set	-

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TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Right Side Buckle SW	Right Side Buckle SW/ Unset: The seat belt is not fastened Set: The seat belt is fastened NG: Data is not determined	Unset/Set	-
Number of Past DTC	Number of Past DTC/ Min.: 0, Max.: 255	0	-
Display Type Information	Display Type Information/ LR: The display is indicated by LH/RH DP: The display is indicated by Driver/Passenger	LR	-

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001NZV01WX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1625/22: Side Airbag Sensor LH Circuit Malfunction (2010 Corolla)		

DTC	**B1625/22**	**Side Airbag Sensor LH Circuit Malfunction**

DESCRIPTION

The side airbag sensor LH circuit consists of the center airbag sensor assembly, side airbag sensor LH and rear airbag sensor LH.

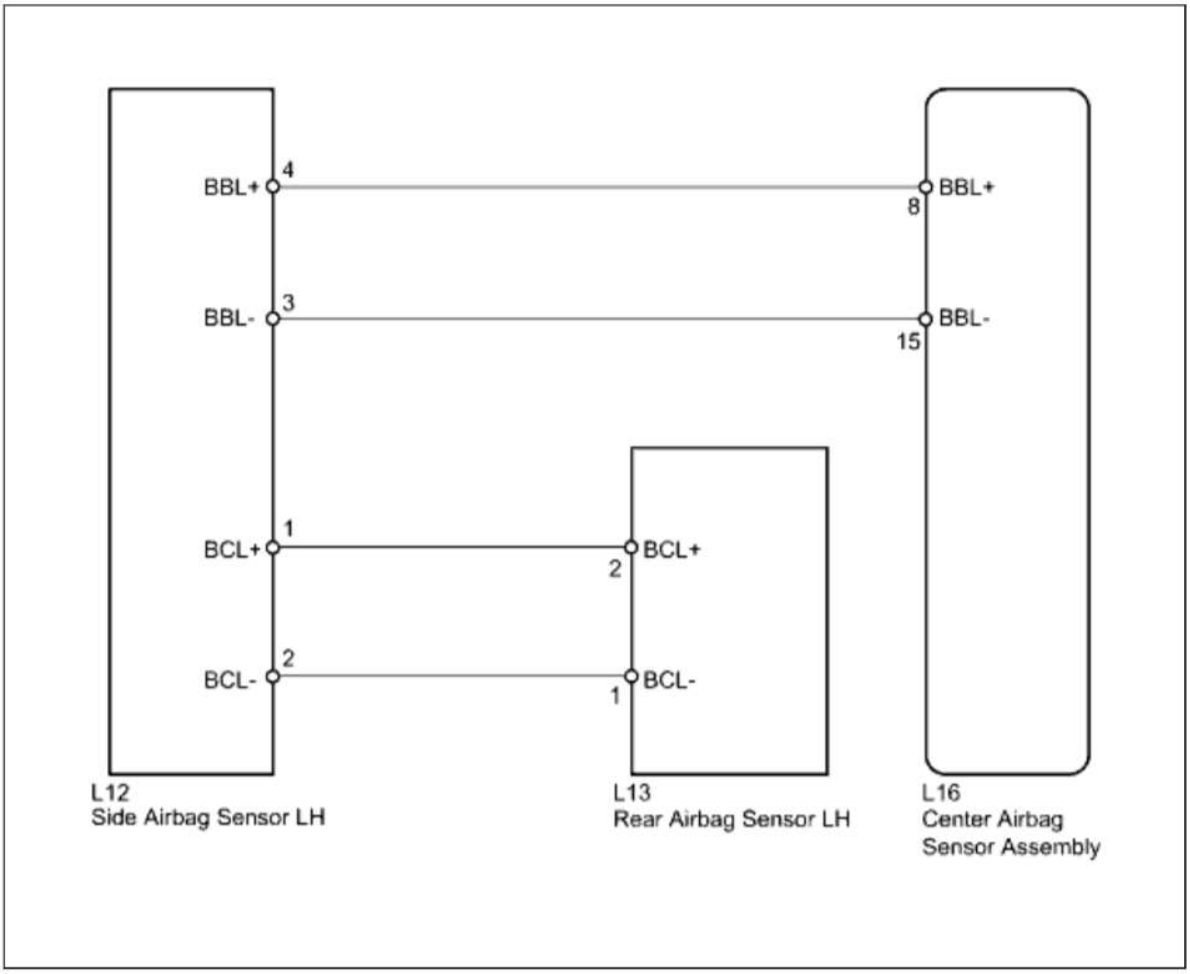
The side airbag sensor LH and rear airbag sensor LH detect impacts to the vehicle and send signals to the center airbag sensor assembly to determine if the airbag should be deployed.

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

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1625/22	• The center airbag sensor assembly receives a short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the side airbag sensor LH circuit for 2 seconds. • Side airbag sensor LH malfunction • Rear airbag sensor LH malfunction • Center airbag sensor assembly malfunction	• Floor wire • Side airbag sensor LH • Rear airbag sensor LH • Center airbag sensor assembly

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK CONNECTORS**

(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 assembly, side airbag sensor LH and rear airbag sensor LH.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the center airbag sensor assembly, side airbag sensor

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LH and rear airbag sensor LH.

(e) Check that the terminals of the connectors are not damaged.

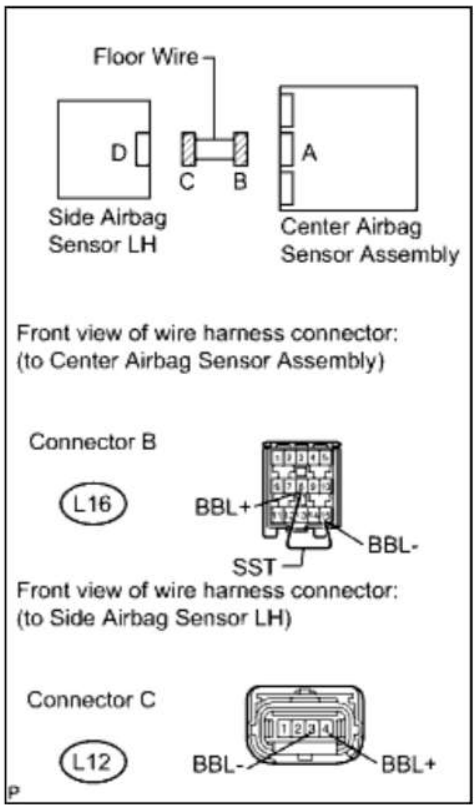
OK:

The terminals are not deformed or damaged.

NG ▶ **REPLACE FLOOR WIRE**

OK ▼

2.	CHECK FLOOR WIRE (OPEN)



(a) Using SST, connect terminals 8 (BBL+) and 15 (BBL-) of connector B.

NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

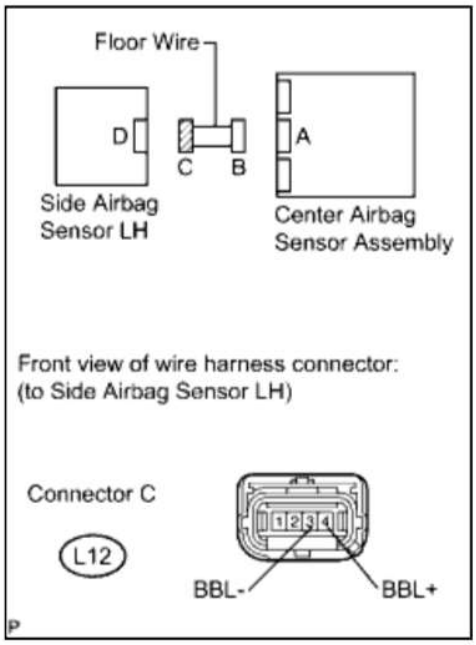
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L12-4 (BBL+) - L12-3 (BBL-)	Always	Below 1 Ω

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NG ▶ REPLACE FLOOR WIRE

OK ▼

3.	CHECK FLOOR WIRE (SHORT)



(a) Disconnect SST from connector B.

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

Standard Resistance:

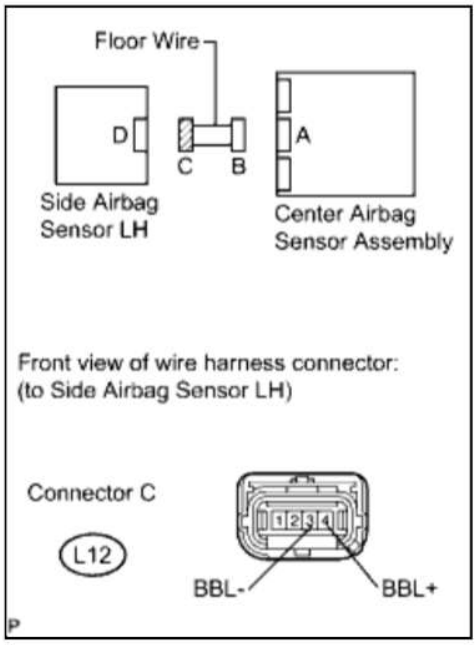
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L12-4 (BBL+) - L12-3 (BBL-)	Always	1 MΩ or higher

NG ▶ REPLACE FLOOR WIRE

OK ▼

4.	CHECK FLOOR WIRE (SHORT TO B+)

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(a) Connect the cable to the negative (-) battery terminal.

(b) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
L12-4 (BBL+) - Body ground	Ignition switch ON	Below 1 V
L12-3 (BBL-) - Body ground	Ignition switch ON	Below 1 V

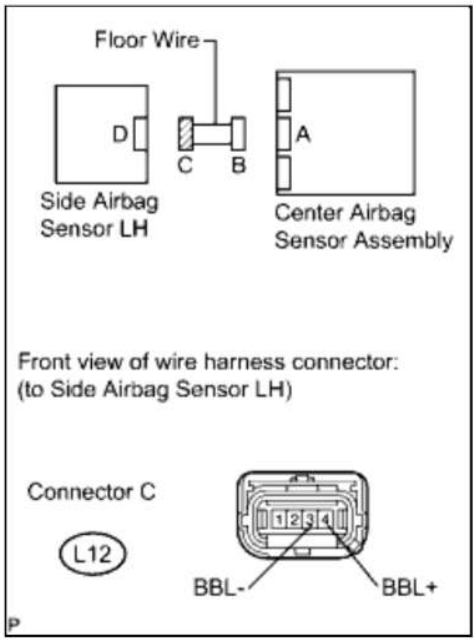
NG ▶ **REPLACE FLOOR WIRE**

OK ▼

5.	**CHECK FLOOR WIRE (SHORT TO GROUND)**

(a) Turn the ignition switch off.

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L12-4 (BBL+) - Body ground	Always	1 MΩ or higher
L12-3 (BBL-) - Body ground	Always	1 MΩ or higher

NG ▶ **REPLACE FLOOR WIRE**

OK ▼

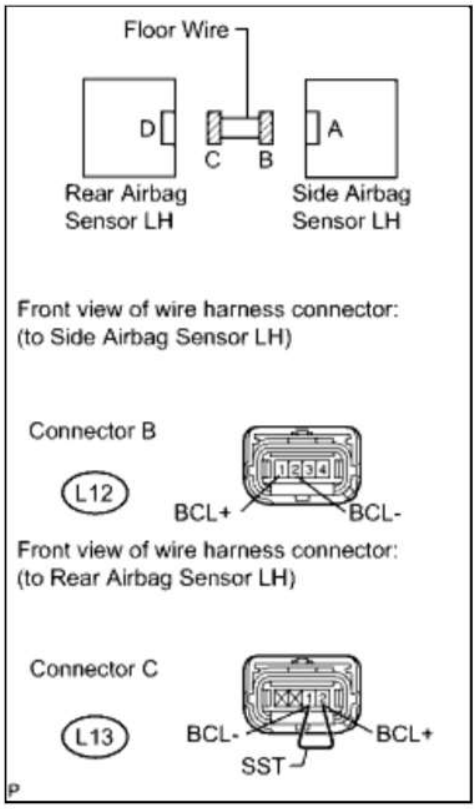
6.	**CHECK FLOOR WIRE (OPEN)**

(a) Using SST, connect terminals 2 (BCL+) and 1 (BCL-) of connector C.

NOTICE:

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

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SST: 09843-18040

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L12-1 (BCL+) - L12-2 (BCL-)	Always	Below 1 Ω

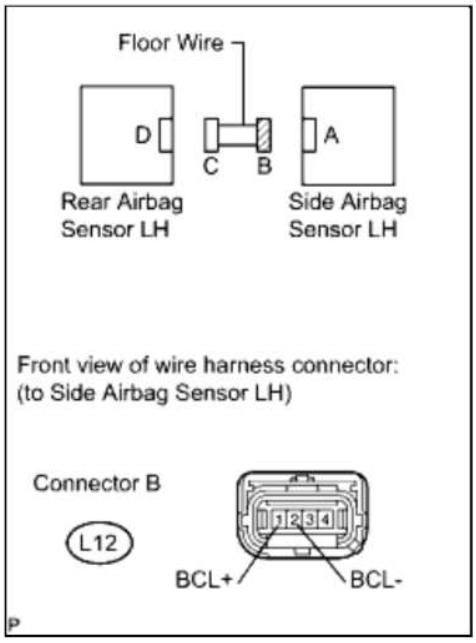
NG ▶ **REPLACE FLOOR WIRE**

OK ▼

7.	**CHECK FLOOR WIRE (SHORT)**

(a) Disconnect SST from connector C.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L12-1 (BCL+) - L12-2 (BCL-)	Always	1 MΩ or higher

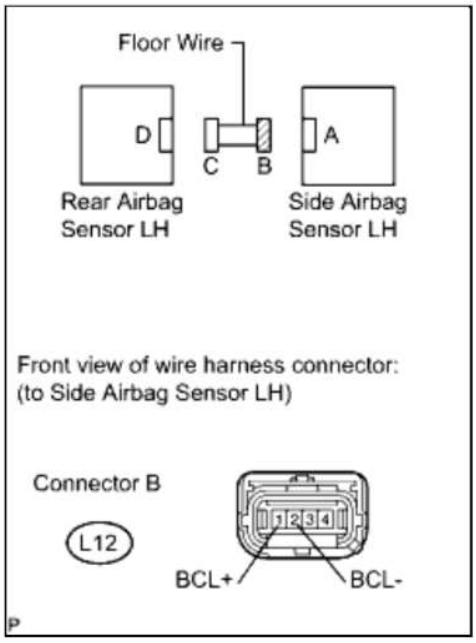
NG ▶ **REPLACE FLOOR WIRE**

OK ▼

8.	**CHECK FLOOR WIRE (SHORT TO B+)**

(a) Connect the cable to the negative (-) battery terminal.

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(b) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
L12-1 (BCL+) - Body ground	Ignition switch ON	Below 1 V
L12-2 (BCL-) - Body ground	Ignition switch ON	Below 1 V

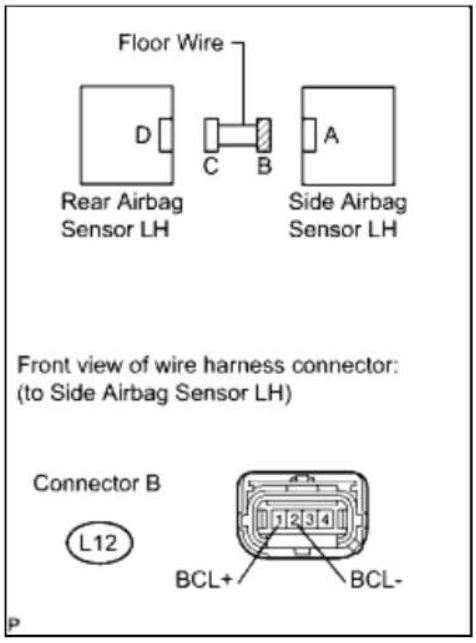
NG ▶ **REPLACE FLOOR WIRE**

OK ▼

9.	**CHECK FLOOR WIRE (SHORT TO GROUND)**

(a) Turn the ignition switch off.

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L12-1 (BCL+) - Body ground	Always	1 MΩ or higher
L12-2 (BCL-) - Body ground	Always	1 MΩ or higher

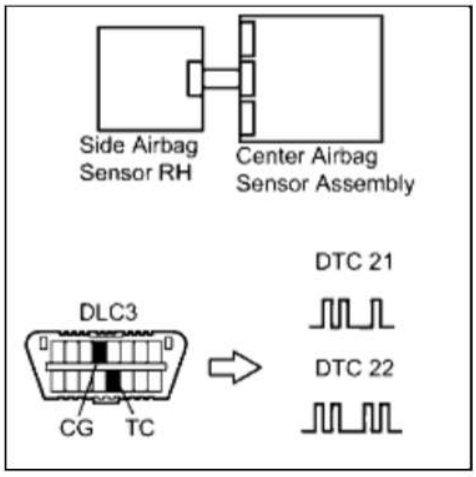
NG ▶ **REPLACE FLOOR WIRE**

OK ▼

10.	**CHECK SIDE AIRBAG SENSOR LH**

(a) Connect the connectors to the center airbag sensor assembly and the rear airbag sensor LH.

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

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

Result:

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

HINT:

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

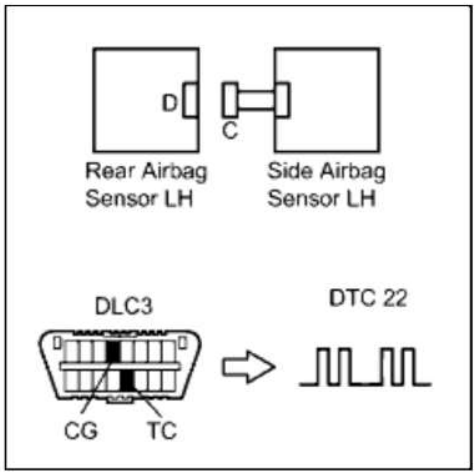
C ▶ USE SIMULATION METHOD TO CHECK

B ▶ REPLACE SIDE AIRBAG SENSOR LH

A ▼

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11.	CHECK REAR AIRBAG SENSOR LH



(a) Turn the ignition switch off.

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

(c) Return the side airbag sensors RH and LH to their original positions and connect the connectors.

(d) Disconnect the connector from the rear airbag sensor LH.

(e) Connect the cable to the negative (-) battery terminal.

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

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

(h) Turn the ignition switch off.

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

(j) Check for DTCs INFO .

OK:
DTC B1625/22 is not output.

HINT:

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

NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **REPLACE REAR AIRBAG SENSOR LH**

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000YTI05UX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1000/31: Center Airbag Sensor Assembly Malfunction (2010 Corolla)		

DTC	**B1000/31**	**Center Airbag Sensor Assembly Malfunction**

DESCRIPTION

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

If the center airbag sensor assembly receives signals from the deceleration sensor, it determines whether the airbag squib and pretensioner squib should be activated.

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

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

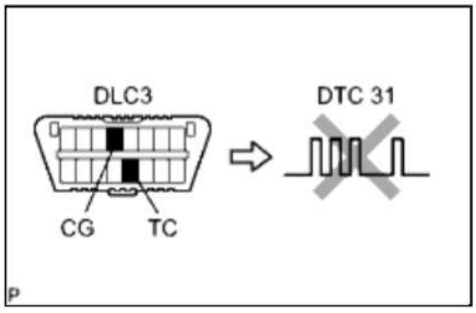
INSPECTION PROCEDURE

HINT:

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

PROCEDURE

1.	**CHECK CENTER AIRBAG SENSOR ASSEMBLY**



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

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

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(c) Turn the ignition switch off.

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

(e) Check for DTCs INFO.

OK:

DTC B1000/31 is not output.

NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **USE SIMULATION METHOD TO CHECK**

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001NZW01PX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1630/23: Rear Airbag Sensor RH Circuit Malfunction (2010 Corolla)		

DTC	**B1630/23**	**Rear Airbag Sensor RH Circuit Malfunction**

DESCRIPTION

The rear airbag sensor RH circuit consists of the center airbag sensor assembly, rear airbag sensor RH, and side airbag sensor RH.

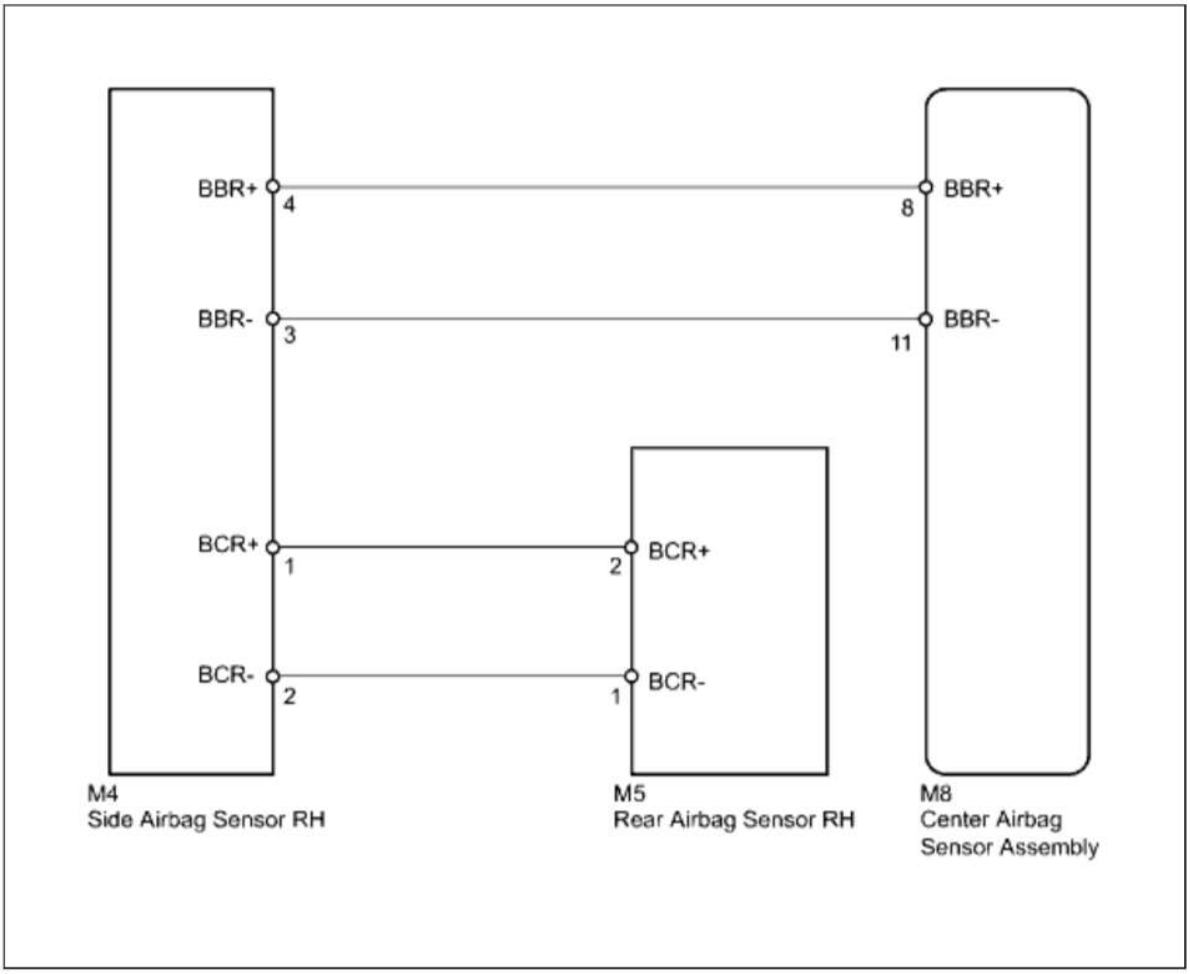
The side airbag sensor RH and rear airbag sensor RH detect impacts to the vehicle and send signals to the center airbag sensor assembly to determine if the airbag should be deployed.

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

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1630/23	• The center airbag sensor assembly receives an open circuit signal, a short circuit to ground or a short circuit to B+ signal in the rear airbag sensor RH circuit for 2 seconds. • Rear airbag sensor RH malfunction • Side airbag sensor RH malfunction • Center airbag sensor assembly malfunction	• No. 2 floor wire • Rear airbag sensor RH • Side airbag sensor RH • Center airbag sensor assembly

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK CONNECTORS**

(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 side airbag sensor RH and the rear airbag sensor RH.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the side airbag sensor RH and rear airbag sensor RH.

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(e) Check that the terminals of the connectors are not damaged.

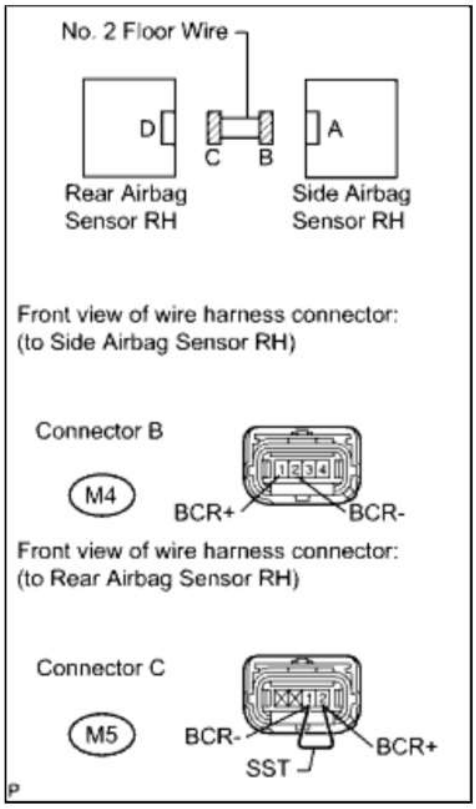
OK:

The terminals are not deformed or damaged.

NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

2.	**CHECK NO. 2 FLOOR WIRE (OPEN)**



(a) Using SST, connect terminals 2 (BCR+) and 1 (BCR-) of connector C.

NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

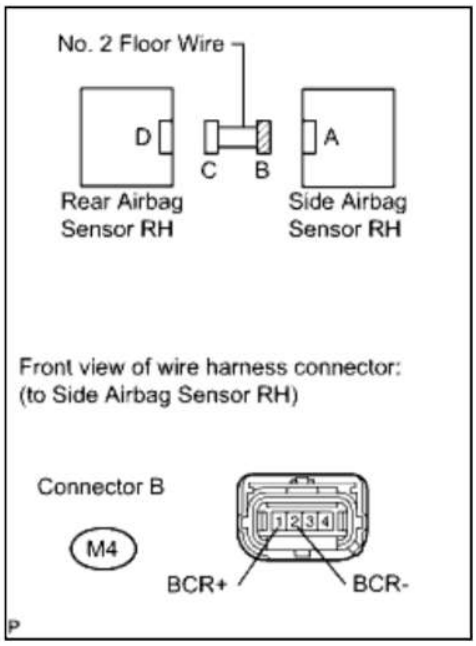
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M4-1 (BCR+) - M4-2 (BCR-)	Always	Below 1 Ω

NG ▶ **REPLACE NO. 2 FLOOR WIRE**

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OK

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



(a) Disconnect SST from connector C.

(b) Connect the cable to the negative (-) battery terminal.

(c) Turn the ignition switch to ON.

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

Standard Voltage:

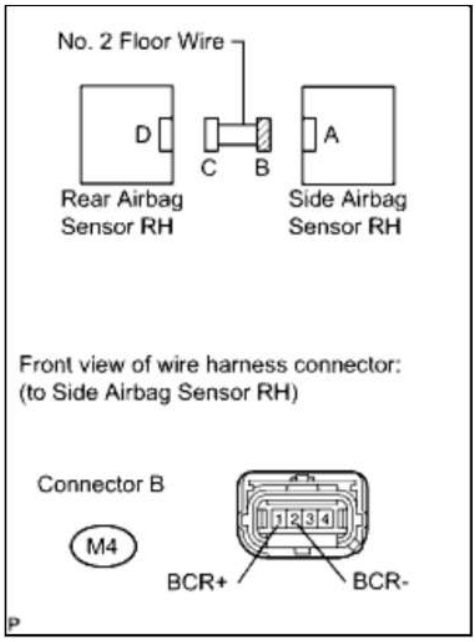
TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
M4-1 (BCR+) - Body ground	Ignition switch ON	Below 1 V
M4-2 (BCR-) - Body ground	Ignition switch ON	Below 1 V

NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK

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4.	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 according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M4-1 (BCR+) - Body ground	Always	1 MΩ or higher
M4-2 (BCR-) - Body ground	Always	1 MΩ or higher

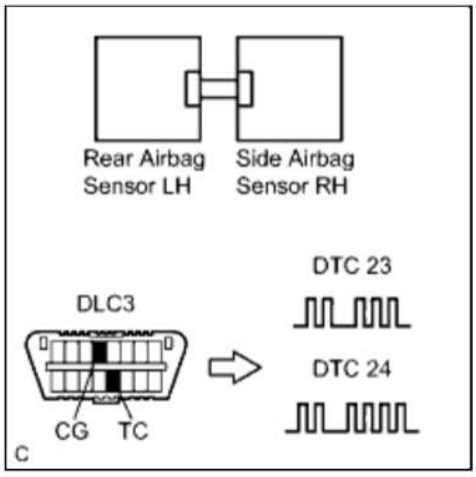
NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

5.	CHECK REAR AIRBAG SENSOR RH

(a) Connect the connector to the side airbag sensor RH.

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

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

Result:

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

HINT:

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

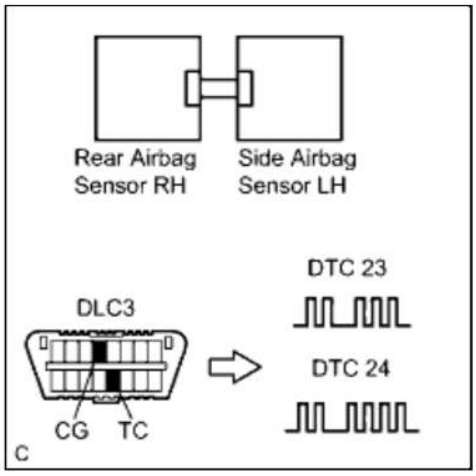
C ▶ USE SIMULATION METHOD TO CHECK

B ▶ REPLACE REAR AIRBAG SENSOR RH

A ▼

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6.	CHECK SIDE AIRBAG SENSOR RH



(a) Turn the ignition switch off.

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

(c) Return the rear airbag sensors LH and RH to their original positions and connect the connectors.

(d) Interchange the side airbag sensor LH with RH and connect the connectors.

(e) Connect the cable to the negative (-) battery terminal.

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

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

(h) Turn the ignition switch off.

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

(j) Check for DTCs INFO .

Result:

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

HINT:

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

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C ▶ REPLACE SIDE AIRBAG SENSOR RH

B ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

A ▶ USE SIMULATION METHOD TO CHECK



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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001NZX01PX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1635/24: Rear Airbag Sensor LH Circuit Malfunction (2010 Corolla)		

DTC	**B1635/24**	**Rear Airbag Sensor LH Circuit Malfunction**

DESCRIPTION

The rear airbag sensor LH circuit consists of the center airbag sensor assembly, rear airbag sensor LH, and side airbag sensor LH.

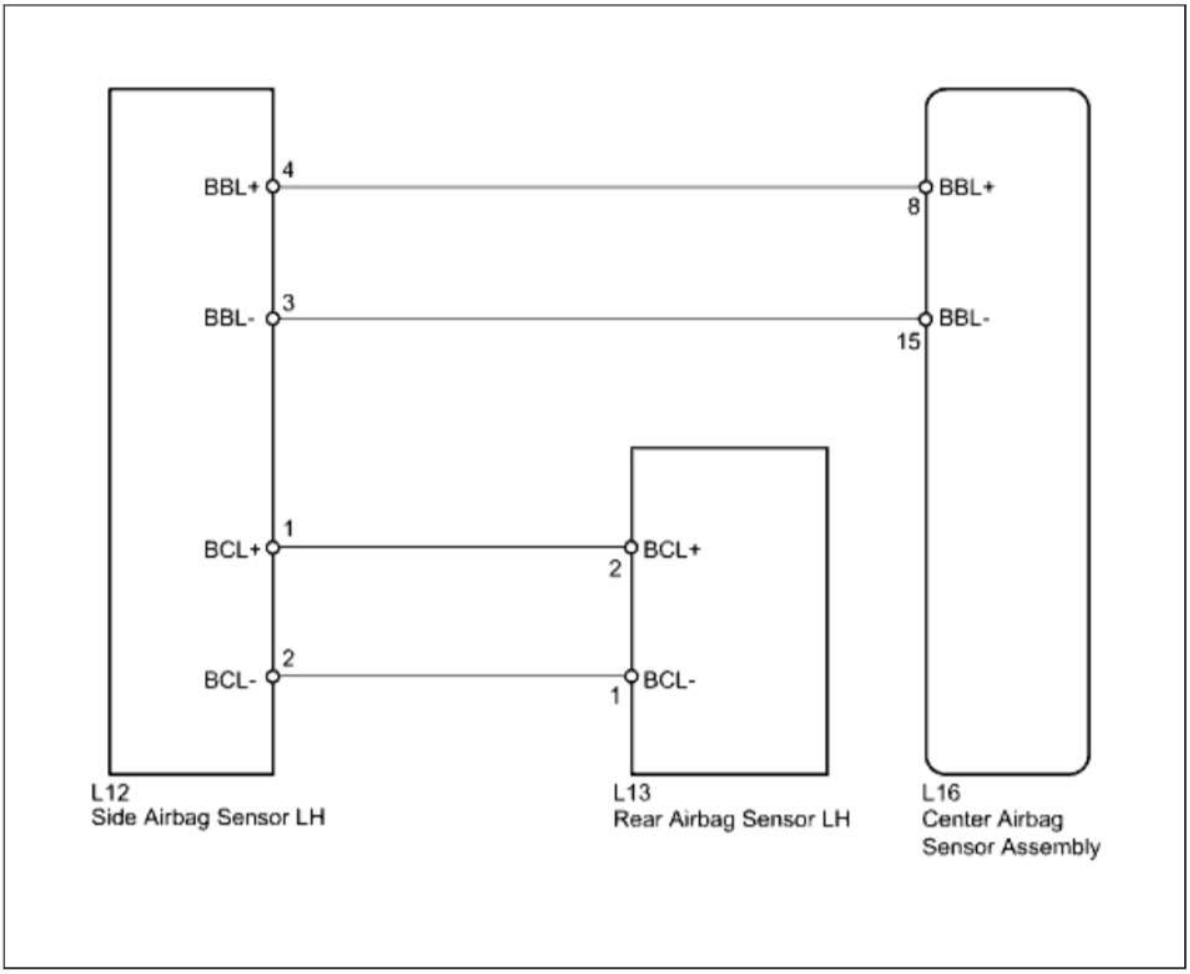
The side airbag sensor LH and rear airbag sensor LH detect impacts to the vehicle and send signals to the center airbag sensor assembly to determine if the airbag should be deployed.

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

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1635/24	• The center airbag sensor assembly receives an open circuit signal, a short circuit to ground or a short to B+ signal in the rear airbag sensor LH circuit for 2 seconds. • Rear airbag sensor LH malfunction • Side airbag sensor LH malfunction • Center airbag sensor assembly malfunction	• Floor wire • Rear airbag sensor LH • Side airbag sensor LH • Center airbag sensor assembly

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK CONNECTORS**

(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 side airbag sensor LH and the rear airbag sensor LH.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the side airbag sensor LH and rear airbag sensor LH.

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(e) Check that the terminals of the connectors are not damaged.

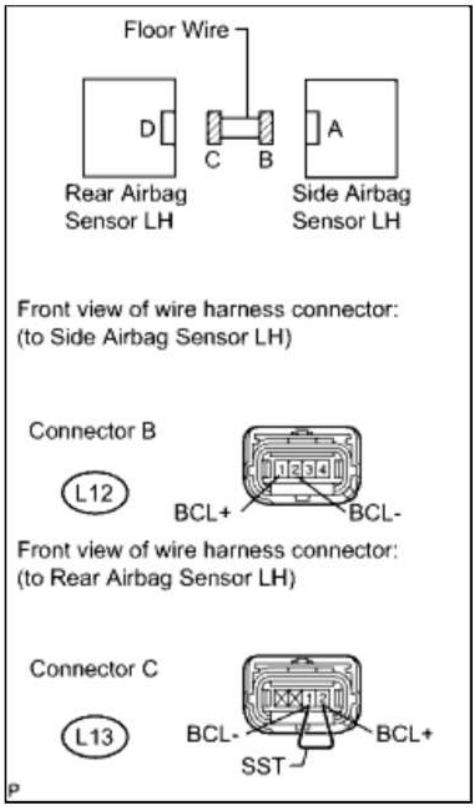
OK:

The terminals are not deformed or damaged.

NG ▶ **REPLACE FLOOR WIRE**

OK ▼

2.	CHECK FLOOR WIRE (OPEN)



(a) Using SST, connect terminals 2 (BCL+) and 1 (BCL-) of connector C.

NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

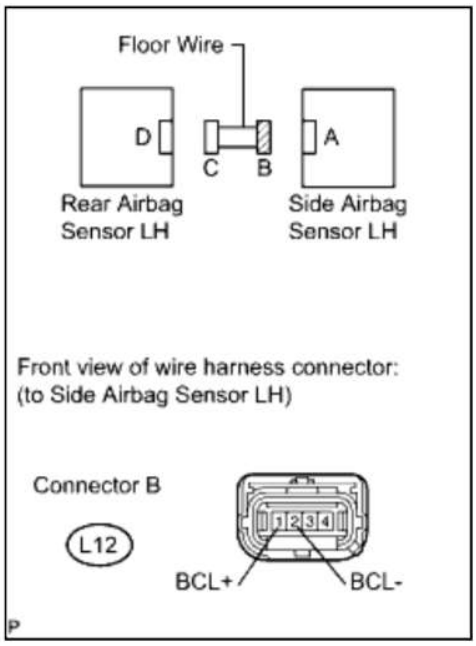
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L12-1 (BCL+) - L12-2 (BCL-)	Always	Below 1 Ω

NG ▶ **REPLACE FLOOR WIRE**

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OK

3.	**CHECK FLOOR WIRE (SHORT TO B+)**



(a) Disconnect SST from connector C.

(b) Connect the cable to the negative (-) battery terminal.

(c) Turn the ignition switch to ON.

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

Standard Voltage:

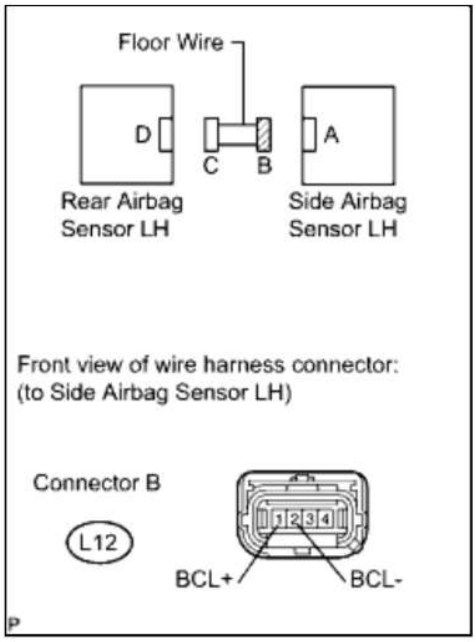
TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
L12-1 (BCL+) - Body ground	Ignition switch ON	Below 1 V
L12-2 (BCL-) - Body ground	Ignition switch ON	Below 1 V

NG ▶ **REPLACE FLOOR WIRE**

OK

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4.	CHECK 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 according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L12-1 (BCL+) - Body ground	Always	1 MΩ or higher
L12-2 (BCL-) - Body ground	Always	1 MΩ or higher

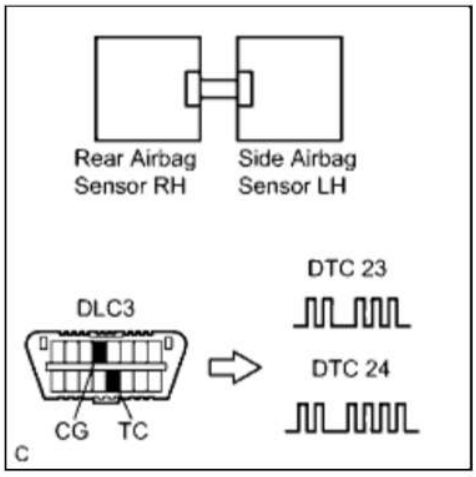
NG ▶ **REPLACE FLOOR WIRE**

OK ▼

5.	CHECK REAR AIRBAG SENSOR LH

(a) Connect the connector to the side airbag sensor LH.

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

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

Result:

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

HINT:

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

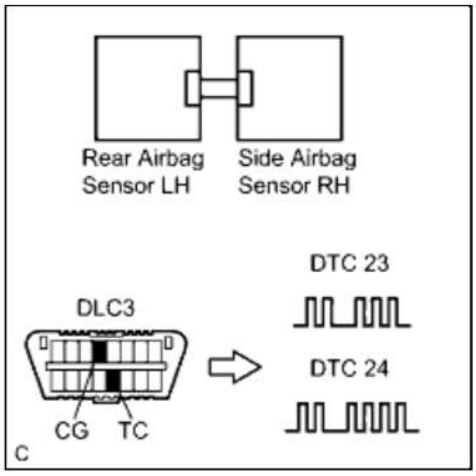
C ▶ USE SIMULATION METHOD TO CHECK

B ▶ REPLACE REAR AIRBAG SENSOR LH

A ▼

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6.	CHECK SIDE AIRBAG SENSOR LH



(a) Turn the ignition switch off.

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

(c) Return the rear airbag sensors RH and LH to their original positions and connect the connectors.

(d) Interchange the side airbag sensor RH with LH and connect the connectors.

(e) Connect the cable to the negative (-) battery terminal.

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

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

(h) Turn the ignition switch off.

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

(j) Check for DTCs INFO .

Result:

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

HINT:

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

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C ▶ REPLACE SIDE AIRBAG SENSOR LH

B ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

A ▶ USE SIMULATION METHOD TO CHECK



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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000016WN02BX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1650/32: Occupant Classification System Malfunction (2010 Corolla)		

DTC	**B1650/32**	**Occupant Classification System Malfunction**

DESCRIPTION

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

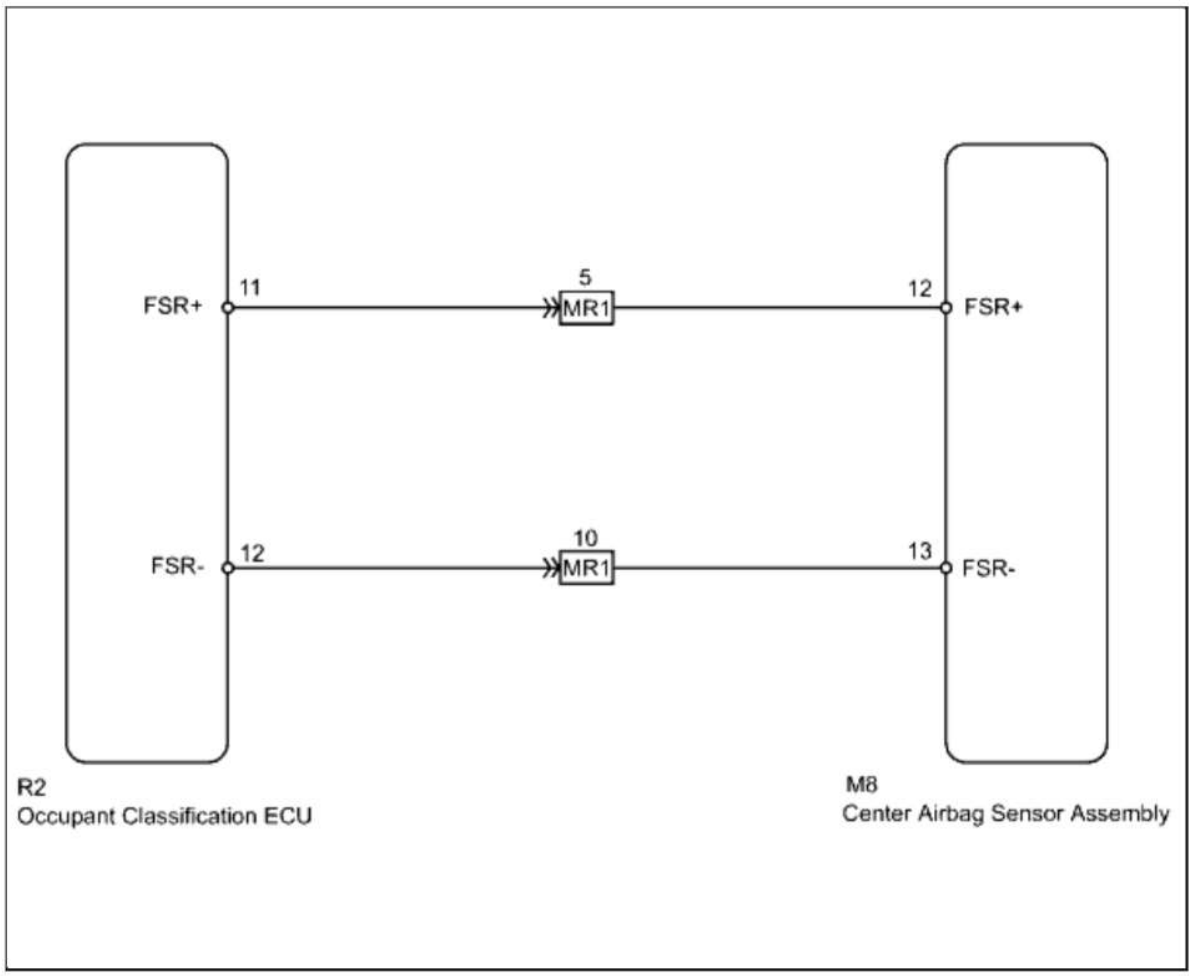
If the center airbag sensor assembly receives signals from the occupant classification ECU, it determines whether the front passenger airbag, the front seat side airbag RH and front seat belt pretensioner RH should be operated.

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

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1650/32	• The center airbag sensor assembly receives a short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the occupant classification system circuit for 2 seconds. • Occupant classification ECU malfunction • Center airbag sensor assembly malfunction	• No. 2 floor wire • Front seat wire RH • Occupant classification system • Center airbag sensor assembly

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

1.	CHECK FOR DTC (OCCUPANT CLASSIFICATION ECU)

(a) Turn the ignition switch to ON.

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

NG ▶ **REPAIR CIRCUITS INDICATED BY OUTPUT DTCS**

OK ▼

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2.	CHECK CONNECTORS

(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 assembly and the occupant classification ECU. Also check that the connectors that link the front seat wire RH and No. 2 floor wire are properly connected.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the center airbag sensor assembly and the occupant classification ECU. Also disconnect the connectors that link the front seat wire RH and No. 2 floor wire.

(e) Check that the terminals of the connectors are not damaged.

OK:

The terminals are not deformed or damaged.

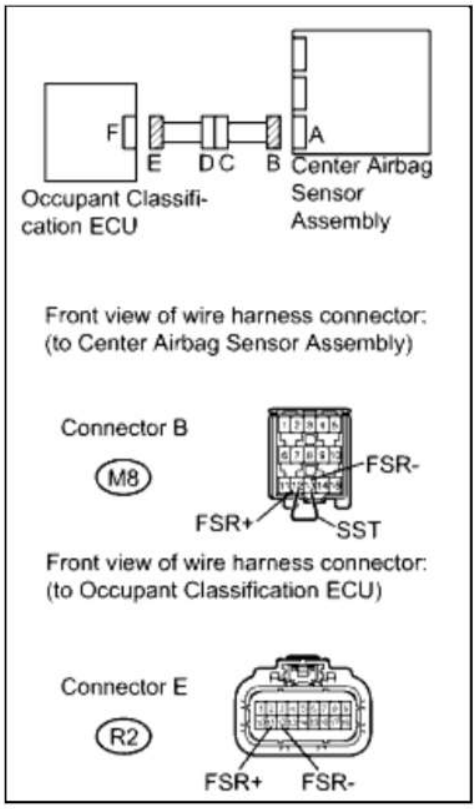
NG ▶ **REPLACE WIRE HARNESS**

OK ▼

3.	CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT (OPEN)

(a) Connect the connectors that link the front seat wire RH and No. 2 floor wire.

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(b) Using SST, connect terminals 12 (FSR+) and 13 (FSR-) of connector B.

NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-11 (FSR+) - R2-12 (FSR-)	Always	Below 1 Ω

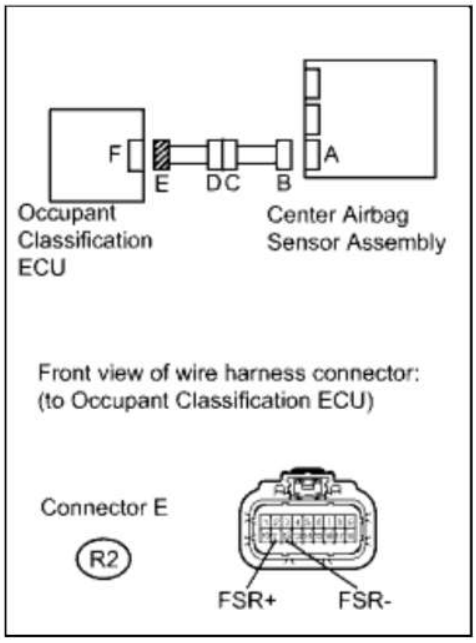
NG ▶ **CHECK NO. 2 FLOOR WIRE (OPEN)**

OK
▼

4.	**CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT (SHORT)**

(a) Disconnect SST from connector B.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-11 (FSR+) - R2-12 (FSR-)	Always	1 MΩ or higher

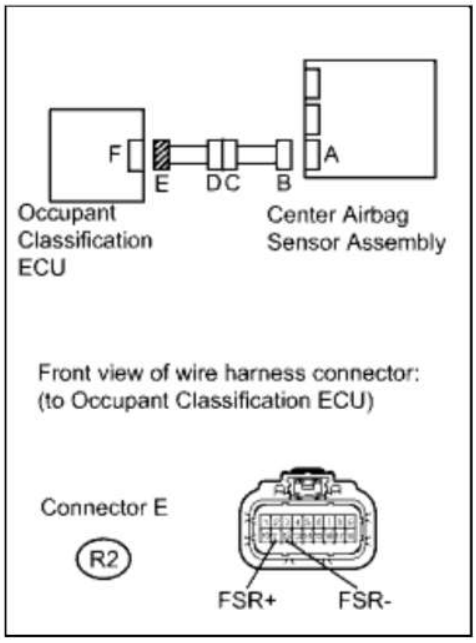
NG ▶ **CHECK NO. 2 FLOOR WIRE (SHORT)**

OK ▼

5.	**CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT (SHORT TO B+)**

(a) Connect the cable to the negative (-) battery terminal.

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(b) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
R2-11 (FSR+) - Body ground	Ignition switch ON	Below 1 V
R2-12 (FSR-) - Body ground	Ignition switch ON	Below 1 V

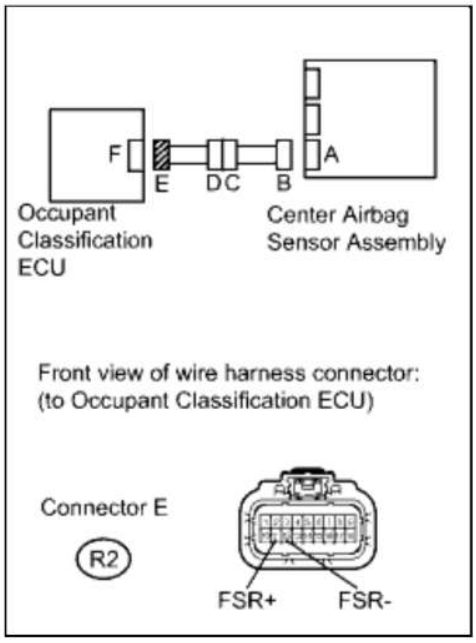
NG ▶ **CHECK NO. 2 FLOOR WIRE (SHORT TO B+)**

OK ▼

6.	**CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT (SHORT TO GROUND)**

(a) Turn the ignition switch off.

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-11 (FSR+) - Body ground	Always	1 MΩ or higher
R2-12 (FSR-) - Body ground	Always	1 MΩ or higher

HINT:

After replacing the center airbag sensor assembly, check for DTCs of the center airbag sensor assembly. If DTC B1650/32 is detected, replace the occupant classification ECU INFO and perform the zero point calibration and sensitivity check of the occupant classification system INFO .

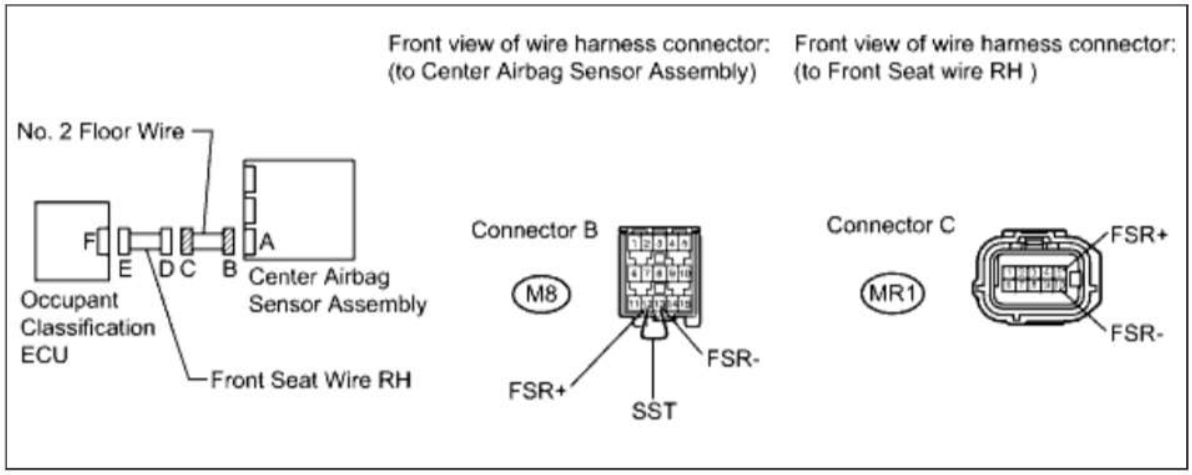
NG ▶ CHECK NO. 2 FLOOR WIRE (SHORT TO GROUND)

OK ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

7.	**CHECK NO. 2 FLOOR WIRE (OPEN)**

(a) Disconnect the front seat wire RH connector from the No. 2 floor wire.

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HINT:

SST has already been inserted into connector B.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
MR1-5 (FSR+) - MR1-10 (FSR-)	Always	Below 1 Ω

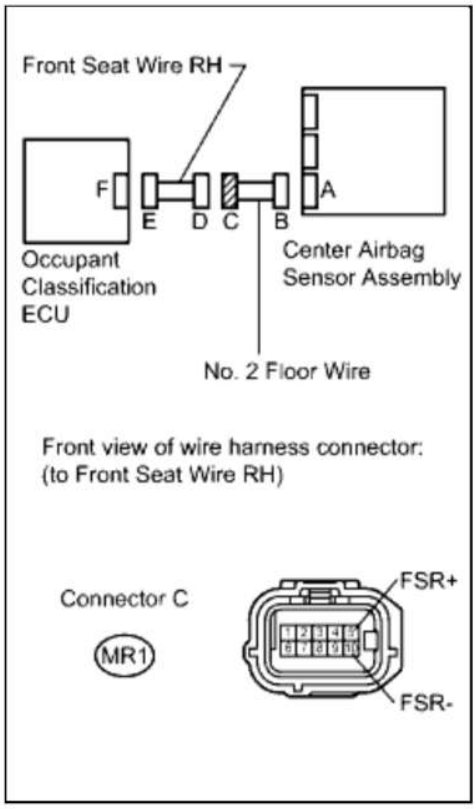
NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▶ **REPLACE FRONT SEAT WIRE RH**

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

(a) Disconnect the front seat wire RH connector from the No. 2 floor wire.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
MR1-5 (FSR+) - MR1-10 (FSR-)	Always	1 MΩ or higher

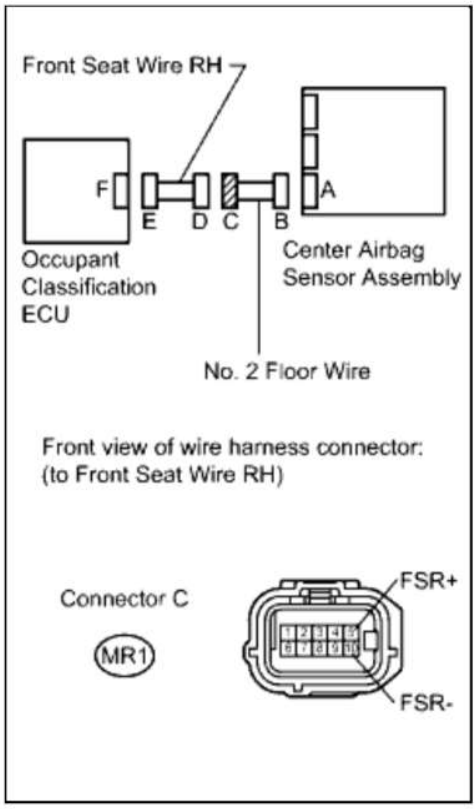
NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▶ **REPLACE FRONT SEAT WIRE RH**

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

(a) Turn the ignition switch off.

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

(c) Disconnect the front seat wire RH connector from the No. 2 floor wire.

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
MR1-5 (FSR+) - Body ground	Ignition switch ON	Below 1 V
MR1-10 (FSR-) - Body ground	Ignition switch ON	Below 1 V

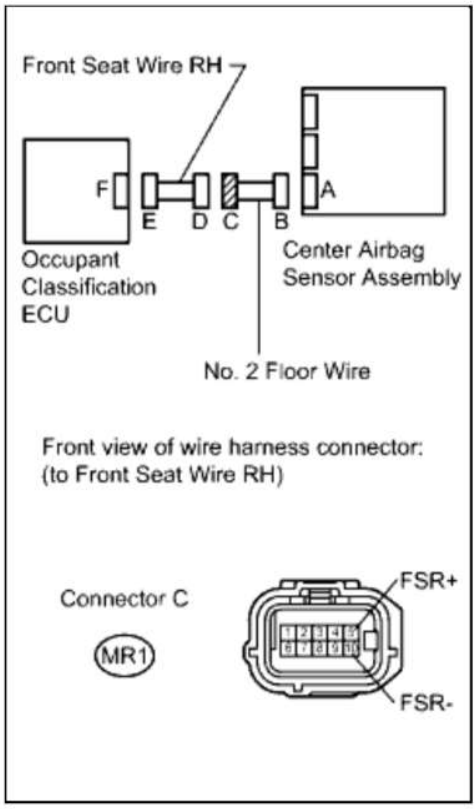
NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▶ **REPLACE FRONT SEAT WIRE RH**

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

(a) Disconnect the front seat wire RH connector from the

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No. 2 floor wire.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
MR1-5 (FSR+) - Body ground	Always	1 MΩ or higher
MR1-10 (FSR-) - Body ground	Always	1 MΩ or higher

NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▶ **REPLACE FRONT SEAT WIRE RH**

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000YTS04PX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1653/35: Seat Position Airbag Sensor Circuit Malfunction (2010 Corolla)		

DTC	**B1653/35**	**Seat Position Airbag Sensor Circuit Malfunction**

DESCRIPTION

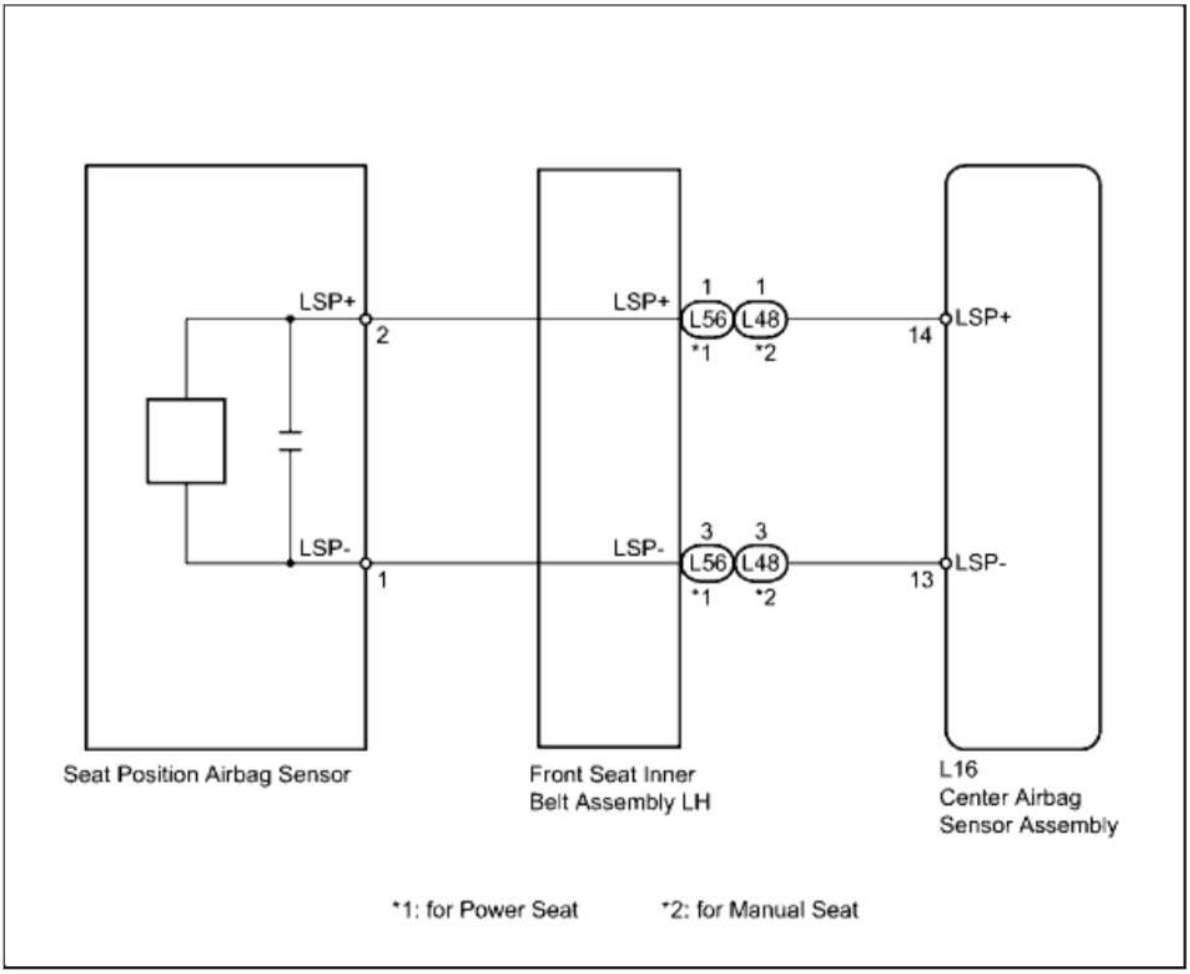
The seat position airbag sensor circuit consists of the center airbag sensor assembly, front seat inner belt assembly LH and the seat position airbag sensor.

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

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1653/35	• The center airbag sensor assembly receives a 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. • Front seat inner belt assembly LH malfunction • Seat position airbag sensor malfunction • Center airbag sensor assembly malfunction	• Floor wire • Front seat inner belt assembly LH • Seat position airbag sensor • Center airbag sensor assembly

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK CONNECTORS**

(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 assembly, front seat inner belt assembly LH and the seat position airbag sensor.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the center airbag sensor assembly, front seat inner belt

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assembly LH and the seat position airbag sensor.

(e) Check that the connector terminals are not damaged.

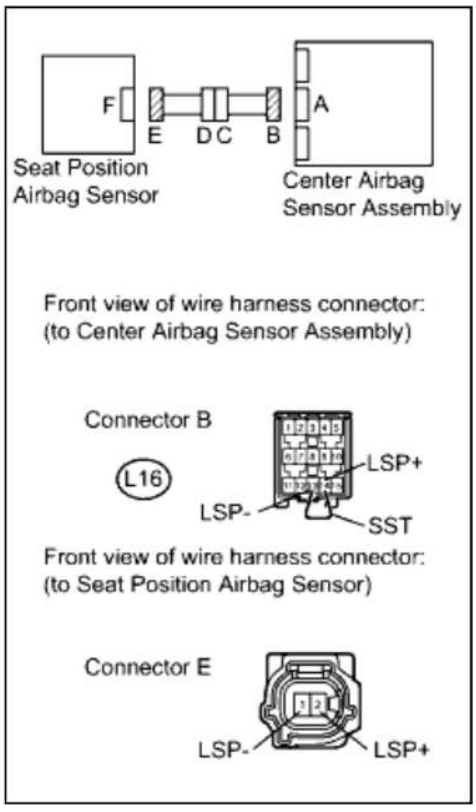
OK:

The terminals are not deformed or damaged.

NG ▶ **REPLACE WIRE HARNESS**

OK ▼

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



(a) Connect the connectors to the front seat inner belt assembly LH and floor wire.

(b) Using SST, connect terminals 14 (LSP+) and 13 (LSP-) of connector B.

NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

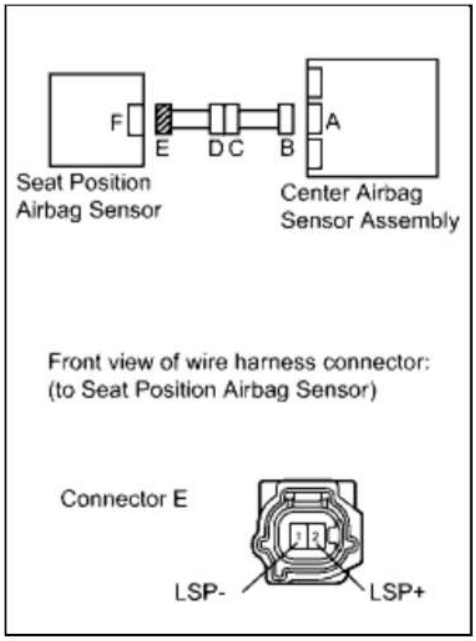
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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
2 (LSP+) - 1 (LSP-)	Always	Below 1 Ω

NG ▶ **CHECK FLOOR WIRE (OPEN)**

OK ▼

3.	CHECK SEAT POSITION AIRBAG SENSOR CIRCUIT (SHORT)



(a) Disconnect SST from connector B.

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

Standard Resistance:

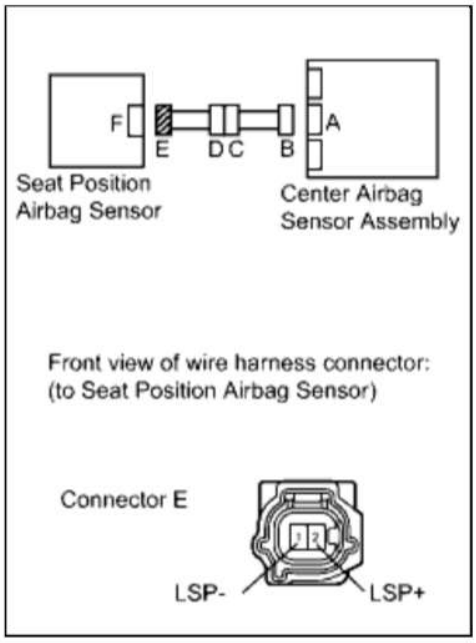
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
2 (LSP+) - 1 (LSP-)	Always	1 MΩ or higher

NG ▶ **CHECK FLOOR WIRE (SHORT)**

OK

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



(a) Connect the cable to the negative (-) battery terminal.

(b) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
2 (LSP+) - Body ground	Ignition switch ON	Below 1 V
1 (LSP-) - Body ground	Ignition switch ON	Below 1 V

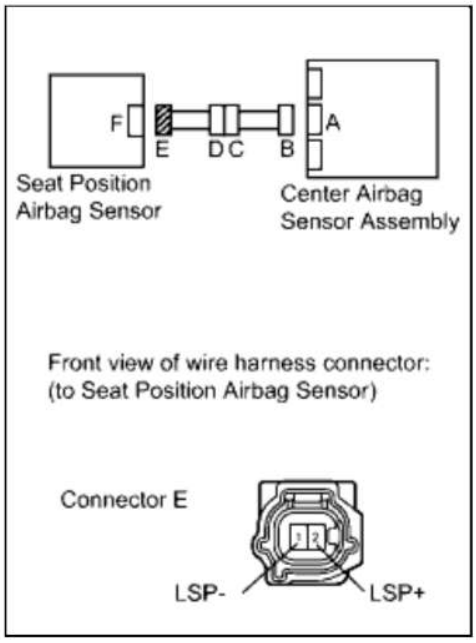
NG ▶ **CHECK FLOOR WIRE (SHORT TO B+)**

OK

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

(a) Turn the ignition switch off.

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

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

Standard Resistance:

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

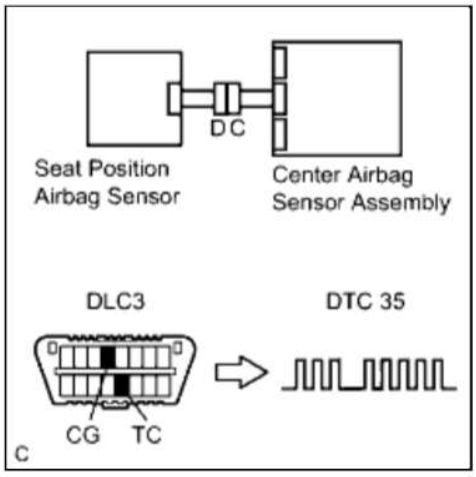
NG ▶ **CHECK FLOOR WIRE (SHORT TO GROUND)**

OK ▼

6.	**CHECK SEAT POSITION AIRBAG SENSOR**

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

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(b) Connect the cable to the negative (-) battery terminal.

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

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

(e) Turn the ignition switch off.

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

(g) Check for DTCs INFO .

OK:
DTC B1653/35 is not output.

HINT:

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

NG ▶ **REPLACE SEAT POSITION AIRBAG SENSOR**

OK ▶ **USE SIMULATION METHOD TO CHECK**

7.	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 with a known good part INFO .

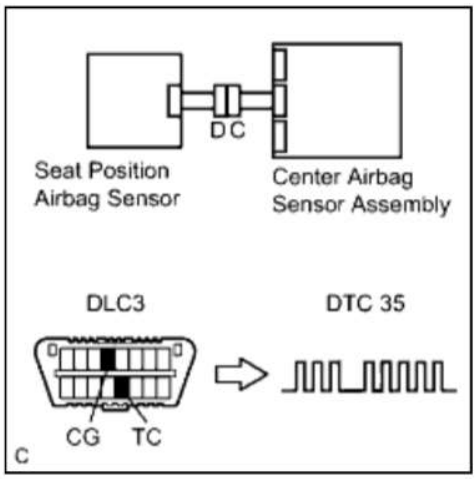
HINT:

Perform the following inspection using known good parts from another vehicle if possible.

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NEXT

8.	CHECK CENTER AIRBAG SENSOR ASSEMBLY



(a) Connect the cable to the negative (-) battery terminal.

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

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

(d) Turn the ignition switch off.

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

(f) Check for DTCs INFO.

OK:
DTC B1653/35 is not output.

HINT:

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

NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **END**

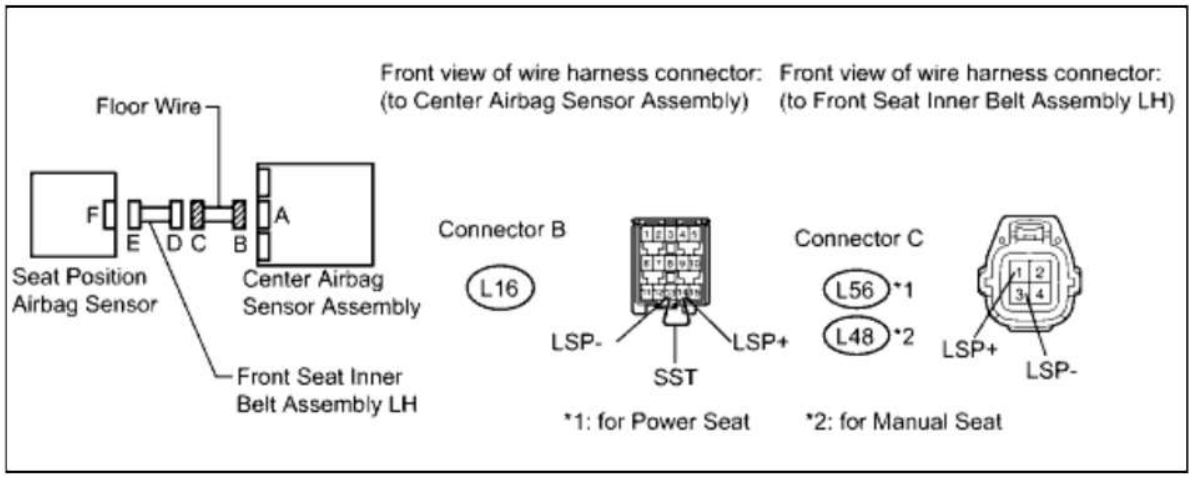
9.	CHECK FLOOR WIRE (OPEN)

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

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HINT:

SST has already been inserted into connector B.



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

Standard Resistance:

for Power Seat

for Manual Seat

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L56-1 (LSP+) - L56-3 (LSP-)	Always	Below 1 Ω

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L48-1 (LSP+) - L48-3 (LSP-)	Always	Below 1 Ω

NG ▶ **REPLACE FLOOR WIRE**

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

10.	**CHECK FLOOR WIRE (SHORT)**

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

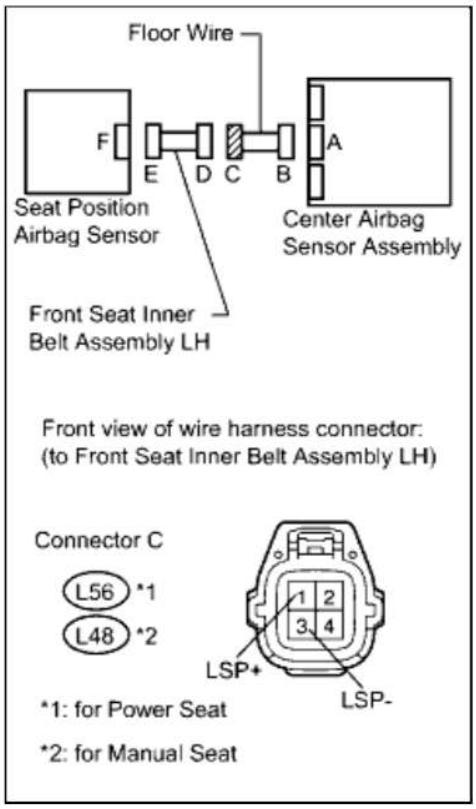
(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

for Power Seat

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for Manual Seat



TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L56-1 (LSP+) - L56-3 (LSP-)	Always	1 MΩ or higher

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L48-1 (LSP+) - L48-3 (LSP-)	Always	1 MΩ or higher

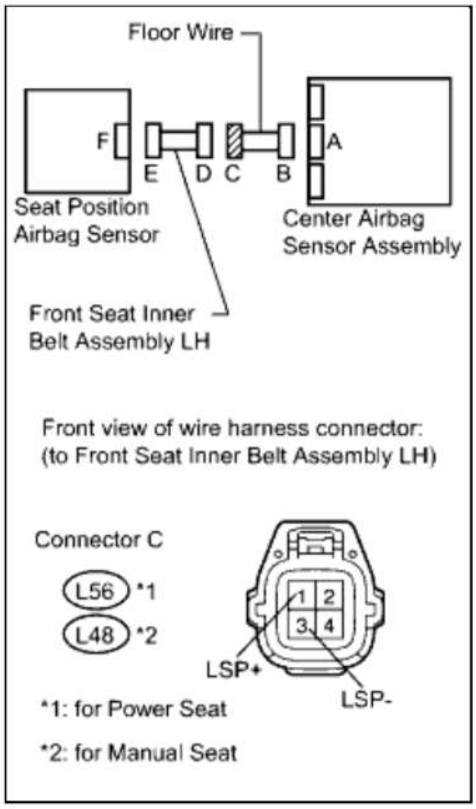
NG ▶ **REPLACE FLOOR WIRE**

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

11.	**CHECK FLOOR WIRE (SHORT TO B+)**

(a) Turn the ignition switch off.

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

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

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the ignition switch to ON.

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

Standard Voltage:

for Power Seat

for Manual Seat

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
L56-1 (LSP+) - Body ground	Ignition switch ON	Below 1 V
L56-3 (LSP-) - Body ground	Ignition switch ON	Below 1 V

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
L48-1 (LSP+) - Body ground	Ignition switch ON	Below 1 V
L48-3 (LSP-) - Body ground	Ignition switch ON	Below 1 V

NG ▶ **REPLACE FLOOR WIRE**

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OK ▶ REPLACE FRONT SEAT INNER BELT ASSEMBLY LH

12.	CHECK FLOOR WIRE (SHORT TO GROUND)

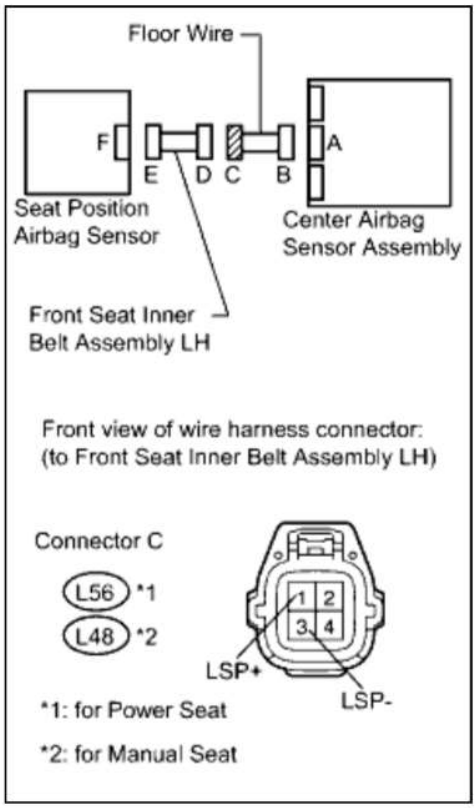
(a) Disconnect the floor wire from the front seat inner belt assembly LH.

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

Standard Resistance:

for Power Seat

for Manual Seat



TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L56-1 (LSP+) - Body ground	Always	1 MΩ or higher
L56-3 (LSP-) - Body ground	Always	1 MΩ or higher

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L48-1 (LSP+) - Body ground	Always	1 MΩ or higher
L48-3 (LSP-) - Body ground	Always	1 MΩ or higher

NG ▶ REPLACE FLOOR WIRE

OK ▶ REPLACE FRONT SEAT INNER BELT ASSEMBLY LH

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001W28033X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1660/43: Passenger Airbag ON/OFF Indicator Circuit Malfunction (2010 Corolla)		

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

DESCRIPTION

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

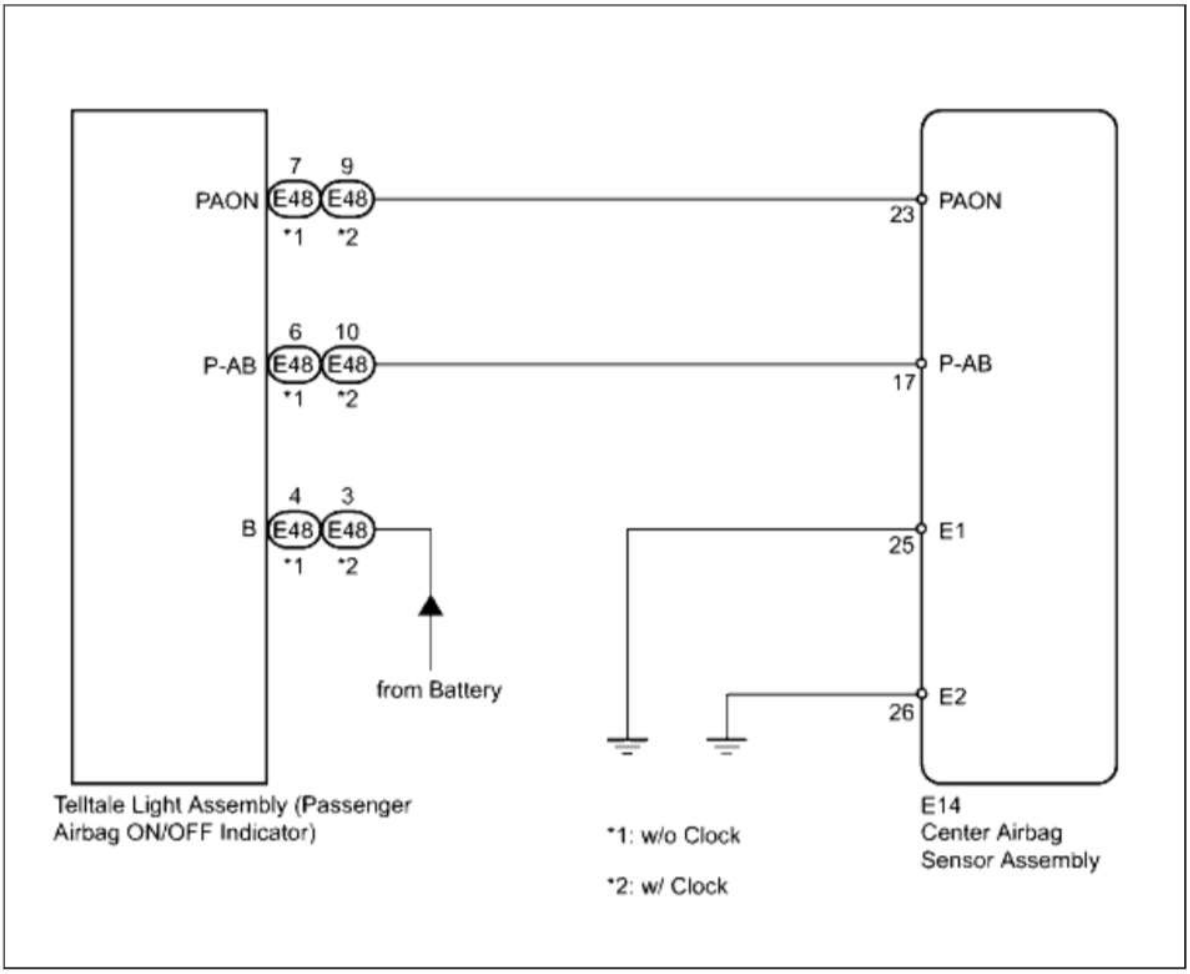
The passenger airbag ON/OFF indicator indicates the operation condition of the front passenger airbag, the front seat side airbag RH and front seat belt pretensioner RH.

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

DTC NO.	DTC DETECTING CONDITION	TROUBLE AREA
B1660/43	• The center airbag sensor assembly receives an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the passenger airbag ON/OFF indicator circuit for 2 seconds. • Telltale light assembly malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Telltale light assembly (Passenger airbag ON/OFF indicator) • Center airbag sensor assembly

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

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

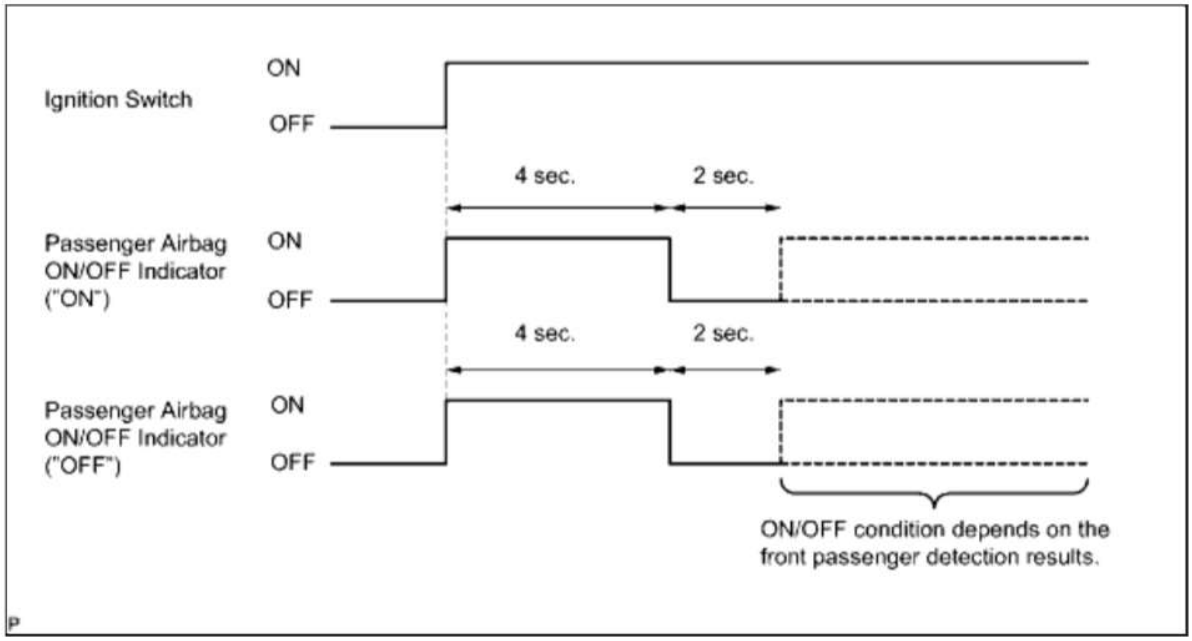
(a) Turn the ignition switch to ON.

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

HINT:

Refer to the normal condition of the passenger airbag ON/OFF indicator INFO .

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Result:

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

B ▶ CHECK CONNECTORS

A ▼

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) Check that the connector is properly connected to the center airbag sensor assembly.

OK:

The connector is properly connected.

HINT:

If the connector is not connected securely, reconnect the connector and proceed to the next inspection.

(d) Disconnect the connector from the center airbag sensor assembly.

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(e) Check that the terminal of the connector is not damaged.

OK:

The terminal is not deformed or damaged.

NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▼

3.	**CHECK PASSENGER AIRBAG ON/OFF INDICATOR**

(a) Connect the cable to the negative (-) battery terminal.

(b) Turn the ignition switch to ON.

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

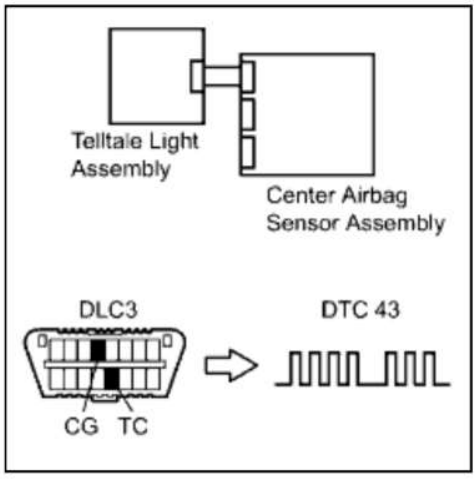
OK:

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

NG ▶ **CHECK CONNECTOR**

OK ▼

4.	**CHECK CENTER AIRBAG SENSOR ASSEMBLY**



(a) Turn the ignition switch off.

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(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 assembly.

(d) Connect the cable to the negative (-) battery terminal.

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

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

(g) Turn the ignition switch off.

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

(i) Check for DTCs INFO .

OK:
DTC B1660/43 is not output.

HINT:

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

NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **USE SIMULATION METHOD TO CHECK**

5.	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) Check that the connector is properly connected to the telltale light assembly.

OK:
The connector is properly connected.

HINT:

If the connector is not connected securely, reconnect the connector and proceed to the next inspection.

(d) Disconnect the connector from the telltale light assembly.

(e) Check that the terminal of the connector is not damaged.

OK:
The terminal is not deformed or damaged.

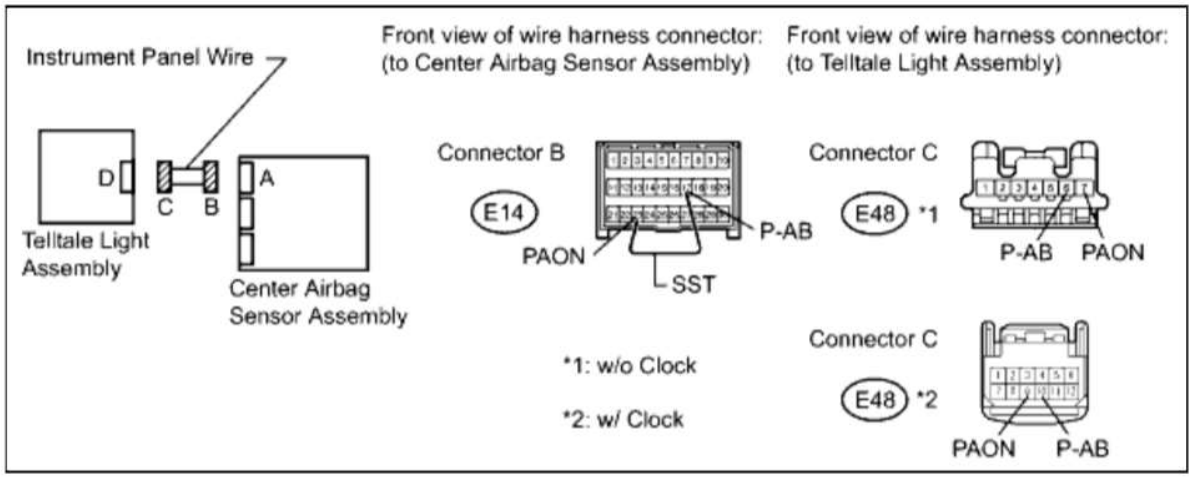
NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

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OK

6.	CHECK INSTRUMENT PANEL WIRE (OPEN)

(a) Using SST, connect terminals 23 (PAON) and 17 (P-AB) of connector B.



NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

w/o Clock

w/ Clock

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E48-7 (PAON) - E48-6 (P-AB)	Always	Below 1 Ω

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E48-9 (PAON) - E48-10 (P-AB)	Always	Below 1 Ω

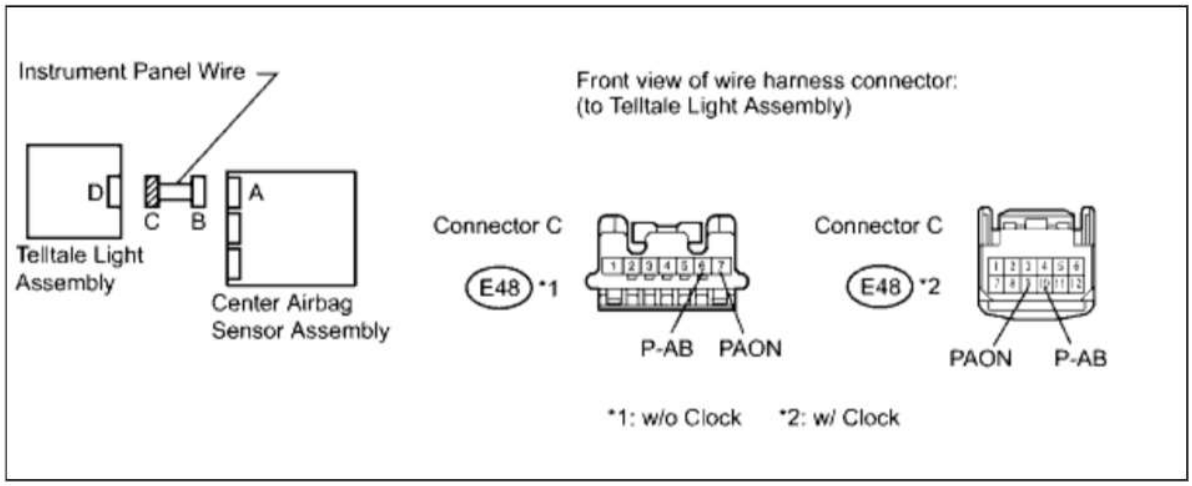
NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK

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7.	CHECK INSTRUMENT PANEL WIRE (SHORT TO GROUND)

(a) Disconnect SST from connector B.



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

Standard Resistance:

w/o Clock

w/ Clock

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E48-7 (PAON) - Body ground	Always	1 MΩ or higher
E48-6 (P-AB) - Body ground	Always	1 MΩ or higher

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E48-9 (PAON) - Body ground	Always	1 MΩ or higher
E48-10 (P-AB) - Body ground	Always	1 MΩ or higher

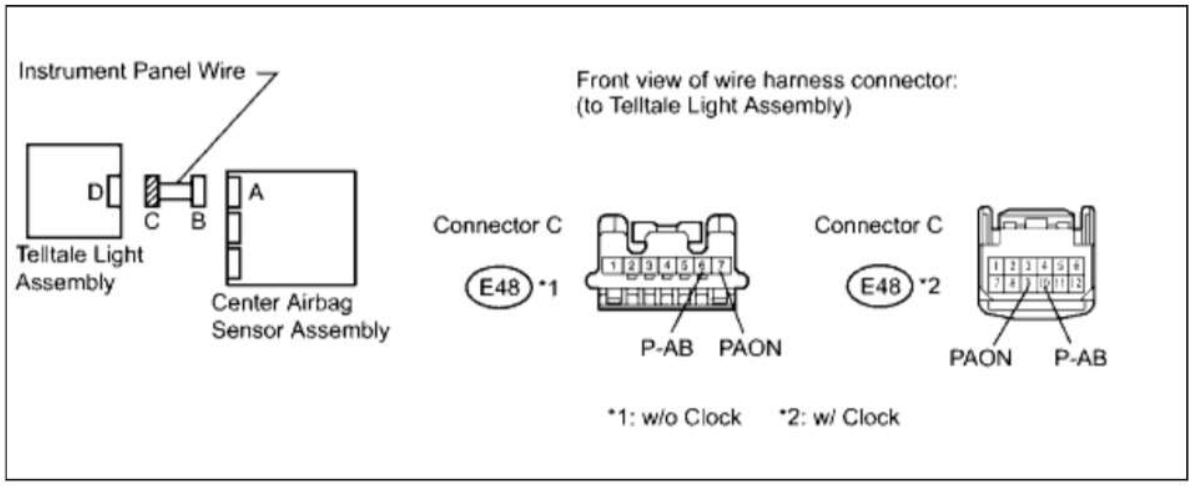
NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK

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8.	CHECK INSTRUMENT PANEL WIRE (SHORT TO B+)

(a) Connect the cable to the negative (-) battery terminal.



(b) Turn the ignition switch to ON.

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

Standard Voltage:

w/o Clock

w/ Clock

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
E48-7 (PAON) - Body ground	Ignition switch ON	Below 1 V
E48-6 (P-AB) - Body ground	Ignition switch ON	Below 1 V

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
E48-9 (PAON) - Body ground	Ignition switch ON	Below 1 V
E48-10 (P-AB) - Body ground	Ignition switch ON	Below 1 V

NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▶ **REPLACE TELLTALE LIGHT ASSEMBLY**

9.	CHECK CONNECTORS

(a) Turn the ignition switch off.

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(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 assembly and the telltale light assembly.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the center airbag sensor assembly and the telltale light assembly.

(e) Check that the terminals of the connectors are not damaged.

OK:

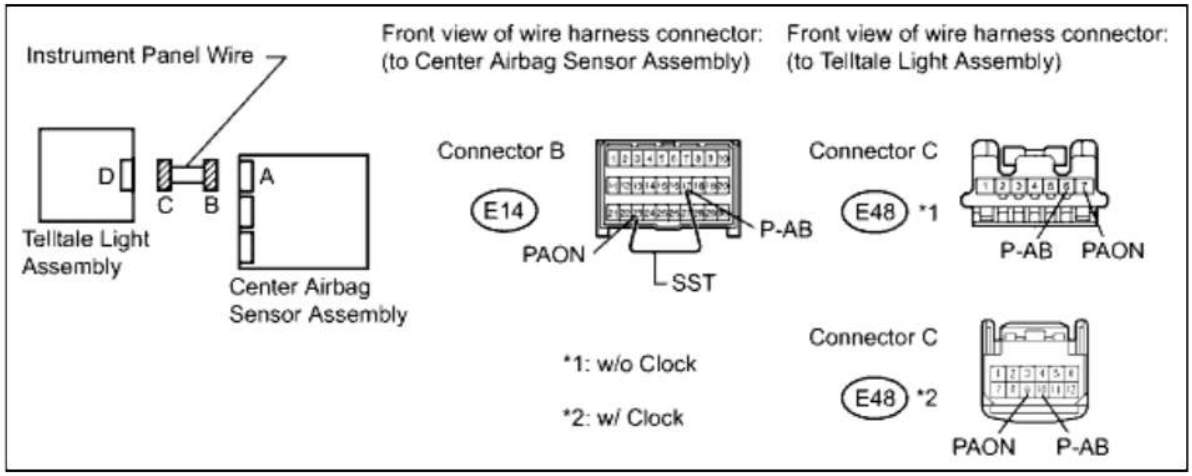
The terminals are not deformed or damaged.

NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▼

10.	CHECK INSTRUMENT PANEL WIRE (OPEN)

(a) Using SST, connect terminals 23 (PAON) and 17 (P-AB) of connector B.



NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

w/o Clock

w/ Clock

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E48-7 (PAON) - E48-6 (P-AB)	Always	Below 1 Ω

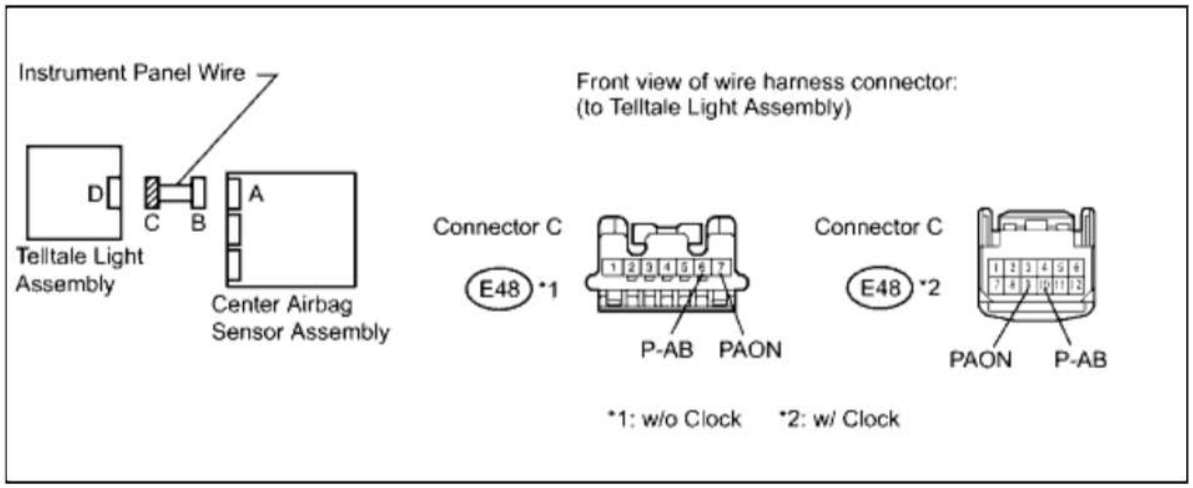
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E48-9 (PAON) - E48-10 (P-AB)	Always	Below 1 Ω

NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▼

11.	CHECK INSTRUMENT PANEL WIRE (SHORT TO GROUND)

(a) Disconnect SST from connector B.



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

Standard Resistance:

w/o Clock

w/ Clock

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION

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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E48-7 (PAON) - Body ground	Always	1 MΩ or higher
E48-6 (P-AB) - Body ground	Always	1 MΩ or higher

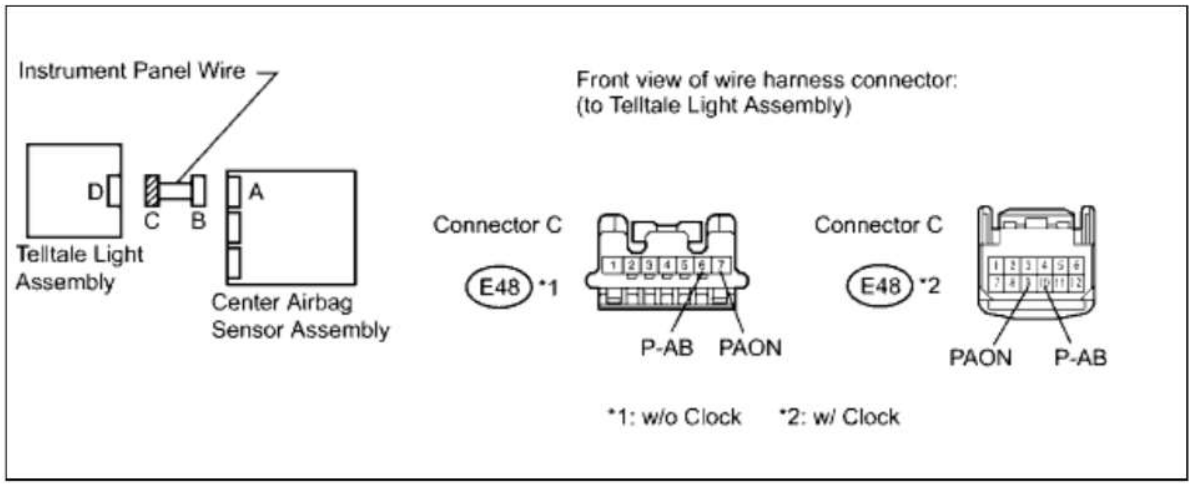
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E48-9 (PAON) - Body ground	Always	1 MΩ or higher
E48-10 (P-AB) - Body ground	Always	1 MΩ or higher

NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▼

12.	CHECK INSTRUMENT PANEL WIRE (SHORT TO B+)

(a) Connect the cable to the negative (-) battery terminal.



(b) Turn the ignition switch to ON.

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

Standard Voltage:

w/o Clock

w/ Clock

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION

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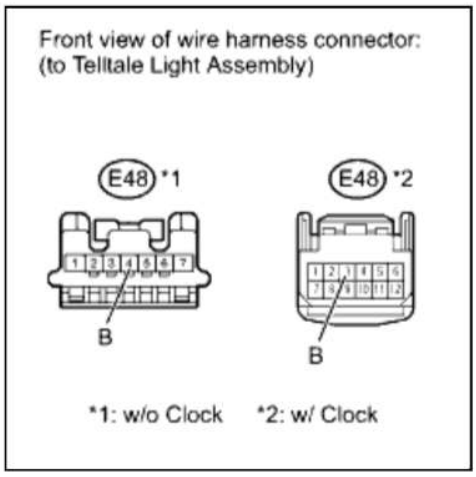
TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
E48-7 (PAON) - Body ground	Ignition switch ON	Below 1 V
E48-6 (P-AB) - Body ground	Ignition switch ON	Below 1 V

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
E48-9 (PAON) - Body ground	Ignition switch ON	Below 1 V
E48-10 (P-AB) - Body ground	Ignition switch ON	Below 1 V

NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▼

13.	CHECK TELLTALE LIGHT ASSEMBLY (SOURCE VOLTAGE)



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

(b) Connect the cable to the negative (-) battery terminal.

(c) Turn the ignition switch to ON.

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

Standard Voltage:

w/o Clock

w/ Clock

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION

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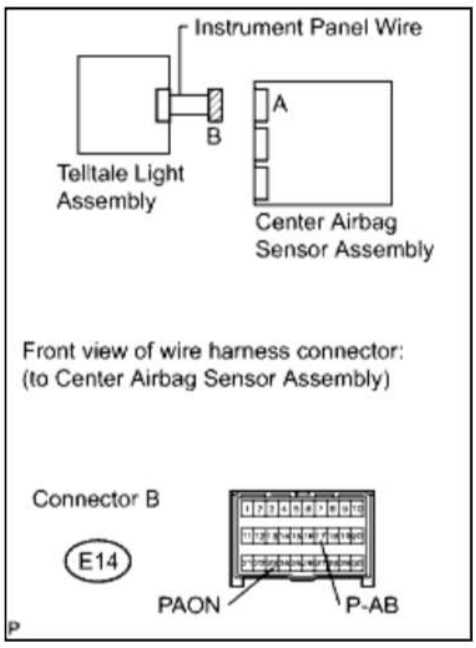
TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
E48-4 (B) - Body ground	Ignition switch ON	10 to 16V

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
E48-3 (B) - Body ground	Ignition switch ON	10 to 16V

NG ▶ **REPLACE WIRE HARNESS OR BATTERY**

OK ▼

14.	CHECK PASSENGER AIRBAG ON/OFF INDICATOR



(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 telltale light assembly.

(d) Disconnect the connector from the center airbag sensor assembly.

(e) Connect the cable to the negative (-) battery terminal.

(f) Turn the ignition switch to ON.

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(g) Check the indicator according to the conditions in the table below.

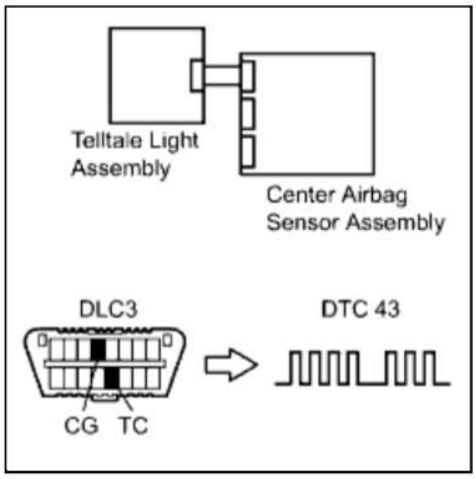
Indicator Condition:

TESTER CONNECTION	SWITCH CONDITION	PASSENGER AIRBAG ON/OFF INDICATOR
E14-23 (PAON) - Body ground	Ignition switch ON	"ON" comes on
E14-17 (P-AB) - Body ground	Ignition switch ON	"OFF" comes on

NG ▶ **REPLACE TELLTALE LIGHT ASSEMBLY**

OK ▼

15.	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 assembly.

(d) Connect the cable to the negative (-) battery terminal.

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

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

(g) Turn the ignition switch off.

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

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(i) Check for DTCs INFO .

OK:

DTC B1660/43 is not output.

HINT:

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

NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **USE SIMULATION METHOD TO CHECK**

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001NZY025X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1655/37: Driver Side Seat Belt Buckle Switch Circuit Malfunction (2010 Corolla)		

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

DESCRIPTION

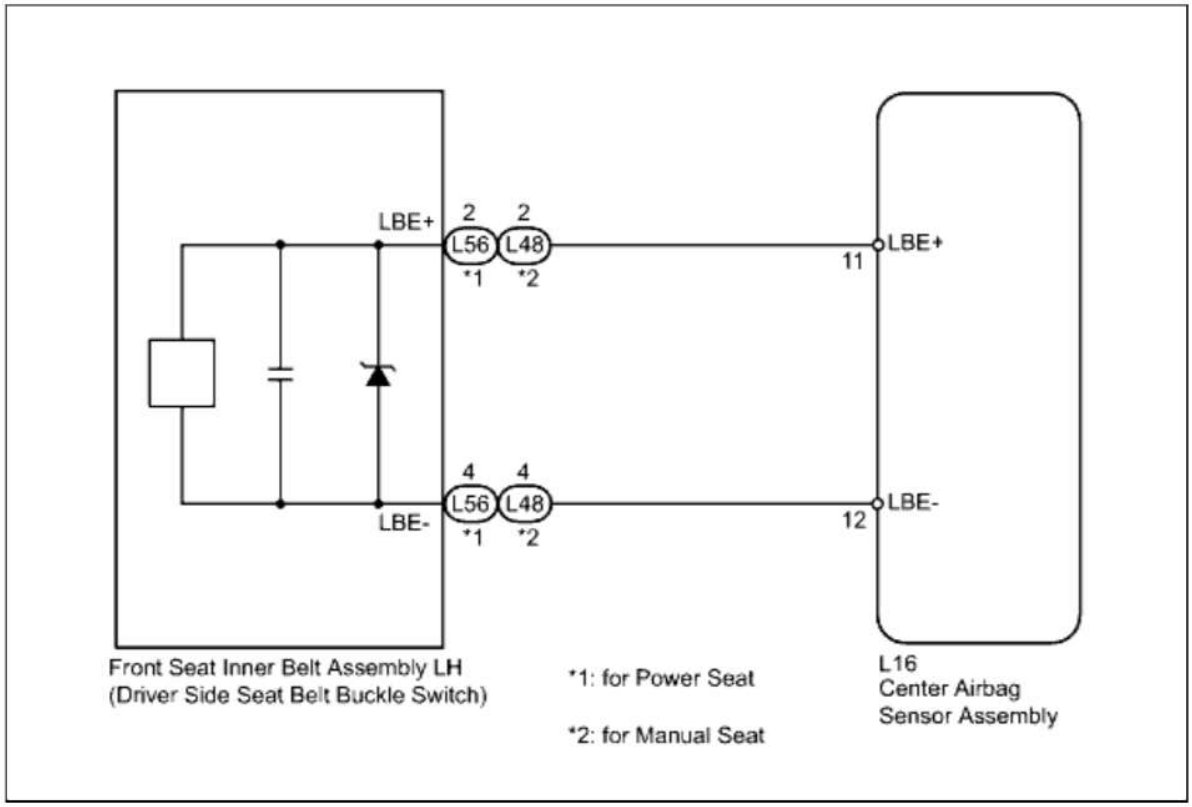
The driver side seat belt buckle switch circuit consists of the center airbag sensor assembly and the front seat inner belt assembly LH.

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

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1655/37	• The center airbag sensor assembly receives a short circuit signal, an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the driver side seat belt buckle switch circuit for 2 seconds. • Front seat inner belt assembly LH malfunction • Center airbag sensor assembly malfunction	• Floor wire • Front seat inner belt assembly LH (Driver side seat belt buckle switch) • Center airbag sensor assembly

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK CONNECTORS**

(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 assembly and front seat inner belt assembly LH.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

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

(e) Check that the terminals of the connectors are not damaged.

OK:

The terminals are not deformed or damaged.

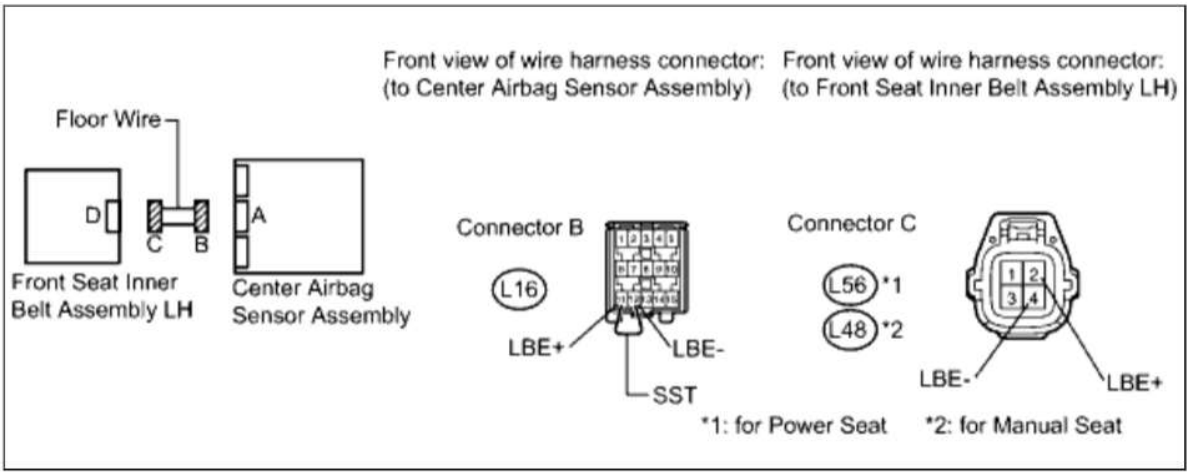
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NG ▶ **REPLACE FLOOR WIRE**

OK ▼

2.	**CHECK FLOOR WIRE (OPEN)**

(a) Using SST, connect terminals 11 (LBE+) and 12 (LBE-) of connector B.



NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

for Power Seat

for Manual Seat

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L56-2 (LBE+) - L56-4 (LBE-)	Always	Below 1 Ω

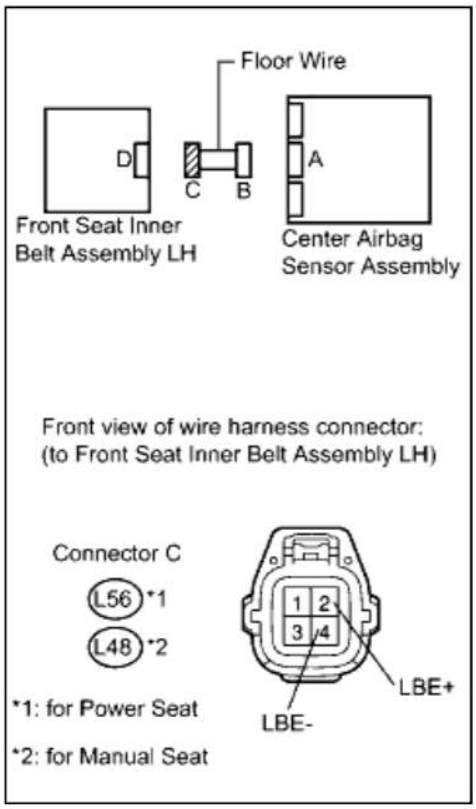
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L48-2 (LBE+) - L48-4 (LBE-)	Always	Below 1 Ω

NG ▶ **REPLACE FLOOR WIRE**

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OK

3.	CHECK FLOOR WIRE (SHORT)



(a) Disconnect SST from connector B.

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

Standard Resistance:

for Power Seat

for Manual Seat

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L56-2 (LBE+) - L56-4 (LBE-)	Always	1 MΩ or higher

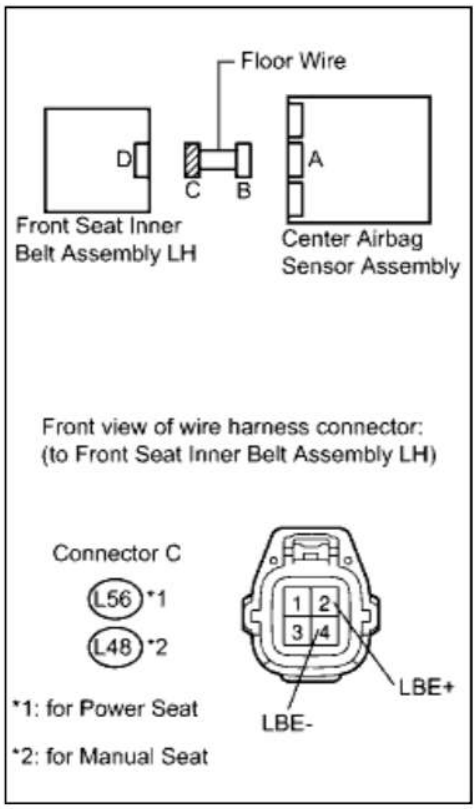
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L48-2 (LBE+) - L48-4 (LBE-)	Always	1 MΩ or higher

NG ▶ **REPLACE FLOOR WIRE**

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OK

4.	CHECK FLOOR WIRE (SHORT TO B+)



(a) Connect the cable to the negative (-) battery terminal.

(b) Turn the ignition switch to ON.

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

Standard Voltage:

for Power Seat

for Manual Seat

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
L56-2 (LBE+) - Body ground	Ignition switch ON	Below 1 V
L56-4 (LBE-) - Body ground	Ignition switch ON	Below 1 V

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION

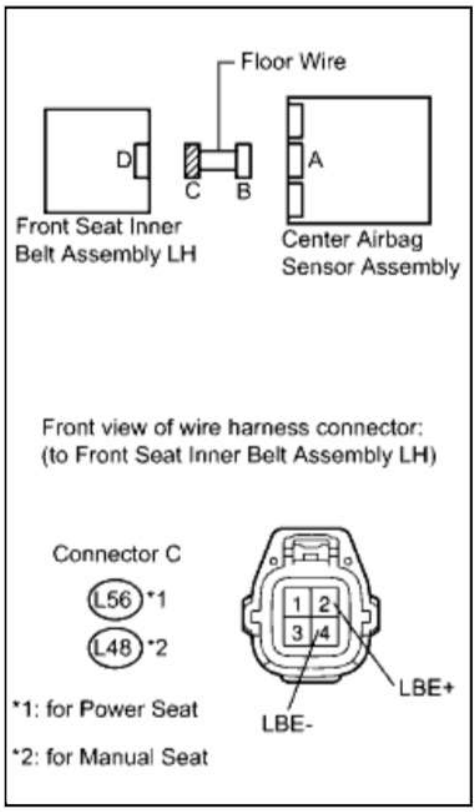
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TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
L48-2 (LBE+) - Body ground	Ignition switch ON	Below 1 V
L48-4 (LBE-) - Body ground	Ignition switch ON	Below 1 V

NG ▶ **REPLACE FLOOR WIRE**

OK ▼

5.	CHECK 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 according to the value(s) in the table below.

Standard Resistance:

for Power Seat

for Manual Seat

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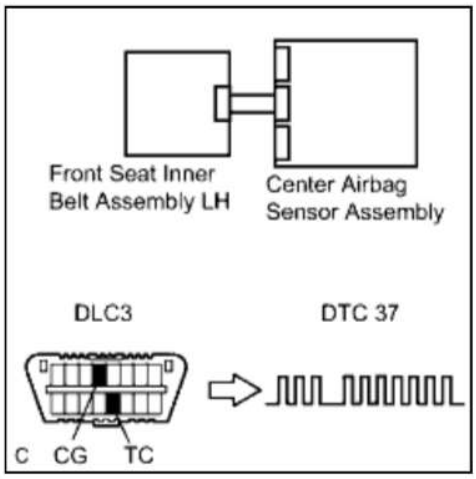
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L56-2 (LBE+) - Body ground	Always	1 MΩ or higher
L56-4 (LBE-) - Body ground	Always	1 MΩ or higher

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L48-2 (LBE+) - Body ground	Always	1 MΩ or higher
L48-4 (LBE-) - Body ground	Always	1 MΩ or higher

NG ▶ **REPLACE FLOOR WIRE**

OK ▼

6.	**CHECK FRONT SEAT INNER BELT ASSEMBLY LH**



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

(b) Connect the cable to the negative (-) battery terminal.

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

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

(e) Turn the ignition switch off.

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

(g) Check for DTCs INFO .

OK:

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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 FRONT SEAT INNER BELT ASSEMBLY LH**

OK ▶ **USE SIMULATION METHOD TO CHECK**

7.	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.

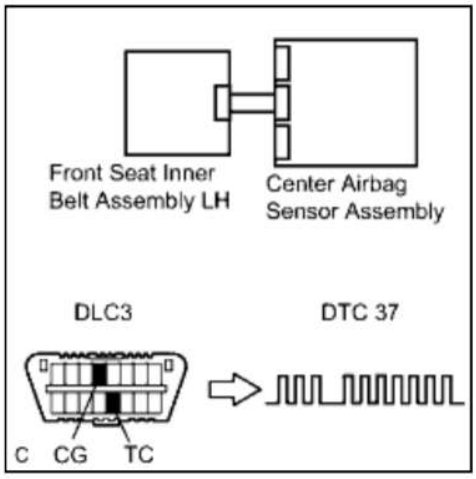
(c) Replace the front seat inner belt assembly LH with a known good part INFO.

HINT:

Perform the following inspection using known good parts from another vehicle if possible.

NEXT

8.	CHECK CENTER AIRBAG SENSOR ASSEMBLY



(a) Connect the cable to the negative (-) battery terminal.

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

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

(d) Turn the ignition switch off.

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

(f) Check for DTCs INFO.

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**

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000XFI06GX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1800/51-B1803/51: Short in Driver Side Squib Circuit (2010 Corolla)		

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

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

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

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

DESCRIPTION

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

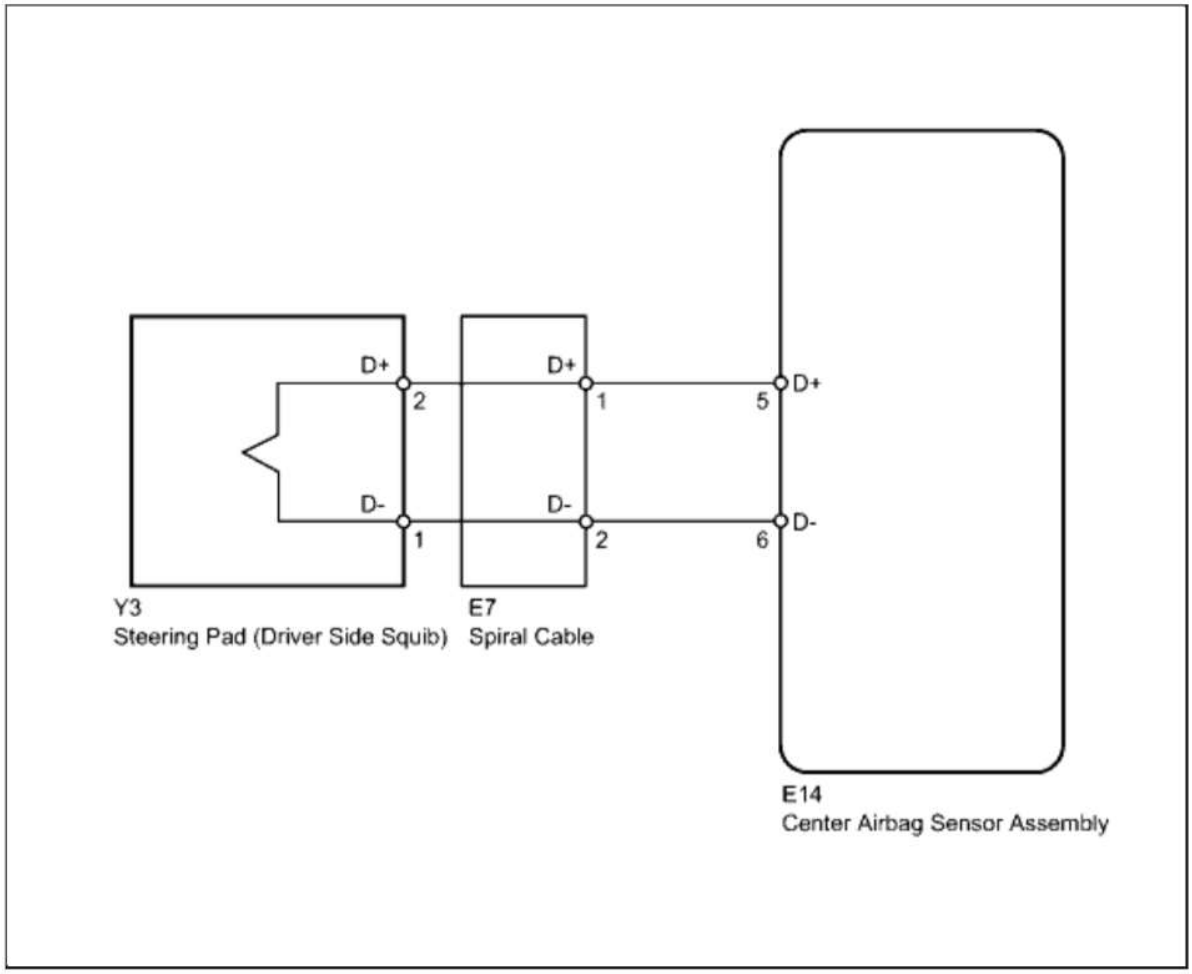
DTC NO.	DTC DETECTING CONDITION	TROUBLE AREA
B1800/51	• The center airbag sensor assembly receives a short circuit signal 5 times in the driver side squib circuit during primary check. • Driver side squib malfunction • Spiral cable malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib) • Center airbag sensor assembly
B1801/51	• The center airbag sensor assembly receives an open circuit signal in the driver side squib circuit for 2 seconds. • Driver side squib malfunction • Spiral cable malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib) • Center airbag sensor assembly

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DTC NO.	DTC DETECTING CONDITION	TROUBLE AREA
B1802/51	• The center airbag sensor assembly receives a short circuit to ground signal in the driver side squib circuit for 0.5 seconds. • Driver side squib malfunction • Spiral cable malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib) • Center airbag sensor assembly
B1803/51	• The center airbag sensor assembly receives a short circuit to B+ signal in the driver side squib circuit for 0.5 seconds. • Driver side squib malfunction • Spiral cable malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib) • Center airbag sensor assembly

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

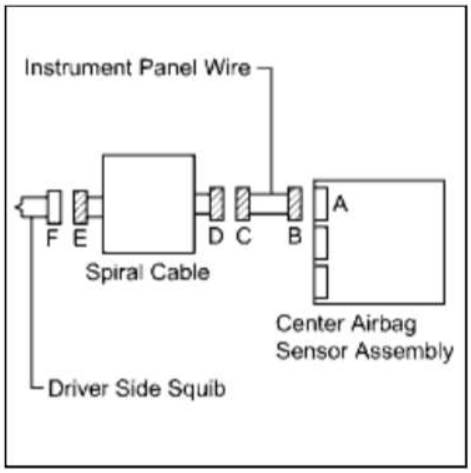
- Perform the simulation method by selecting Check Mode (signal check) using the Techstream INFO .
- After selecting Check Mode (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road INFO .

PROCEDURE

1.	**CHECK CONNECTORS**

(a) Turn the ignition switch off.

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(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 steering pad, spiral cable and center airbag sensor assembly.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the steering pad, spiral cable and center airbag sensor assembly.

(e) Check that the terminals of the connectors are not damaged.

OK:

The terminals are not deformed or damaged.

(f) Check that the spiral cable connector (on the steering pad side) is not damaged.

OK:

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

(g) Check that the short springs for the instrument panel wire and spiral cable with the activation prevention mechanism are not deformed or damaged.

OK:

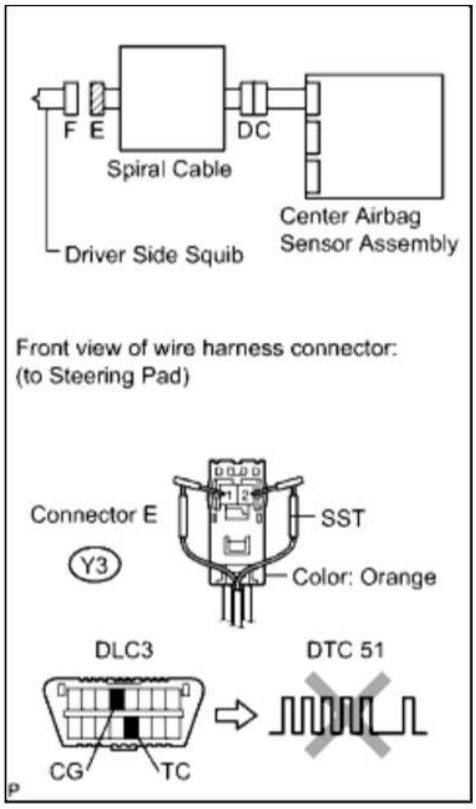
The short springs are not deformed or damaged.

NG ▶ **REPLACE WIRE HARNESS**

OK ▼

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2.	CHECK STEERING PAD (DRIVER SIDE SQUIB)



(a) Connect the instrument panel wire to the center airbag sensor assembly and spiral cable.

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

CAUTION:

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

NOTICE:

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

SST: 09843-18061

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

OK:

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

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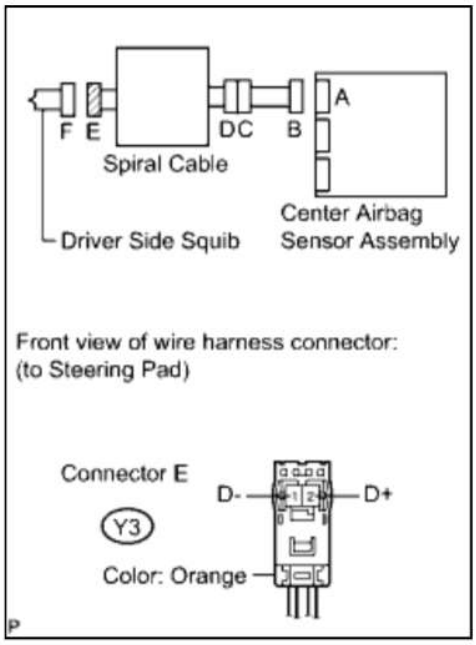
HINT:

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

NG ▶ **CHECK DRIVER SIDE SQUIB CIRCUIT**

OK ▶ **REPLACE STEERING PAD**

3.	CHECK DRIVER SIDE SQUIB CIRCUIT



(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) Disconnect the instrument panel wire from the center airbag sensor assembly.

(e) Check for a short to B+ in the circuit.

(1) Connect the cable to the negative (-) battery terminal.

(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION

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TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
Y3-2 (D+) - Body ground	Ignition switch ON	Below 1 V
Y3-1 (D-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Y3-2 (D+) - Y3-1 (D-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Y3-2 (D+) - Body ground	Always	1 MΩ or higher
Y3-1 (D-) - Body ground	Always	1 MΩ or higher

(h) Check for a short in the circuit.

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

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

Standard Resistance:

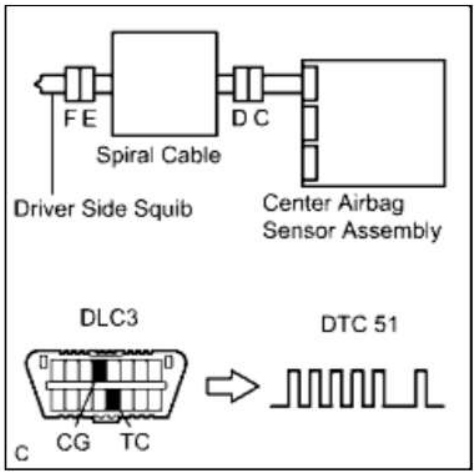
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Y3-2 (D+) - Y3-1 (D-)	Always	1 MΩ or higher

NG ▶ **CHECK INSTRUMENT PANEL WIRE**

OK ▼

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4.	CHECK CENTER AIRBAG SENSOR ASSEMBLY



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

(b) Connect the connectors to the steering pad and the center airbag sensor assembly.

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

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

HINT:

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

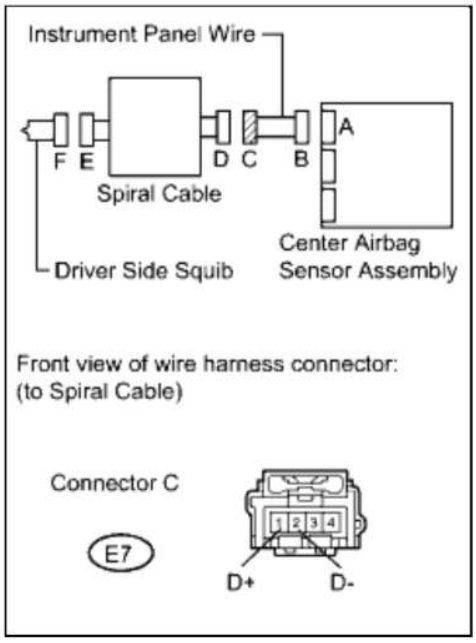
NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **USE SIMULATION METHOD TO CHECK**

5.	CHECK INSTRUMENT PANEL WIRE

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

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

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

(1) Connect the cable to the negative (-) battery terminal.

(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
E7-1 (D+) - Body ground	Ignition switch ON	Below 1 V
E7-2 (D-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E7-1 (D+) - E7-2 (D-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E7-1 (D+) - Body ground	Always	1 MΩ or higher
E7-2 (D-) - Body ground	Always	1 MΩ or higher

(f) Check for a short in the circuit.

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E7-1 (D+) - E7-2 (D-)	Always	1 MΩ or higher

NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▼

6.	**CHECK SPIRAL CABLE**

(a) Check for a short to B+ in the circuit.

(1) Connect the cable to the negative (-) battery terminal.

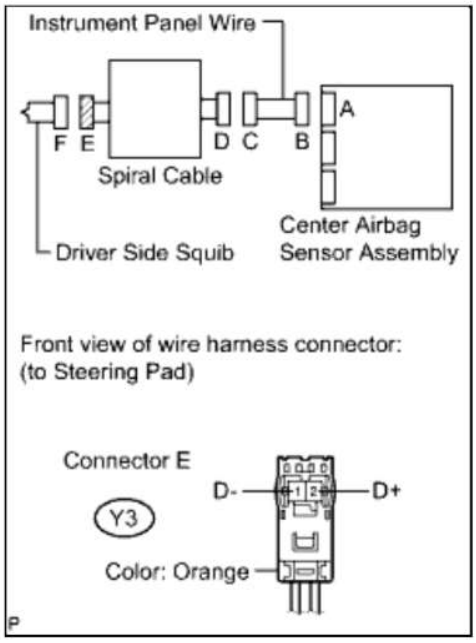
(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
Y3-2 (D+) - Body ground	Ignition switch ON	Below 1 V

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Y3-1 (D-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Y3-2 (D+) - Y3-1 (D-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Y3-2 (D+) - Body ground	Always	1 MΩ or higher
Y3-1 (D-) - Body ground	Always	1 MΩ or higher

(d) Check for a short in the circuit.

(1) Release the activation prevention mechanism built into connector D INFO .

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

Standard Resistance:

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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Y3-2 (D+) - Y3-1 (D-)	Always	1 MΩ or higher

NG ▶ **REPLACE SPIRAL CABLE**

OK ▶ **USE SIMULATION METHOD TO CHECK**

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000XFJ06IX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1805/52-B1808/52: Short in Front Passenger Side Squib Circuit (2010 Corolla)		

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

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

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

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

DESCRIPTION

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

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

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

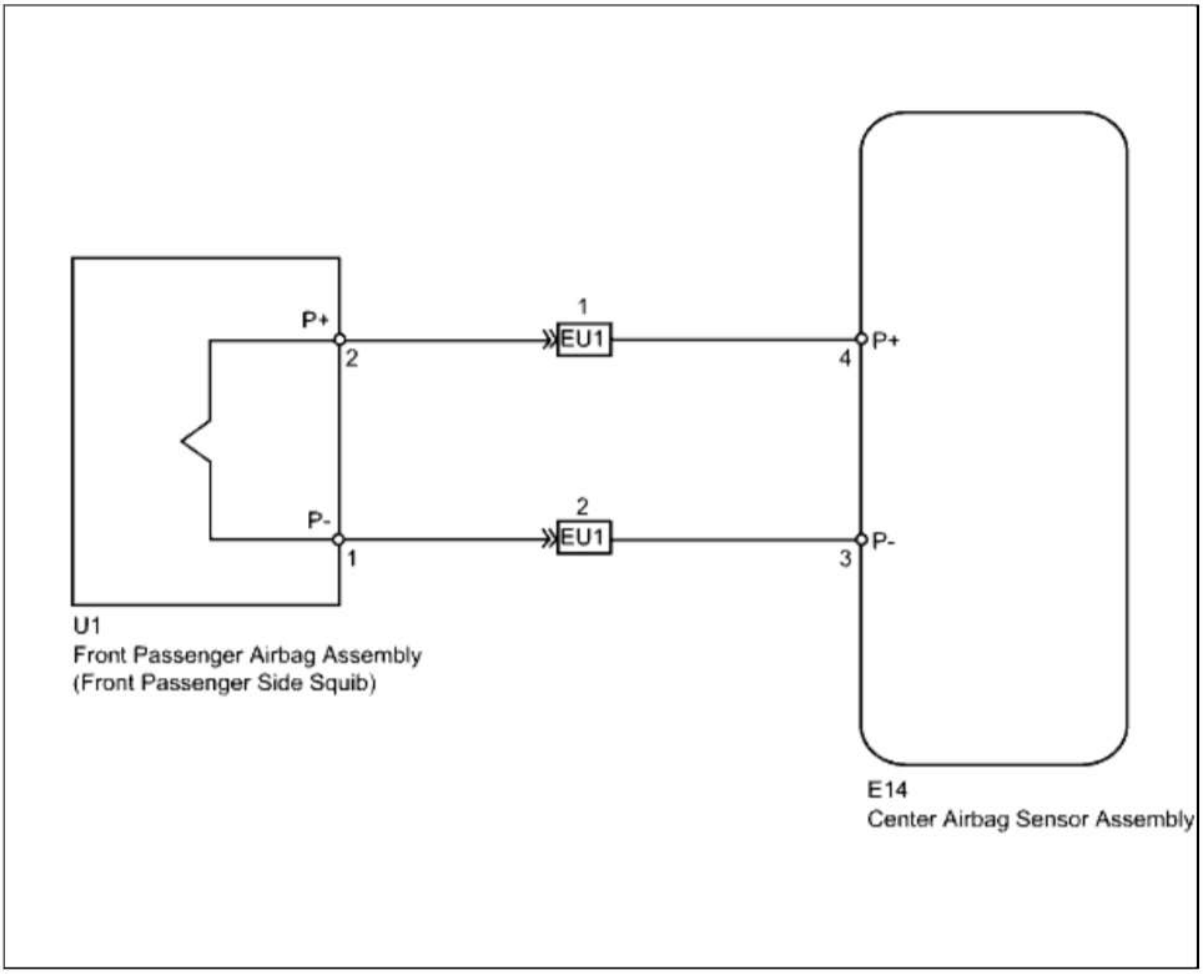
DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1805/52	• The center airbag sensor assembly receives a short circuit signal 5 times in the front passenger side squib circuit during primary check. • Front passenger side squib malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag assembly (Front passenger side squib) • Center airbag sensor assembly
B1806/52	• The center airbag sensor assembly receives an open circuit signal in the front passenger side squib circuit for 2 seconds. • Front passenger side squib malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag assembly (Front passenger side squib)

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DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
		• Center airbag sensor assembly
B1807/52	• The center airbag sensor assembly receives a short circuit to ground signal in the front passenger side squib circuit for 0.5 seconds. • Front passenger side squib malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag assembly (Front passenger side squib) • Center airbag sensor assembly
B1808/52	• The center airbag sensor assembly receives a short circuit to B+ signal in the front passenger side squib circuit for 0.5 seconds. • Front passenger side squib malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag assembly (Front passenger side squib) • Center airbag sensor assembly

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

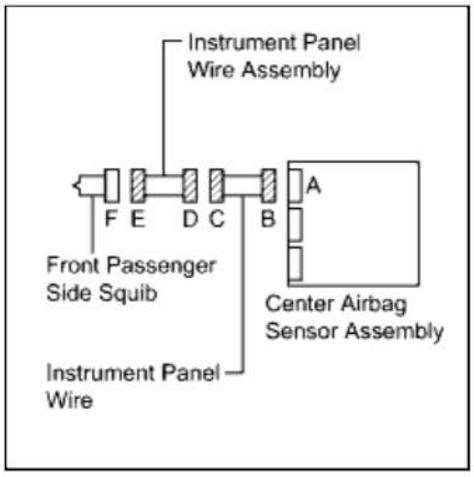
- Perform the simulation method by selecting Check Mode (signal check) using the Techstream INFO .
- After selecting Check Mode (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road INFO .

PROCEDURE

1.	**CHECK CONNECTOR**

(a) Turn the ignition switch off.

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(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 front passenger airbag assembly and center airbag sensor assembly. Also check that the connectors that link the instrument panel wire assembly and instrument panel wire are properly connected.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the front passenger airbag assembly and center airbag sensor assembly. Also disconnect the instrument panel wire from the instrument panel wire assembly.

(e) Check that the terminals of the connectors are not damaged.

OK:

The terminals are not deformed or damaged.

(f) Check that the instrument panel wire assembly connector (on the front passenger airbag assembly side) is not damaged.

OK:

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

(g) Check that the short springs for the instrument panel wire and instrument panel wire assembly with the activation prevention mechanism are not deformed or damaged.

OK:

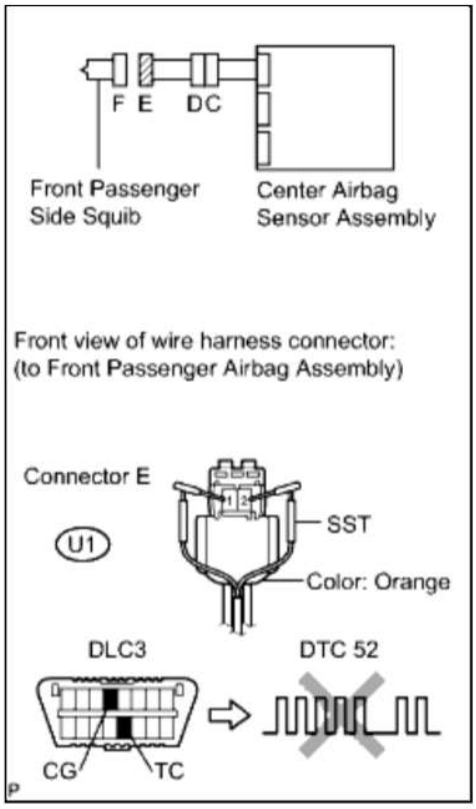
The short springs are not deformed or damaged.

NG ▶ **REPLACE WIRE HARNESS**

OK ▼

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



(a) Connect the instrument panel wire to the instrument panel wire assembly and center airbag sensor assembly.

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

CAUTION:

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

NOTICE:

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

SST: 09843-18061

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

OK:

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

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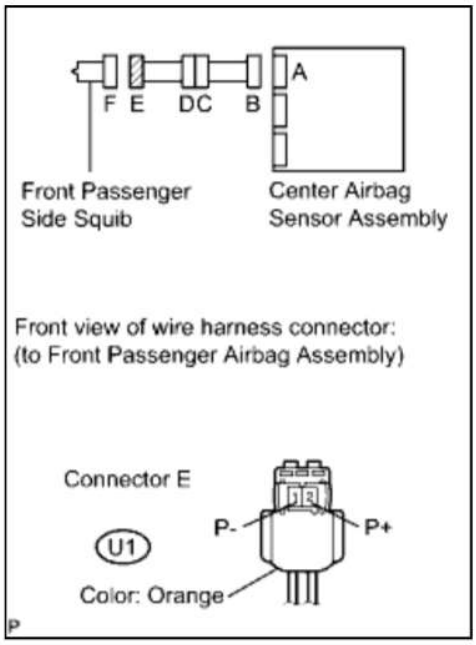
HINT:

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

NG ▶ **CHECK FRONT PASSENGER SIDE SQUIB CIRCUIT**

OK ▶ **REPLACE FRONT PASSENGER AIRBAG ASSEMBLY**

3.	CHECK FRONT PASSENGER SIDE SQUIB CIRCUIT



(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) Disconnect the instrument panel wire from the center airbag sensor assembly.

(e) Check for a short to B+ in the circuit.

(1) Connect the cable to the negative (-) battery terminal.

(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION

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TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
U1-2 (P+) - Body ground	Ignition switch ON	Below 1 V
U1-1 (P-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
U1-2 (P+) - U1-1 (P-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
U1-2 (P+) - Body ground	Always	1 MΩ or higher
U1-1 (P-) - Body ground	Always	1 MΩ or higher

(h) Check for a short in the circuit.

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

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

Standard Resistance:

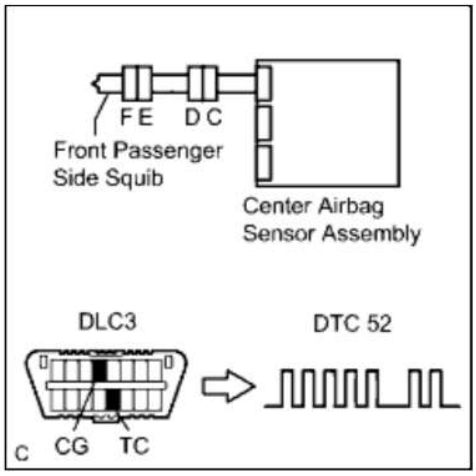
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
U1-2 (P+) - U1-1 (P-)	Always	1 MΩ or higher

NG ▶ **CHECK INSTRUMENT PANEL WIRE**

OK ▼

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4.	CHECK CENTER AIRBAG SENSOR ASSEMBLY



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

(b) Connect the connectors to the front passenger airbag assembly and the center airbag sensor assembly.

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

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

HINT:

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

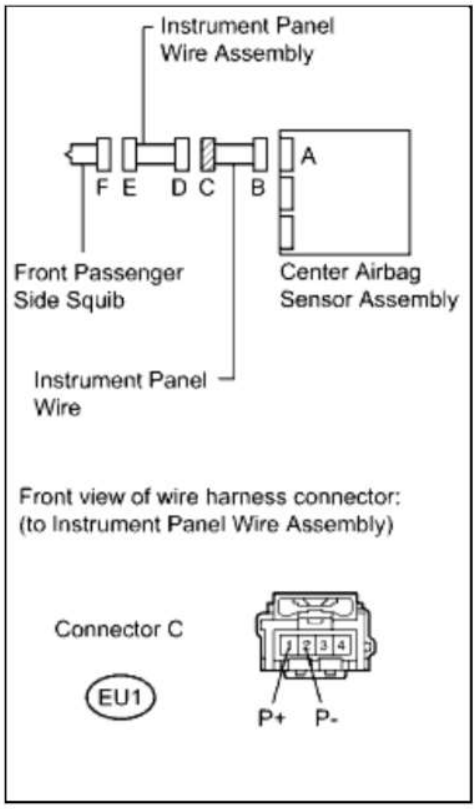
NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **USE SIMULATION METHOD TO CHECK**

5.	CHECK INSTRUMENT PANEL WIRE

(a) Restore the released activation prevention

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mechanism of connector B to the original condition.

(b) Check for a short to B+ in the circuit.

(1) Connect the cable to the negative (-) battery terminal.

(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
EU1-1 (P+) - Body ground	Ignition switch ON	Below 1 V
EU1-2 (P-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
EU1-1 (P+) - EU1-2 (P-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
EU1-1 (P+) - Body ground	Always	1 MΩ or higher
EU1-2 (P-) - Body ground	Always	1 MΩ or higher

(e) Check for a short in the circuit.

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
EU1-1 (P+) - EU1-2 (P-)	Always	1 MΩ or higher

NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▼

6.	**CHECK INSTRUMENT PANEL WIRE ASSEMBLY**

(a) Check for a short to B+ in the circuit.

(1) Connect the cable to the negative (-) battery terminal.

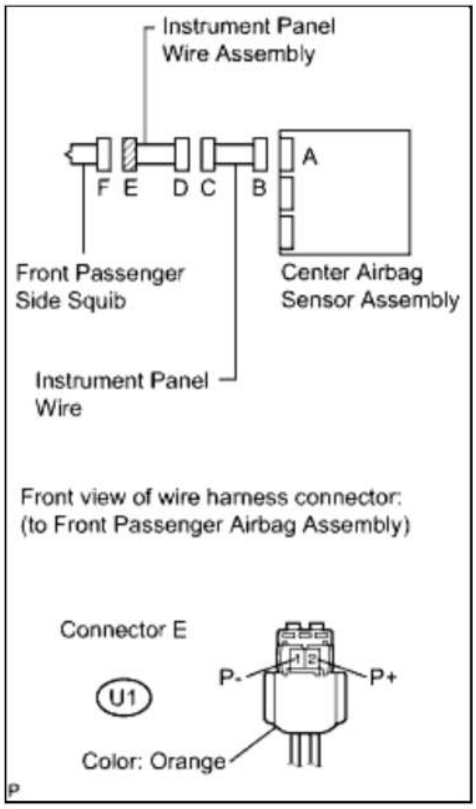
(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
U1-2 (P+) - Body ground	Ignition switch ON	Below 1 V

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U1-1 (P-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
U1-2 (P+) - U1-1 (P-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
U1-2 (P+) - Body ground	Always	1 MΩ or higher
U1-1 (P-) - Body ground	Always	1 MΩ or higher

(d) Check for a short in the circuit.

(1) Release the activation prevention mechanism built into connector D INFO .

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
U1-2 (P+) - U1-1 (P-)	Always	1 MΩ or higher

NG ▶ **REPLACE INSTRUMENT PANEL WIRE ASSEMBLY**

OK ▶ **USE SIMULATION METHOD TO CHECK**

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000XFI06HX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1810/53-B1813/53: Short in Driver Side Squib 2nd Step Circuit (2010 Corolla)		

DTC	**B1810/53**	**Short in Driver Side Squib 2nd Step Circuit**

DTC	**B1811/53**	**Open in Driver Side Squib 2nd Step Circuit**

DTC	**B1812/53**	**Short to GND in Driver Side Squib 2nd Step Circuit**

DTC	**B1813/53**	**Short to B+ in Driver Side Squib 2nd Step Circuit**

DESCRIPTION

The driver side squib 2nd step circuit consists of the center airbag sensor assembly, the spiral cable and the steering pad.
The circuit instructs the SRS to deploy when deployment conditions are met.
These DTCs are recorded when a malfunction is detected in the driver side squib 2nd step circuit.

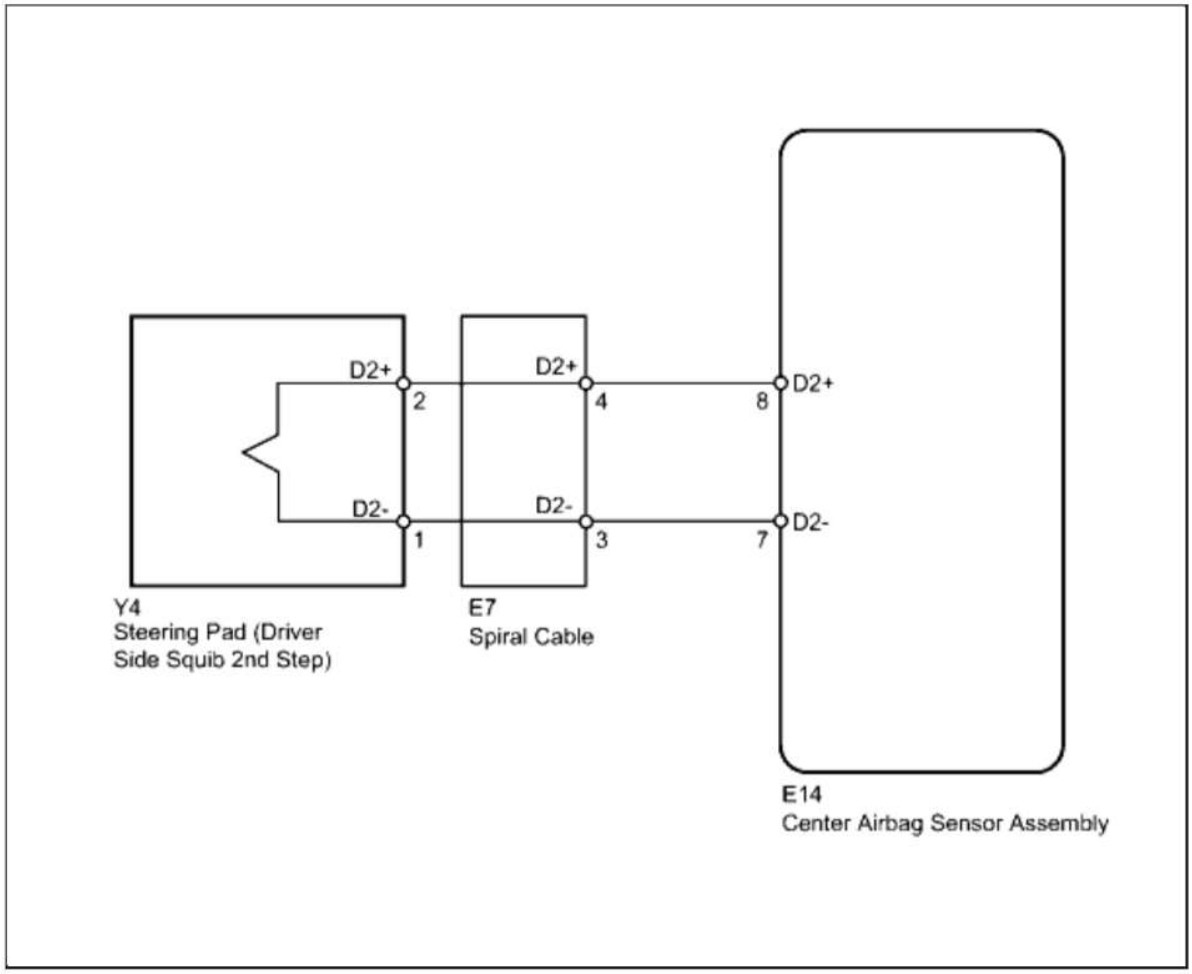
DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1810/53	• The center airbag sensor assembly receives a short circuit signal 5 times in the driver side squib 2nd step circuit during primary check. • Driver side squib 2nd step malfunction • Spiral cable malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib 2nd step) • Center airbag sensor assembly
B1811/53	• The center airbag sensor assembly receives an open circuit signal in the driver side squib 2nd step circuit for 2 seconds. • Driver side squib 2nd step malfunction • Spiral cable malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib 2nd step) • Center airbag sensor assembly

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DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1812/53	• The center airbag sensor assembly receives a short circuit to ground signal in the driver side squib 2nd step circuit for 0.5 seconds. • Driver side squib 2nd step malfunction • Spiral cable malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib 2nd step) • Center airbag sensor assembly
B1813/53	• The center airbag sensor assembly receives a short circuit to B+ signal in the driver side squib 2nd step circuit for 0.5 seconds. • Driver side squib 2nd step malfunction • Spiral cable malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Spiral cable • Steering pad (Driver side squib 2nd step) • Center airbag sensor assembly

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

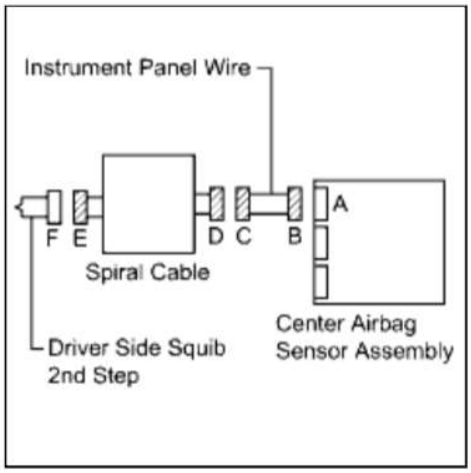
- Perform the simulation method by selecting Check Mode (signal check) using the Techstream INFO .
- After selecting Check Mode (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road INFO .

PROCEDURE

1.	**CHECK CONNECTORS**

(a) Turn the ignition switch off.

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(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 steering pad, spiral cable and center airbag sensor assembly.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the steering pad, spiral cable and center airbag sensor assembly.

(e) Check that the terminals of the connectors are not damaged.

OK:

The terminals are not deformed or damaged.

(f) Check that the spiral cable connector (on the steering pad side) is not damaged.

OK:

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

(g) Check that the short springs for the instrument panel wire and spiral cable with the activation prevention mechanism are not deformed or damaged.

OK:

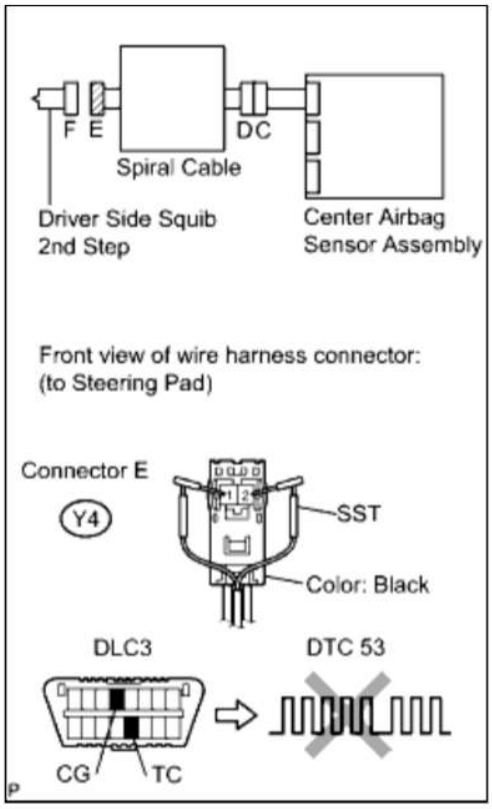
The short springs are not deformed or damaged.

NG ▶ **REPLACE WIRE HARNESS**

OK ▼

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



(a) Connect the instrument panel wire to the center airbag sensor assembly and spiral cable.

(b) Connect SST (resistance 2.1 Ω) to connector E (black connector).

CAUTION:

Never connect the 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.
- Insert SST straight into the terminals of the connector.

SST: 09843-18061

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

OK:

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

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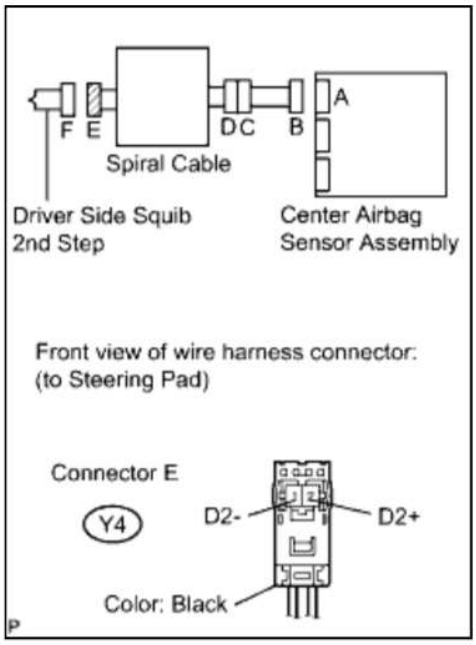
HINT:

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

NG ▶ **CHECK DRIVER SIDE SQUIB 2ND STEP CIRCUIT**

OK ▶ **REPLACE STEERING PAD**

3.	CHECK DRIVER SIDE SQUIB 2ND STEP CIRCUIT



(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) Disconnect the instrument panel wire from the center airbag sensor assembly.

(e) Check for a short to B+ in the circuit.

(1) Connect the cable to the negative (-) battery terminal.

(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION

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TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
Y4-2 (D2+) - Body ground	Ignition switch ON	Below 1 V
Y4-1 (D2-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Y4-2 (D2+) - Y4-1 (D2-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Y4-2 (D2+) - Body ground	Always	1 MΩ or higher
Y4-1 (D2-) - Body ground	Always	1 MΩ or higher

(h) Check for a short in the circuit.

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

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

Standard Resistance:

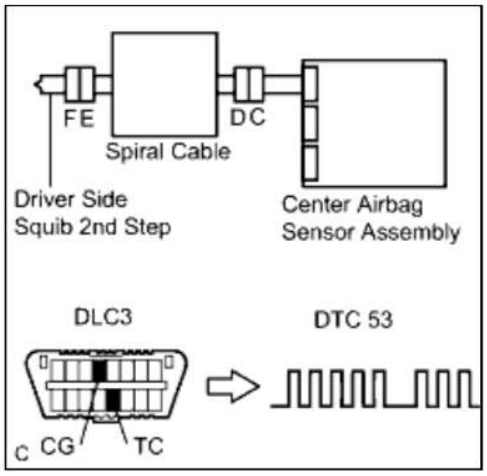
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Y4-2 (D2+) - Y4-1 (D2-)	Always	1 MΩ or higher

NG ▶ **CHECK INSTRUMENT PANEL WIRE**

OK ▼

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4.	CHECK CENTER AIRBAG SENSOR ASSEMBLY



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

(b) Connect the connectors to the steering pad and the center airbag sensor assembly.

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

OK:

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

HINT:

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

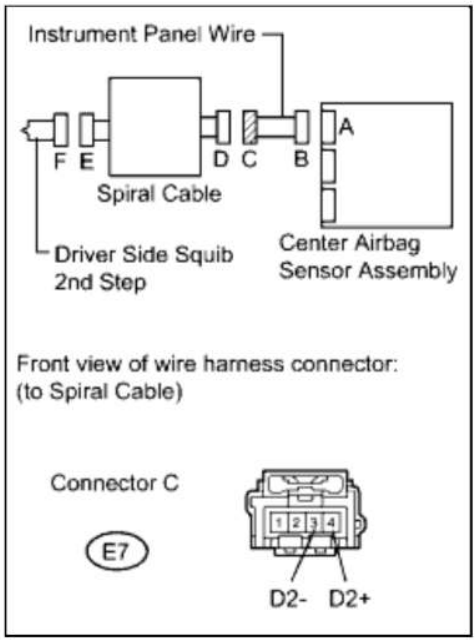
NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **USE SIMULATION METHOD TO CHECK**

5.	CHECK INSTRUMENT PANEL WIRE

(a) Restore the release activation prevention mechanism of connector B to the original condition.

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

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

(1) Connect the cable to the negative (-) battery terminal.

(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
E7-4 (D2+) - Body ground	Ignition switch ON	Below 1 V
E7-3 (D2-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E7-4 (D2+) - E7-3 (D2-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E7-4 (D2+) - Body ground	Always	1 MΩ or higher
E7-3 (D2-) - Body ground	Always	1 MΩ or higher

(f) Check for a short in the circuit.

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E7-4 (D2+) - E7-3 (D2-)	Always	1 MΩ or higher

NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▼

6.	**CHECK SPIRAL CABLE**

(a) Check for a short to B+ in the circuit.

(1) Connect the cable to the negative (-) battery terminal.

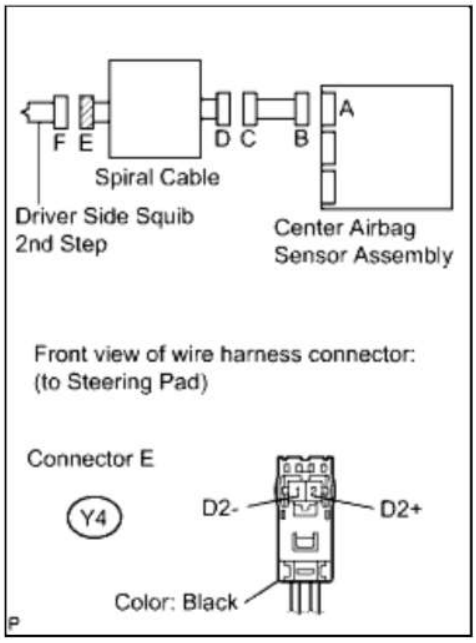
(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
Y4-2 (D2+) - Body ground	Ignition switch ON	Below 1 V

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Y4-1 (D2-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Y4-2 (D2+) - Y4-1 (D2-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Y4-2 (D2+) - Body ground	Always	1 MΩ or higher
Y4-1 (D2-) - Body ground	Always	1 MΩ or higher

(d) Check for a short in the circuit.

(1) Release the activation prevention mechanism built into connector D INFO .

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

Standard Resistance:

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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Y4-2 (D2+) - Y4-1 (D2-)	Always	1 MΩ or higher

NG ▶ **REPLACE SPIRAL CABLE**

OK ▶ **USE SIMULATION METHOD TO CHECK**

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000XFJ06JX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1815/54-B1818/54: Short in Front Passenger Side Squib 2nd Step Circuit (2010 Corolla)		

DTC	**B1815/54**	**Short in Front Passenger Side Squib 2nd Step Circuit**

DTC	**B1816/54**	**Open in Front Passenger Side Squib 2nd Step Circuit**

DTC	**B1817/54**	**Short to GND in Front Passenger Side Squib 2nd Step Circuit**

DTC	**B1818/54**	**Short to B+ in Front Passenger Side Squib 2nd Step Circuit**

DESCRIPTION

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

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

These DTCs are recorded when a malfunction is detected in the front passenger side squib 2nd step circuit.

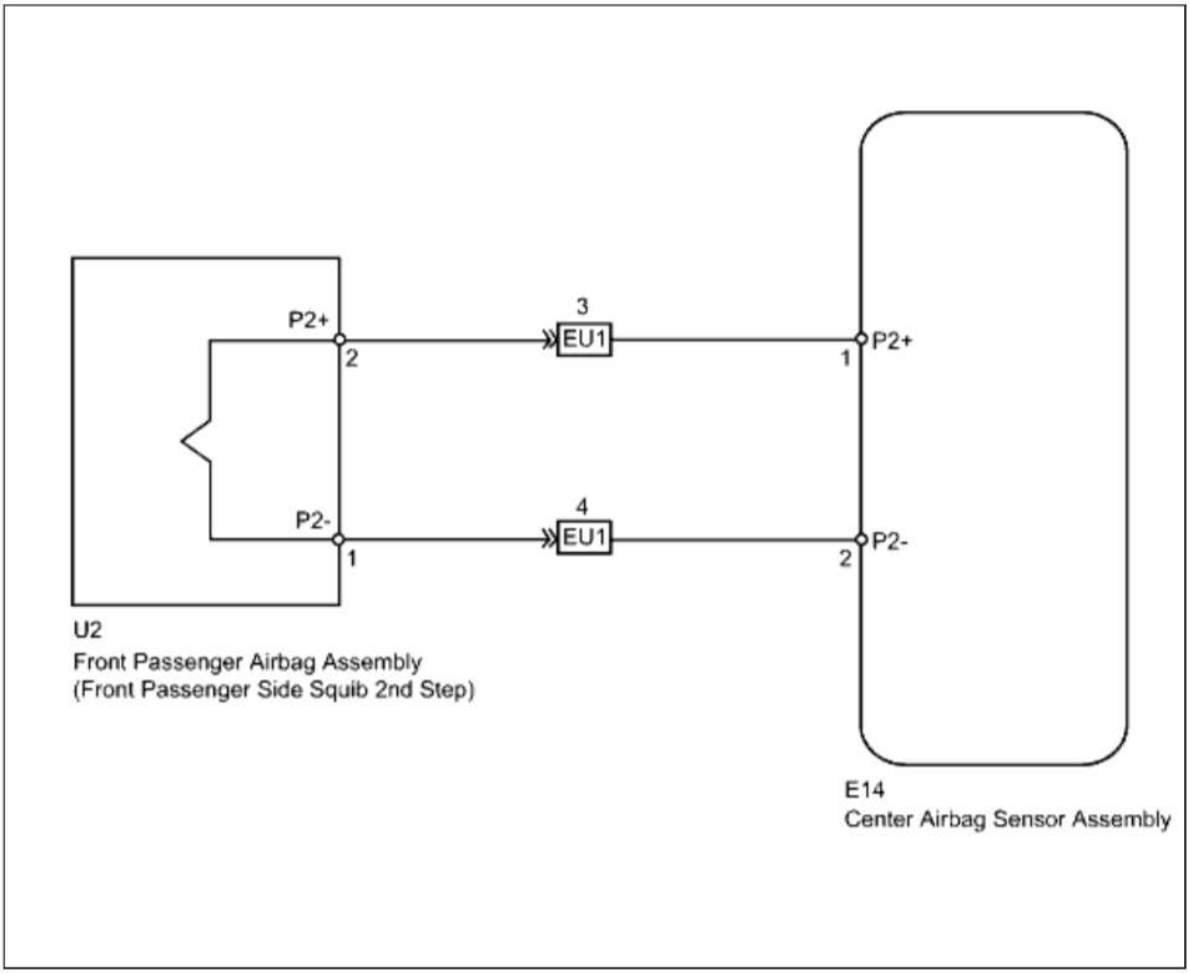
DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1815/54	• The center airbag sensor assembly receives a short circuit signal 5 times in the front passenger side squib 2nd step circuit during primary check. • Front passenger side squib 2nd step malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag assembly (Front passenger side squib 2nd step) • Center airbag sensor assembly
B1816/54	• The center airbag sensor assembly receives an open circuit signal in the front passenger side squib 2nd step circuit for 2 seconds.	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag

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DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
	• Front passenger side squib 2nd step malfunction • Center airbag sensor assembly malfunction	assembly (Front passenger side squib 2nd step) • Center airbag sensor assembly
B1817/54	• The center airbag sensor assembly receives a short circuit to ground signal in the front passenger side squib 2nd step circuit for 0.5 seconds. • Front passenger side squib 2nd step malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag assembly (Front passenger side squib 2nd step) • Center airbag sensor assembly
B1818/54	• The center airbag sensor assembly receives a short circuit to B+ signal in the front passenger side squib 2nd step circuit for 0.5 seconds. • Front passenger side squib 2nd step malfunction • Center airbag sensor assembly malfunction	• Instrument panel wire • Instrument panel wire assembly • Front passenger airbag assembly (Front passenger side squib 2nd step) • Center airbag sensor assembly

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

- Perform the simulation method by selecting Check Mode (signal check) using the Techstream INFO .
- After selecting Check Mode (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road INFO .

PROCEDURE

1.	**CHECK CONNECTORS**

(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

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the front passenger airbag assembly and center airbag sensor assembly. Also check that the connectors that link the instrument panel wire assembly and instrument panel wire are properly connected.

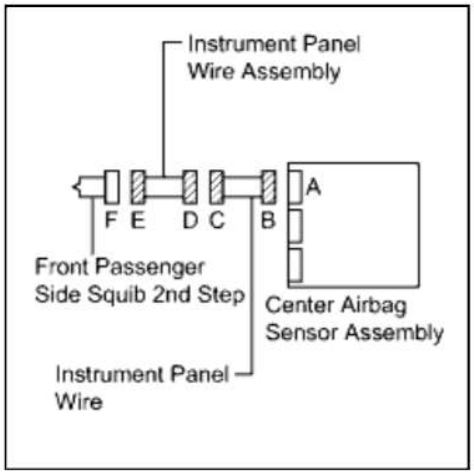
OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the front passenger airbag assembly and center airbag sensor assembly. Also disconnect the instrument panel wire from the instrument panel wire assembly.



(e) Check that the terminals of the connectors are not damaged.

OK:

The terminals are not deformed or damaged.

(f) Check that the instrument panel wire assembly connector (on the front passenger airbag assembly side) is not damaged.

OK:

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

(g) Check that the short springs for the instrument panel wire and instrument panel wire assembly with the activation prevention mechanism are not deformed or damaged.

OK:

The short springs are not deformed or damaged.

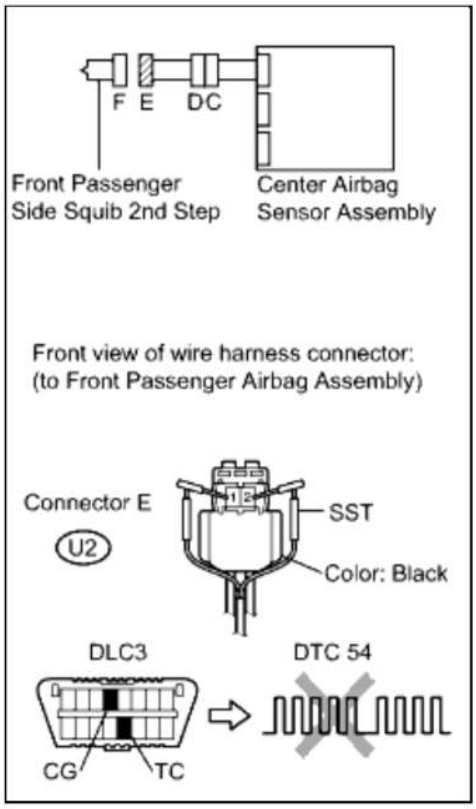
NG ▶ **REPLACE WIRE HARNESS**

OK ▼

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

(a) Connect the instrument panel wire to the instrument

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panel wire assembly and center airbag sensor assembly.

(b) Connect SST (resistance 2.1 Ω) to connector E (black connector).

CAUTION:

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

NOTICE:

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

SST: 09843-18061

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

OK:

DTC B1815, B1816, B1817, B1818, or 54 is not output.

HINT:

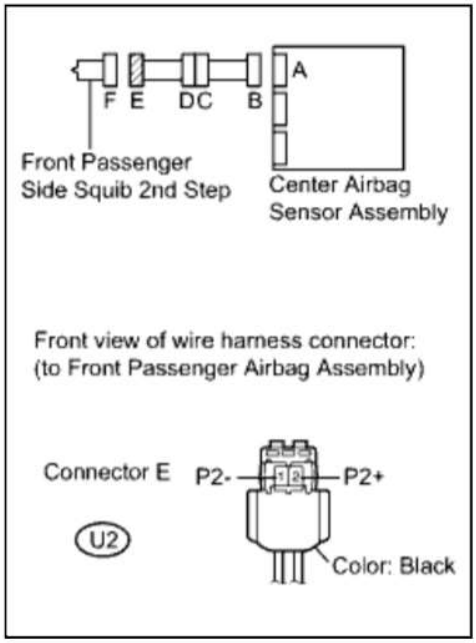
Codes other than DTC B1815, B1816, B1817, B1818, and 54 may be output at this time, but they are not related to this check.

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NG ▶ CHECK FRONT PASSENGER SIDE SQUIB 2ND STEP CIRCUIT

OK ▶ REPLACE FRONT PASSENGER AIRBAG ASSEMBLY

3.	CHECK FRONT PASSENGER SIDE SQUIB 2ND STEP CIRCUIT



(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) Disconnect the instrument panel wire from the center airbag sensor assembly.

(e) Check for a short to B+ in the circuit.

(1) Connect the cable to the negative (-) battery terminal.

(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
U2-2 (P2+) - Body ground	Ignition switch ON	Below 1 V
U2-1 (P2-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
U2-2 (P2+) - U2-1 (P2-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
U2-2 (P2+) - Body ground	Always	1 MΩ or higher
U2-1 (P2-) - Body ground	Always	1 MΩ or higher

(h) Check for a short in the circuit.

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
U2-2 (P2+) - U2-1 (P2-)	Always	1 MΩ or higher

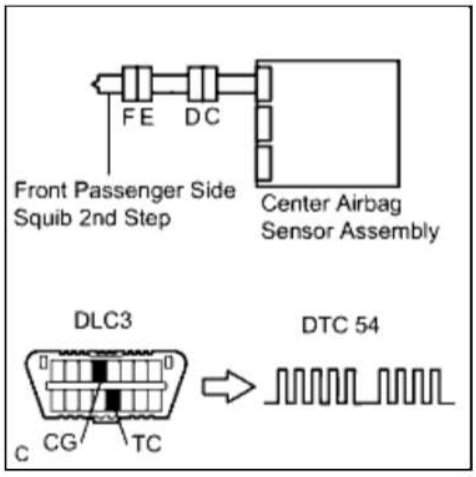
NG ▶ **CHECK INSTRUMENT PANEL WIRE**

OK ▼

4.	**CHECK CENTER AIRBAG SENSOR ASSEMBLY**

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

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(b) Connect the connectors to the front passenger airbag assembly and the center airbag sensor assembly.

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

OK:

DTC B1815, B1816, B1817, B1818, or 54 is not output.

HINT:

Codes other than DTC B1815, B1816, B1817, B1818, and 54 may be output at this time, but they are not related to this check.

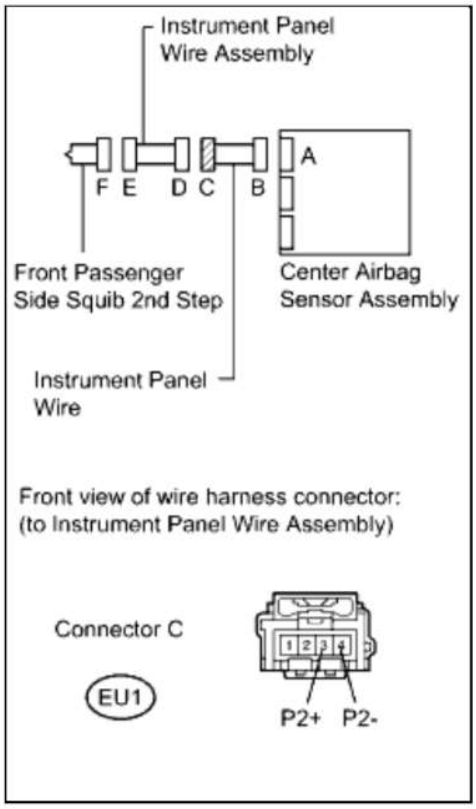
NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **USE SIMULATION METHOD TO CHECK**

5.	**CHECK INSTRUMENT PANEL WIRE**

(a) Restore the release activation prevention mechanism of connector B to the original condition.

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(b) Disconnect the instrument panel wire assembly from the instrument panel wire.

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

(1) Connect the cable to the negative (-) battery terminal.

(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
EU1-3 (P2+) - Body ground	Ignition switch ON	Below 1 V
EU1-4 (P2-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION

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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
EU1-3 (P2+) - EU1-4 (P2-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
EU1-3 (P2+) - Body ground	Always	1 MΩ or higher
EU1-4 (P2-) - Body ground	Always	1 MΩ or higher

(f) Check for a short in the circuit.

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
EU1-3 (P2+) - EU1-4 (P2-)	Always	1 MΩ or higher

NG ▶ **REPLACE INSTRUMENT PANEL WIRE**

OK ▼

6.	CHECK INSTRUMENT PANEL WIRE ASSEMBLY

(a) Check for a short to B+ in the circuit.

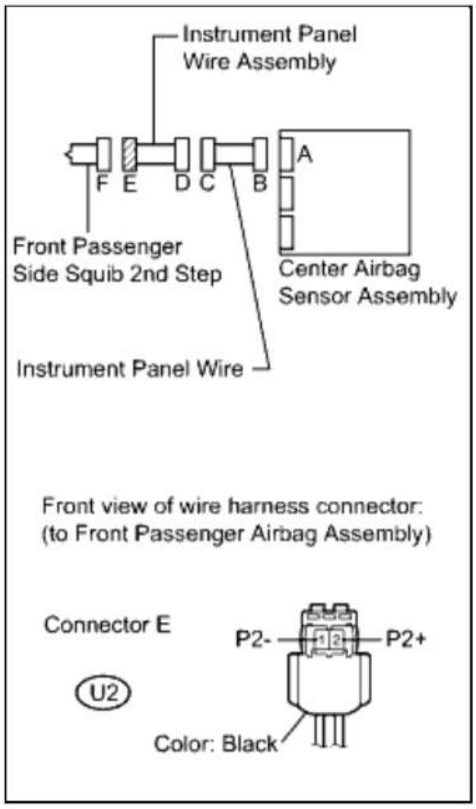
(1) Connect the cable to the negative (-) battery terminal.

(2) Turn the ignition switch to ON.

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

Standard Voltage:

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TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
U2-2 (P2+) - Body ground	Ignition switch ON	Below 1 V
U2-1 (P2-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
U2-2 (P2+) - U2-1 (P2-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
U2-2 (P2+) - Body ground	Always	1 MΩ or higher
U2-1 (P2-) - Body ground	Always	1 MΩ or higher

(d) Check for a short in the circuit.

(1) Release the activation prevention mechanism built into connector D INFO .

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
U2-2 (P2+) - U2-1 (P2-)	Always	1 MΩ or higher

NG ▶ **REPLACE INSTRUMENT PANEL WIRE ASSEMBLY**

OK ▶ **USE SIMULATION METHOD TO CHECK**

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001NZQ038X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1820/55-B1823/55: Short in Side Squib RH Circuit (2010 Corolla)		

DTC	**B1820/55**	**Short in Side Squib RH Circuit**

DTC	**B1821/55**	**Open in Side Squib RH Circuit**

DTC	**B1822/55**	**Short to GND in Side Squib RH Circuit**

DTC	**B1823/55**	**Short to B+ in Side Squib RH Circuit**

DESCRIPTION

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

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

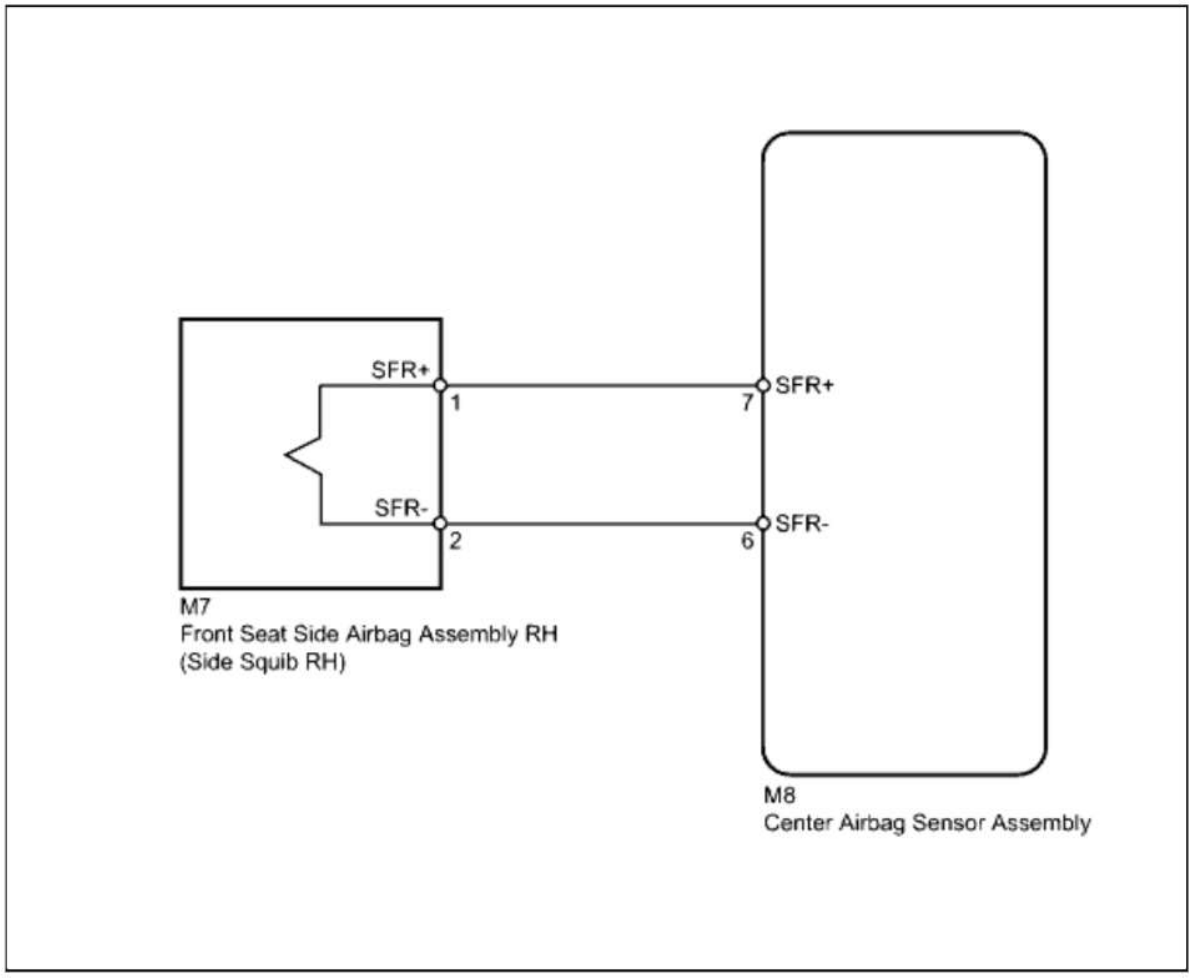
These DTCs are recorded when a malfunction is detected in the side squib RH circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1820/55	• The center airbag sensor assembly receives a short circuit signal 5 times in the side squib RH circuit during primary check. • Side squib RH malfunction • Center airbag sensor assembly malfunction	• No. 2 floor wire • Front seat side airbag assembly RH (Side squib RH) • Center airbag sensor assembly
B1821/55	• The center airbag sensor assembly receives an open circuit signal in the side squib RH circuit for 2 seconds. • Side squib RH malfunction • Center airbag sensor assembly malfunction	• No. 2 floor wire • Front seat side airbag assembly RH (Side squib RH) • Center airbag sensor assembly

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DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1822/55	• The center airbag sensor assembly receives a short circuit to ground signal in the side squib RH circuit for 0.5 seconds. • Side squib RH malfunction • Center airbag sensor assembly malfunction	• No. 2 floor wire • Front seat side airbag assembly RH (Side squib RH) • Center airbag sensor assembly
B1823/55	• The center airbag sensor assembly receives a short circuit to B+ signal in the side squib RH circuit for 0.5 seconds. • Side squib RH malfunction • Center airbag sensor assembly malfunction	• No. 2 floor wire • Front seat side airbag assembly RH (Side squib RH) • Center airbag sensor assembly

WIRING DIAGRAM



INSPECTION PROCEDURE

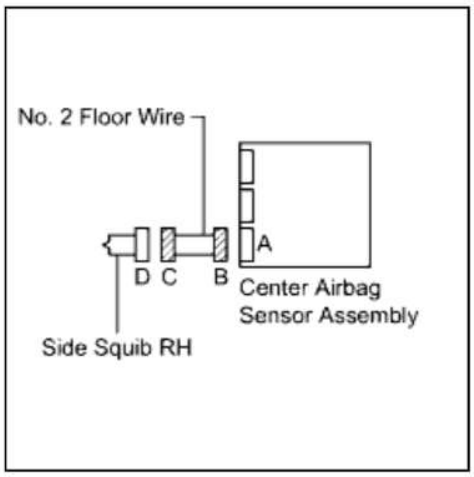
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HINT:

- Perform the simulation method by selecting Check Mode (signal check) using the Techstream INFO .
- After selecting Check Mode (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road INFO .

PROCEDURE

1.	**CHECK CONNECTORS**



(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 front seat side airbag assembly RH and center airbag sensor assembly.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the front seat side airbag assembly RH and center airbag sensor assembly.

(e) Check that the terminals of the connectors are not damaged.

OK:

The terminals are not deformed or damaged.

(f) Check that the short spring for the No. 2 floor wire with the activation prevention mechanism is not deformed or damaged.

OK:

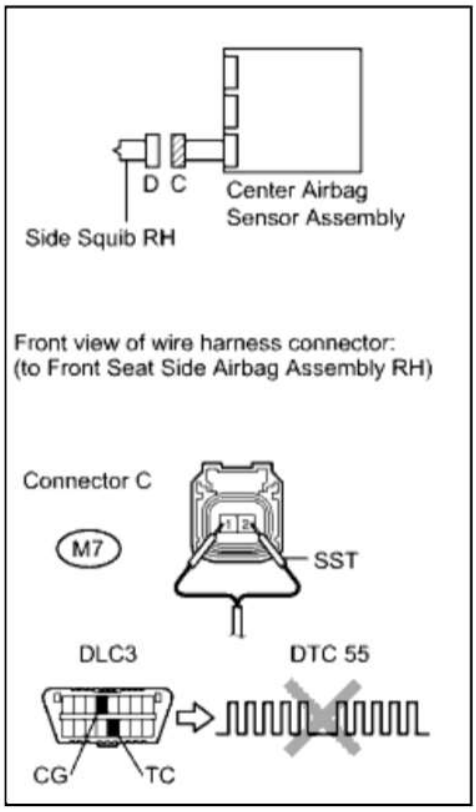
The short spring is not deformed or damaged.

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NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

2.	**CHECK FRONT SEAT SIDE AIRBAG ASSEMBLY RH (SIDE SQUIB RH)**



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

(b) Connect SST (resistance 2.1 Ω) to connector C.

CAUTION:

Never connect the tester to the front seat side airbag assembly RH (side 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.
- Insert SST straight into the terminals of the connector.

SST: 09843-18061

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

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

(e) Clear the DTCs stored in the memory [INFO].

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(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

OK:

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

Result

RESULT	PROCEED TO
NG	A
OK (for Power Seat)	B
OK (for Manual Seat)	C

HINT:

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

C ▶ **REPLACE FRONT SEAT ASSEMBLY RH**

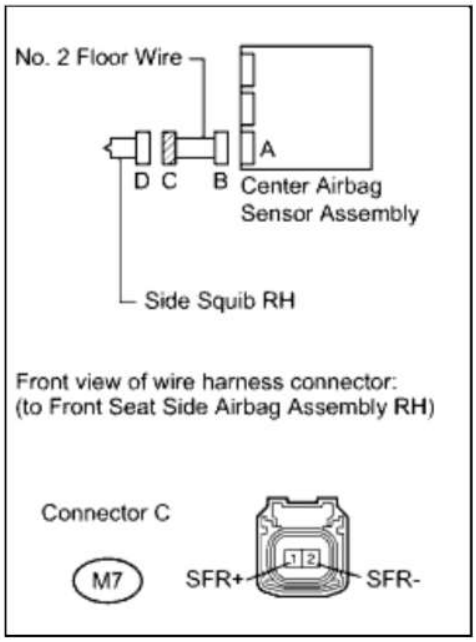
B ▶ **REPLACE FRONT SEAT ASSEMBLY RH**

A ▼

3.	**CHECK NO. 2 FLOOR WIRE (SIDE SQUIB RH CIRCUIT)**

(a) Turn the ignition switch off.

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

(c) Disconnect SST from connector C.

(d) Disconnect the connector from the center airbag sensor assembly.

(e) Check for a short to B+ in the circuit.

(1) Connect the cable to the negative (-) battery terminal.

(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
M7-1 (SFR+) - Body ground	Ignition switch ON	Below 1 V
M7-2 (SFR-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION

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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M7-1 (SFR+) - M7-2 (SFR-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M7-1 (SFR+) - Body ground	Always	1 MΩ or higher
M7-2 (SFR-) - Body ground	Always	1 MΩ or higher

(h) Check for a short in the circuit.

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M7-1 (SFR+) - M7-2 (SFR-)	Always	1 MΩ or higher

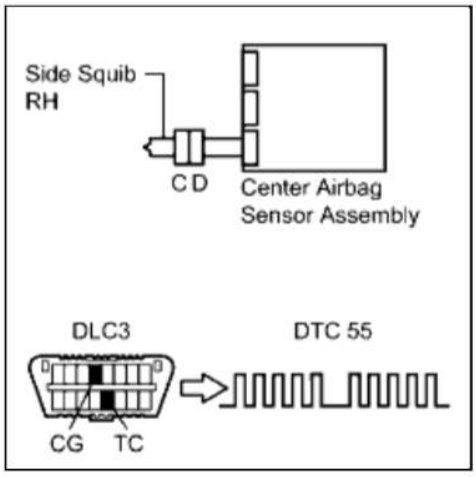
NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

4.	**CHECK CENTER AIRBAG SENSOR ASSEMBLY**

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

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(b) Connect the connectors to the front seat side airbag assembly RH and the center airbag sensor assembly.

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

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

HINT:

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

NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK ▶ **USE SIMULATION METHOD TO CHECK**

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001O02038X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1825/56-B1828/56: Short in Side Squib LH Circuit (2010 Corolla)		

DTC	**B1825/56**	**Short in Side Squib LH Circuit**

DTC	**B1826/56**	**Open in Side Squib LH Circuit**

DTC	**B1827/56**	**Short to GND in Side Squib LH Circuit**

DTC	**B1828/56**	**Short to B+ in Side Squib LH Circuit**

DESCRIPTION

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

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

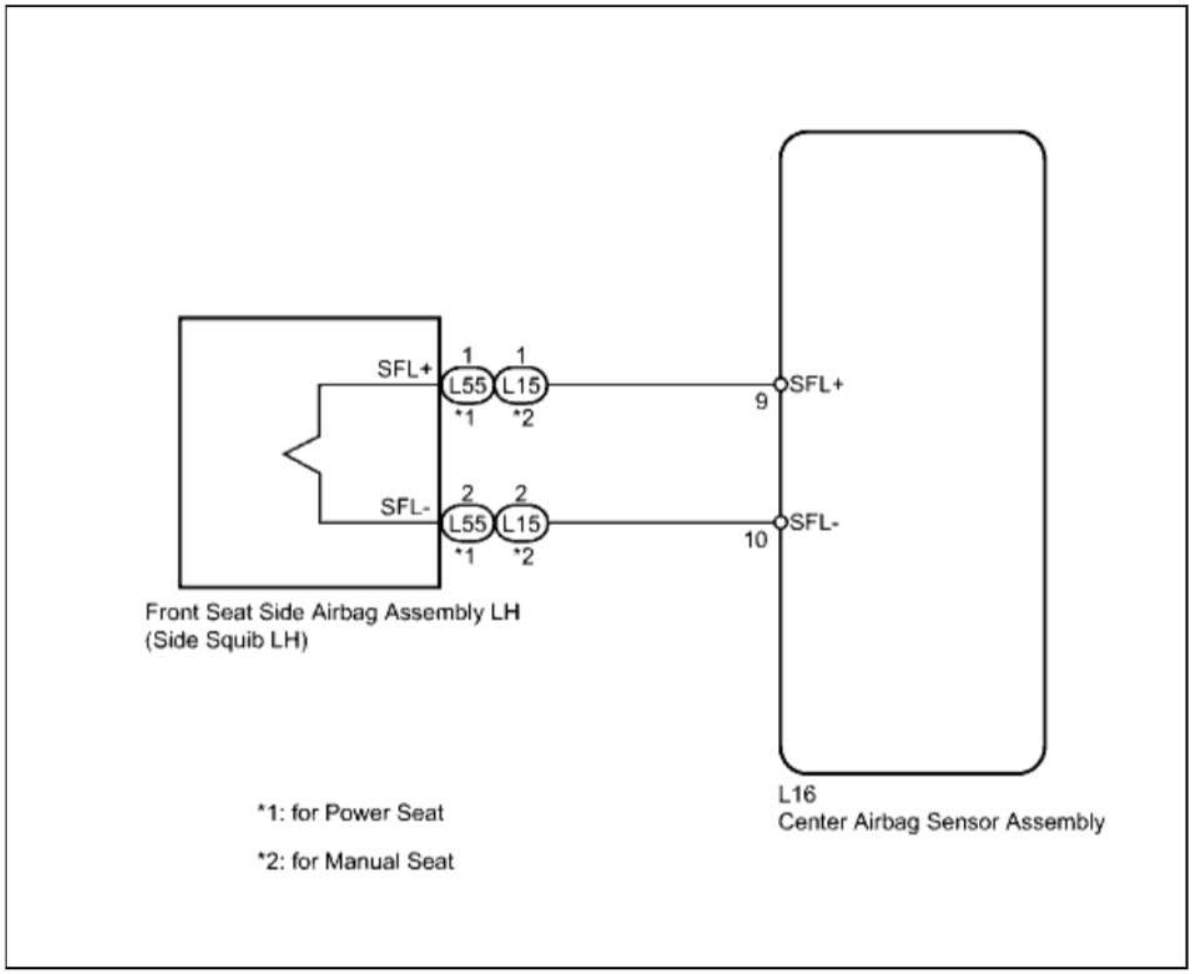
These DTCs are recorded when a malfunction is detected in the side squib LH circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1825/56	• The center airbag sensor assembly receives a short circuit signal 5 times in the side squib LH circuit during primary check. • Side squib LH malfunction • Center airbag sensor assembly malfunction	• Floor wire • Front seat side airbag assembly LH (Side squib LH) • Center airbag sensor assembly
B1826/56	• The center airbag sensor assembly receives an open circuit signal in the side squib LH circuit for 2 seconds. • Side squib LH malfunction • Center airbag sensor assembly malfunction	• Floor wire • Front seat side airbag assembly LH (Side squib LH) • Center airbag sensor assembly

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DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1827/56	• The center airbag sensor assembly receives a short circuit to ground signal in the side squib LH circuit for 0.5 seconds. • Side squib LH malfunction • Center airbag sensor assembly malfunction	• Floor wire • Front seat side airbag assembly LH (Side squib LH) • Center airbag sensor assembly
B1828/56	• The center airbag sensor assembly receives a short circuit to B+ signal in the side squib LH circuit for 0.5 seconds. • Side squib LH malfunction • Center airbag sensor assembly malfunction	• Floor wire • Front seat side airbag assembly LH (Side squib LH) • Center airbag sensor assembly

WIRING DIAGRAM



INSPECTION PROCEDURE

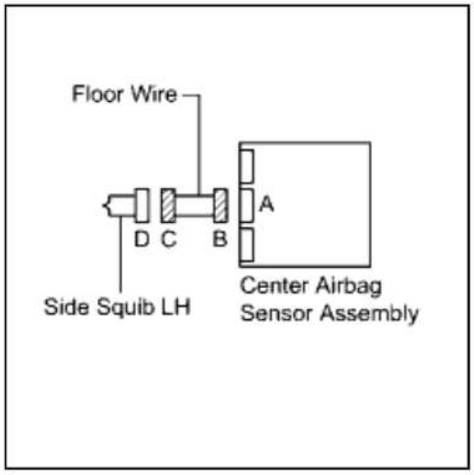
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HINT:

- Perform the simulation method by selecting Check Mode (signal check) using the Techstream INFO .
- After selecting Check Mode (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road INFO .

PROCEDURE

1.	**CHECK CONNECTORS**



(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 front seat side airbag assembly LH and center airbag sensor assembly.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the front seat side airbag assembly LH and center airbag sensor assembly.

(e) Check that the terminals of the connectors are not damaged.

OK:

The terminals are not deformed or damaged.

(f) Check that the short spring for the floor wire with the activation prevention mechanism is not deformed or damaged.

OK:

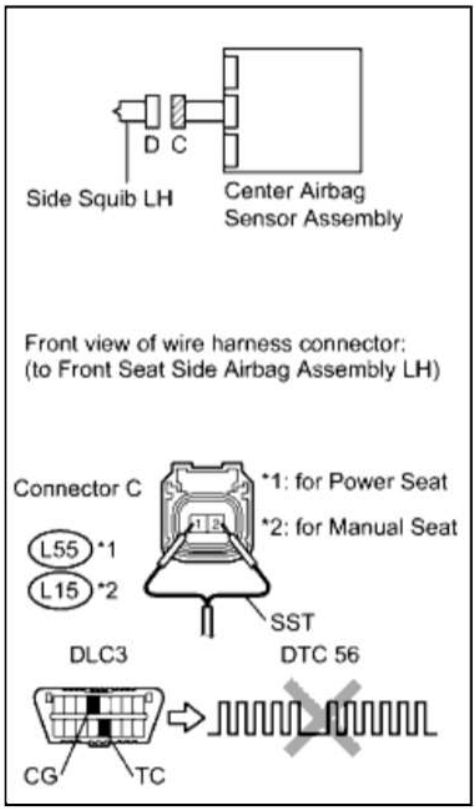
The short spring is not deformed or damaged.

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NG ▶ REPLACE FLOOR WIRE

OK ▼

2.	CHECK FRONT SEAT SIDE AIRBAG ASSEMBLY LH (SIDE SQUIB LH)



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

(b) Connect SST (resistance 2.1 Ω) to connector C.

CAUTION:

Never connect the tester to the front seat side airbag assembly LH (side 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.
- Insert SST straight into the terminals of the connector.

SST: 09843-18061

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

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

(e) Clear the DTCs stored in the memory [INFO].

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(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

OK:

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

Result

RESULT	PROCEED TO
NG	A
OK (for Power Seat)	B
OK (for Manual Seat)	C

HINT:

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

C ▶ **REPLACE FRONT SEAT ASSEMBLY LH**

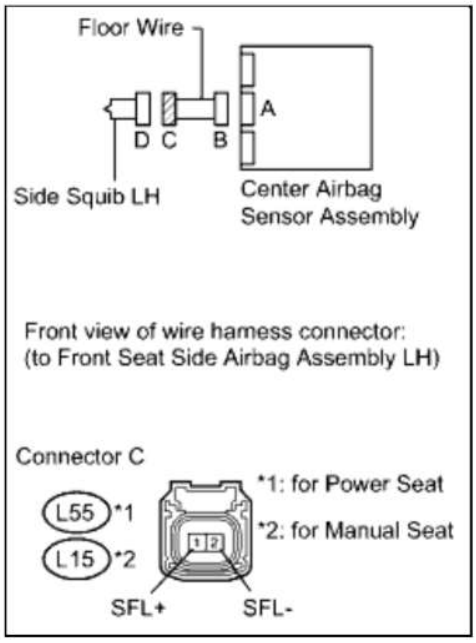
B ▶ **REPLACE FRONT SEAT ASSEMBLY LH**

A ▼

3.	**CHECK FLOOR WIRE (SIDE SQUIB LH CIRCUIT)**

(a) Turn the ignition switch off.

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

(c) Disconnect SST from connector C.

(d) Disconnect the floor wire from the center airbag sensor assembly.

(e) Check for a short to B+ in the circuit.

(1) Connect the cable to the negative (-) battery terminal.

(2) Turn the ignition switch to ON.

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

Standard Voltage:

for Power Seat

for Manual Seat

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
L55-1 (SFL+) - Body ground	Ignition switch ON	Below 1 V
L55-2 (SFL-) - Body ground	Ignition switch ON	Below 1 V

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
L15-1 (SFL+) - Body ground	Ignition switch ON	Below 1 V
L15-2 (SFL-) - Body ground	Ignition switch ON	Below 1 V

(f) Check for an open in the circuit.

(1) Turn the ignition switch off.

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

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

Standard Resistance:

for Power Seat

for Manual Seat

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L55-1 (SFL+) - L55-2 (SFL-)	Always	Below 1 Ω

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L15-1 (SFL+) - L15-2 (SFL-)	Always	Below 1 Ω

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

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

Standard Resistance:

for Power Seat

for Manual Seat

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L55-1 (SFL+) - Body ground	Always	1 MΩ or higher
L55-2 (SFL-) - Body ground	Always	1 MΩ or higher

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L15-1 (SFL+) - Body ground	Always	1 MΩ or higher
L15-2 (SFL-) - Body ground	Always	1 MΩ or higher

(h) Check for a short in the circuit.

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

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

Standard Resistance:

for Power Seat

for Manual Seat

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L55-1 (SFL+) - L55-2 (SFL-)	Always	1 MΩ or higher

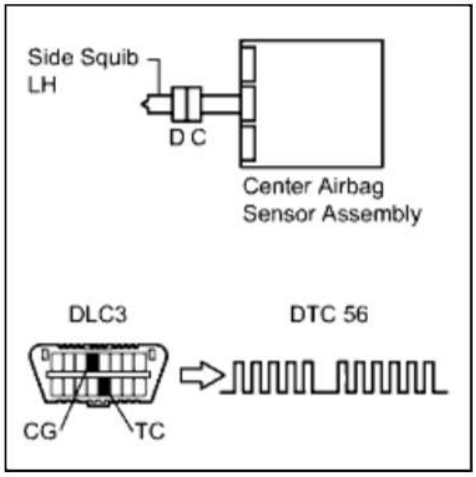
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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L15-1 (SFL+) - L15-2 (SFL-)	Always	1 MΩ or higher

NG ▶ **REPLACE FLOOR WIRE**

OK
▼

4.	CHECK CENTER AIRBAG SENSOR ASSEMBLY



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

(b) Connect the connectors to the front seat side airbag assembly LH and the center airbag sensor assembly.

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

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

HINT:

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

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NG ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK ▶ USE SIMULATION METHOD TO CHECK

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001O03031X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1830/57-B1833/57: Short in Curtain Shield Squib RH Circuit (2010 Corolla)		

DTC	**B1830/57**	**Short in Curtain Shield Squib RH Circuit**

DTC	**B1831/57**	**Open in Curtain Shield Squib RH Circuit**

DTC	**B1832/57**	**Short to GND in Curtain Shield Squib RH Circuit**

DTC	**B1833/57**	**Short to B+ in Curtain Shield Squib RH Circuit**

DESCRIPTION

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

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

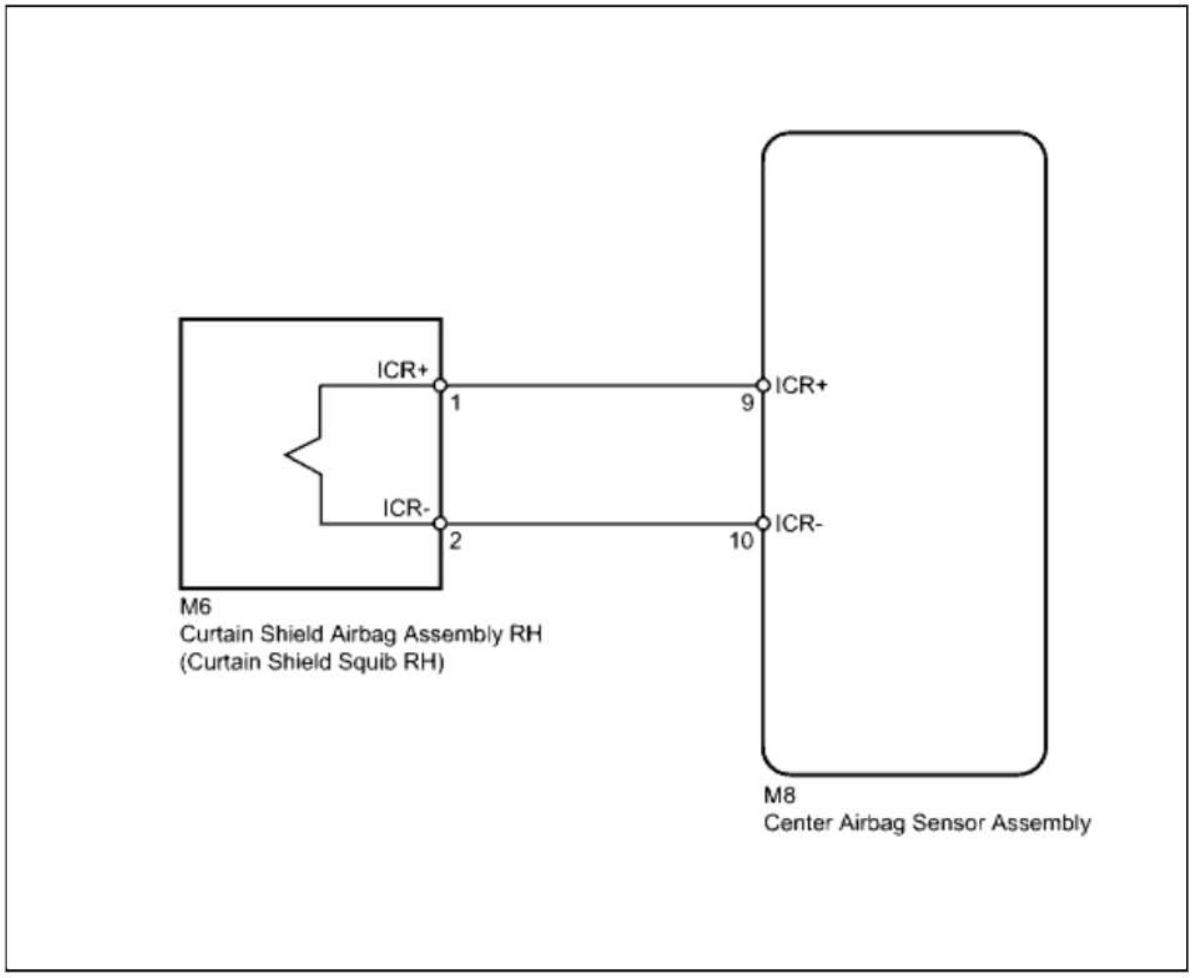
These DTCs are recorded when a malfunction is detected in the curtain shield squib RH circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1830/57	• The center airbag sensor assembly receives a short circuit signal 5 times in the curtain shield squib RH circuit during primary check. • Curtain shield squib RH malfunction • Center airbag sensor assembly malfunction	• No. 2 floor wire • Curtain shield airbag assembly RH (Curtain shield squib RH) • Center airbag sensor assembly
B1831/57	• The center airbag sensor assembly receives an open circuit signal in the curtain shield squib RH circuit for 2 seconds. • Curtain shield squib RH malfunction • Center airbag sensor assembly malfunction	• No. 2 floor wire • Curtain shield airbag assembly RH (Curtain shield squib RH) • Center airbag sensor assembly

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DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1832/57	• The center airbag sensor assembly receives a short circuit to ground signal in the curtain shield squib RH circuit for 0.5 seconds. • Curtain shield squib RH malfunction • Center airbag sensor assembly malfunction	• No. 2 floor wire • Curtain shield airbag assembly RH (Curtain shield squib RH) • Center airbag sensor assembly
B1833/57	• The center airbag sensor assembly receives a short circuit to B+ signal in the curtain shield squib RH circuit for 0.5 seconds. • Curtain shield squib RH malfunction • Center airbag sensor assembly malfunction	• No. 2 floor wire • Curtain shield airbag assembly RH (Curtain shield squib RH) • Center airbag sensor assembly

WIRING DIAGRAM



INSPECTION PROCEDURE

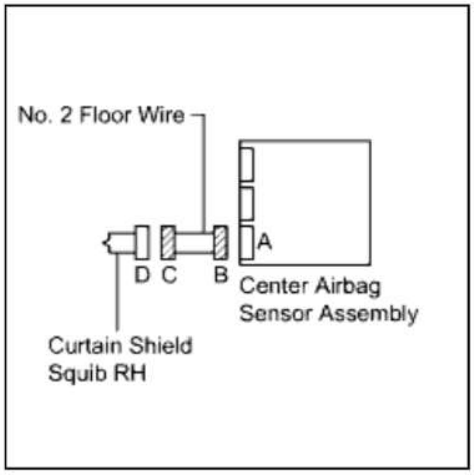
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HINT:

- Perform the simulation method by selecting Check Mode (signal check) using the Techstream INFO .
- After selecting Check Mode (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road INFO .

PROCEDURE

1.	**CHECK CONNECTORS**



(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 curtain shield airbag assembly RH and center airbag sensor assembly.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the curtain shield airbag assembly RH and center airbag sensor assembly.

(e) Check that the terminals of the connectors are not damaged.

OK:

The terminals are not deformed or damaged.

(f) Check that the No. 2 floor wire connector (on the curtain shield airbag assembly RH side) is not damaged.

OK:

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

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(g) Check that the short spring for the No. 2 floor wire with the activation prevention mechanism is not deformed or damaged.

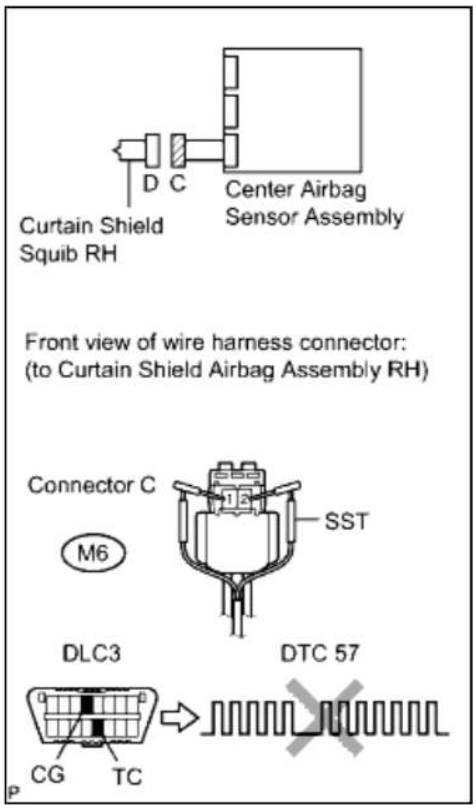
OK:

The short spring is not deformed or damaged.

NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

2.	CHECK CURTAIN SHIELD AIRBAG ASSEMBLY RH (CURTAIN SHIELD SQUIB RH)



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

(b) Connect SST (resistance 2.1 Ω) to connector C.

CAUTION:

Never connect the tester to the curtain shield airbag assembly RH (curtain shield 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.
- Insert SST straight into the terminals of the connector.

SST: 09843-18061

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

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

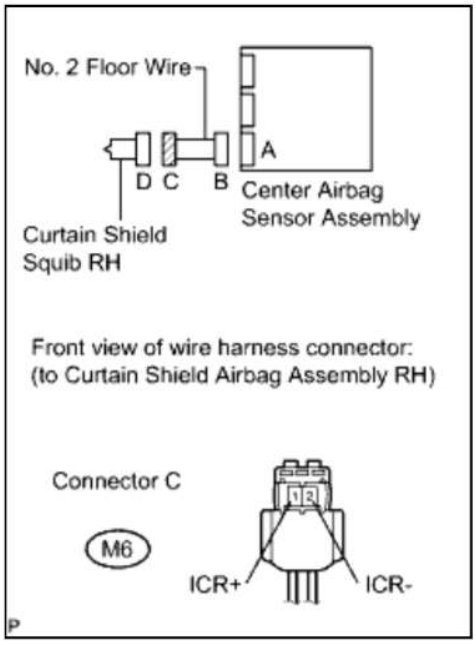
HINT:

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

NG ▶ **CHECK NO. 2 FLOOR WIRE (CURTAIN SHIELD SQUIB RH CIRCUIT)**

OK ▶ **REPLACE CURTAIN SHIELD AIRBAG ASSEMBLY RH**

3.	CHECK NO. 2 FLOOR WIRE (CURTAIN SHIELD SQUIB RH CIRCUIT)



(a) Turn the ignition switch off.

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

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(c) Disconnect SST from connector C.

(d) Disconnect the connector from the center airbag sensor assembly.

(e) Check for a short to B+ in the circuit.

(1) Connect the cable to the negative (-) battery terminal.

(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
M6-1 (ICR+) - Body ground	Ignition switch ON	Below 1 V
M6-2 (ICR-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M6-1 (ICR+) - M6-2 (ICR-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M6-1 (ICR+) - Body ground	Always	1 MΩ or higher
M6-2 (ICR-) - Body ground	Always	1 MΩ or higher

(h) Check for a short in the circuit.

(1) Release the activation prevention mechanism built into connector B 

.

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

Standard Resistance:

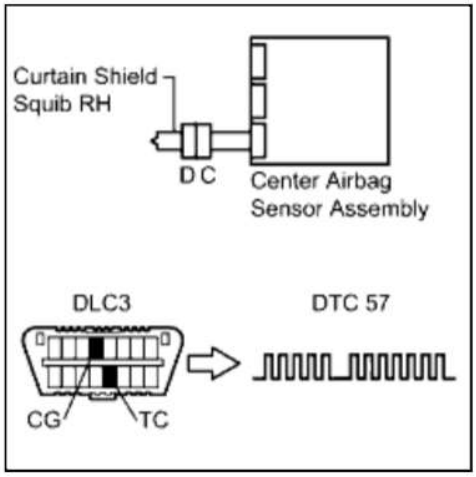
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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M6-1 (ICR+) - M6-2 (ICR-)	Always	1 MΩ or higher

NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

4.	CHECK CENTER AIRBAG SENSOR ASSEMBLY



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

(b) Connect the connectors to the curtain shield airbag assembly RH and the center airbag sensor assembly.

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

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

HINT:

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

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NG ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK ▶ USE SIMULATION METHOD TO CHECK



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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001O04031X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1835/58-B1838/58: Short in Curtain Shield Squib LH Circuit (2010 Corolla)		

DTC	**B1835/58**	**Short in Curtain Shield Squib LH Circuit**

DTC	**B1836/58**	**Open in Curtain Shield Squib LH Circuit**

DTC	**B1837/58**	**Short to GND in Curtain Shield Squib LH Circuit**

DTC	**B1838/58**	**Short to B+ in Curtain Shield Squib LH Circuit**

DESCRIPTION

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

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

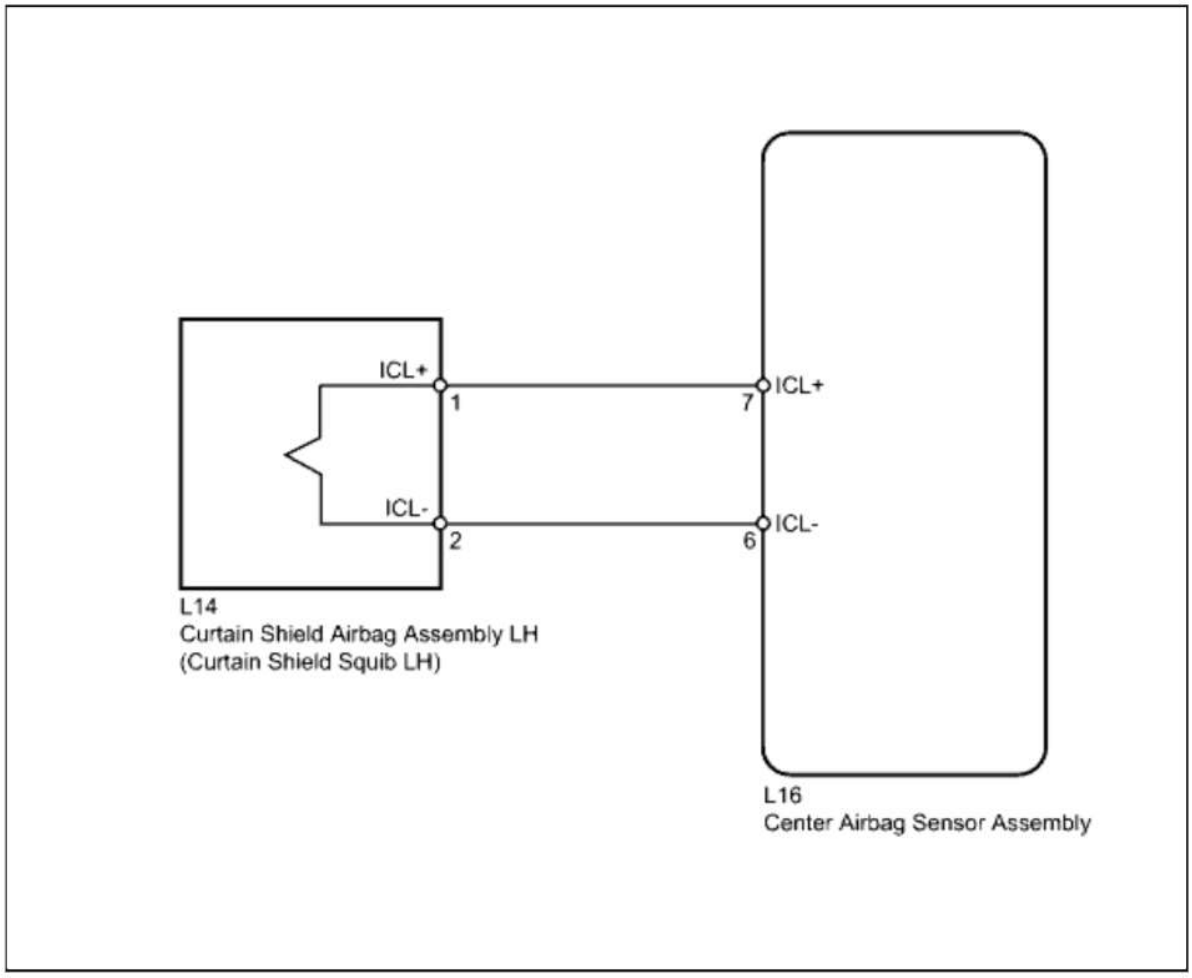
These DTCs are recorded when a malfunction is detected in the curtain shield squib LH circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1835/58	• The center airbag sensor assembly receives a short circuit signal 5 times in the curtain shield squib LH circuit during primary check. • Curtain shield squib LH malfunction • Center airbag sensor assembly malfunction	• Floor wire • Curtain shield airbag assembly LH (Curtain shield squib LH) • Center airbag sensor assembly
B1836/58	• The center airbag sensor assembly receives an open circuit signal in the curtain shield squib LH circuit for 2 seconds. • Curtain shield squib LH malfunction • Center airbag sensor assembly malfunction	• Floor wire • Curtain shield airbag assembly LH (Curtain shield squib LH) • Center airbag sensor assembly

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DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1837/58	• The center airbag sensor assembly receives a short circuit to ground signal in the curtain shield squib LH circuit for 0.5 seconds. • Curtain shield squib LH malfunction • Center airbag sensor assembly malfunction	• Floor wire • Curtain shield airbag assembly LH (Curtain shield squib LH) • Center airbag sensor assembly
B1838/58	• The center airbag sensor assembly receives a short circuit to B+ signal in the curtain shield squib LH circuit for 0.5 seconds. • Curtain shield squib LH malfunction • Center airbag sensor assembly malfunction	• Floor wire • Curtain shield airbag assembly LH (Curtain shield squib LH) • Center airbag sensor assembly

WIRING DIAGRAM



INSPECTION PROCEDURE

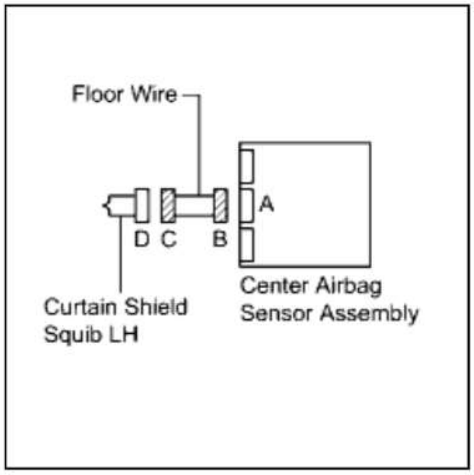
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HINT:

- Perform the simulation method by selecting Check Mode (signal check) using the Techstream INFO .
- After selecting Check Mode (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road INFO .

PROCEDURE

1.	**CHECK CONNECTORS**



(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 curtain shield airbag assembly LH and center airbag sensor assembly.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the curtain shield airbag assembly LH and center airbag sensor assembly.

(e) Check that the terminals of the connectors are not damaged.

OK:

The terminals are not deformed or damaged.

(f) Check that the floor wire connector (on the curtain shield airbag assembly LH side) is not damaged.

OK:

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

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(g) Check that the short spring for the floor wire with the activation prevention mechanism is not deformed or damaged.

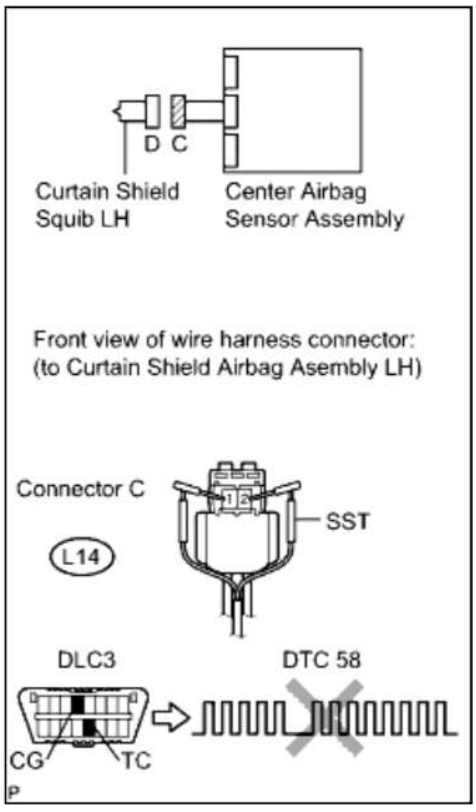
OK:

The short spring is not deformed or damaged.

NG ▶ **REPLACE FLOOR WIRE**

OK ▼

2.	CHECK CURTAIN SHIELD AIRBAG ASSEMBLY LH (CURTAIN SHIELD SQUIB LH)



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

(b) Connect SST (resistance 2.1 Ω) to connector C.

CAUTION:

Never connect the tester to the curtain shield airbag assembly LH (curtain shield 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.
- Insert SST straight into the terminals of the connector.

SST: 09843-18061

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

OK:

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

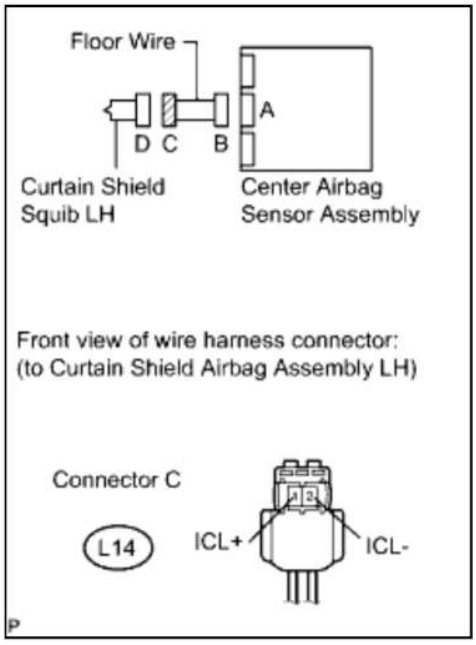
HINT:

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

NG ▶ **CHECK FLOOR WIRE (CURTAIN SHIELD SQUIB LH CIRCUIT)**

OK ▶ **REPLACE CURTAIN SHIELD AIRBAG ASSEMBLY LH**

3.	CHECK FLOOR WIRE (CURTAIN SHIELD SQUIB LH CIRCUIT)



(a) Turn the ignition switch off.

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

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(c) Disconnect SST from connector C.

(d) Disconnect the connector from the center airbag sensor assembly.

(e) Check for a short to B+ in the circuit.

(1) Connect the cable to the negative (-) battery terminal.

(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
L14-1 (ICL+) - Body ground	Ignition switch ON	Below 1 V
L14-2 (ICL-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L14-1 (ICL+) - L14-2 (ICL-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L14-1 (ICL+) - Body ground	Always	1 MΩ or higher
L14-2 (ICL-) - Body ground	Always	1 MΩ or higher

(h) Check for a short in the circuit.

(1) Release the activation prevention mechanism built into connector B 

.

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

Standard Resistance:

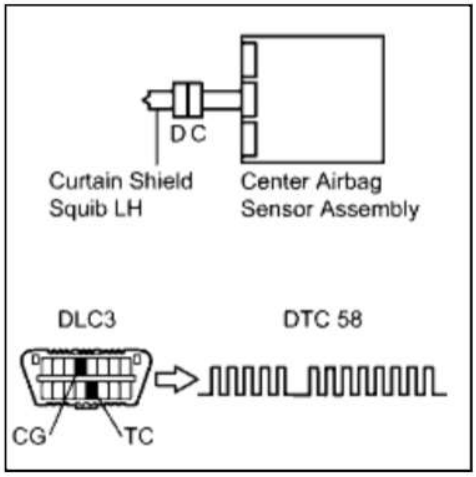
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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L14-1 (ICL+) - L14-2 (ICL-)	Always	1 MΩ or higher

NG ▶ **REPLACE FLOOR WIRE**

OK
▼

4.	CHECK CENTER AIRBAG SENSOR ASSEMBLY



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

(b) Connect the connectors to the curtain shield airbag assembly LH and the center airbag sensor assembly.

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

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

HINT:

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

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NG ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK ▶ USE SIMULATION METHOD TO CHECK



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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001O0503IX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1900/73-B1903/73: Short in Front Pretensioner Squib RH Circuit (2010 Corolla)		

DTC	**B1900/73**	**Short in Front Pretensioner Squib RH Circuit**

DTC	**B1901/73**	**Open in Front Pretensioner Squib RH Circuit**

DTC	**B1902/73**	**Short to GND in Front Pretensioner Squib RH Circuit**

DTC	**B1903/73**	**Short to B+ in Front Pretensioner Squib RH Circuit**

DESCRIPTION

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

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

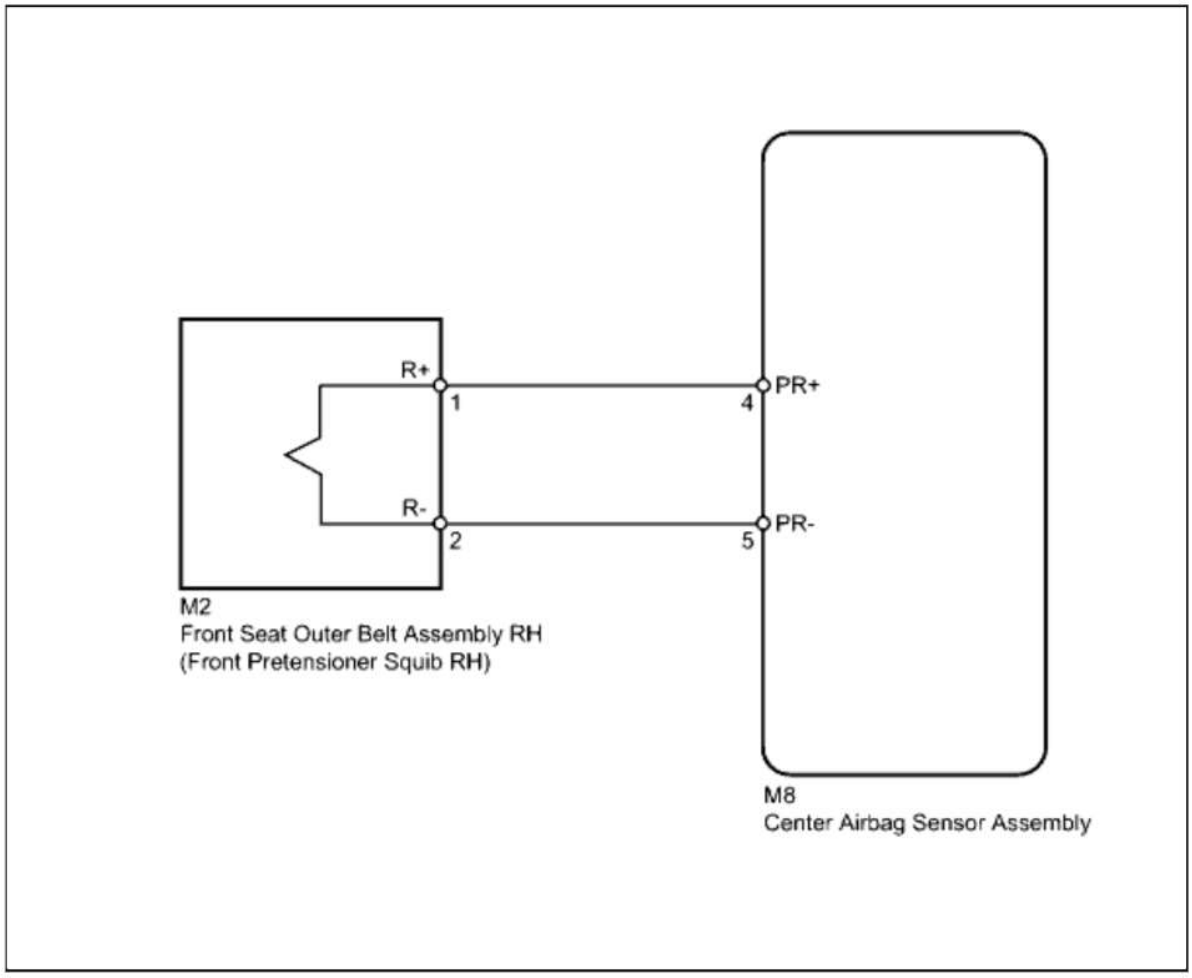
These DTCs are recorded when a malfunction is detected in the front pretensioner squib RH circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1900/73	• The center airbag sensor assembly receives a short circuit signal 5 times in the front pretensioner squib RH circuit during primary check. • Front pretensioner squib RH malfunction • Center airbag sensor assembly malfunction	• No. 2 Floor wire • Front seat outer belt assembly RH (Front pretensioner squib RH) • Center airbag sensor assembly
B1901/73	• The center airbag sensor assembly receives an open circuit signal in the front pretensioner squib RH circuit for 2 seconds. • Front pretensioner squib RH malfunction • Center airbag sensor assembly malfunction	• No. 2 Floor wire • Front seat outer belt assembly RH (Front pretensioner squib RH) • Center airbag sensor assembly

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DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1902/73	• The center airbag sensor assembly receives a short circuit to ground signal in the front pretensioner squib RH circuit for 0.5 seconds. • Front pretensioner squib RH malfunction • Center airbag sensor assembly malfunction	• No. 2 Floor wire • Front seat outer belt assembly RH (Front pretensioner squib RH) • Center airbag sensor assembly
B1903/73	• The center airbag sensor assembly receives a short circuit to B+ signal in the front pretensioner squib RH circuit for 0.5 seconds. • Front pretensioner squib RH malfunction • Center airbag sensor assembly malfunction	• No. 2 Floor wire • Front seat outer belt assembly RH (Front pretensioner squib RH) • Center airbag sensor assembly

WIRING DIAGRAM



INSPECTION PROCEDURE

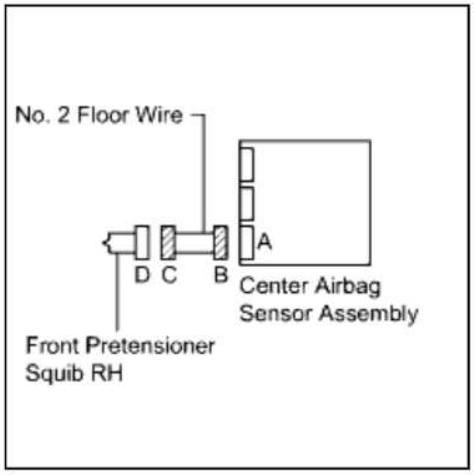
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HINT:

- Perform the simulation method by selecting Check Mode (signal check) using the Techstream INFO .
- After selecting Check Mode (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road INFO .

PROCEDURE

1.	**CHECK CONNECTORS**



(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 front seat outer belt assembly RH and center airbag sensor assembly.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the front seat outer belt assembly RH and center airbag sensor assembly.

(e) Check that the terminals of the connectors are not damaged.

OK:

The terminals are not deformed or damaged.

(f) Check that the No. 2 floor wire connector (on the front seat outer belt assembly RH side) is not damaged.

OK:

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

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(g) Check that the short spring for the No. 2 floor wire with the activation prevention mechanism is not deformed or damaged.

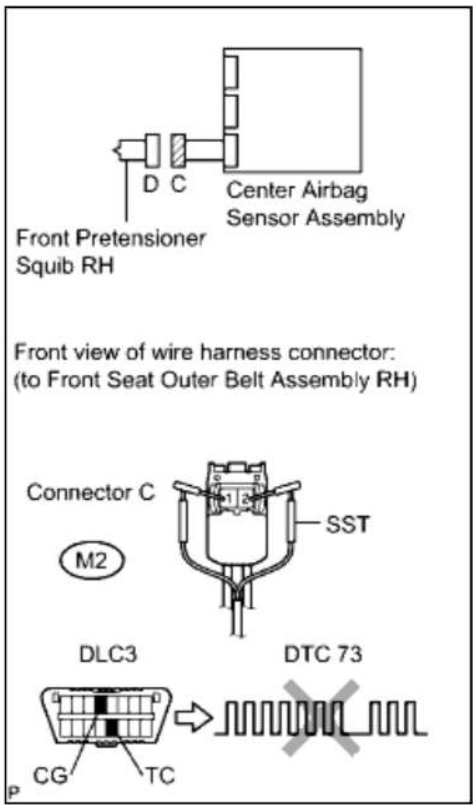
OK:

The short spring is not deformed or damaged.

NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▼

2.	CHECK FRONT SEAT OUTER BELT ASSEMBLY RH (FRONT PRETENSIONER SQUIB RH)



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

(b) Connect SST (resistance 2.1 Ω) to connector C.

CAUTION:

Never connect the tester to the front seat outer belt assembly RH (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.
- Insert SST straight into the terminals of the connector.

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

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

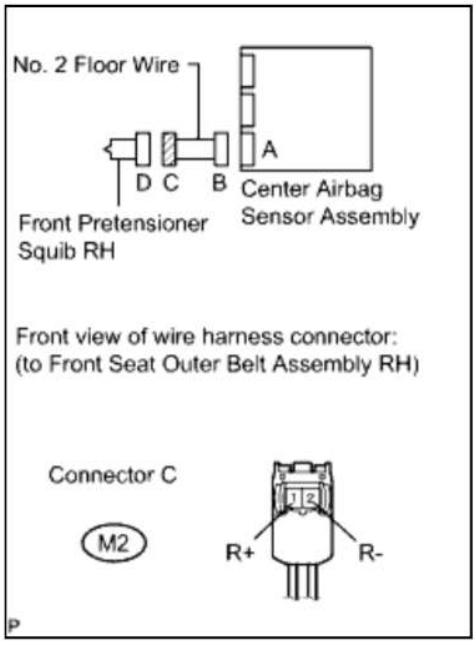
HINT:

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

NG ▶ **CHECK NO. 2 FLOOR WIRE (FRONT PRETENSIONER SQUIB RH CIRCUIT)**

OK ▶ **REPLACE FRONT SEAT OUTER BELT ASSEMBLY RH**

3.	CHECK NO. 2 FLOOR WIRE (FRONT PRETENSIONER SQUIB RH CIRCUIT)



(a) Turn the ignition switch off.

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

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(c) Disconnect SST from connector C.

(d) Disconnect the connector from the center airbag sensor assembly.

(e) Check for a short to B+ in the circuit.

(1) Connect the cable to the negative (-) battery terminal.

(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
M2-1 (R+) - Body ground	Ignition switch ON	Below 1 V
M2-2 (R-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M2-1 (R+) - M2-2 (R-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M2-1 (R+) - Body ground	Always	1 MΩ or higher
M2-2 (R-) - Body ground	Always	1 MΩ or higher

(h) Check for a short in the circuit.

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

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

Standard Resistance:

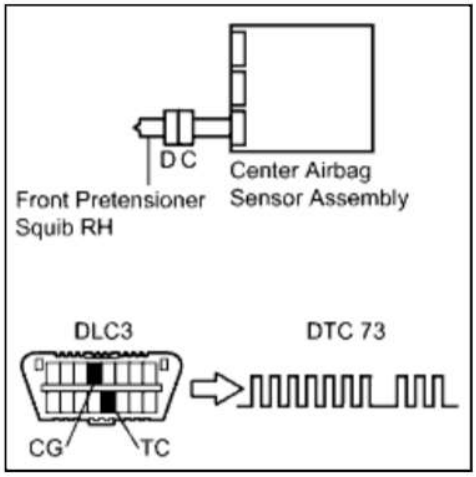
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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
M2-1 (R+) - M2-2 (R-)	Always	1 MΩ or higher

NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK
▼

4.	CHECK CENTER AIRBAG SENSOR ASSEMBLY



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

(b) Connect the connectors to the front seat outer belt assembly RH and the center airbag sensor assembly.

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

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

HINT:

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

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NG ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK ▶ USE SIMULATION METHOD TO CHECK

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001O0603HX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: B1905/74-B1908/74: Short in Front Pretensioner Squib LH Circuit (2010 Corolla)		

DTC	**B1905/74**	**Short in Front Pretensioner Squib LH Circuit**

DTC	**B1906/74**	**Open in Front Pretensioner Squib LH Circuit**

DTC	**B1907/74**	**Short to GND in Front Pretensioner Squib LH Circuit**

DTC	**B1908/74**	**Short to B+ 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.

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

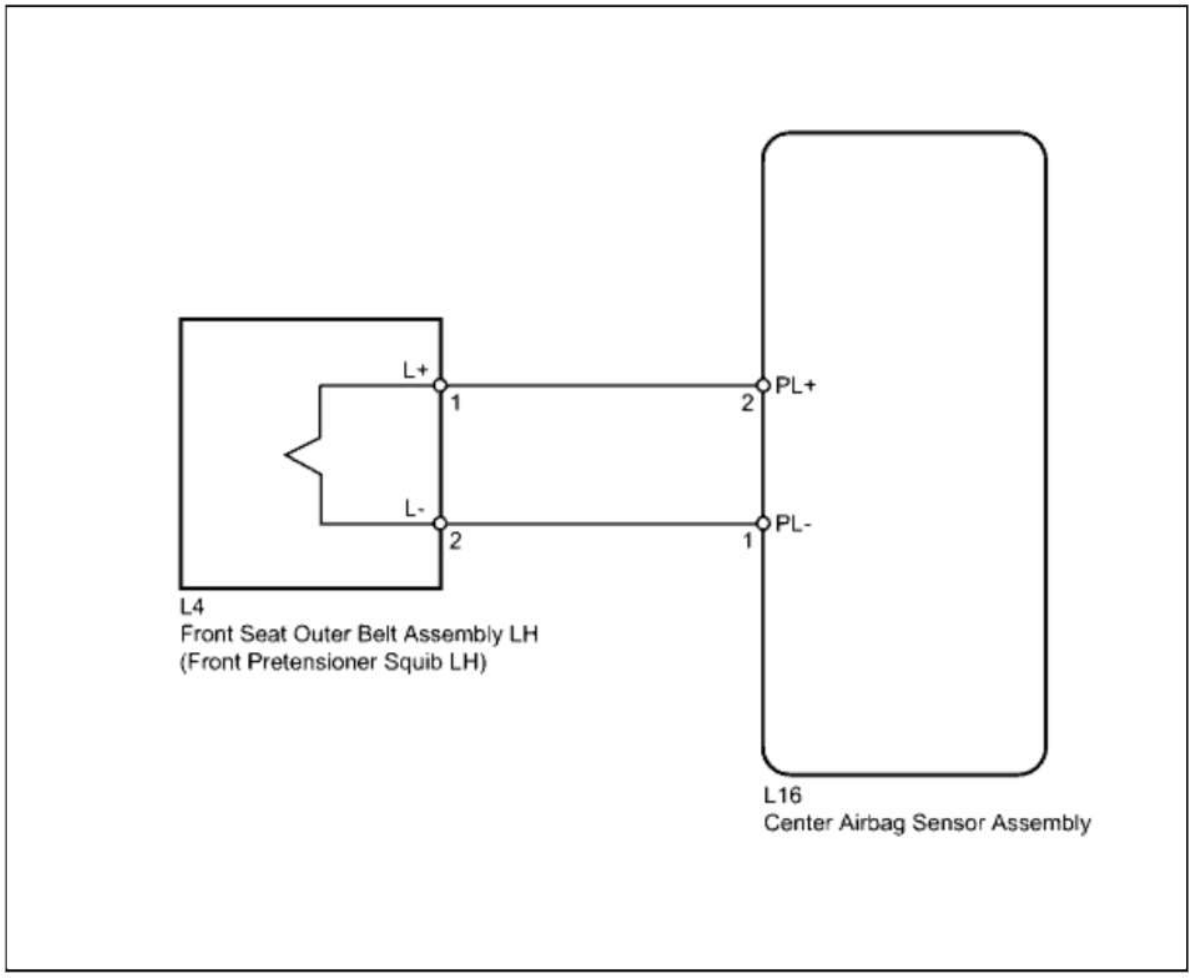
These DTCs are recorded when a malfunction is detected in the front pretensioner squib LH circuit.

DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1905/74	• The center airbag sensor assembly receives a short circuit signal 5 times in the front pretensioner squib LH circuit during primary check. • Front pretensioner squib LH malfunction • Center airbag sensor assembly malfunction	• Floor wire • Front seat outer belt assembly LH (Front pretensioner squib LH) • Center airbag sensor assembly
B1906/74	• The center airbag sensor assembly receives an open circuit signal in the front pretensioner squib LH circuit for 2 seconds. • Front pretensioner squib LH malfunction • Center airbag sensor assembly malfunction	• Floor wire • Front seat outer belt assembly LH (Front pretensioner squib LH) • Center airbag sensor assembly

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DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1907/74	• The center airbag sensor assembly receives a short circuit to ground signal in the front pretensioner squib LH circuit for 0.5 seconds. • Front pretensioner squib LH malfunction • Center airbag sensor assembly malfunction	• Floor wire • Front seat outer belt assembly LH (Front pretensioner squib LH) • Center airbag sensor assembly
B1908/74	• The center airbag sensor assembly receives a short circuit to B+ signal in the front pretensioner squib LH circuit for 0.5 seconds. • Front pretensioner squib LH malfunction • Center airbag sensor assembly malfunction	• Floor wire • Front seat outer belt assembly LH (Front pretensioner squib LH) • Center airbag sensor assembly

WIRING DIAGRAM



INSPECTION PROCEDURE

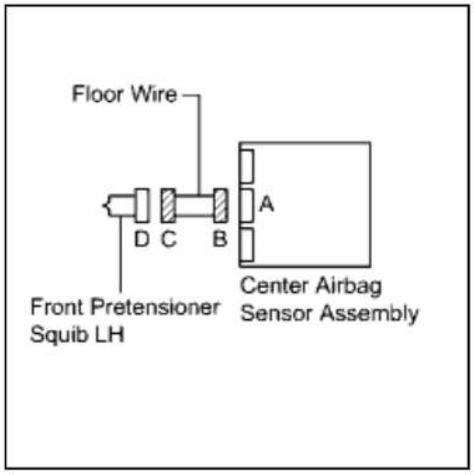
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HINT:

- Perform the simulation method by selecting Check Mode (signal check) using the Techstream INFO .
- After selecting Check Mode (signal check), perform the simulation method by wiggling each connector of the airbag system or driving the vehicle on a city or rough road INFO .

PROCEDURE

1.	**CHECK CONNECTORS**



(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 front seat outer belt assembly LH and center airbag sensor assembly.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the front seat outer belt assembly LH and center airbag sensor assembly.

(e) Check that the terminals of the connectors are not damaged.

OK:

The terminals are not deformed or damaged.

(f) Check that the floor wire connector (on the front seat outer belt assembly LH side) is not damaged.

OK:

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

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(g) Check that the short spring for the floor wire with the activation prevention mechanism is not deformed or damaged.

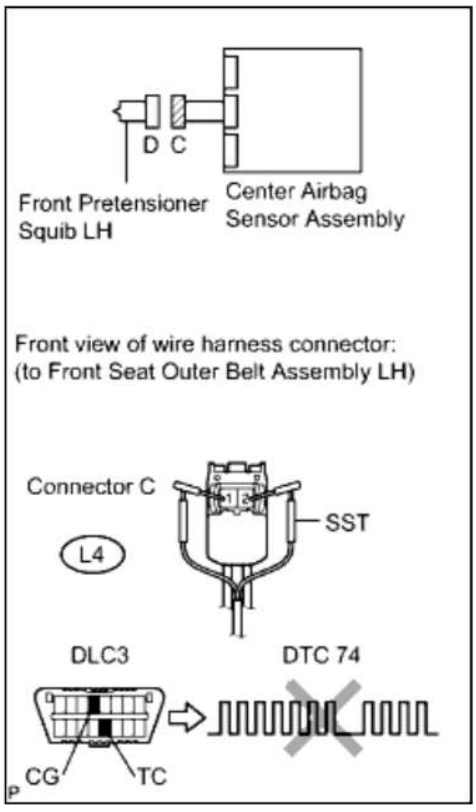
OK:

The short spring is not deformed or damaged.

NG ▶ **REPLACE FLOOR WIRE**

OK ▼

2.	CHECK FRONT SEAT OUTER BELT ASSEMBLY LH (FRONT PRETENSIONER SQUIB LH)



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

(b) Connect SST (resistance 2.1 Ω) to connector C.

CAUTION:

Never connect the tester to the front seat outer belt assembly LH (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.
- Insert SST straight into the terminals of the connector.

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

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

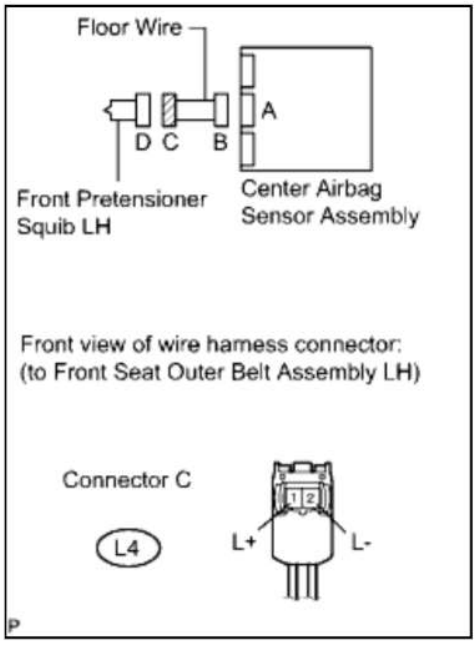
HINT:

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

NG ▶ **CHECK FLOOR WIRE (FRONT PRETENSIONER SQUIB LH CIRCUIT)**

OK ▶ **REPLACE FRONT SEAT OUTER BELT ASSEMBLY LH**

3.	CHECK FLOOR WIRE (FRONT PRETENSIONER SQUIB LH CIRCUIT)



(a) Turn the ignition switch off.

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

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(c) Disconnect SST from connector C.

(d) Disconnect the connector from the center airbag sensor assembly.

(e) Check for a short to B+ in the circuit.

(1) Connect the cable to the negative (-) battery terminal.

(2) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
L4-1 (L+) - Body ground	Ignition switch ON	Below 1 V
L4-2 (L-) - Body ground	Ignition switch ON	Below 1 V

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L4-1 (L+) - L4-2 (L-)	Always	Below 1 Ω

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

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L4-1 (L+) - Body ground	Always	1 MΩ or higher
L4-2 (L-) - Body ground	Always	1 MΩ or higher

(h) Check for a short in the circuit.

(1) Release the activation prevention mechanism built into connector B 

.

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

Standard Resistance:

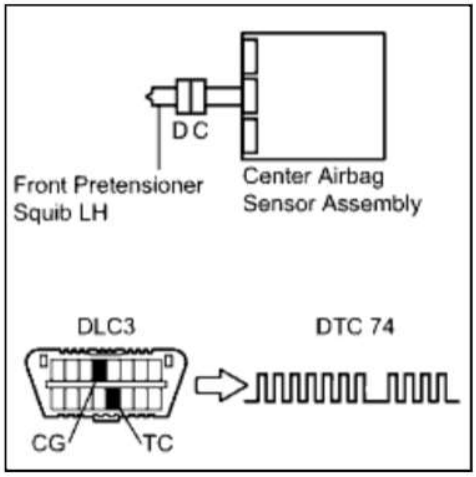
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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
L4-1 (L+) - L4-2 (L-)	Always	1 MΩ or higher

NG ▶ **REPLACE FLOOR WIRE**

OK
▼

4.	CHECK CENTER AIRBAG SENSOR ASSEMBLY



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

(b) Connect the connectors to the front seat outer belt assembly LH and the center airbag sensor assembly.

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

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

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

(f) Turn the ignition switch off.

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

(h) Check for DTCs INFO .

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

HINT:

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

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NG ▶ REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK ▶ USE SIMULATION METHOD TO CHECK



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Last Modified: 3-10-2010	6.4 J	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000YE206HX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: SRS Warning Light Remains ON (2010 Corolla)		

SRS Warning Light Remains ON

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 off to ON, 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 indicated by blinking pattern of the SRS warning light.

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

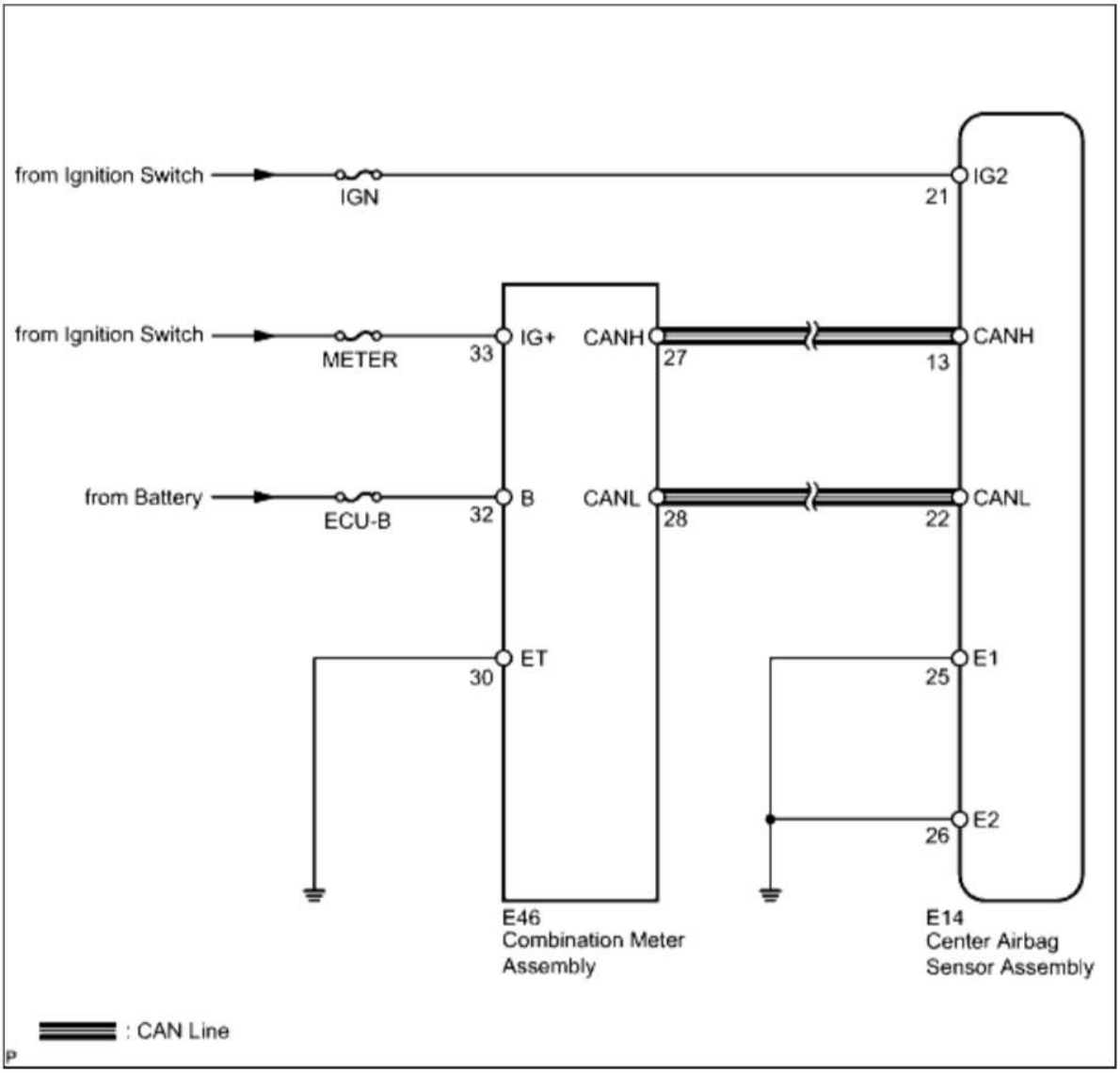
When the battery voltage drops, the voltage-increase circuit (DC-DC converter) functions to increase the voltage of the SRS to normal voltage.

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

The signal to illuminate the SRS warning light is transmitted from the center airbag sensor assembly to the combination meter assembly through the CAN communication system.

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK SRS WARNING LIGHT OPERATION**

(a) Check the SRS warning light operation approximately 6 seconds after the ignition switch is turned to ON.

Result:

SRS WARNING LIGHT ILLUMINATION	PROCEED TO
Remains on	A
Remains on after it goes off	B

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B ▶ CHECK CAN COMMUNICATION SYSTEM

A ▼

2.	CHECK BATTERY VOLTAGE

(a) Measure the voltage of the battery.

Standard Voltage:
11 to 14 V

Result

RESULT	PROCEED TO
OK	A
NG (for 2AZ-FE)	B
NG (for 2ZR-FE)	C

C ▶ INSPECT CHARGING SYSTEM AND BATTERY

B ▶ INSPECT CHARGING SYSTEM AND BATTERY

A ▼

3.	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) Check that the connector is properly connected to the center airbag sensor assembly.

OK:
The connector is properly connected.

HINT:

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If the connector is not connected securely, reconnect the connector and proceed to the next inspection.

(d) Disconnect the connector from the center airbag sensor assembly.

(e) Check that the terminal of the connector is not damaged.

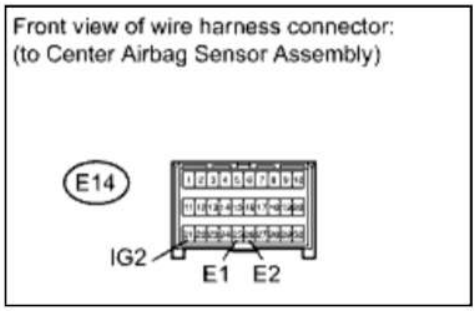
OK:

The terminal is not deformed or damaged.

NG ▶ **REPLACE WIRE HARNESS**

OK ▼

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



(a) Connect the cable to the negative (-) battery terminal.

(b) Turn the ignition switch to ON.

(c) Operate all components of the electrical system (defogger, wipers, headlights, heater blower, etc.).

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
E14-21 (IG2) - Body ground	Ignition switch ON	8 to 16 V

(e) Turn the ignition switch off.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E14-25 (E1) - Body ground	Always	Below 1 Ω

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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E14-26 (E2) - Body ground	Always	Below 1 Ω

NG ▶ **REPLACE WIRE HARNESS**

OK ▼

5.	CHECK SRS WARNING LIGHT

(a) Turn the ignition switch to ON.

(b) Check the SRS warning light condition.

OK:

After the primary check period, the SRS warning light goes off for approximately 10 seconds and remains on.

HINT:

The primary check period is approximately 6 seconds after the ignition switch is turned to ON.

NG ▶ **REPLACE COMBINATION METER ASSEMBLY**

OK ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

6.	CHECK CAN COMMUNICATION SYSTEM

(a) Use the Techstream to check if the CAN communication system is functioning normally.

HINT:

- Refer to Bus Check for the CAN communication system INFO .
- The center airbag sensor assembly is connected to the CAN communication system. Therefore, before starting troubleshooting, make sure to check that there is no trouble in the CAN communication system.

Result:

RESULT	PROCEED TO
DTC is not output	A

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RESULT	PROCEED TO
DTC is output	B

B ▶ GO TO CAN COMMUNICATION SYSTEM

A ▼

7.	CHECK BATTERY VOLTAGE

(a) Measure the voltage of the battery.

Standard Voltage:
11 to 14 V

Result

RESULT	PROCEED TO
OK	A
NG (for 2AZ-FE)	B
NG (for 2ZR-FE)	C

C ▶ INSPECT CHARGING SYSTEM AND BATTERY

B ▶ INSPECT CHARGING SYSTEM AND BATTERY

A ▼

8.	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) Check that the connector is properly connected to the center airbag sensor assembly.

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OK:

The connector is properly connected.

HINT:

If the connector is not connected securely, reconnect the connector and proceed to the next inspection.

(d) Disconnect the connector from the center airbag sensor assembly.

(e) Check that the terminal of the connector is not damaged.

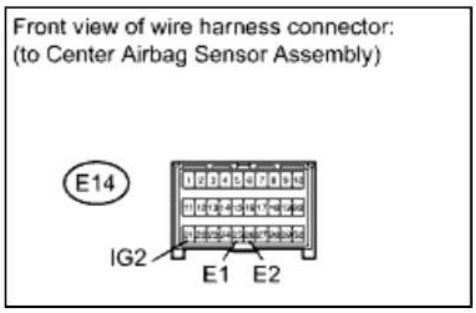
OK:

The terminal is not deformed or damaged.

NG ▶ **REPLACE WIRE HARNESS**

OK ▼

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



(a) Connect the cable to the negative (-) battery terminal.

(b) Turn the ignition switch to ON.

(c) Operate all components of the electrical system (defogger, wipers, headlights, heater blower, etc.).

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
E14-21 (IG2) - Body ground	Ignition switch ON	8 to 16 V

(e) Turn the ignition switch off.

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

Standard Resistance:

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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E14-25 (E1) - Body ground	Always	Below 1 Ω
E14-26 (E2) - Body ground	Always	Below 1 Ω

NG ▶ **REPLACE WIRE HARNESS**

OK ▼

10.	CHECK 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 combination meter assembly.

OK:

The connector is properly connected.

HINT:

If the connector is not connected securely, reconnect the connector and proceed to the next inspection.

(c) Disconnect the connector from the combination meter assembly.

(d) Check that the terminal of the connector is not damaged.

OK:

The terminal is not deformed or damaged.

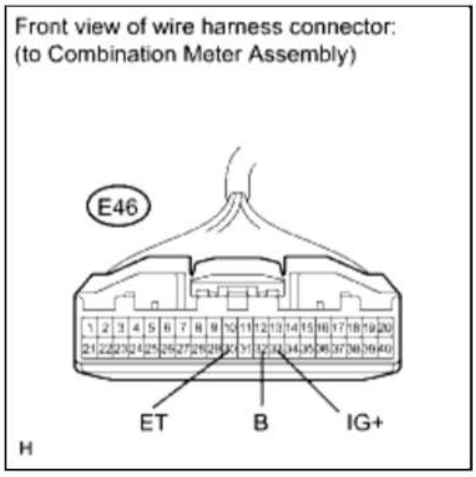
NG ▶ **REPLACE WIRE HARNESS**

OK ▼

11.	CHECK WIRE HARNESS (COMBINATION METER ASSEMBLY - BODY GROUND)

(a) Connect the cable to the negative (-) battery terminal.

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(b) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E46-32 (B) - Body ground	Always	11 to 14 V
E46-33 (IG+) - Body ground	Ignition switch ON	11 to 14 V

(d) Turn the ignition switch off.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E46-30 (ET) - Body ground	Always	Below 1 Ω

NG ▶ **REPLACE WIRE HARNESS**

OK ▼

12.	**CHECK SRS WARNING LIGHT**

(a) Connect the connector to the combination meter assembly.

(b) Connect the cable to the negative (-) battery terminal.

(c) Turn the ignition switch to ON.

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(d) Check the SRS warning light condition.

OK:

After the primary check period, the SRS warning light goes off for approximately 10 seconds and remains on.

HINT:

The primary check period is approximately 6 seconds after the ignition switch is turned to ON.

NG ▶ **REPLACE COMBINATION METER ASSEMBLY**

OK ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

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Last Modified: 3-10-2010	6.4 J	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000YE306HX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: SRS Warning Light does not Come ON (2010 Corolla)		

SRS Warning Light does not Come ON

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 off to ON, 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 indicated by blinking pattern of the SRS warning light.

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

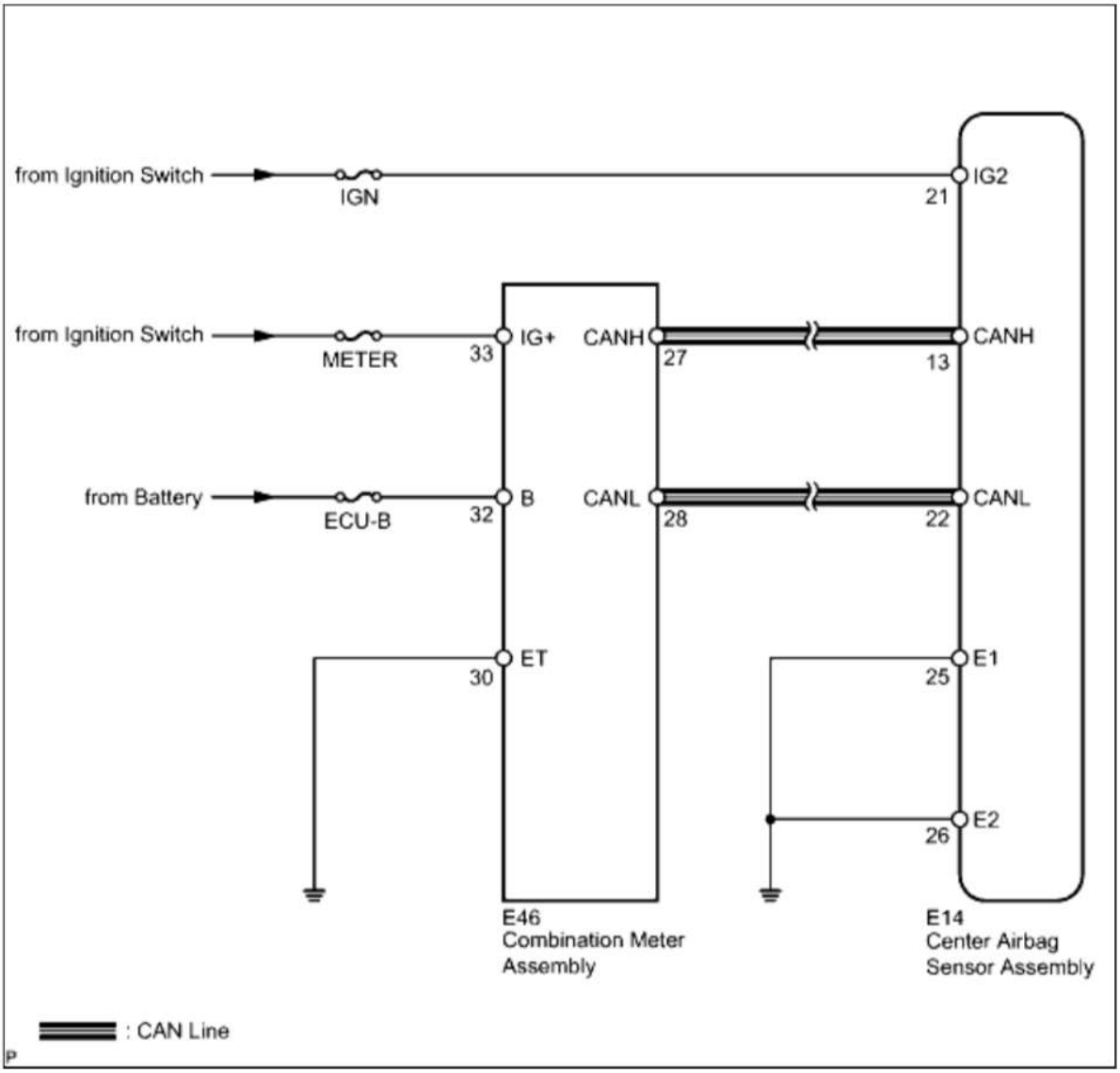
When the battery voltage drops, the voltage-increase circuit (DC-DC converter) functions to increase the voltage of the SRS to normal voltage.

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

The signal to illuminate the SRS warning light is transmitted from the center airbag sensor assembly to the combination meter assembly through the CAN communication system.

WIRING DIAGRAM

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INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK BATTERY VOLTAGE**

(a) Measure the voltage of the battery.

Standard Voltage:
11 to 14 V

Result

RESULT	PROCEED TO
OK	A

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RESULT	PROCEED TO
NG (for 2AZ-FE)	B
NG (for 2ZR-FE)	C

C ▶ **INSPECT CHARGING SYSTEM AND BATTERY**

B ▶ **INSPECT CHARGING SYSTEM AND BATTERY**

A

▼

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) Check that the connector is properly connected to the combination meter assembly.

OK:

The connector is properly connected.

HINT:

If the connector is not connected securely, reconnect the connector and proceed to the next inspection.

(d) Disconnect the connector from the combination meter assembly.

(e) Check that the terminal of the connector is not damaged.

OK:

The terminal is not deformed or damaged.

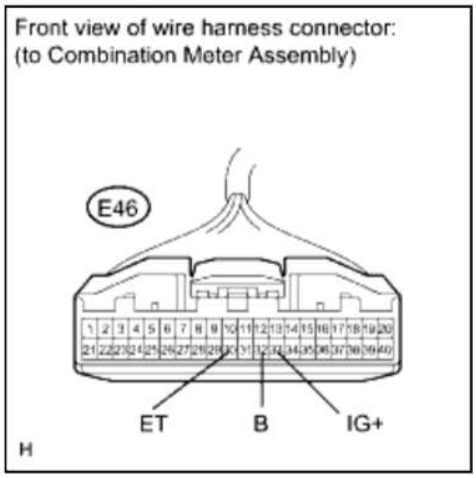
NG ▶ **REPLACE WIRE HARNESS**

OK

▼

3.	**CHECK WIRE HARNESS (COMBINATION METER ASSEMBLY - BODY GROUND)**

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(a) Connect the cable to the negative (-) battery terminal.

(b) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E46-32 (B) - Body ground	Always	11 to 14 V
E46-33 (IG+) - Body ground	Ignition switch ON	11 to 14 V

(d) Turn the ignition switch off.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E46-30 (ET) - Body ground	Always	Below 1 Ω

NG ▶ **REPLACE WIRE HARNESS**

OK ▼

4.	**CHECK SRS WARNING LIGHT**

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

(b) Connect the connector to the combination meter assembly.

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(c) Disconnect the connector from the center airbag sensor assembly.

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the ignition switch to ON.

(f) Check the SRS warning light condition.

OK:

After the primary check period, the SRS warning light goes off for approximately 10 seconds and remains on.

HINT:

The primary check period is approximately 6 seconds after the ignition switch is turned to ON.

NG ▶ **REPLACE COMBINATION METER ASSEMBLY**

OK ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

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Last Modified: 3-10-2010	6.4 J	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000014JK035X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: TC and CG Terminal Circuit (2010 Corolla)		

TC and CG Terminal Circuit

DESCRIPTION

DTC output mode is set by connecting terminals TC and CG of the DLC3.

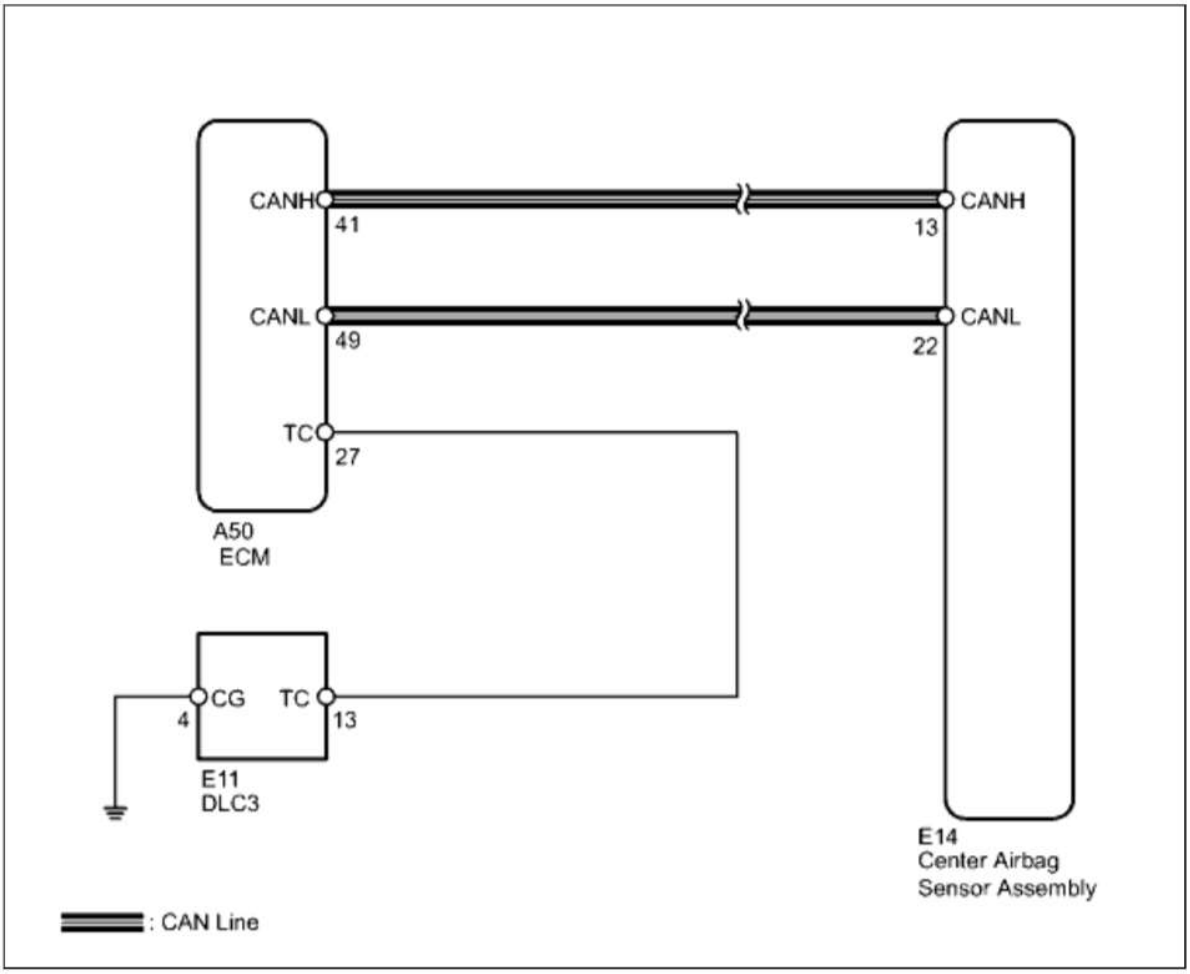
DTCs are indicated by blinking pattern of the SRS warning light.

HINT:

- When the SRS warning light remains blinking, a ground short in the wiring of terminal TC of the DLC3 or an internal ground short in the center airbag sensor assembly is suspected.
- A DTC output mode signal is transmitted through the CAN communication system to each ECU including the center airbag sensor assembly. Thus when all systems do not enter DTC output mode, there may be an ECM malfunction.

WIRING DIAGRAM

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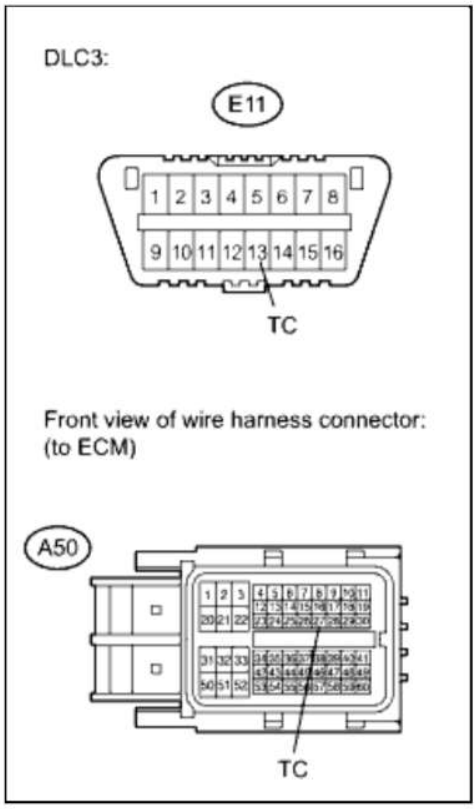
INSPECTION PROCEDURE

PROCEDURE

1.	**CHECK WIRE HARNESS (TC OF DLC3 - TC OF ECM)**

(a) Turn the ignition switch off.

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(b) Disconnect the connector from the ECM.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E11-13 (TC) - A50-27 (TC)	Always	Below 1 Ω

NG ▶ **REPLACE WIRE HARNESS**

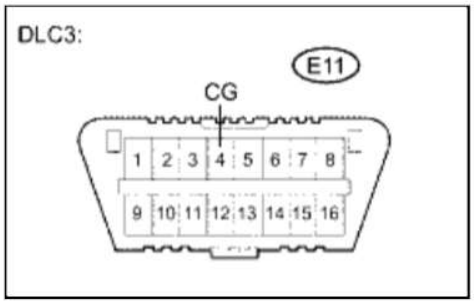
OK ▼

2.	**CHECK WIRE HARNESS (CG OF DLC3 - BODY GROUND)**

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

Standard Resistance:

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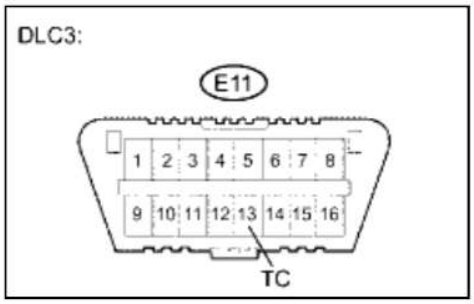


TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E11-4 (CG) - Body ground	Always	Below 1 Ω

NG ▶ **REPLACE WIRE HARNESS**

OK ▼

3.	CHECK WIRE HARNESS (TC OF DCL3 - BODY GROUND)



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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E11-13 (TC) - Body ground	Always	1 MΩ or higher

NG ▶ **REPLACE WIRE HARNESS OR EACH ECU**

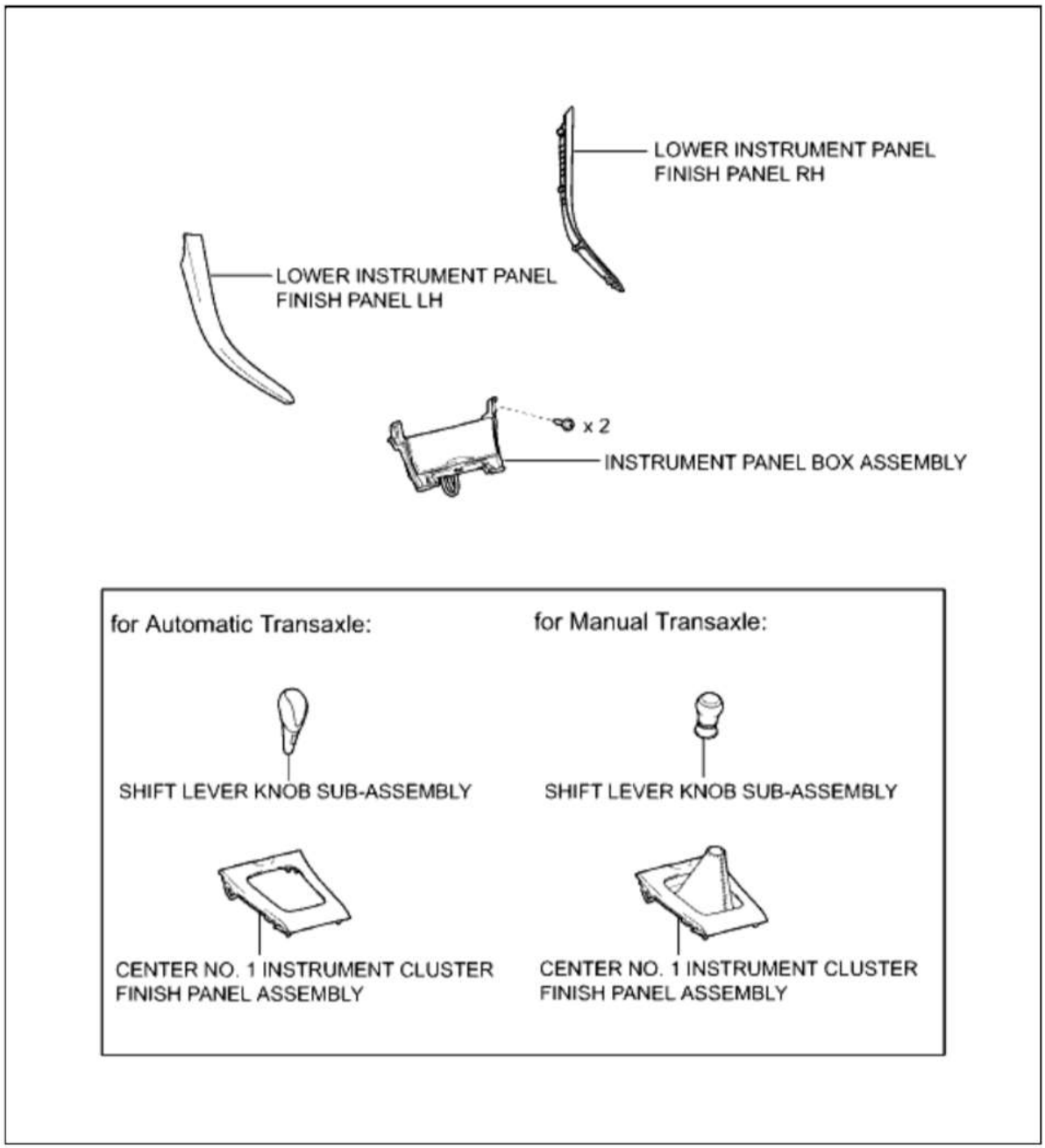
OK ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

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Last Modified: 3-10-2010	6.4 K	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWU037X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: CENTER AIRBAG SENSOR ASSEMBLY: COMPONENTS (2010 Corolla)		

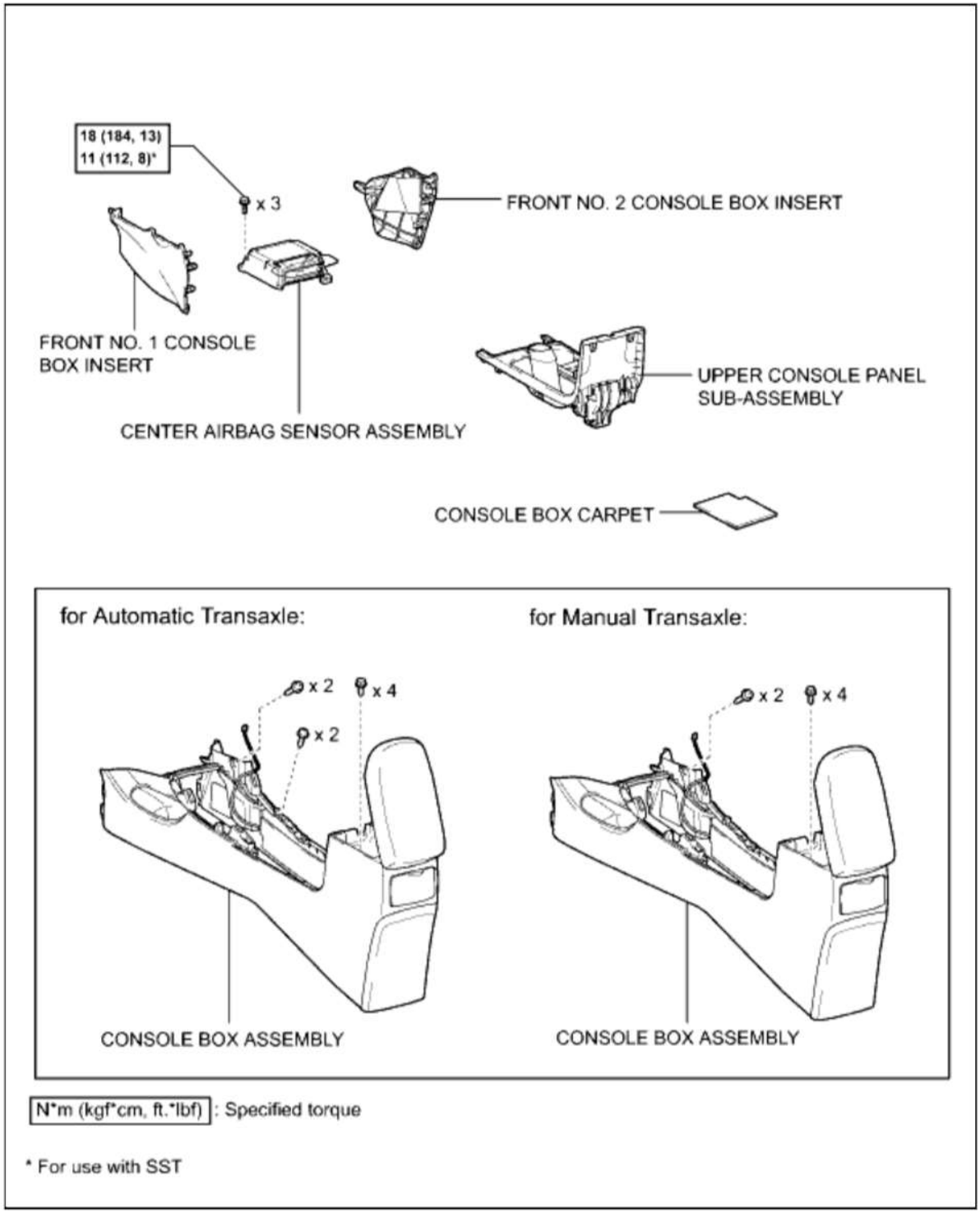
COMPONENTS

ILLUSTRATION



ILLUSTRATION

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Last Modified: 3-10-2010	6.4 G	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000VPT043X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: CENTER AIRBAG SENSOR ASSEMBLY: ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

1. INSPECT CENTER AIRBAG SENSOR ASSEMBLY (VEHICLE NOT INVOLVED IN COLLISION)

(a) Perform a diagnostic system check INFO .

2. INSPECT CENTER AIRBAG SENSOR ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS NOT DEPLOYED)

(a) Perform a diagnostic system check INFO .

3. INSPECT CENTER AIRBAG SENSOR ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG IS DEPLOYED)

(a) Replace the center airbag sensor assembly.

CAUTION:

Be sure to follow the correct removal and installation procedures of the center airbag sensor assembly.

HINT:

The center airbag sensor assembly should be replaced after any of the airbags has deployed, as it has been subjected to the impact.

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWV042X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: CENTER AIRBAG SENSOR ASSEMBLY: REMOVAL (2010 Corolla)		

REMOVAL

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO .

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

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

3. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL LH INFO

4. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL RH INFO

5. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle) INFO

6. REMOVE SHIFT LEVER KNOB SUB-ASSEMBLY (for Automatic Transaxle) INFO

7. REMOVE CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Manual Transaxle) INFO

8. REMOVE CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Automatic Transaxle) INFO

9. REMOVE INSTRUMENT PANEL BOX ASSEMBLY INFO

10. REMOVE FRONT NO. 1 CONSOLE BOX INSERT INFO

11. REMOVE FRONT NO. 2 CONSOLE BOX INSERT INFO

12. REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY INFO

13. REMOVE CONSOLE BOX CARPET INFO

14. REMOVE CONSOLE BOX ASSEMBLY (for Manual Transaxle) INFO

15. REMOVE CONSOLE BOX ASSEMBLY (for Automatic Transaxle) INFO

16. REMOVE CENTER AIRBAG SENSOR ASSEMBLY

(a) Check that the ignition switch is off.

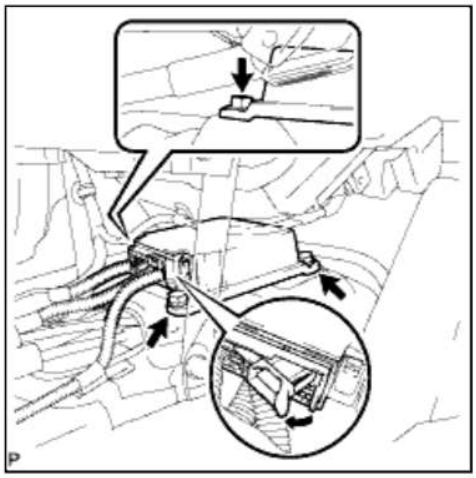
(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

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

(c) Turn back the carpet.

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(d) Disconnect the holder (with connectors).

NOTICE:

When connecting the airbag connector, take care not to damage the airbag wire harness.

(e) Remove the 3 bolts and center airbag sensor assembly.

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWS042X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: CENTER AIRBAG SENSOR ASSEMBLY: INSTALLATION (2010 Corolla)		

INSTALLATION

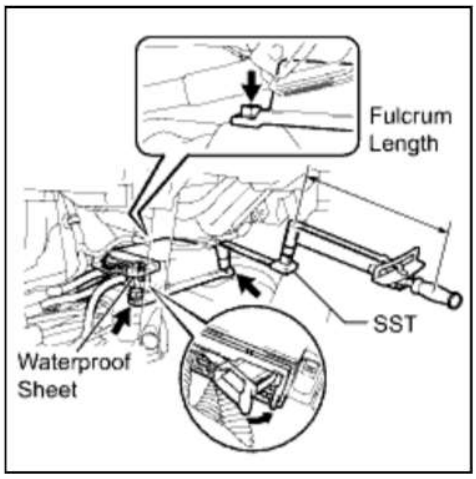
1. INSTALL CENTER AIRBAG SENSOR ASSEMBLY

(a) Check that the ignition switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

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



(c) Using SST, install the center airbag sensor assembly with the 3 bolts.

SST: 09961-01270

without SST - Torque: 18 N·m (184 kgf·cm, 13ft·lbf)

with SST - Torque: 11 N·m (112 kgf·cm, 8ft·lbf)

NOTICE:

- Use a torque wrench with a fulcrum length of 250 mm (9.84 in.).
- This torque value is effective when SST is parallel to a torque wrench.
- If the center airbag sensor assembly has been dropped, or there are any cracks, dents or other defects in the case or connector, replace it with a new one.
- When installing the center airbag sensor assembly, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.
- When the ignition switch is first turned to ON after the center airbag sensor assembly has been replaced, make sure that no one is in the vehicle.

(d) Connect the holder (with connectors).

NOTICE:

When connecting the airbag connector, take care not to damage the airbag wire harness.

(e) Check that there is no looseness in the installation parts of the center airbag sensor assembly.

(f) Check that the waterproof sheet is properly set.

2. INSTALL CONSOLE BOX ASSEMBLY (for Manual Transaxle) INFO

3. INSTALL CONSOLE BOX ASSEMBLY (for Automatic Transaxle) INFO

4. INSTALL CONSOLE BOX CARPET INFO

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5. INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY INFO

6. INSTALL FRONT NO. 1 CONSOLE BOX INSERT INFO

7. INSTALL FRONT NO. 2 CONSOLE BOX INSERT INFO

8. INSTALL INSTRUMENT PANEL BOX ASSEMBLY INFO

9. INSTALL CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Manual Transaxle) INFO

10. INSTALL CENTER NO. 1 INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY (for Automatic Transaxle) INFO

11. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Manual Transaxle) INFO

12. INSTALL SHIFT LEVER KNOB SUB-ASSEMBLY (for Automatic Transaxle) INFO

13. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL LH INFO

14. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL RH INFO

15. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

16. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light INFO .

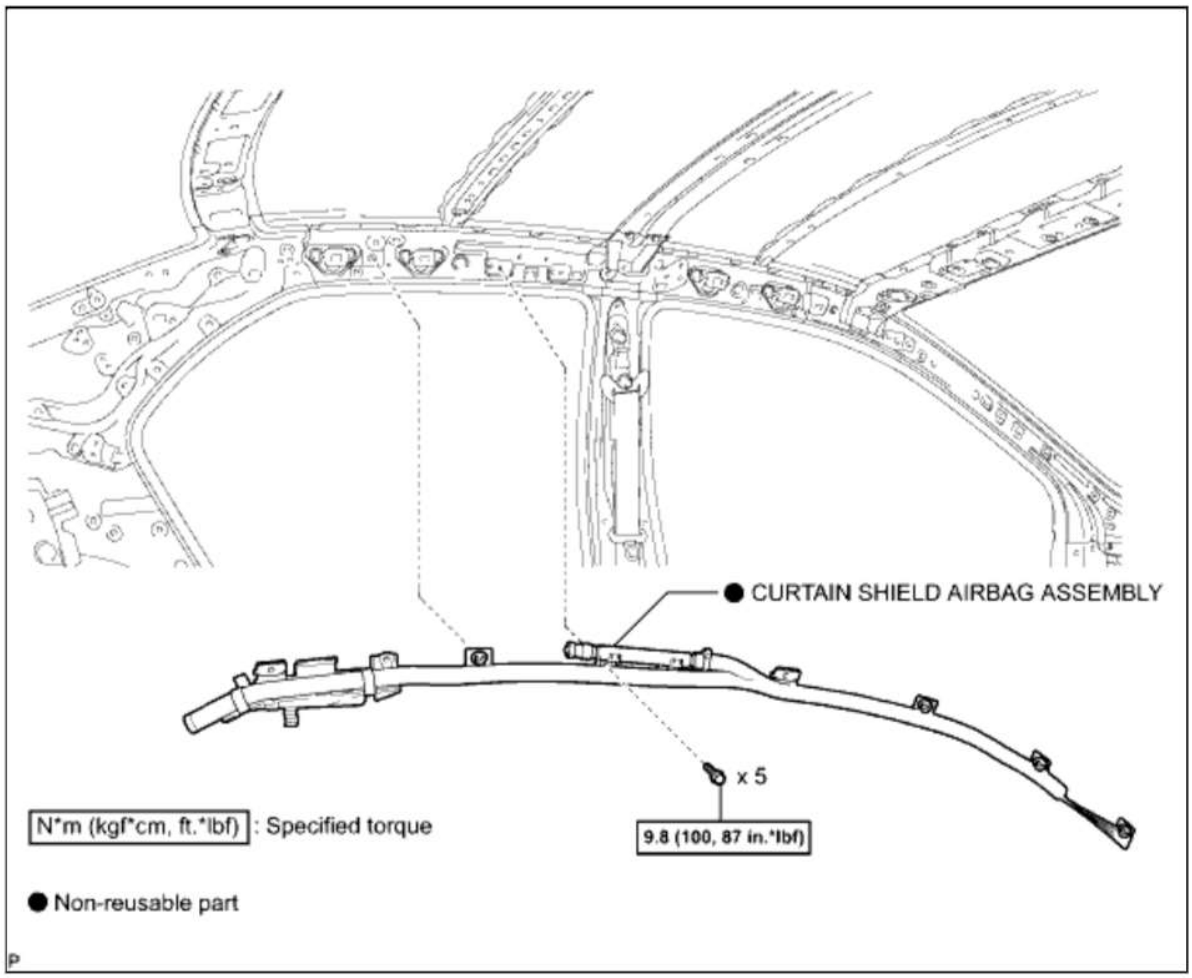
TOYOTA

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Last Modified: 3-10-2010	6.4 K	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UXF038X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: CURTAIN SHIELD AIRBAG ASSEMBLY: COMPONENTS (2010 Corolla)		

COMPONENTS

ILLUSTRATION



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Last Modified: 3-10-2010	6.4 G	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UXH04FX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: CURTAIN SHIELD AIRBAG ASSEMBLY: ON-VEHICLE INSPECTION (2010 Corolla)		

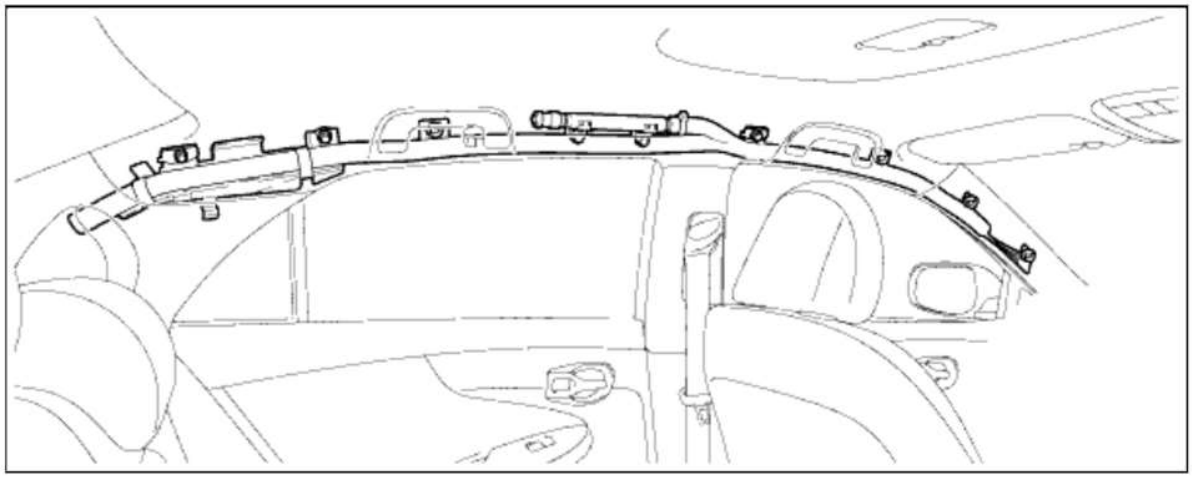
ON-VEHICLE INSPECTION

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

(a) Perform a diagnostic system check INFO .

(b) With the curtain shield airbag assembly installed on the vehicle, perform a visual check. If there are any following defects, replace the front pillar garnish or roof headlining assembly with a new one:

- Cuts, minute cracks or marked discoloration on the front pillar garnish or roof headlining assembly around the curtain shield airbag assembly.

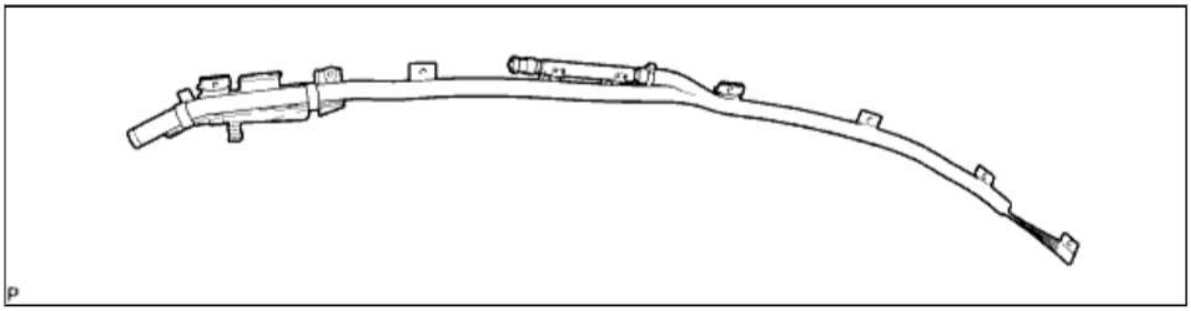


2. INSPECT CURTAIN SHIELD AIRBAG ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS NOT DEPLOYED)

(a) Perform a diagnostic system check INFO .

(b) With the roof headlining assembly removed from the vehicle, perform a visual check. If there are any following defects, replace the curtain shield airbag assembly with a new one:

- Cuts, minute cracks or marked discoloration on the curtain shield airbag assembly.
- Cracks or other damage to the connectors.



CAUTION:

Be sure to follow the correct removal and installation procedures of the curtain shield airbag assembly.

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UXG03PX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: CURTAIN SHIELD AIRBAG ASSEMBLY: REMOVAL (2010 Corolla)		

REMOVAL

NOTICE:

If the curtain shield airbag assembly is removed, replace it with a new one.

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO .

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

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

3. REMOVE ROOF HEADLINING ASSEMBLY

HINT:

Refer to the procedure up to Remove Roof Headlining Assembly INFO .

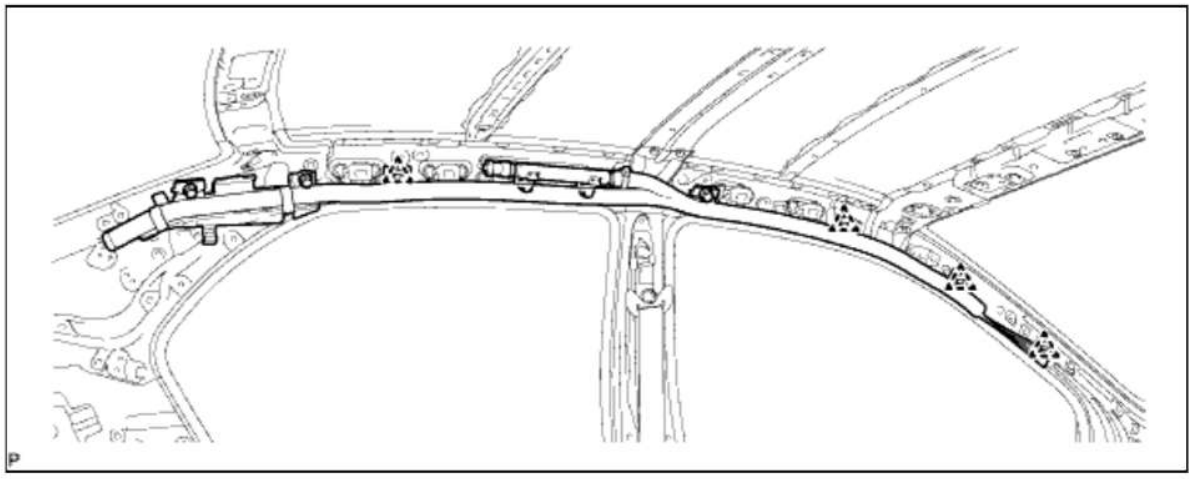
4. REMOVE CURTAIN SHIELD AIRBAG ASSEMBLY

(a) Disconnect the curtain shield airbag connector.

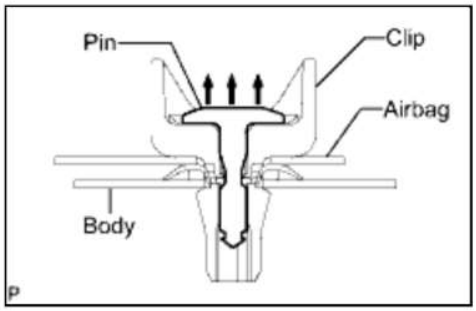
NOTICE:

When disconnecting the airbag connector, take care not to damage the airbag wire harness.

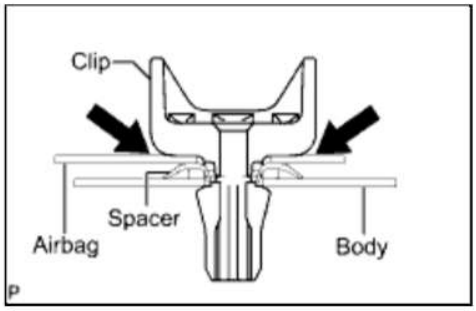
(b) Separate the 4 clips from the body panel.



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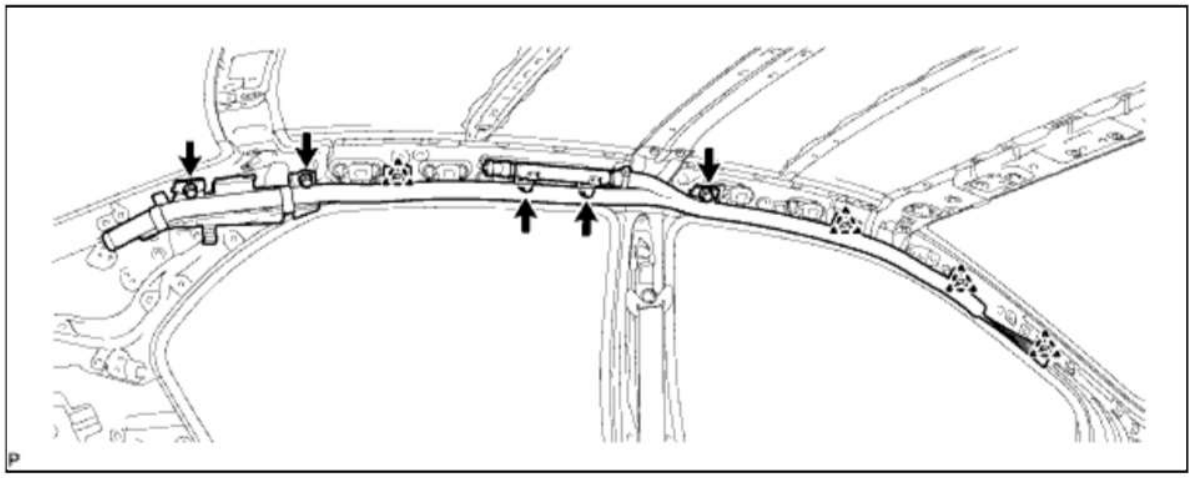


(1) Using a clip remover, remove the 4 pins.



(2) Using needle-nose pliers, separate the 4 clips and curtain shield airbag assembly from the body as shown in the illustration.

(c) Remove the 5 bolts and curtain shield airbag assembly with the 4 spacers and 4 clips.



NOTICE:

If the curtain shield airbag assembly is removed, replace it with a new one.

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Last Modified: 3-10-2010	6.4 N	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UXC04OX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: CURTAIN SHIELD AIRBAG ASSEMBLY: DISPOSAL (2010 Corolla)		

DISPOSAL

CAUTION:

Before performing pre-disposal deployment of any SRS component, review and closely follow all applicable environmental and hazardous material regulations. Pre-disposal deployment may be considered hazardous material treatment.

1. PRECAUTION

HINT:

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

CAUTION:

- An airbag or pretensioner may be activated by static electricity. To prevent this, be sure to touch a metal surface with bare hands to discharge static electricity before performing this procedure.
- Never dispose of a curtain shield airbag assembly with an undeployed airbag.
- The airbag produces an exploding sound when it is deployed, so perform the operation outdoors and where it will not create a nuisance to nearby residents.
- When deploying the airbag, always use the specified SST (SRS Airbag Deployment Tool). Perform the operation in a place away from electrical noise.
- When deploying the airbag, perform the operation at least 10 m (33 ft.) away from the curtain shield airbag assembly.
- The curtain shield airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a curtain shield airbag assembly with a deployed airbag.
- Do not apply water, etc. to a curtain shield airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

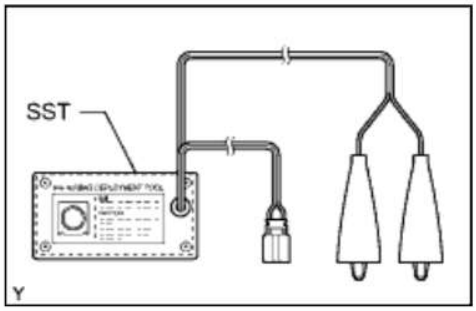
2. DISPOSE OF CURTAIN SHIELD AIRBAG ASSEMBLY (WHEN INSTALLED IN VEHICLE)

HINT:

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

(a) Check the function of SST INFO .

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(b) Refer to Precaution INFO .

(c) Disconnect the cable from the negative (-) battery terminal.

CAUTION:

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

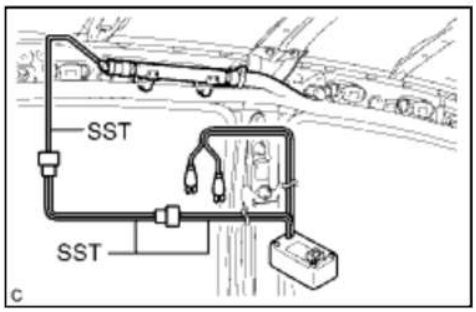
(d) Remove the roof headlining assembly INFO .

(e) Install SST.

(1) Disconnect the connector from the curtain shield airbag assembly.

NOTICE:

When disconnecting the airbag connector, take care not to damage the airbag wire harness.



(2) After connecting SST below to each other, connect them to the curtain shield airbag assembly.

SST: 09082-00700

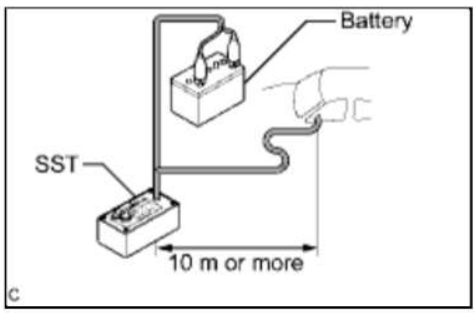
SST: 09082-00802

09082-10801

09082-20801

NOTICE:

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



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

(4) Maintaining enough clearance for the SST wire harness in the rear side window, close all doors and windows of the vehicle.

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NOTICE:

Take care not to damage the SST wire harness.

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

(f) Deploy the airbag.

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

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

CAUTION:

- When deploying the airbag, make sure that no one is near the vehicle.
- The curtain shield airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a curtain shield airbag assembly with a deployed airbag.
- Do not apply water, etc. to a curtain shield airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.

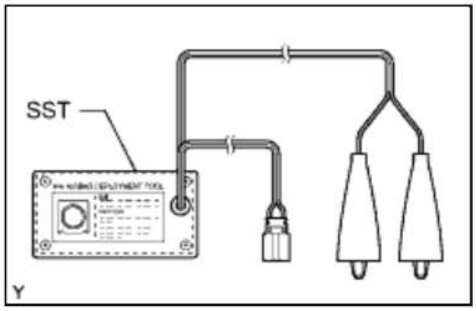
3. DISPOSE OF CURTAIN SHIELD AIRBAG ASSEMBLY (WHEN NOT INSTALLED IN VEHICLE)

NOTICE:

- When disposing of the curtain shield airbag assembly, never use the customer's vehicle to deploy the airbag.
- Be sure to follow the following procedure when deploying the airbag.

HINT:

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



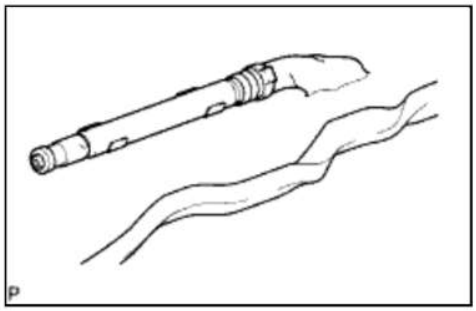
(a) Check the function of SST INFO .

(b) Remove the curtain shield airbag assembly INFO .

CAUTION:

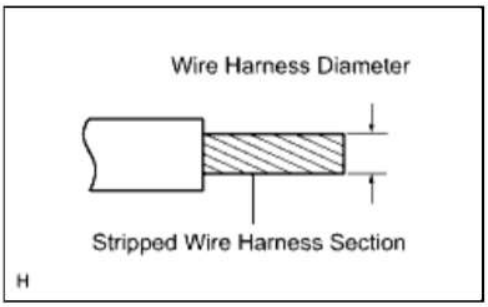
When removing the curtain shield airbag assembly, before the work is started, leave the vehicle at least 90 seconds after turning the ignition switch off and disconnecting the cable from the negative (-) battery terminal.

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

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



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

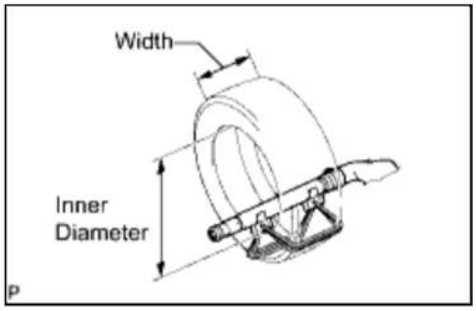
CAUTION:

If the wire harness is too thin or an alternative object is used to tie down the curtain shield airbag assembly, it may be snapped by the shock when the airbag is deployed. Always use a wire harness for vehicle use with an area of at least 1.25 mm^2 (0.0019 $in.^2$).

HINT:

To calculate the area of the stripped wire harness section:

Area = 3.14 x (Diameter)^2 divided by 4



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

Tire size:
Must exceed the following dimensions
Width:
185 mm (7.28 in.)
Inner diameter:
360 mm (14.2 in.)

CAUTION:

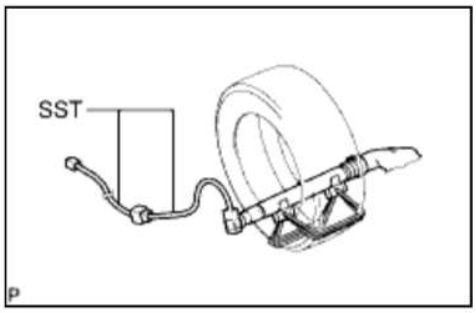
Make sure that the wire harness is tight. If there is slack in the wire harness, the curtain shield airbag assembly may become loose due to the shock when the airbag is deployed.

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NOTICE:

The tire may be damaged by the airbag deployment, so use an extra tire.

(e) Install SST.



(1) After connecting SST below to each other, connect them to the curtain shield airbag assembly.

SST: 09082-00802

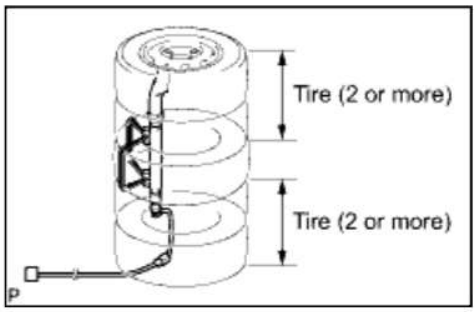
09082-10801

09082-20801

(f) Place the tires.

CAUTION:

Do not place the deployment direction of the curtain shield airbag assembly facing toward the ground.



(1) Place at least 2 tires under the tire tied to the curtain shield airbag assembly.

(2) Place at least 2 tires onto the tire tied to the curtain shield airbag assembly. The top tire should have the disc wheel installed.

NOTICE:

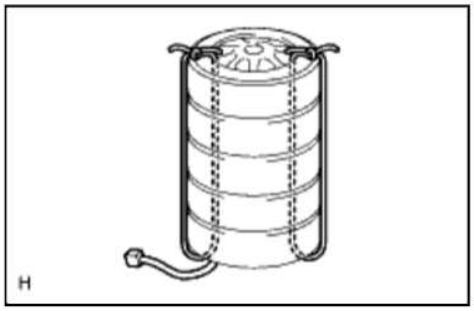
Do not place the SST connector under the tire because it could be damaged.

(3) Tie the tires together with the 2 wire harnesses.

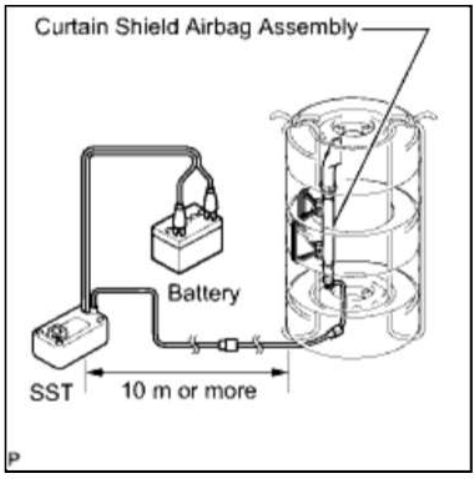
CAUTION:

Make sure that the wire harnesses are tight. Looseness in the wire harness results in the tires coming free due to the shock when the airbag is deployed.

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(g) Install SST.



(1) Connect the SST connector.

SST: 09082-00700

NOTICE:

To avoid damaging the SST connector and wire harness, do not lock the secondary lock of the twin lock. Also, secure some slack for the SST wire harness inside the tire.

(2) Move SST at least 10 m (33 ft.) away from the airbag tied down to the tire.

(h) Deploy the airbag.

(1) Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

(2) Check that no one is within a 10 m (33 ft.) radius of the tire which the curtain shield airbag assembly is tied to.

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

CAUTION:

When deploying the airbag, make sure that no one is near the tire.

HINT:

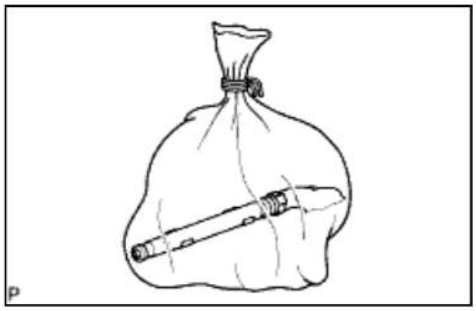
The airbag is deployed as the LED of the SST activation switch comes on.

(i) Dispose of the curtain shield airbag assembly.

CAUTION:

- The curtain shield airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.

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

(1) Remove the curtain shield airbag assembly from the tire.

(2) Place the curtain shield airbag assembly in a plastic bag, tie it tightly, and dispose of it as other general part disposal.

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UXD03SX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: CURTAIN SHIELD AIRBAG ASSEMBLY: INSTALLATION (2010 Corolla)		

INSTALLATION

1. INSTALL CURTAIN SHIELD AIRBAG ASSEMBLY

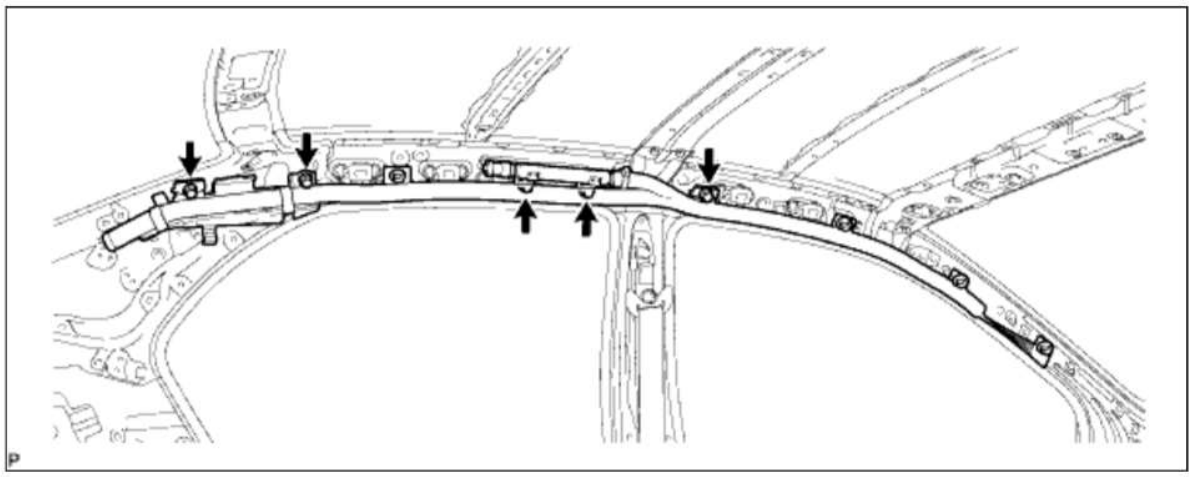
(a) Check that the ignition switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

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

(c) Install a new curtain shield airbag assembly with the 5 bolts.



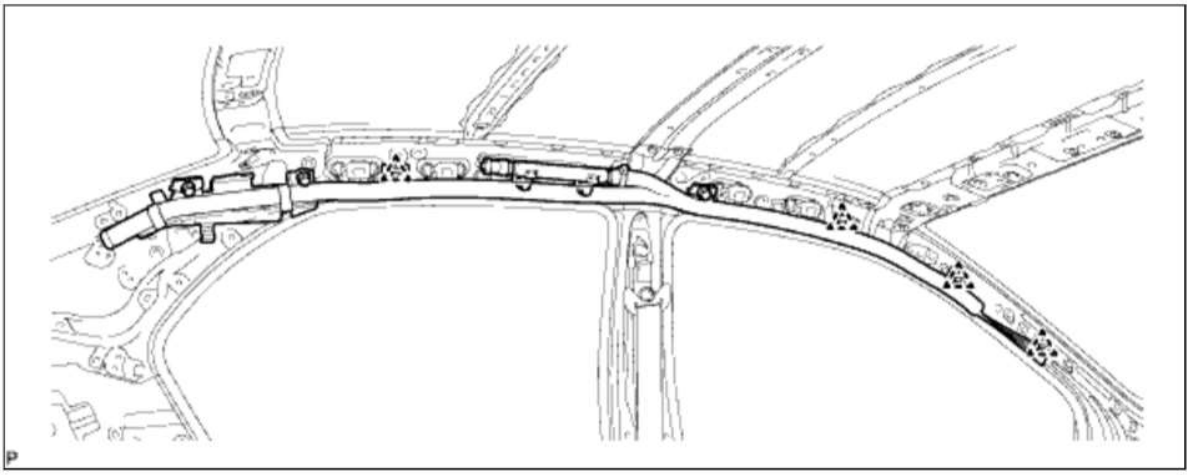
Torque: 9.8 N·m (100 kgf·cm, 87in·lbf)

NOTICE:

- If the curtain shield airbag assembly is removed, replace it with a new one.
- Do not twist the curtain shield airbag assembly when installing it.

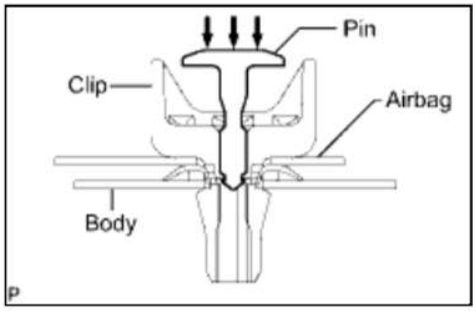
(d) Install the 4 clips with the curtain shield airbag assembly to the body panel.

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NOTICE:

Do not twist the curtain shield airbag assembly when installing it.



(e) Install the 4 pins as shown in the illustration.

NOTICE:

Make sure that the pins of the clips are pushed in firmly.

(f) Connect the curtain shield airbag connector.

NOTICE:

When connecting the airbag connector, take care not to damage the airbag wire harness.

2. INSTALL ROOF HEADLINING ASSEMBLY

HINT:

Refer to the procedure from Install Roof Headlining Assembly INFO .

3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

4. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light INFO .

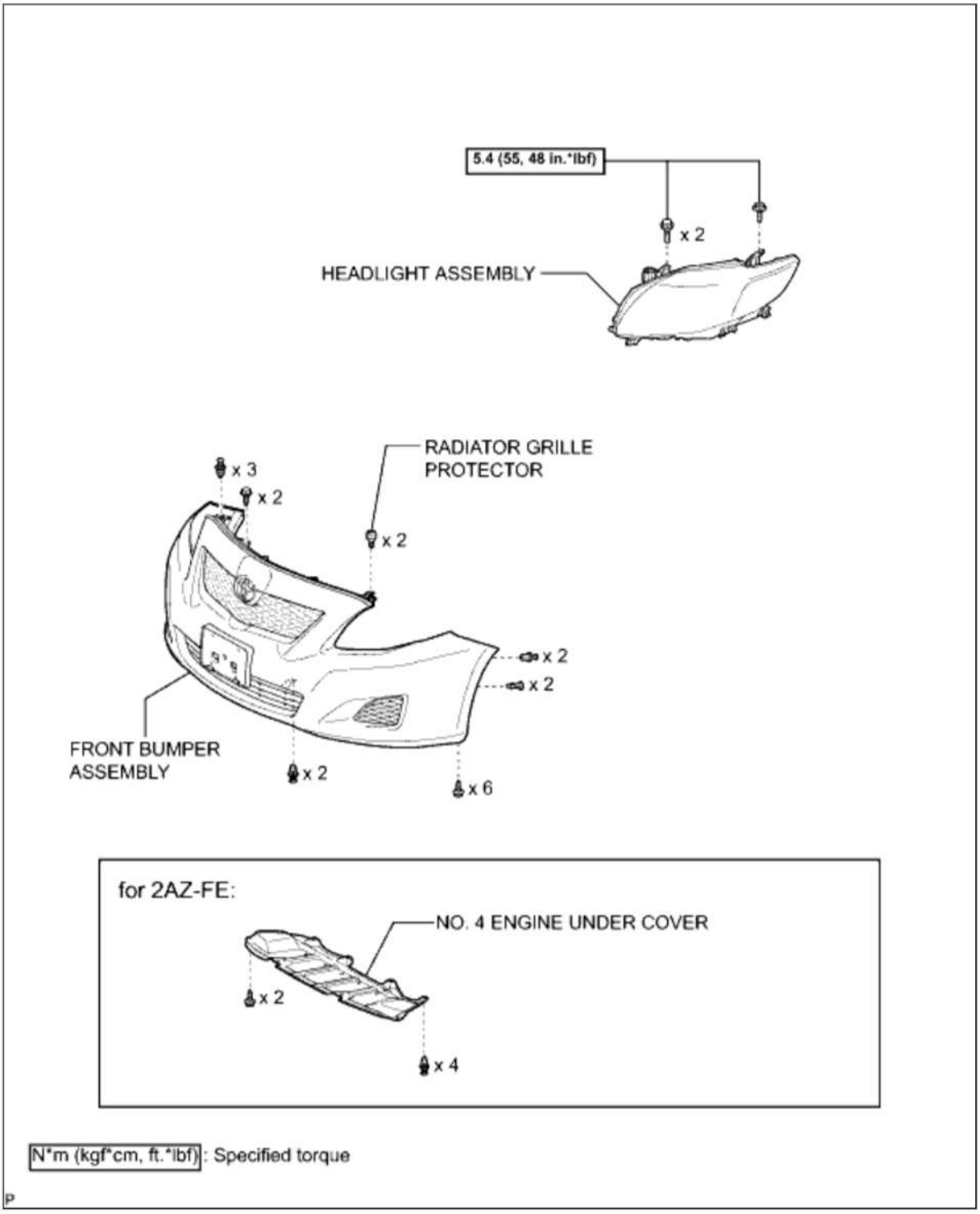
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Last Modified: 3-10-2010	6.4 K	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWY035X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT AIRBAG SENSOR: COMPONENTS (2010 Corolla)		

COMPONENTS

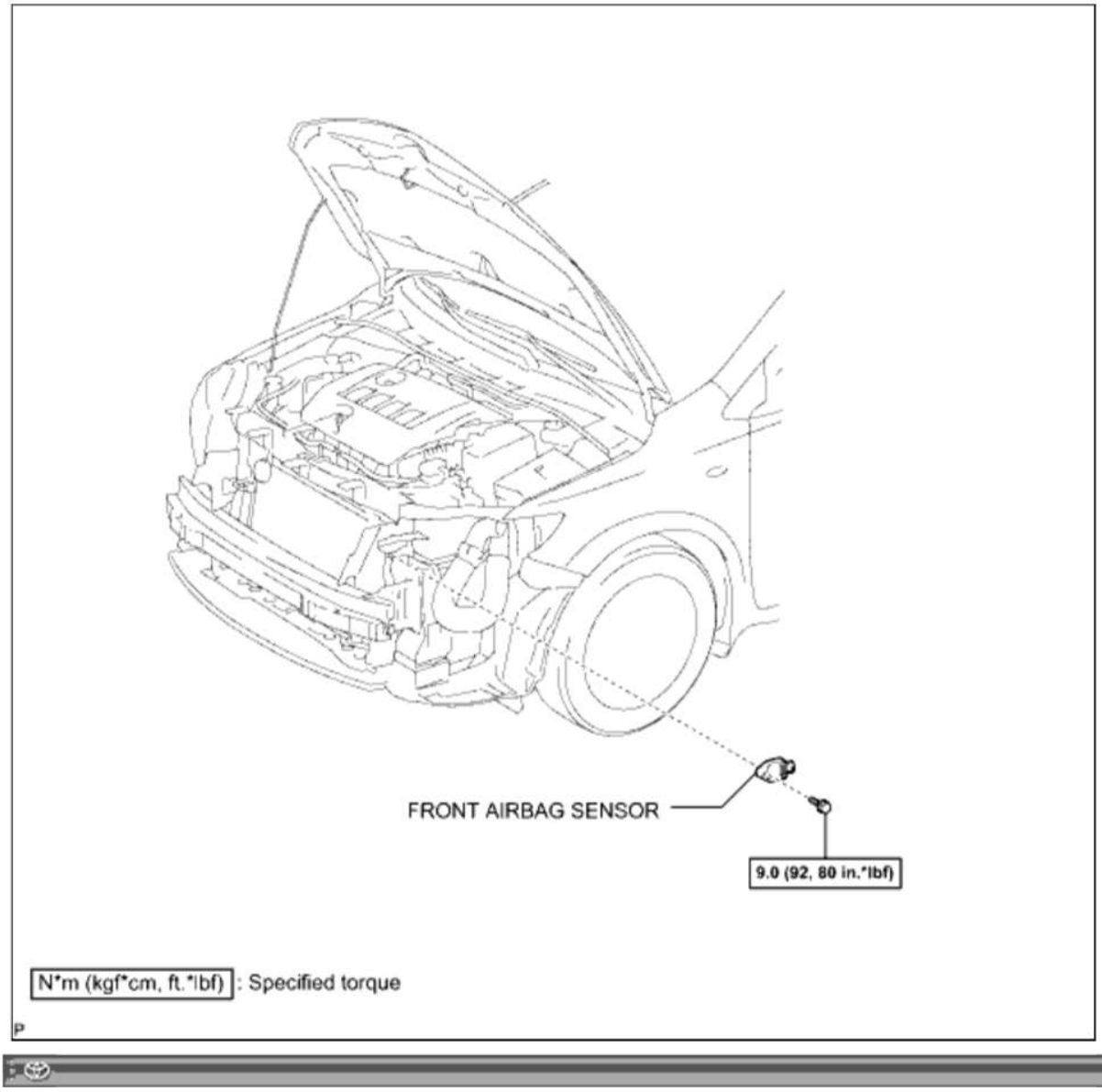
ILLUSTRATION

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ILLUSTRATION

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Last Modified: 3-10-2010	6.4 G	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000VPU03VX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT AIRBAG SENSOR: ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

1. INSPECT FRONT AIRBAG SENSOR (VEHICLE NOT INVOLVED IN COLLISION)

(a) Perform a diagnostic system check INFO .

2. INSPECT FRONT AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS NOT DEPLOYED)

(a) Perform a diagnostic system check INFO .

(b) When the front bumper of the vehicle or the surrounding area is damaged, check if there is any damage to the front airbag sensor. If there are any following defects, replace the front airbag sensor with a new one:

- Cracks, dents or chips on the sensor housing.
- Cracks or other damage to the connector.
- Peeling off of the label or damage to the serial number.

CAUTION:

Be sure to follow the correct removal and installation procedures of the front airbag sensor.

3. INSPECT FRONT AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG IS DEPLOYED)

(a) When airbags have deployed as the result of a collision, be certain to replace all front airbag sensors in the damaged area (anywhere in need of repair). Furthermore, it is also necessary to replace any front airbag sensors in undamaged areas that have registered a major collision, or which exhibit any of the following abnormalities:

- Cracks, dents or chips on the sensor housing.
- Cracks or other damage to the connector.
- Peeling off of the label or damage to the serial number.

CAUTION:

Be sure to follow the correct removal and installation procedures of the front airbag sensor.

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWZ040X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT AIRBAG SENSOR: REMOVAL (2010 Corolla)		

REMOVAL

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO .

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

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

3. REMOVE RADIATOR GRILLE PROTECTOR INFO

4. REMOVE NO. 4 ENGINE UNDER COVER (for 2AZ-FE) INFO

5. REMOVE FRONT BUMPER ASSEMBLY INFO

6. REMOVE HEADLIGHT ASSEMBLY INFO

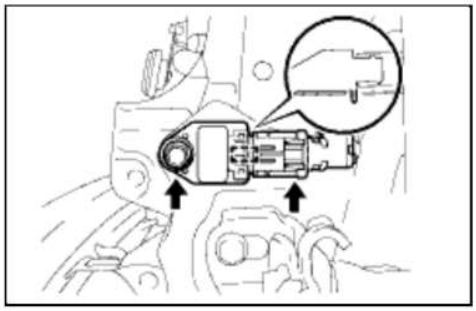
7. REMOVE FRONT AIRBAG SENSOR

(a) Check that the ignition switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

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



(c) Disconnect the connector from the front airbag sensor.

NOTICE:

When disconnecting the airbag connector, take care not to damage the airbag wire harness.

(d) Remove the bolt and front airbag sensor from the body.

NOTICE:

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Loosen the bolt while holding the front airbag sensor because the front airbag sensor pin (stopper) is easily damaged.



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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWW040X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT AIRBAG SENSOR: INSTALLATION (2010 Corolla)		

INSTALLATION

1. INSTALL FRONT AIRBAG SENSOR

(a) Check that the ignition switch is off.

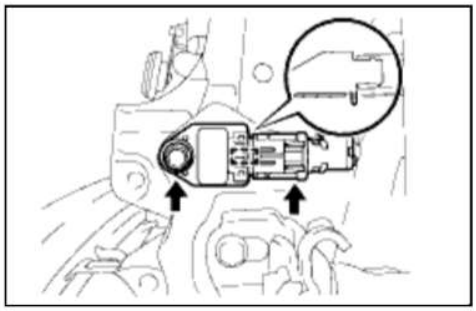
(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

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

(c) Install the front airbag sensor with the bolt and pin.

Torque: 9.0 N·m (92 kgf·cm, 80in·lbf)



NOTICE:

- If the front airbag sensor has been dropped, or there are any cracks, dents or other defects in the case or connector, replace it with a new one.
- When installing the front airbag sensor, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.
- Make sure that the pin is securely inserted into the body hole.
- Tighten the bolt while holding the front airbag sensor because the front airbag sensor pin (stopper) is easily damaged.

(d) Connect the connector.

NOTICE:

When connecting the airbag connector, take care not to damage the airbag wire harness.

(e) Check that there is no looseness in the installation parts of the front airbag sensor.

2. INSTALL HEADLIGHT ASSEMBLY INFO

3. INSTALL FRONT BUMPER ASSEMBLY INFO

4. INSTALL NO. 4 ENGINE UNDER COVER INFO

5. INSTALL RADIATOR GRILLE PROTECTOR INFO

6. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

7. INSPECT AND ADJUST HEADLIGHT AIMING

(a) Inspect and adjust headlight aiming INFO.

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8. INSPECT AND ADJUST FOG LIGHT AIMING (w/ Fog Light)

(a) Inspect and adjust fog light aiming INFO .

9. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light INFO .



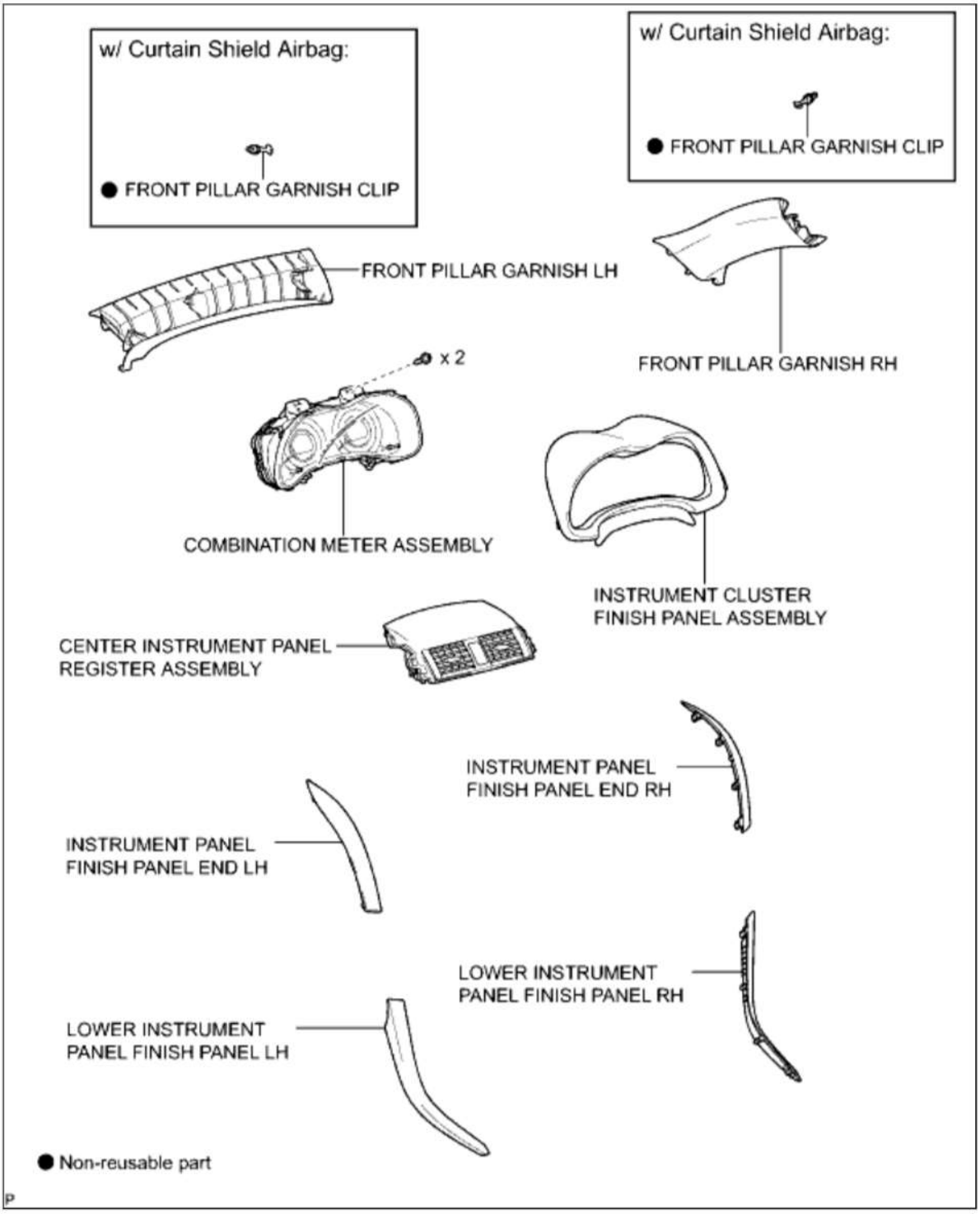
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Last Modified: 3-10-2010	6.4 K	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UX903BX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT PASSENGER AIRBAG ASSEMBLY: COMPONENTS (2010 Corolla)		

COMPONENTS

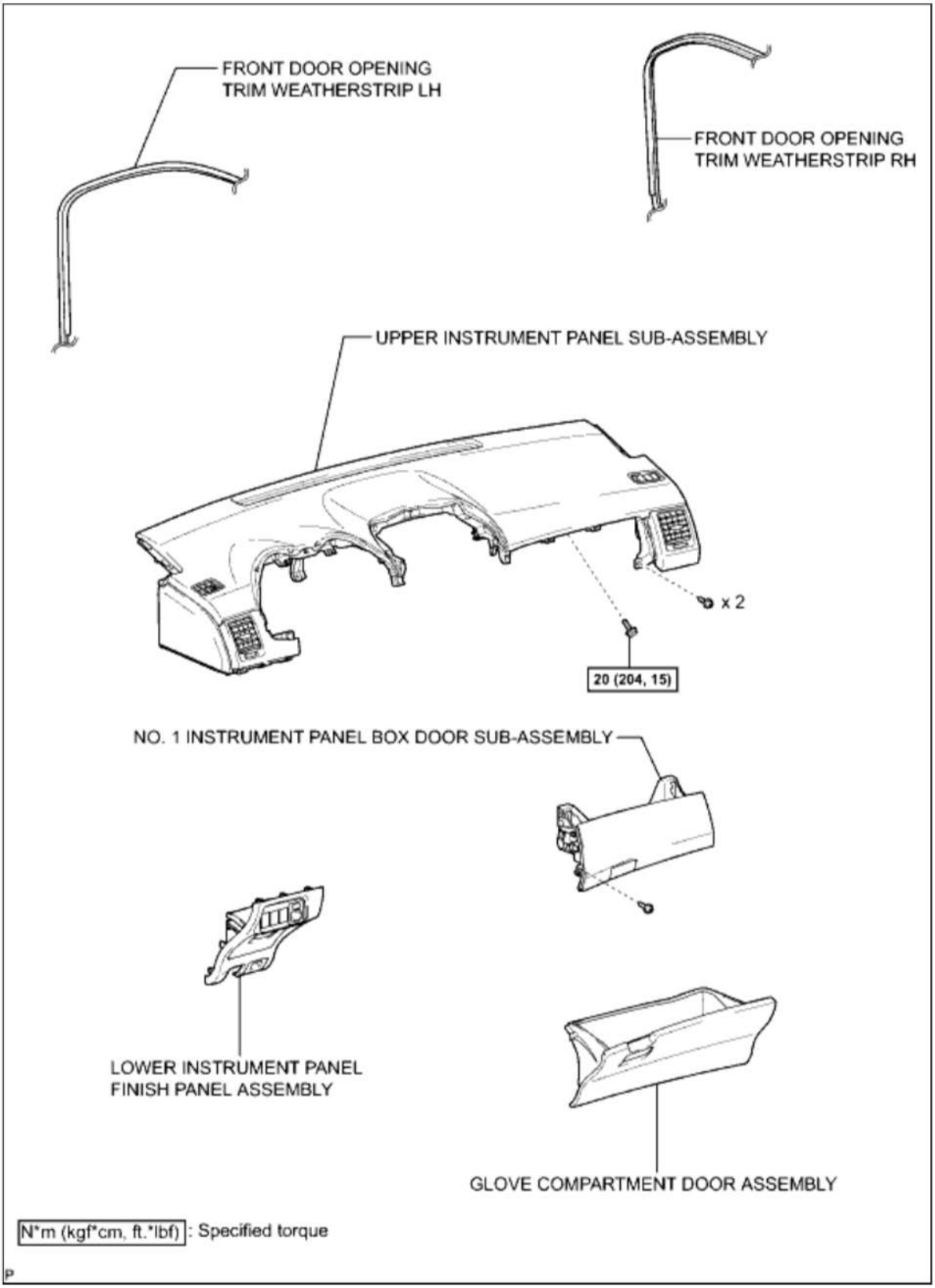
ILLUSTRATION

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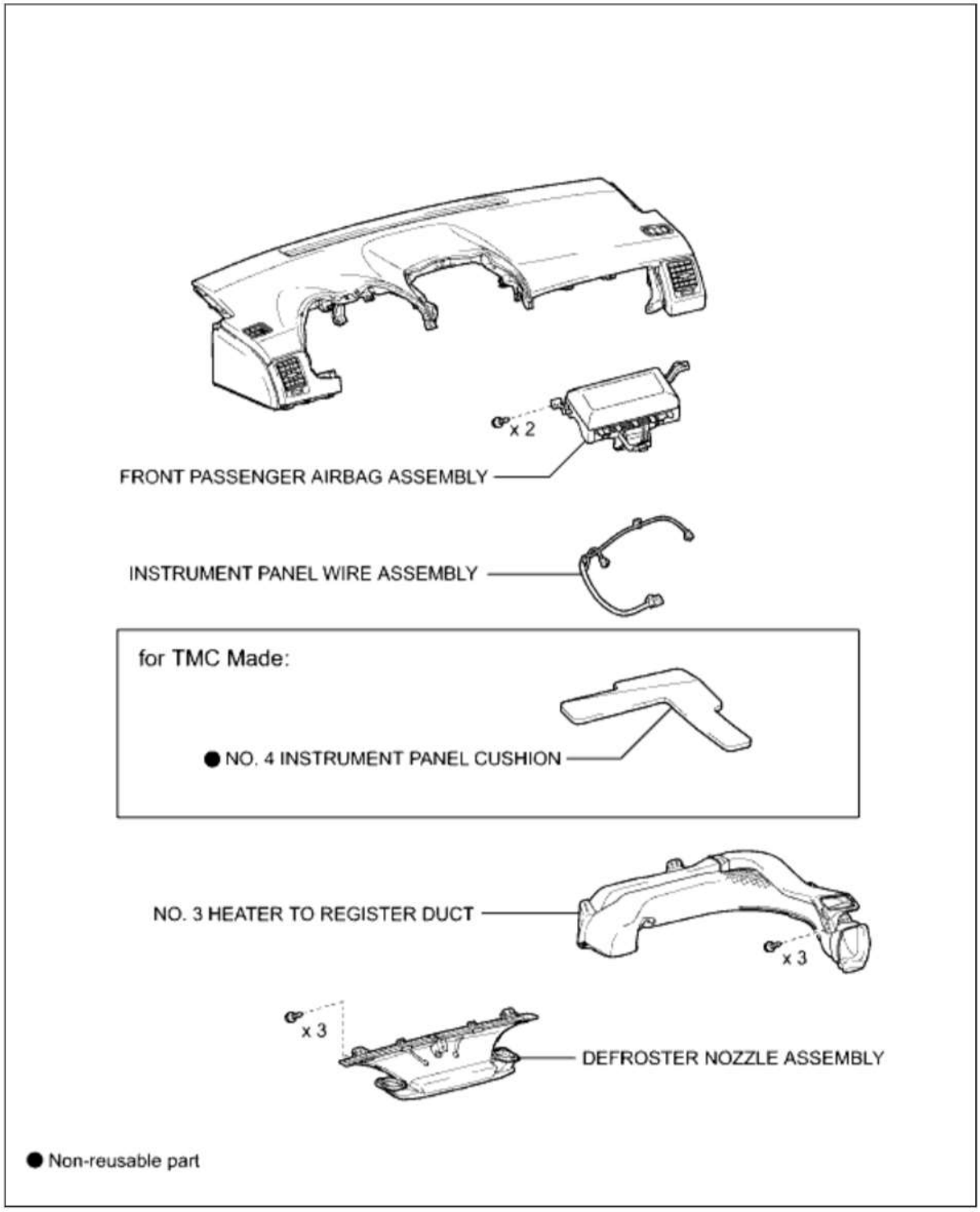
ILLUSTRATION

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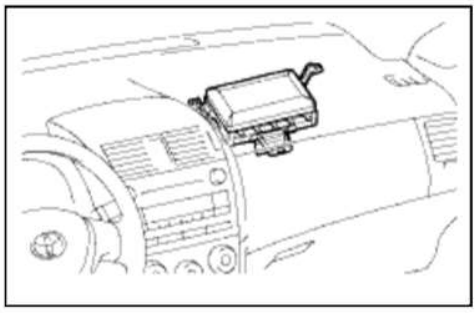
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Last Modified: 3-10-2010	6.4 G	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UXB045X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT PASSENGER AIRBAG ASSEMBLY: ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

1. INSPECT FRONT PASSENGER AIRBAG ASSEMBLY (VEHICLE NOT INVOLVED IN COLLISION)

(a) Perform a diagnostic system check INFO .

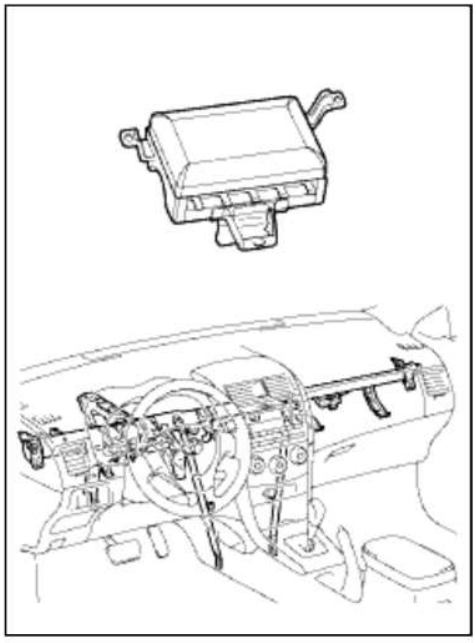


(b) With the front passenger airbag assembly installed on the vehicle, perform a visual check. If there are any following defects, replace the instrument panel with a new one:

Cuts, minute cracks or marked discoloration on the instrument panel around the front passenger airbag assembly.

2. INSPECT FRONT PASSENGER AIRBAG ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS NOT DEPLOYED)

(a) Perform a diagnostic system check INFO .



(b) With the front passenger airbag assembly removed from the vehicle, perform a visual check. If there are any following defects, replace the front passenger airbag assembly, instrument panel or instrument panel reinforcement with a new one:

- Cuts, minute cracks or marked discoloration on the front passenger airbag assembly.
- Cracks or other damage to the connectors.
- Deformation or cracks on the instrument panel or instrument panel reinforcement.

CAUTION:

Be sure to follow the correct removal and installation procedures of the front passenger airbag assembly.

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UXA04AX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT PASSENGER AIRBAG ASSEMBLY: REMOVAL (2010 Corolla)		

REMOVAL

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO .

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

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

3. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL LH INFO

4. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL RH INFO

5. REMOVE INSTRUMENT PANEL FINISH PANEL END LH INFO

6. REMOVE INSTRUMENT PANEL FINISH PANEL END RH INFO

7. REMOVE CENTER INSTRUMENT PANEL REGISTER ASSEMBLY INFO

8. REMOVE INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY INFO

9. REMOVE COMBINATION METER ASSEMBLY INFO

10. REMOVE FRONT PILLAR GARNISH LH (w/o Curtain Shield Airbag) INFO

11. REMOVE FRONT PILLAR GARNISH LH (w/ Curtain Shield Airbag) INFO

12. REMOVE FRONT PILLAR GARNISH RH (w/o Curtain Shield Airbag)

HINT:

Use the same procedure for the RH side and LH side INFO .

13. REMOVE FRONT PILLAR GARNISH RH (w/ Curtain Shield Airbag) INFO

14. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL ASSEMBLY INFO

15. DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP LH INFO

16. REMOVE GLOVE COMPARTMENT DOOR ASSEMBLY INFO

17. REMOVE NO. 1 INSTRUMENT PANEL BOX DOOR SUB-ASSEMBLY INFO

18. DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP RH

HINT:

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Use the same procedure for the RH side and LH side INFO .

19. DISCONNECT INSTRUMENT PANEL WIRE ASSEMBLY

(a) Check that the ignition switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

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



(c) Disconnect the connector.

NOTICE:

When disconnecting the airbag connector, take care not to damage the airbag wire harness.

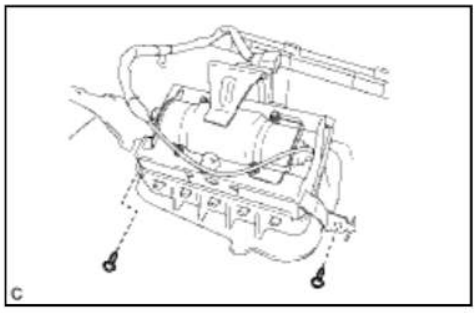
20. REMOVE UPPER INSTRUMENT PANEL SUB-ASSEMBLY INFO

21. REMOVE DEFROSTER NOZZLE ASSEMBLY INFO

22. REMOVE NO. 3 HEATER TO REGISTER DUCT INFO

23. REMOVE NO. 4 INSTRUMENT PANEL CUSHION (for TMC Made) INFO

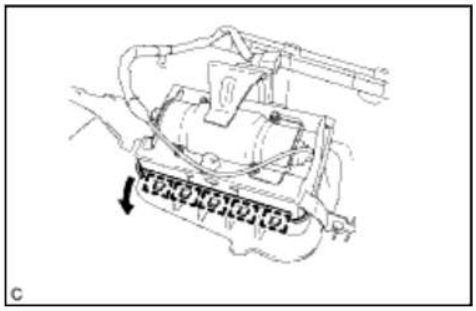
24. REMOVE FRONT PASSENGER AIRBAG ASSEMBLY

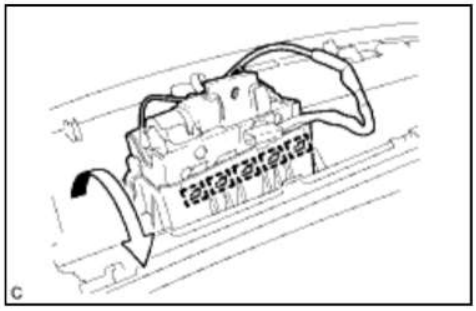


(a) Remove the 2 screws.

(b) Lean the instrument panel as shown the illustration and disengage the 5 hooks.

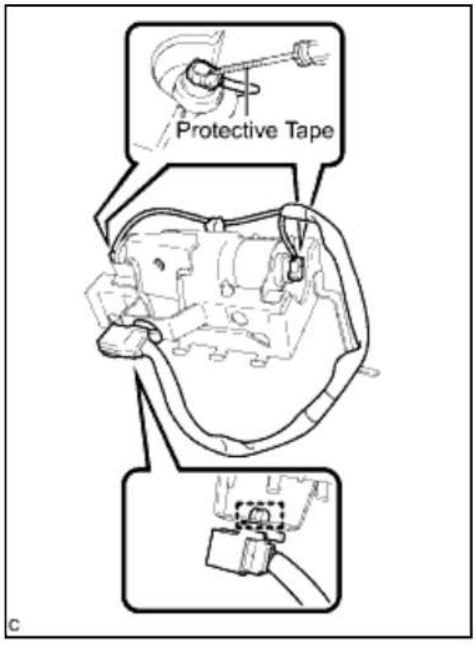
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(c) Disengage the 5 hooks and remove the front passenger airbag assembly from the instrument panel as shown in the illustration.

25. REMOVE INSTRUMENT PANEL WIRE ASSEMBLY



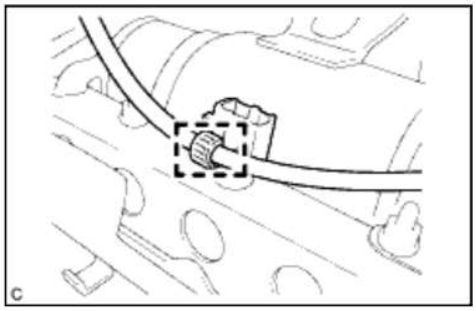
(a) Using a screwdriver with the tip wrapped with protective tape, disconnect the 2 airbag connectors and remove the clamp.

NOTICE:

When disconnecting the airbag connector, take care not to damage the airbag wire harness.

(b) Remove the clamp and instrument panel wire assembly from the front passenger airbag assembly.

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Last Modified: 3-10-2010	6.4 N	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UX604DX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT PASSENGER AIRBAG ASSEMBLY: DISPOSAL (2010 Corolla)		

DISPOSAL

CAUTION:

Before performing pre-disposal deployment of any SRS component, review and closely follow all applicable environmental and hazardous material regulations. Pre-disposal deployment may be considered hazardous material treatment.

1. PRECAUTION

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:

- An airbag or pretensioner may be activated by static electricity. To prevent this, be sure to touch a metal surface with bare hands to discharge static electricity before performing this procedure.
- Never dispose of a front passenger airbag assembly with an undeployed airbag.
- The airbag produces an exploding sound when it is deployed, so perform the operation outdoors and where it will not create a nuisance to nearby residents.
- When deploying the airbag, always use the specified SST (SRS Airbag Deployment Tool). Perform the operation in a place away from electrical noise.
- When deploying the airbag, perform the operation at least 10 m (33 ft.) away from the front passenger airbag assembly.
- The front passenger airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front passenger airbag assembly with a deployed airbag.
- Do not apply water, etc. to a front passenger airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

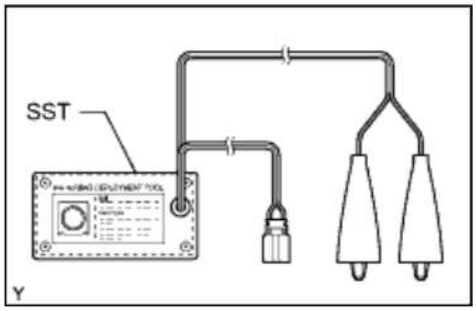
2. DISPOSE OF FRONT PASSENGER AIRBAG ASSEMBLY (WHEN INSTALLED IN VEHICLE)

HINT:

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

(a) Check the function of SST INFO .

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(b) Refer to Precaution INFO .

(c) Disconnect the cable from the negative (-) battery terminal.

CAUTION:

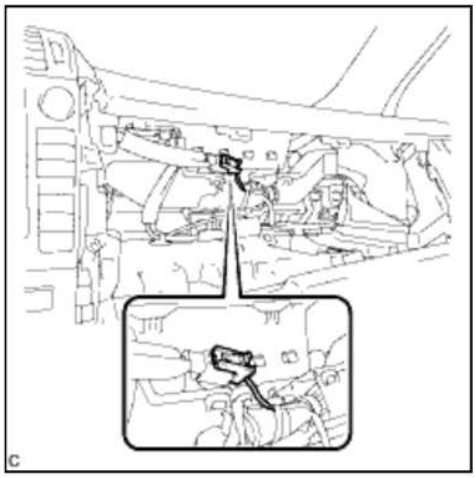
Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(d) Remove the lower instrument panel finish panel RH INFO .

(e) Remove the instrument panel finish panel end RH INFO .

(f) Remove the No. 1 instrument panel box door sub-assembly INFO .

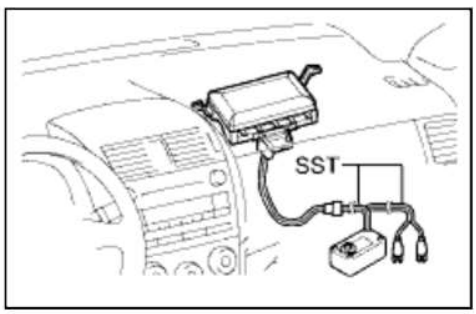
(g) Install SST.



(1) Disconnect the connector.

NOTICE:

When disconnecting the airbag connector, take care not to damage the airbag wire harness.



(2) Connect the SST connector to the instrument panel wire assembly.

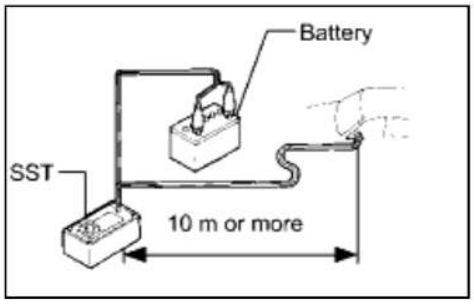
SST: 09082-00700

SST: 09082-00760

NOTICE:

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

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

(4) Maintaining sufficient clearance for the SST wire harness in the front side window, close all doors and windows of the vehicle.

NOTICE:

Take care not to damage the SST wire harness.

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

(h) Deploy the airbag.

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

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

CAUTION:

- When deploying the airbag, make sure that no one is near the vehicle.
- The front passenger airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front passenger airbag assembly with a deployed airbag.
- Do not apply water, etc. to a front passenger airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.

3. DISPOSE OF FRONT PASSENGER AIRBAG ASSEMBLY (WHEN NOT INSTALLED IN VEHICLE)

NOTICE:

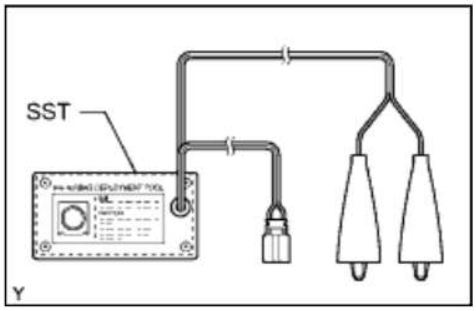
- When disposing of the front passenger airbag assembly, never use the customer's vehicle to deploy the airbag.
- Be sure to follow the following procedure when deploying the airbag.

HINT:

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

(a) Check the function of SST INFO .

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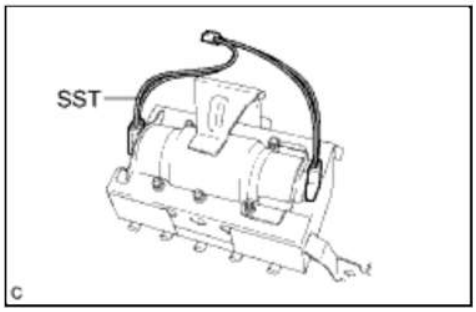


(b) Remove the front passenger airbag assembly INFO .

CAUTION:

- When removing the front passenger airbag assembly, before the work is started, leave the vehicle at least 90 seconds after turning the ignition switch off and disconnecting the cable from the negative (-) battery terminal.
- When storing the front passenger airbag assembly, keep the airbag deployment side facing upward.

(c) Install SST.



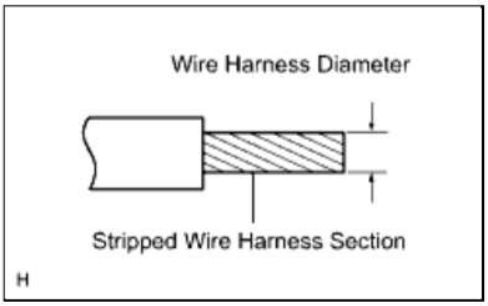
(1) After connecting SST below to each other, connect them to the front passenger airbag assembly.

SST: 09082-00802

09082-10801

09082-40800

(d) Using a service-purpose wire harness for the vehicle, tie down the front passenger airbag assembly to the tire.



Wire harness:

Stripped wire harness section

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

CAUTION:

If the wire harness is too thin or an alternative object is used to tie down the front passenger airbag assembly, it may be snapped by the shock when the airbag is deployed. Always use a wire harness for

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vehicle use with an area of at least 1.25 mm^2 (0.0019 $in.^2$).

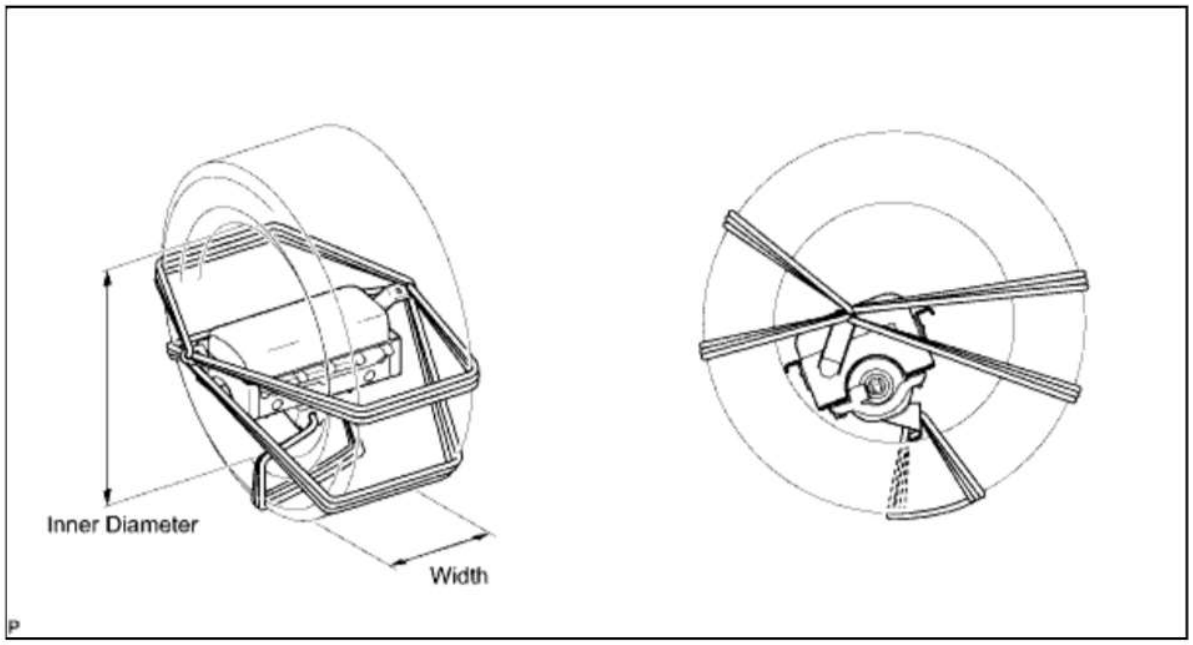
HINT:

To calculate the area of the stripped wire harness section:

Area = 3.14 x $(Diameter)^2$ divided by 4

(1) Position the front passenger airbag assembly inside the tire with the airbag deployment side facing inside.

Tire size:
Must exceed the following dimensions
Width:
185 mm (7.28 in.)
Inner diameter:
360 mm (14.2 in.)



CAUTION:

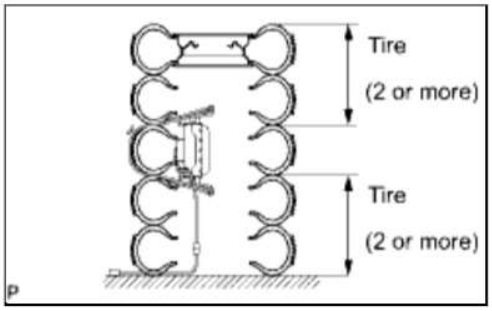
- Make sure that the wire harness is tight. If there is slack in the wire harness, the front passenger airbag assembly may become loose due to the shock when the airbag is deployed.
- Always tie down the front passenger airbag assembly with the airbag deployment side facing inside the tire.

NOTICE:

The tire will be marked by the airbag deployment, so use an extra tire.

(e) Place the tires.

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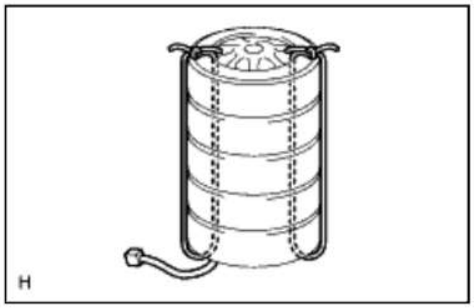


(1) Place at least 2 tires under the tire tied to the front passenger airbag assembly.

(2) Place at least 2 tires onto the tire tied to the front passenger airbag assembly. The top tire should have a disc wheel installed.

NOTICE:

Do not place the SST connector under the tire because it could be damaged.

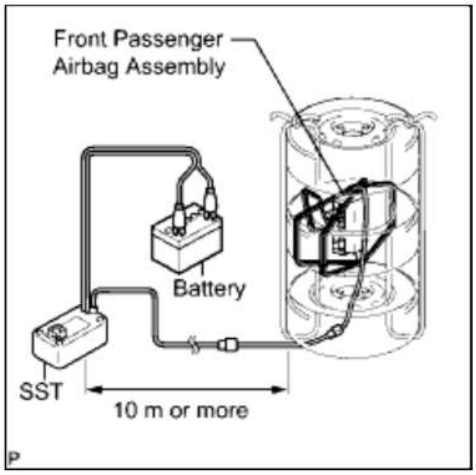


(3) Tie the tires together with the 2 wire harnesses.

CAUTION:

Make sure that the wire harnesses are tight. Looseness in the wire harnesses results in the tires coming free due to the shock 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.

(2) Move SST at least 10 m (33 ft.) away from the airbag tied down to the tire.

(g) Deploy the airbag.

(1) Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

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(2) Check that no one is within a 10 m (33 ft.) radius of the tire which the front passenger airbag assembly is tied to.

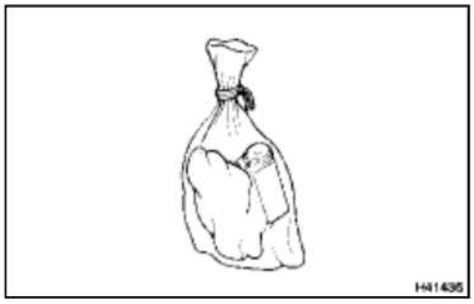
(3) Press the SST activation switch and deploy the airbag.

CAUTION:

When deploying the airbag, make sure that no one is near the tire.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.



(h) Dispose of the front passenger airbag assembly.

CAUTION:

- The front passenger airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front passenger airbag assembly with a deployed airbag.
- Do not apply water, etc. to a front passenger airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

(1) Remove the front passenger airbag assembly from the tire.

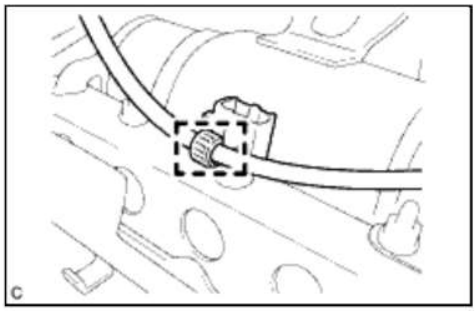
(2) Place the front passenger airbag assembly in a plastic bag, tie it tightly, and dispose of it as other general part disposal.

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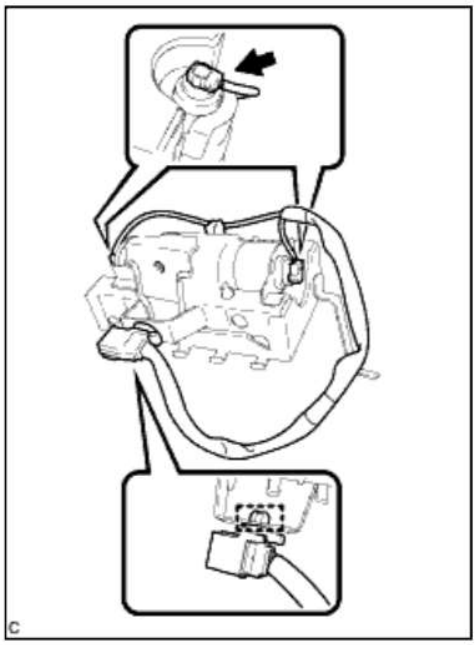
Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UX704CX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT PASSENGER AIRBAG ASSEMBLY: INSTALLATION (2010 Corolla)		

INSTALLATION

1. INSTALL INSTRUMENT PANEL WIRE ASSEMBLY



(a) Install the clamp.



(b) Connect the 2 airbag connectors.

(c) Install the clamp and instrument panel wire assembly on the front passenger airbag assembly.

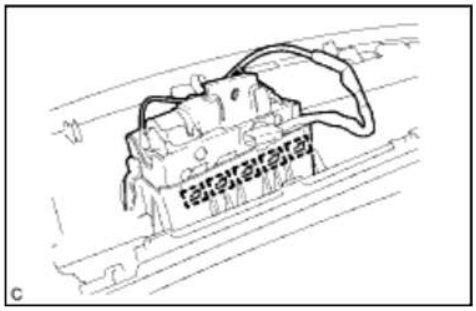
NOTICE:

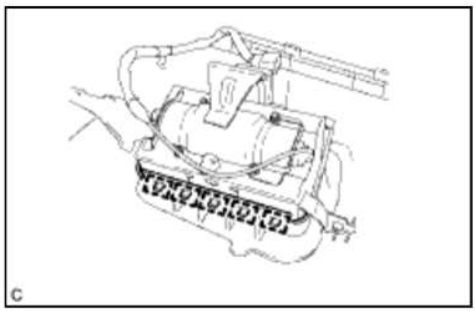
When connecting the airbag connector, take care not to damage the airbag wire harness.

2. INSTALL FRONT PASSENGER AIRBAG ASSEMBLY

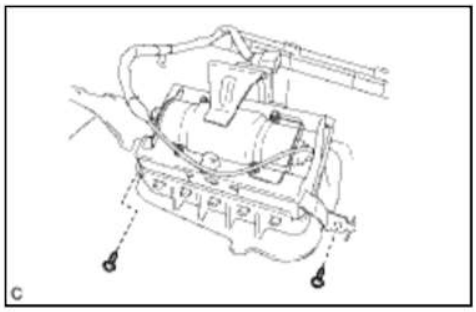
(a) Engage the 5 hooks.

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(b) Install the front passenger airbag assembly with the 5 hooks on the instrument panel.



(c) Install the 2 screws.

3. INSTALL NO. 4 INSTRUMENT PANEL CUSHION (for TMC Made) INFO

4. INSTALL NO. 3 HEATER TO REGISTER DUCT INFO

5. INSTALL DEFROSTER NOZZLE ASSEMBLY INFO

6. INSTALL UPPER INSTRUMENT PANEL SUB-ASSEMBLY INFO

7. CONNECT INSTRUMENT PANEL WIRE ASSEMBLY

(a) Check that the ignition switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

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

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(c) Connect the connector.

NOTICE:

When connecting the airbag connector, take care not to damage the airbag wire harness.

8. CONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP LH INFO

9. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL ASSEMBLY INFO

10. CONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP RH

HINT:

Use the same procedure for the RH side and LH side INFO .

11. INSTALL NO. 1 INSTRUMENT PANEL BOX DOOR SUB-ASSEMBLY INFO

12. INSTALL GLOVE COMPARTMENT DOOR ASSEMBLY INFO

13. INSTALL FRONT PILLAR GARNISH LH (w/ Curtain Shield Airbag) INFO

14. INSTALL FRONT PILLAR GARNISH LH (w/o Curtain Shield Airbag) INFO

15. INSTALL FRONT PILLAR GARNISH RH (w/ Curtain Shield Airbag) INFO

16. INSTALL FRONT PILLAR GARNISH RH (w/o Curtain Shield Airbag)

HINT:

Use the same procedure for the RH side and LH side INFO .

17. INSTALL COMBINATION METER ASSEMBLY INFO

18. INSTALL INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY INFO

19. INSTALL CENTER INSTRUMENT PANEL REGISTER ASSEMBLY INFO

20. INSTALL INSTRUMENT PANEL FINISH PANEL END LH INFO

21. INSTALL INSTRUMENT PANEL FINISH PANEL END RH INFO

22. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL LH INFO

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23. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL RH INFO

24. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

25. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light INFO .

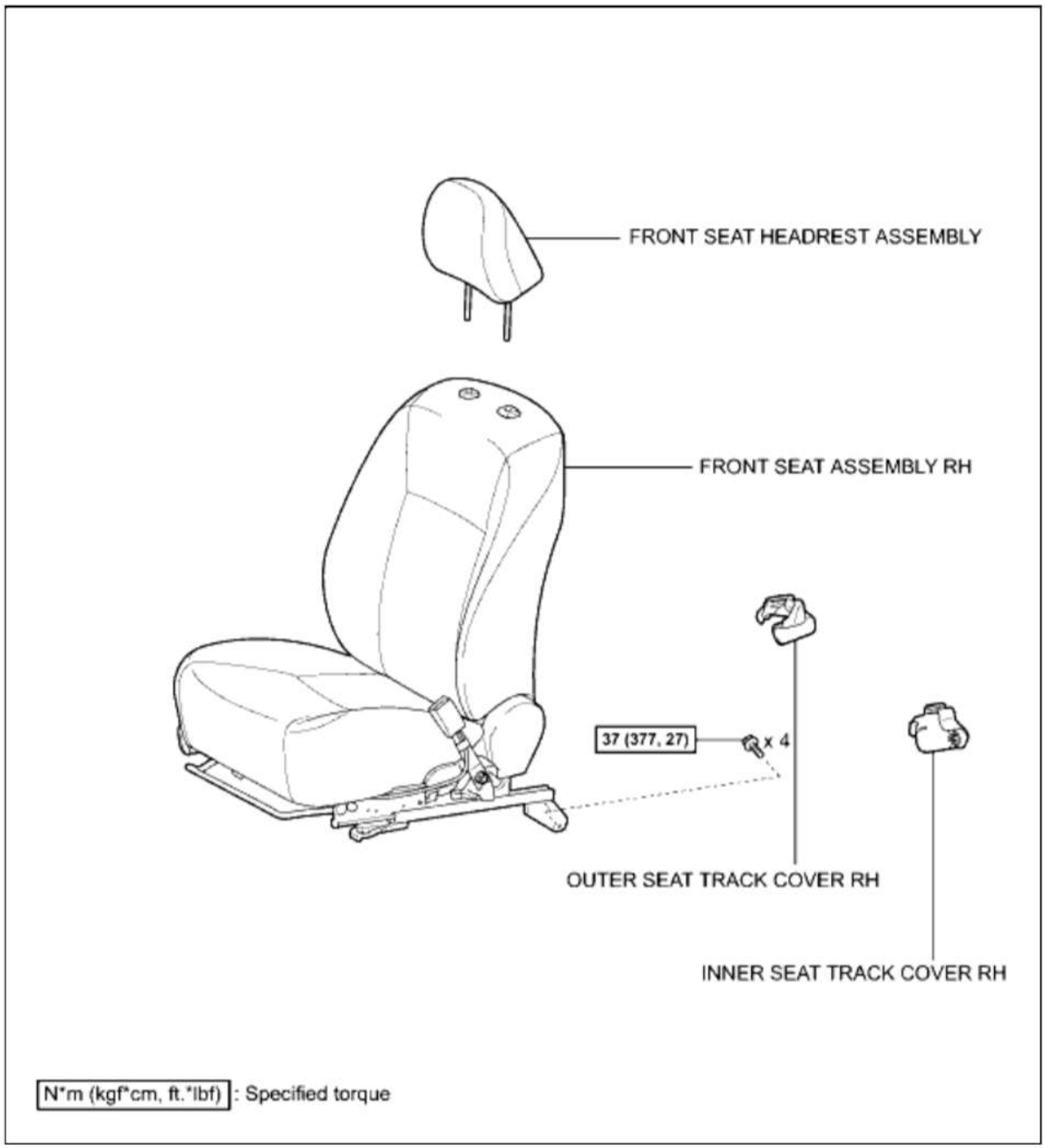


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Last Modified: 3-10-2010	6.4 K	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001Q5H00JX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT SEAT CUSHION ASSEMBLY (w/ Occupant Classification ECU, Occupant Classification Sensor): COMPONENTS (2010 Corolla)		

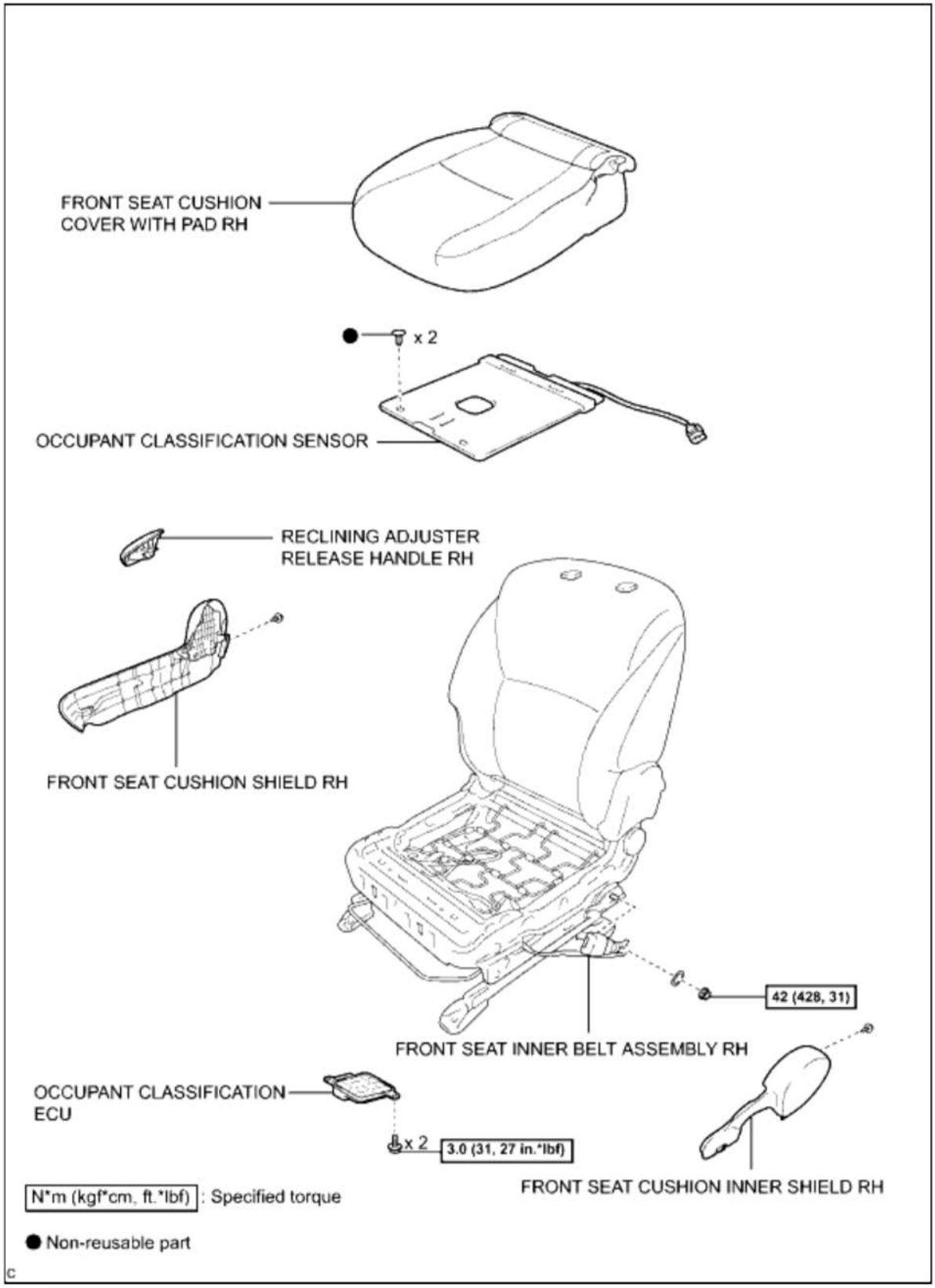
COMPONENTS

ILLUSTRATION



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Last Modified: 3-10-2010	6.4 G	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000013LT01AX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT SEAT CUSHION ASSEMBLY (w/ Occupant Classification ECU, Occupant Classification Sensor): ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

1. INSPECT OCCUPANT CLASSIFICATION SENSOR (VEHICLE NOT INVOLVED IN COLLISION)

(a) Perform a diagnostic system check INFO .

2. INSPECT OCCUPANT CLASSIFICATION SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS NOT DEPLOYED)

(a) Perform a diagnostic system check INFO .

(b) When an airbag has deployed as the result of a collision, be certain to replace the occupant classification sensor when it is in the damaged area (anywhere in need of repair). Furthermore, it is also necessary to replace the occupant classification sensor in an undamaged area that has registered a major collision, or which exhibits any of the following abnormalities:

- Cracks, dents or chips on the sensor housing.
- Cracks or other damage to the connector.
- Peeling off of the label or damage to the serial number.

CAUTION:

Be sure to follow the correct removal and installation of the occupant classification sensor.

3. INSPECT OCCUPANT CLASSIFICATION SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS DEPLOYED)

(a) When an airbag has deployed as the result of a collision, be certain to replace the occupant classification sensor in the damaged area (anywhere in need of repair). Furthermore, it is also necessary to replace the occupant classification sensor in an undamaged area that have registered a major collision, or which exhibits any of the following abnormalities:

- Cracks, dents or chips on the sensor housing.
- Cracks or other damage to the connector.
- Peeling off of the label or damage to the serial number.

CAUTION:

Be sure to follow the correct removal and installation of the occupant classification sensor.

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001Q5I00PX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT SEAT CUSHION ASSEMBLY (w/ Occupant Classification ECU, Occupant Classification Sensor): REMOVAL (2010 Corolla)		

REMOVAL

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO .

NOTICE:

When replacing the occupant classification ECU, perform registration INFO .

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

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

3. REMOVE FRONT SEAT HEADREST ASSEMBLY

4. REMOVE OUTER SEAT TRACK COVER RH INFO

5. REMOVE INNER SEAT TRACK COVER RH INFO

6. REMOVE FRONT SEAT ASSEMBLY RH INFO

7. REMOVE RECLINING ADJUSTER RELEASE HANDLE RH INFO

8. REMOVE FRONT SEAT CUSHION SHIELD RH INFO

9. SEPARATE FRONT SEAT INNER BELT ASSEMBLY RH INFO

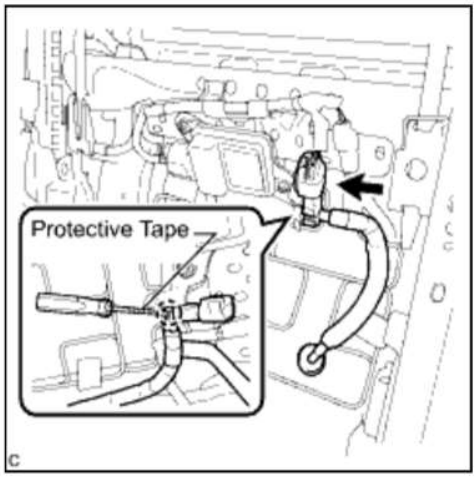
10. REMOVE FRONT SEAT CUSHION INNER SHIELD RH INFO

11. REMOVE FRONT SEAT CUSHION COVER WITH PAD RH INFO

12. REMOVE OCCUPANT CLASSIFICATION SENSOR

(a) Disconnect the connector.

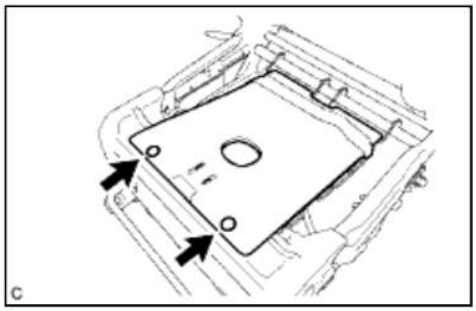
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(b) Using a screwdriver with the tip wrapped with protective tape, disengage the claw and remove the connector and clamp as shown in the illustration.

NOTICE:

Do not kink the pressure hose.



(c) Using a clip remover, disengage the 2 clips and remove the occupant classification sensor.

NOTICE:

When the occupant classification sensor is replaced, be sure to replace the occupant classification ECU as a set.

13. REMOVE OCCUPANT CLASSIFICATION ECU

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Last Modified: 3-10-2010	6.4 G	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000003HL7001X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT SEAT CUSHION ASSEMBLY (w/ Occupant Classification ECU, Occupant Classification Sensor): INSPECTION (2010 Corolla)		

INSPECTION

1. INSPECT OCCUPANT DETECTION SENSOR (SEPARATE TYPE FRONT SEAT CUSHION PAD)

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

Component without harness connected:
(Occupant Classification Sensor)



Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 3	The passenger seat is occupied	Below 100 Ω
1 - 3	The passenger seat is not occupied	Below 1 MΩ

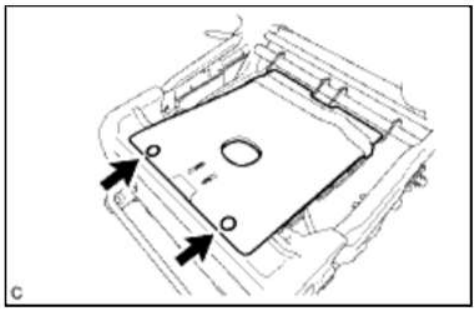
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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001Q5G00PX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT SEAT CUSHION ASSEMBLY (w/ Occupant Classification ECU, Occupant Classification Sensor): INSTALLATION (2010 Corolla)		

INSTALLATION

1. INSTALL OCCUPANT CLASSIFICATION ECU

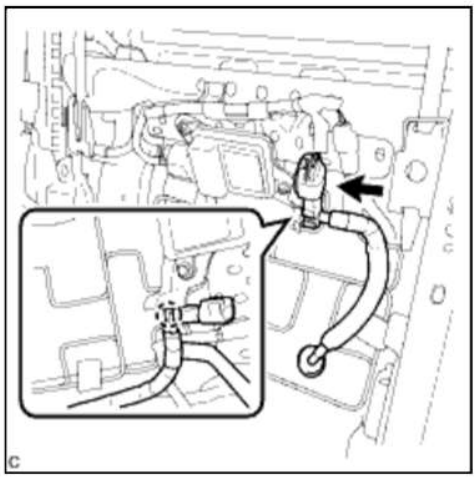
2. INSTALL OCCUPANT CLASSIFICATION SENSOR



(a) Install the occupant classification sensor with the 2 new clips.

NOTICE:

- Do not reuse the clip.
- Securely install the clip.
- Do not reuse an occupant classification sensor which has been dropped.
- Make sure that there is no foreign matter between the occupant classification sensor and seat assembly.



(b) Install the connector with the claw.

(c) Install the clamp and connect the connector.

CAUTION:

- Make sure the gel mat pressure hose is closer to the floor than the main harness.
- When setting the pressure hose, make sure the hose is not twisted. 1 full twist or more will damage the pressure hose.
- Make sure the radius of the circular path of the pressure hose is 20 mm (0.787 in.) or more.
- After connecting the connectors, make sure that the connectors are not strained or pulled apart.
- Make sure that the pressure hose is not pinched between other components.
- Do not kink the pressure hose.

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3. INSTALL FRONT SEAT CUSHION COVER WITH PAD RH INFO

4. INSTALL FRONT SEAT CUSHION INNER SHIELD RH INFO

5. INSTALL FRONT SEAT INNER BELT ASSEMBLY RH INFO

6. INSTALL FRONT SEAT CUSHION SHIELD RH INFO

7. INSTALL RECLINING ADJUSTER RELEASE HANDLE RH INFO

8. INSTALL FRONT SEAT ASSEMBLY RH INFO

9. INSPECT FRONT SEAT SLIDE ADJUSTER LOCK INFO

10. INSTALL INNER SEAT TRACK COVER RH INFO

11. INSTALL OUTER SEAT TRACK COVER RH INFO

12. INSTALL FRONT SEAT HEADREST ASSEMBLY

13. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

14. PERFORM REGISTRATION

(a) If the occupant classification ECU has been replaced, perform registration INFO .

15. PERFORM ZERO POINT CALIBRATION AND SENSITIVITY CHECK

(a) If the occupant classification ECU has been replaced, perform zero point calibration and sensitivity check INFO .

16. INSPECT SRS WARNING LIGHT

(a) Inspect SRS warning light INFO .



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Last Modified: 3-10-2010	6.4 N	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UX004UX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT SEAT SIDE AIRBAG ASSEMBLY: DISPOSAL (2010 Corolla)		

DISPOSAL

CAUTION:

Before performing pre-disposal deployment of any SRS component, review and closely follow all applicable environmental and hazardous material regulations. Pre-disposal deployment may be considered hazardous material treatment.

1. PRECAUTION

HINT:

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

CAUTION:

- An airbag or pretensioner may be activated by static electricity. To prevent this, be sure to touch a metal surface with bare hands to discharge static electricity before performing this procedure.
- Never dispose of a front seat side airbag assembly with an undeployed airbag.
- The airbag produces an exploding sound when it is deployed, so perform the operation outdoors and where it will not create a nuisance to nearby residents.
- When deploying the airbag, always use the specified SST (SRS Airbag Deployment Tool). Perform the operation in a place away from electrical noise.
- When deploying the airbag, perform the operation at least 10 m (33 ft.) away from the front seat side airbag assembly.
- The front seat side airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front seat side airbag assembly with a deployed airbag.
- Do not apply water, etc. to a front seat side airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

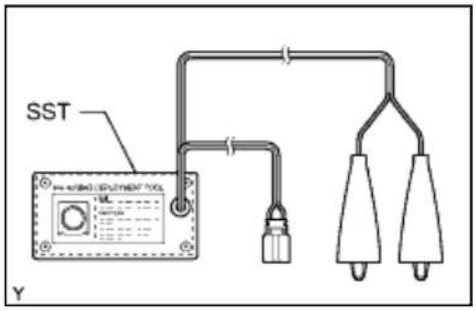
2. DISPOSE OF FRONT SEAT SIDE AIRBAG ASSEMBLY (WHEN INSTALLED IN VEHICLE)

HINT:

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

(a) Check the function of SST INFO .

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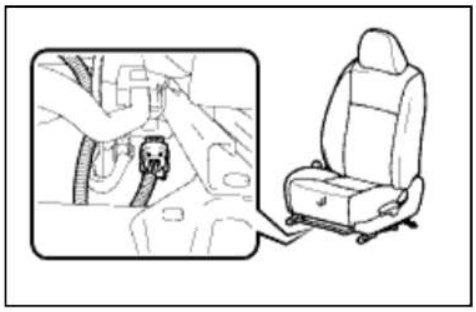
(b) Refer to Precaution INFO .

(c) Disconnect the cable from the negative (-) battery terminal.

CAUTION:

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

(d) Install SST.

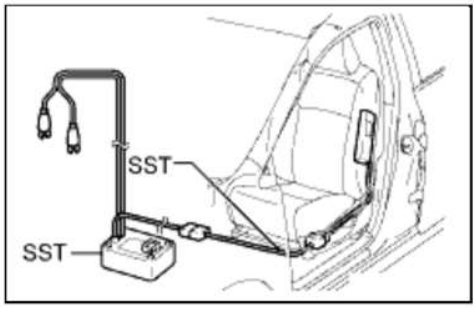


(1) Slide the front seat to the back of the vehicle.

(2) Disconnect the connector (yellow colored one) from the front seat side airbag assembly.

NOTICE:

When disconnecting the airbag connector, take care not to damage the airbag wire harness.



(3) Connect the SST connector to the front seat side airbag assembly connector.

SST: 09082-00700

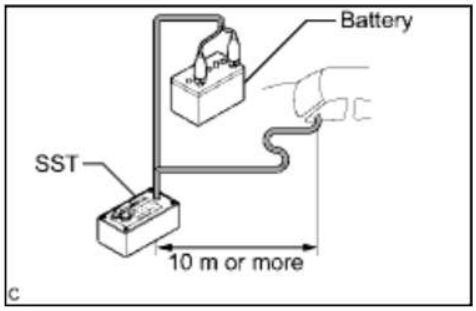
SST: 09082-00820

NOTICE:

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

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

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(5) Maintaining sufficient clearance for the SST wire harness in the front side window, close all doors and windows of the vehicle.

NOTICE:

Take care not to damage the SST wire harness.

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

(e) Deploy the airbag.

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

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

CAUTION:

- When deploying the airbag, make sure that no one is near the vehicle.
- The front seat side airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front seat side airbag assembly with a deployed airbag.
- Do not apply water, etc. to a front seat side airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.

3. DISPOSE OF FRONT SEAT SIDE AIRBAG ASSEMBLY (WHEN NOT INSTALLED IN VEHICLE)

NOTICE:

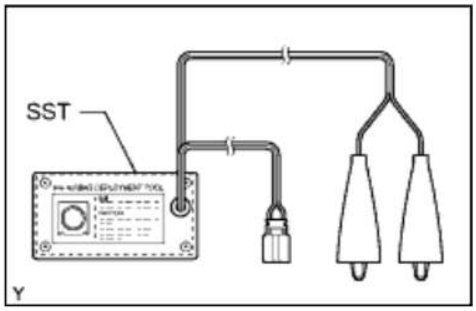
- When disposing of the front seat side airbag assembly, never use the customer's vehicle to deploy the airbag.
- Be sure to follow the following procedure when deploying the airbag.

HINT:

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

(a) Check the function of SST INFO .

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(b) Remove the front seat side airbag assembly.

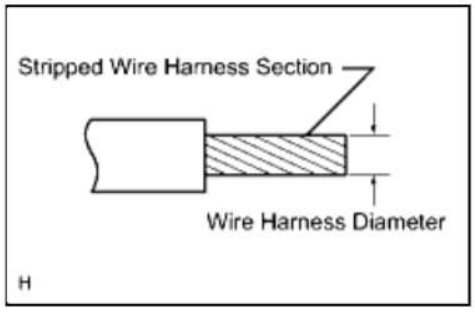
(1) Remove the front seat assembly INFO for manual seat, INFO for power seat).

(2) Remove the 2 nuts and the front seat side airbag assembly from the seatback assembly INFO for manual seat, INFO for power seat).

CAUTION:

- When removing the front seat side airbag assembly, before the work is started, leave the vehicle at least 90 seconds after turning the ignition switch off and disconnecting the cable from the negative (-) battery terminal.
- When storing the front seat side airbag assembly, keep the airbag deployment side facing upward.

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



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

CAUTION:

If the wire harness is too thin or an alternative object is used to tie down the front seat side airbag assembly, it may be snapped by the shock when the airbag is deployed. Always use a wire harness for vehicle use with an area of at least 1.25 mm^2 (0.0019 $in.^2$).

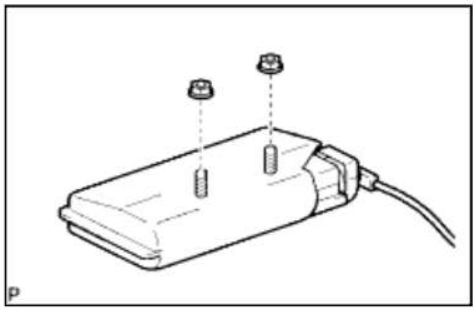
HINT:

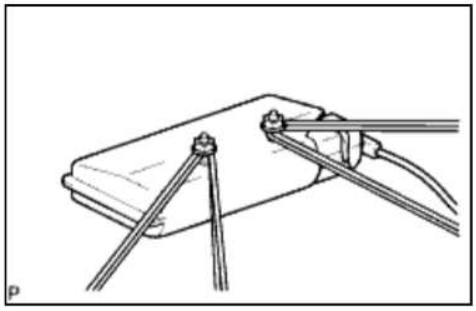
To calculate the area of the stripped wire harness section:

Area = 3.14 x $(Diameter)^2$ divided by 4

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

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

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

Tire size:

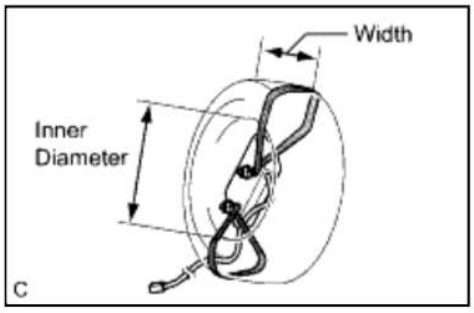
Must exceed the following dimensions

Width:

185 mm (7.28 in.)

Inner diameter:

360 mm (14.2 in.)



CAUTION:

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

NOTICE:

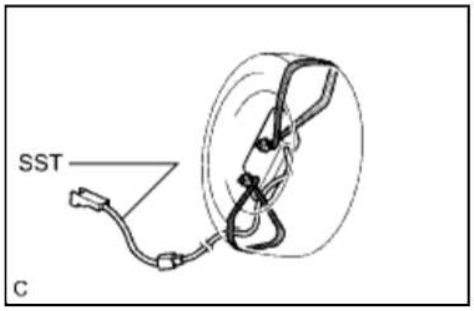
The tire will be marked by the airbag deployment, so use an extra tire.

(d) Install SST.

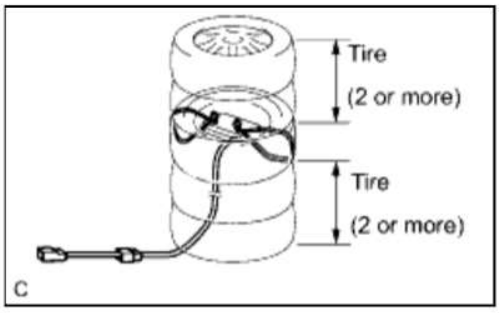
(1) Connect the SST connector to the front seat side airbag assembly connector.

SST: 09082-00820

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(e) Place the tires.

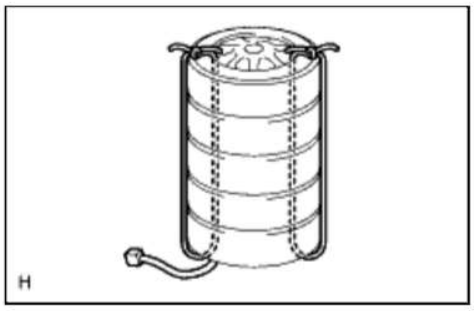


(1) Place at least 2 tires under the tire tied to the front seat side airbag assembly.

(2) Place at least 2 tires onto the tire tied to the front seat side airbag assembly. The top tire should have the disc wheel installed.

NOTICE:

Do not place the SST connector under the tire because it could be damaged.



(3) Tie the tires together with the 2 wire harnesses.

CAUTION:

Make sure that the wire harnesses are tight. Looseness in the wire harnesses results in the tires coming free due to the shock when the airbag is deployed.

(f) Install SST.

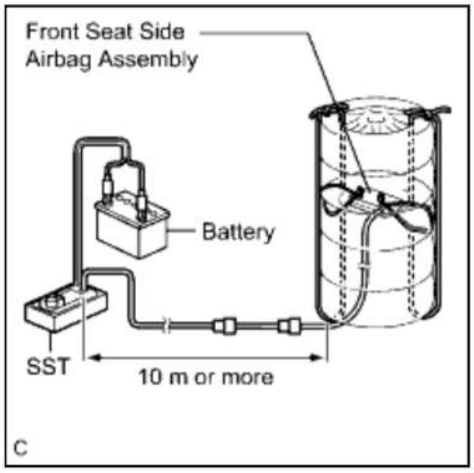
(1) Connect the SST connector.

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.

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(2) Move SST at least 10 m (33 ft.) away from the airbag tied down to the tire.

(g) Deploy the airbag.

(1) Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

(2) Check that no one is within a 10 m (33 ft.) radius of the tire which the front seat side airbag assembly is tied to.

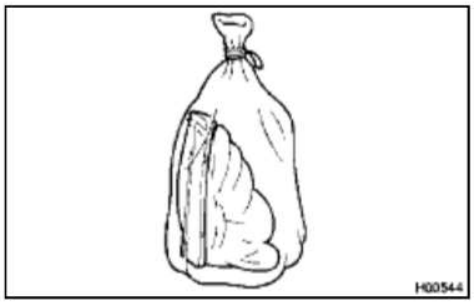
(3) Press the SST activation switch and deploy the airbag.

CAUTION:

When deploying the airbag, make sure that no one is near the tire.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.



(h) Dispose of the front seat side airbag assembly.

CAUTION:

- The front seat side airbag assembly becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front seat side airbag assembly with a deployed airbag.
- Do not apply water, etc. to a front seat side airbag assembly with a deployed airbag.
- Always wash your hands with water after completing the operation.

(1) Remove the front seat side airbag assembly from the tire.

(2) Place the front seat side airbag assembly in a plastic bag, tie it tightly, and dispose of it as other general part disposal.

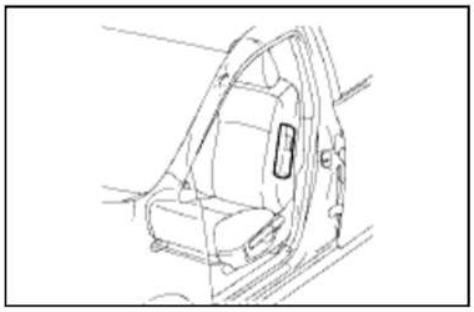
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Last Modified: 3-10-2010	6.4 G	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000VPS04KX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT SEAT SIDE AIRBAG ASSEMBLY: ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

1. INSPECT FRONT SEAT SIDE AIRBAG ASSEMBLY (VEHICLE NOT INVOLVED IN COLLISION)

(a) Perform a diagnostic system check INFO .

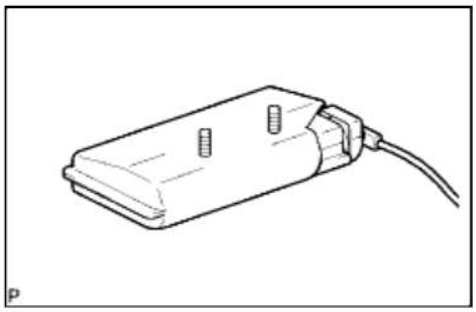


(b) With the front seat side airbag assembly installed on the vehicle, perform a visual check. If there are any following defects, replace the front seat assembly with a new one:

Cuts, minute cracks or marked discoloration on the front seatback assembly around the front seat side airbag assembly.

2. INSPECT FRONT SEAT SIDE AIRBAG ASSEMBLY (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS NOT DEPLOYED)

(a) Perform a diagnostic system check INFO .



(b) With the front seat side airbag assembly removed from the vehicle, perform a visual check. If there are any following defects, replace the front seat assembly with a new one:

- There are scratches, broken or frayed threads on the surface of the front seat side airbag assembly base fabric.
- A front seat side airbag assembly that has been dropped.
- A front seat side airbag assembly with a deformed installation part.
- Cracks or other damage to the wire harness or connector.

CAUTION:

Be sure to follow the correct removal and installation procedures of the front seat assembly.

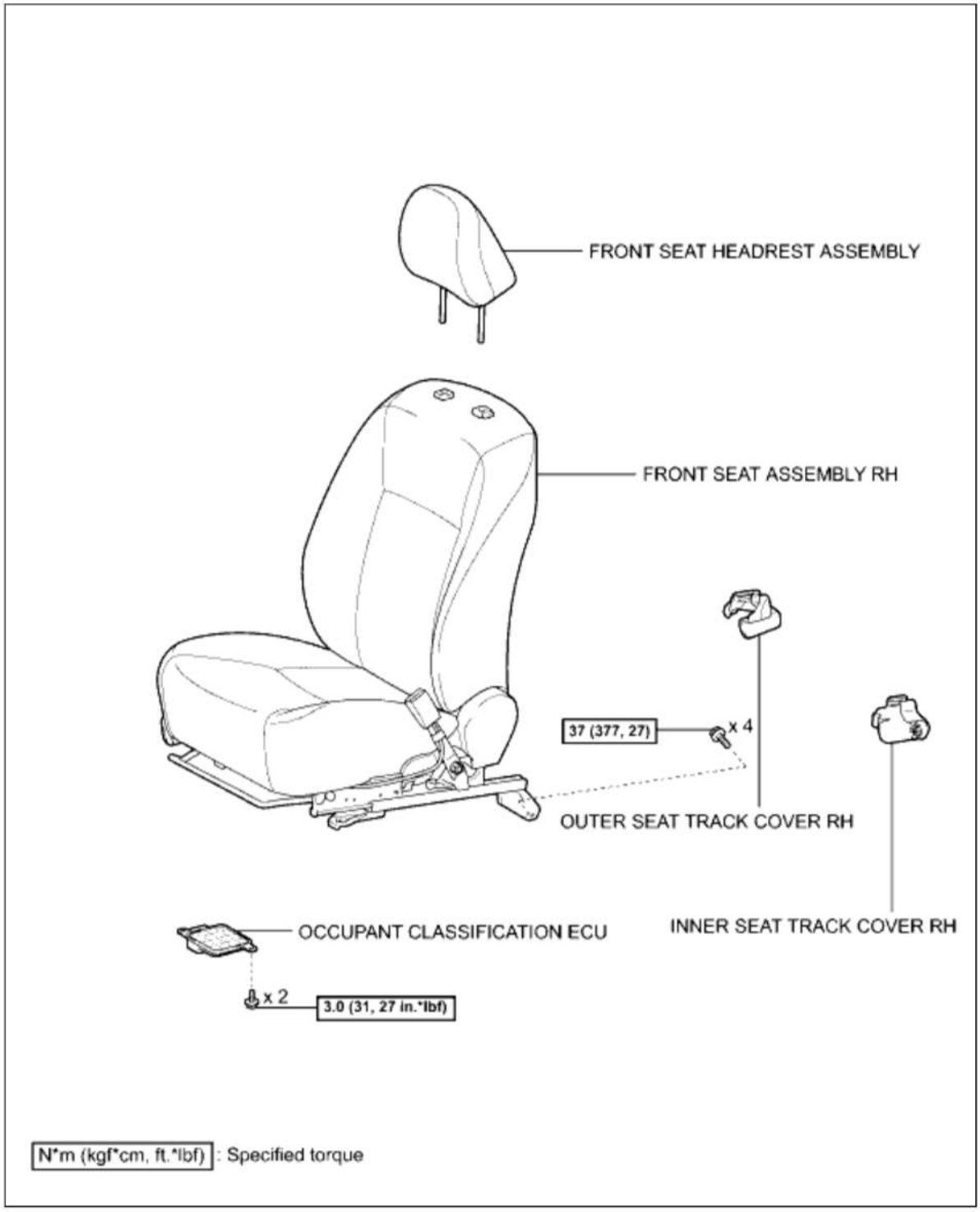
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Last Modified: 3-10-2010	6.4 K	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000011JF00ZX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION ECU: COMPONENTS (2010 Corolla)		

COMPONENTS

ILLUSTRATION

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Last Modified: 3-10-2010	6.4 G	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000011JH014X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION ECU: ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

1. INSPECT OCCUPANT CLASSIFICATION ECU (VEHICLE NOT INVOLVED IN COLLISION)

(a) Perform a diagnostic system check INFO .

2. INSPECT OCCUPANT CLASSIFICATION ECU (VEHICLE INVOLVED IN COLLISION)

(a) Perform a diagnostic system check INFO .

(b) Even if an airbag was not deployed, check if there is any damage to the occupant classification ECU. If there are any following defects, replace the occupant classification ECU with a new one:

- Cracks, dents or chips on the case.
- Cracks or other damage to the connector.

CAUTION:

Be sure to follow the correct removal and installation procedures of the occupant classification ECU.

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000011JG016X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION ECU: REMOVAL (2010 Corolla)		

REMOVAL

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO .

NOTICE:

When replacing the occupant classification ECU, perform registration INFO .

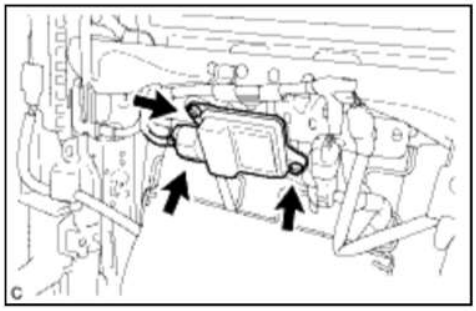
2. REMOVE FRONT SEAT ASSEMBLY RH

(a) Remove the front seat assembly RH.

HINT:

Use the same procedure for the RH side and the LH side INFO .

3. REMOVE OCCUPANT CLASSIFICATION ECU



(a) Disconnect the connector from the occupant classification ECU.

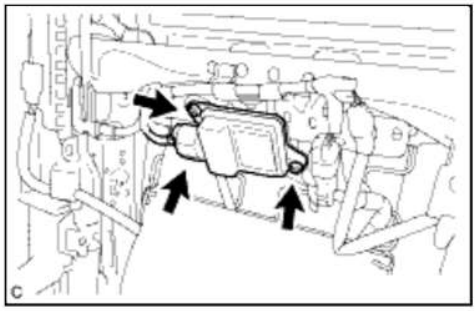
(b) Remove the 2 screws and occupant classification ECU.

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000011JE016X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION ECU: INSTALLATION (2010 Corolla)		

INSTALLATION

1. INSTALL OCCUPANT CLASSIFICATION ECU



(a) Install the occupant classification ECU with the 2 claws.

Torque: 3.0 N·m (31 kgf·cm, 27in·lbf)

NOTICE:

- If the occupant classification ECU has been dropped, or there are any cracks, dents or other defects in the case or connector, replace the occupant classification ECU with a new one.
- When installing the occupant classification ECU, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.
- Do not allow oil or grease to adhere to the occupant classification ECU during installation.

(b) Connect the connector.

2. INSTALL FRONT SEAT ASSEMBLY RH

(a) Install the front seat assembly RH.

HINT:

Use the same procedure for the RH side and LH side INFO .

3. PERFORM REGISTRATION

(a) If the occupant classification ECU has been replaced, perform registration INFO .

4. ZERO POINT CALIBRATION AND SENSITIVITY CHECK

(a) If the occupant classification ECU has been replaced, perform zero point calibration and sensitivity check INFO .

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Last Modified: 3-10-2010	6.4 L	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000010V0041X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: PRECAUTION (2010 Corolla)		

PRECAUTION

NOTICE:

Do not use seat accessories (such as cushions or covers) that cover the front seats. Also, do not modify or replace the upholstery of the front seat. Doing so may prevent the front passenger airbag system from activating correctly, disable the system or cause the front passenger airbag to inflate accidentally, and result in death or serious injury.

1. INSPECTION PROCEDURE FOR VEHICLE INVOLVED IN ACCIDENT

(a) Perform the zero point calibration and sensitivity check if any of the following conditions are met:

- The occupant classification ECU is replaced.
- The passenger airbag ON/OFF indicator indicates OFF when the front passenger seat is not occupied.
- The vehicle is brought to the workshop for repair after an accident or a collision.

2. EXPRESSIONS OF IGNITION SWITCH

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

EXPRESSION	SWITCH TYPE	
	IGNITION SWITCH (POSITION)	ENGINE SWITCH (CONDITION)
Ignition Switch off	LOCK	Off
Ignition Switch ON	ON	On (IG)
Ignition Switch ACC	ACC	On (ACC)
Engine Start	START	Start

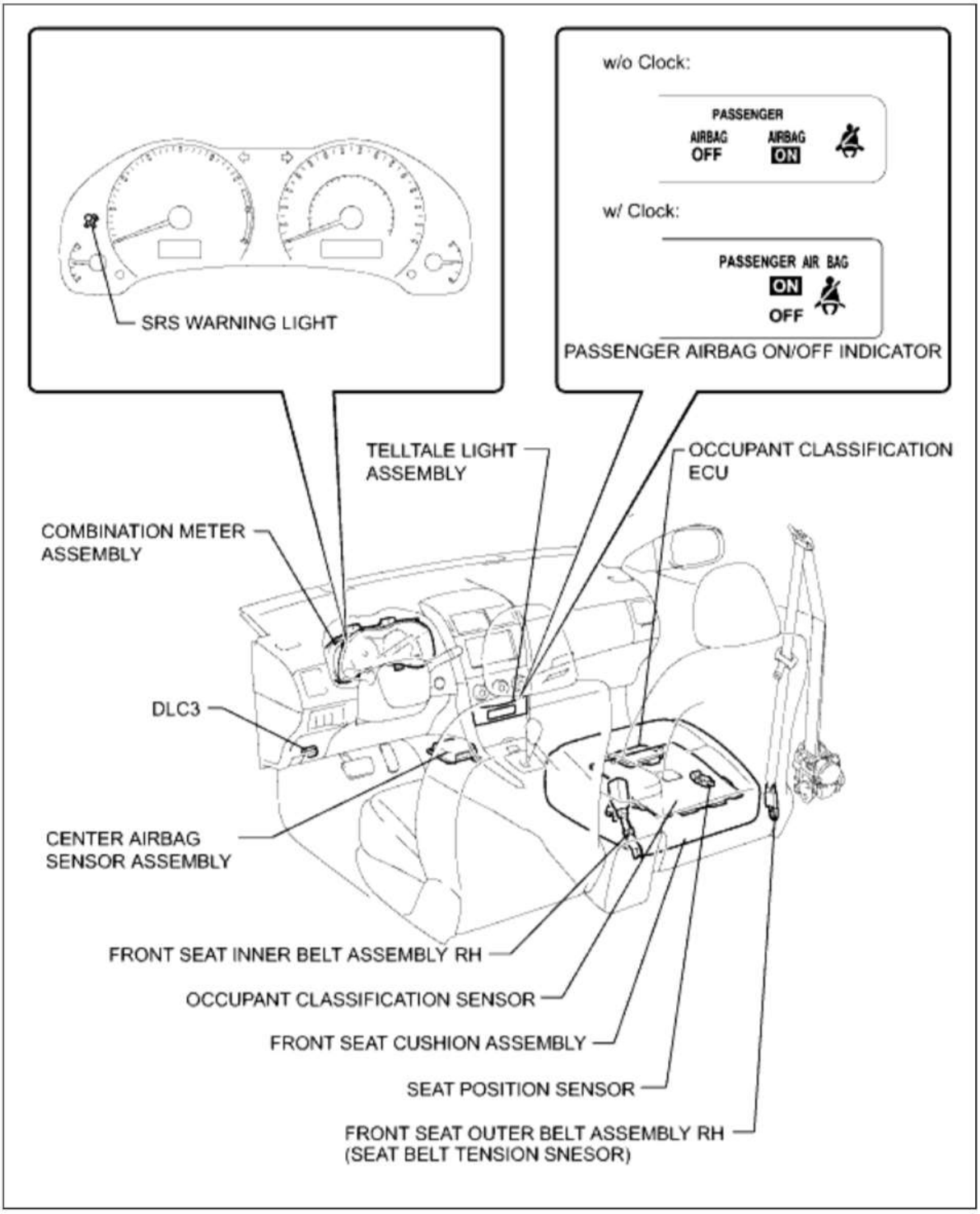
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Last Modified: 3-10-2010	6.4 R	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001OQK00MX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: PARTS LOCATION (2010 Corolla)		

PARTS LOCATION

ILLUSTRATION

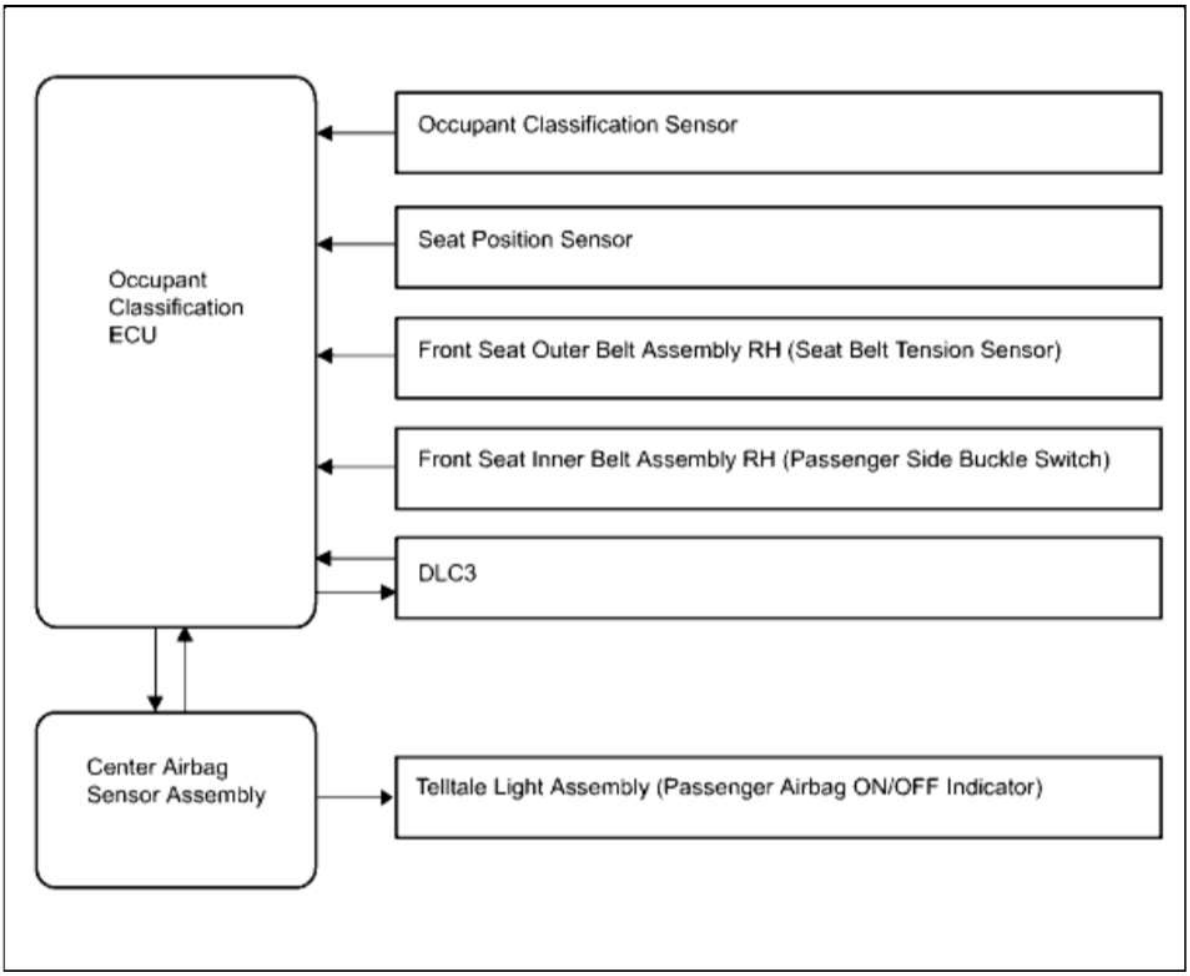
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Last Modified: 3-10-2010	6.4 U	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001OQP01DX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: SYSTEM DIAGRAM (2010 Corolla)		

SYSTEM DIAGRAM



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Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000010V1042X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: HOW TO PROCEED WITH TROUBLESHOOTING (2010 Corolla)		

HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

***: Use the Techstream.**

1.	**VEHICLE BROUGHT TO WORKSHOP**

NEXT

2.	**CUSTOMER PROBLEM ANALYSIS**

(a) Confirm problem symptoms INFO.

NEXT

3.	**PASSENGER AIRBAG ON/OFF INDICATOR CHECK**

(a) Proceed to Diagnosis System INFO.

NEXT

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

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(a) Proceed to DTC Check / Clear INFO .

Result:

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

B ▶ INFO **GO TO PROBLEM SYMPTOMS TABLE**

A
▼

5.	**DIAGNOSTIC TROUBLE CODE CHART**

(a) Proceed to Diagnostic Trouble Code Chart INFO .

NEXT
▼

6.	**CIRCUIT INSPECTION***

NEXT
▼

7.	**REPAIR**

NEXT
▼

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8.	CLEAR DTC (Present and Past DTCs)*

(a) Proceed to DTC Check / Clear INFO .

NEXT

9.	DTC CHECK (Present and Past DTCs)*

(a) Proceed to DTC Check / Clear INFO .

Result:

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

B INFO **GO TO DIAGNOSTIC TROUBLE CODE CHART**

A

10.	SYMPTOM SIMULATION

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

Result:

RESULT	PROCEED TO
Passenger airbag ON/OFF indicator operates normally.	A
Passenger airbag ON/OFF indicator ("OFF") and SRS warning light come on.	B

B INFO **GO TO DIAGNOSTIC TROUBLE CODE CHART**

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A

11.	CONFIRMATION TEST

NEXT END

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Last Modified: 3-10-2010	6.4 D	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001OQO01CX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: SYSTEM DESCRIPTION (2010 Corolla)		

SYSTEM DESCRIPTION

1. GENERAL DESCRIPTION

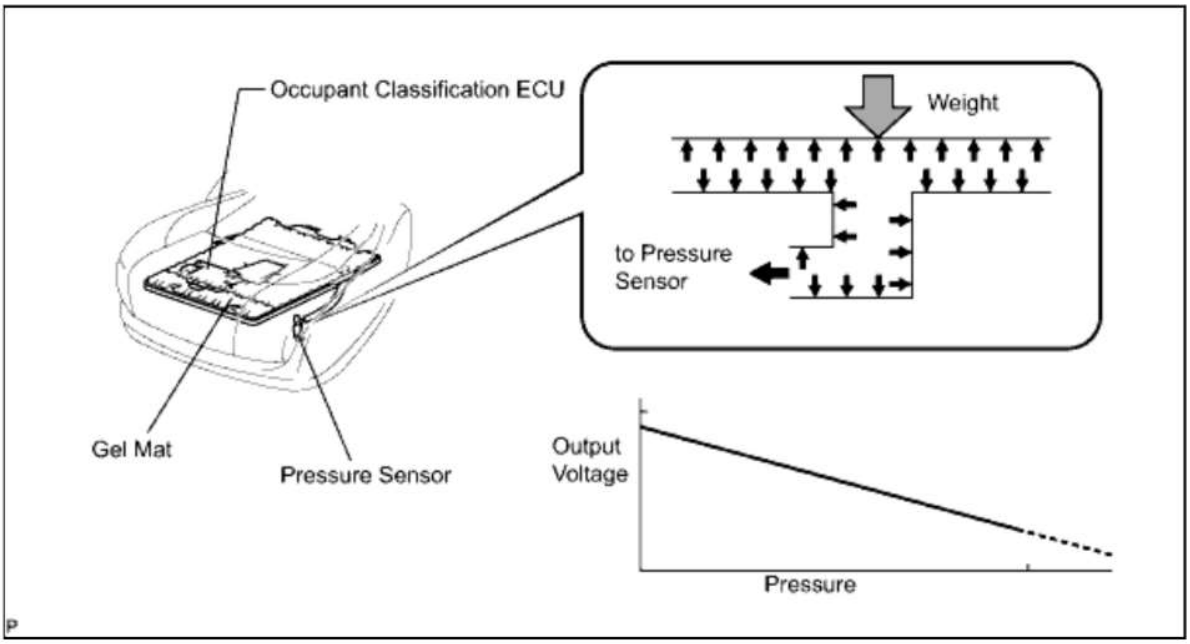
(a) In the occupant classification system, the occupant classification ECU calculates the weight of the front passenger based on a signal from the occupant classification sensor. This system judges the occupant to be a child, and disables the front passenger airbag and front seat side airbag RH.

(b) This system is mainly composed of the occupant classification sensor that detects the load on the front passenger seat. The occupant classification ECU controls the system, and the passenger airbag ON/OFF indicator indicates the ON/OFF condition of the front passenger airbag and front seat side airbag RH.

2. OCCUPANT CLASSIFICATION SENSOR

(a) The occupant classification sensor consists of the gel mat and the pressure sensor.

When weight is applied to the gel mat, the pressure applied through the silicone to the pressure sensor changes. The pressure sensor converts these changes into voltages and transmits them to the occupant classification ECU.



(b) The occupant classification sensor is installed between the seat cushion frame and seat cushion pad. The pressure sensor is installed on the seat frame.

(c) The pressure sensor detects the pressure applied to the front passenger seat as a seated passenger. The occupant classification ECU determines whether the front passenger airbag and front seat side airbag RH are deployed based on signals from the pressure sensor.

3. SEAT BELT TENSION SENSOR

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(a) The seat belt tension sensor is installed on the front seat outer belt to detect a CRS (Child Restraint System).



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Last Modified: 3-10-2010	6.4 M	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001QX401DX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: REGISTRATION (2010 Corolla)		

REGISTRATION

1. REGISTRATION

NOTICE:

- If any DTCs related to the occupant classification ECU are output, troubleshoot those DTCs by referring to Diagnostic Trouble Code Chart.
- When ECU data saving or loading operations cannot be performed, replace the front seat cushion assembly (with occupant classification ECU and occupant classification sensor).

HINT:

- When the occupant classification ECU is replaced, the previous ECU data must be saved in the Techstream and loaded into the new ECU by following the procedure below.
- Until the data from the previous ECU are loaded into the new occupant classification ECU, these data are not cleared even when the Techstream is turned off.
- ECU EXCHANGE PROCEDURE (Before Exchange) describes the procedure to save the data in the Techstream from the occupant classification ECU installed on the vehicle. ECU EXCHANGE PROCEDURE (After Exchange) describes the procedure to load the data from the previous ECU, stored in the Techstream, into the new ECU.

(a) Connect the Techstream to the DLC3.

(b) Turn the ignition switch to ON.

(c) Store the occupant classification ECU data in the Techstream by following the prompts on the Techstream screen.

HINT:

If the ECU data cannot be stored in the Techstream, replace the front seat cushion assembly (with occupant classification ECU and occupant classification sensor).

(d) Turn the ignition switch to ON.

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

(f) Replace the occupant classification ECU INFO .

(g) Connect the cable to the negative (-) battery terminal.

(h) Turn the ignition switch to ON.

(i) Load the data from the previous ECU stored in the Techstream into the newly installed ECU by following the prompts on the Techstream screen.

(j) Turn the ignition switch off.

(k) Turn the ignition switch to ON.

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

HINT:

If the DTCs are not cleared at this time, past DTCs will remain.

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Last Modified: 3-10-2010	6.4 D	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000010VN041X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: INITIALIZATION (2010 Corolla)		

INITIALIZATION

NOTICE:

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

HINT:

Perform the zero point calibration if any of the following conditions is met:

- The occupant classification ECU is replaced.
- The passenger airbag ON/OFF indicator indicates OFF when the front passenger seat is not occupied.
- The vehicle is brought to the workshop for repair after an accident or a collision.

1. ZERO POINT CALIBRATION

(a) Zero point calibration procedures

(1) Check that all of the following conditions are met:

- The vehicle is parked on a flat surface.
- No objects are placed on the front passenger seat.
- The front passenger seat belt buckle switch is OFF.

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

ADJUSTMENT ITEM	POSITION
Slide Direction	Rearmost position
Reclining Angle	Upright position
Headrest Height	Lowest position
Lifter Height	Lowest position

(3) Connect the Techstream to the DLC3.

(4) Turn the ignition switch to ON.

(5) Enter the following menus: Body Electrical / Occupant Detection / Utility / Zero Point Calibration.

(6) Perform the zero point calibration by following the prompts on the Techstream screen.

HINT:

- Refer to the Techstream operator's manual for further details.
- If the zero point calibration is performed when the calibration conditions are not satisfied, DTC B1797 is output.
- If the zero point calibration has failed, DTC B1797 is output.
- If After Exchange is selected before the previous ECU data are stored in the Techstream, the display screen returns to CONDITION SELECT ECU: Occupant Detect.

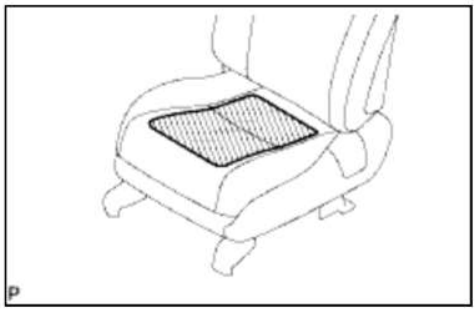
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ITEM	PROCEDURE
DTC	Perform DTC check and repair
Write error	Replace front seat cushion assembly (with occupant classification ECU and occupant classification sensor)
Temperature	Check value of THERMISTOR TEMP in ECU DATA LIST
Pressure	Check value of FILTERED PRESS in ECU DATA LIST
Crash counter	-

2. SENSITIVITY CHECK

(a) Sensitivity check procedures

(1) Turn the ignition switch off.



(2) Place a 20 kg (44.0 lb) weight on the front passenger seat.

NOTICE:

- Do not allow the weight to come into contact with the seatback when placing it on the seat cushion.
- Place the weight in the area shown in the illustration.

(3) Turn the ignition switch to ON, and wait for at least 6 seconds.

(4) Check that the passenger airbag ON/OFF indicator indicates OFF.

OK:

The passenger airbag ON/OFF indicator indicates OFF.

(5) Add a 30 kg (66.1 lb) weight to the front passenger seat (total 50 kg (110.2 lb)).

NOTICE:

- Do not allow the weight to come into contact with the seatback when placing it on the seat cushion.
- Place the weight in the area shown in the illustration.

(6) Check that the passenger airbag ON/OFF indicator indicates ON.

OK:

The passenger airbag ON/OFF indicator indicates ON.

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Last Modified: 3-10-2010	6.4 T	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000010V502VX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: PROBLEM SYMPTOMS TABLE (2010 Corolla)		

PROBLEM SYMPTOMS TABLE

HINT:

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

Occupant Classification System

SYMPTOM	SUSPECTED AREA	SEE PAGE
The front passenger seat condition differs from the indication by the passenger airbag ON/OFF indicator (DTC is not output).	Passenger Airbag ON/OFF Indicator	INFO

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Last Modified: 3-10-2010	6.4 D	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000010VJ044X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: DIAGNOSIS SYSTEM (2010 Corolla)		

DIAGNOSIS SYSTEM

1. CHECK DLC3

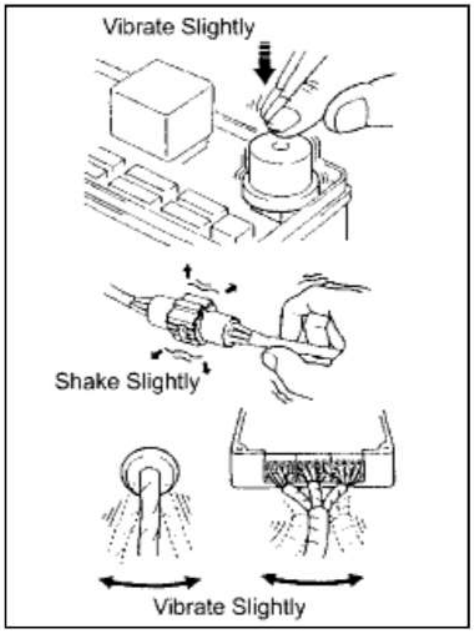
(a) Check the DLC3 INFO .

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 the 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/she proceeds to troubleshooting without confirming the problem symptoms, he/she 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 of approximately 6 seconds after the ignition switch is turned to 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.

3. FUNCTION OF PASSENGER AIRBAG ON/OFF INDICATOR

(a) Initial check

(1) Turn the ignition switch to ON.

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

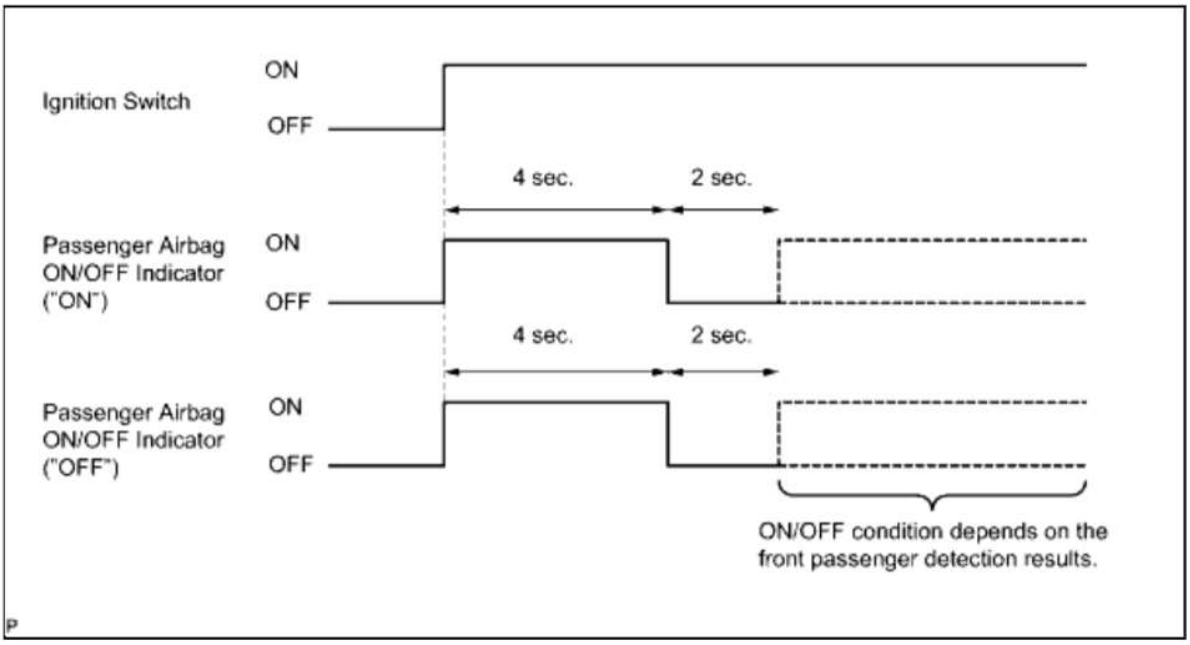
(3) Approximately 6 seconds after the ignition switch is turned to ON, the passenger airbag ON/OFF indicator will indicate ON or OFF depending on the conditions listed below.

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FRONT PASSENGER SEAT CONDITION	PASSENGER AIRBAG ON/OFF INDICATOR		SRS WARNING LIGHT
	ON INDICATOR	OFF INDICATOR	
Vacant	OFF	OFF	OFF
Adult is seated.	ON	OFF	OFF
Child is seated.	OFF	ON	OFF
Child restraint system is set.	OFF	ON	OFF
Front passenger occupant classification failure	OFF	ON	ON

HINT:

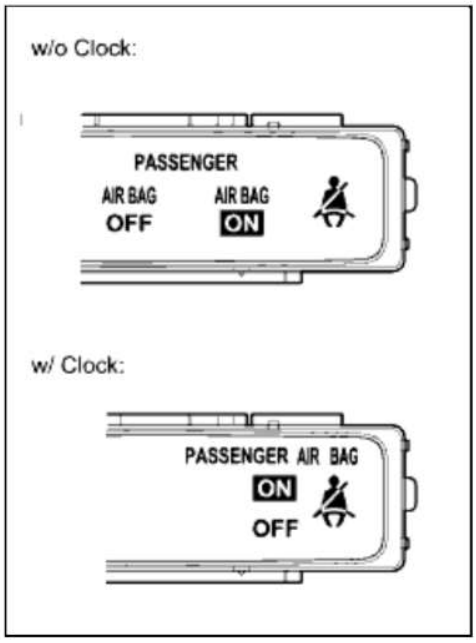
- The passenger airbag ON/OFF indicator is based on the timing chart below in order to check the indicator light circuit.
- When the occupant classification system has trouble, both the SRS warning light and the passenger airbag ON/OFF indicator ("OFF") come on. In this case, check the DTCs in the airbag system first.



4. CHECK PASSENGER AIRBAG ON/OFF INDICATOR

(a) Turn the ignition switch to ON.

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(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:

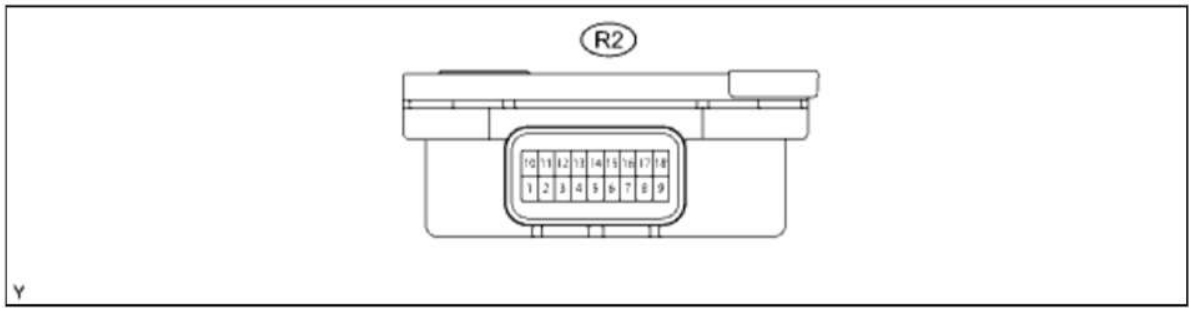
Refer to the table in the previous step regarding the passenger airbag ON/OFF indicator when the ignition switch is turned to ON and approximately 6 seconds pass.

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Last Modified: 3-10-2010	6.4 U	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001OQM01CX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: TERMINALS OF ECU (2010 Corolla)		

TERMINALS OF ECU

1. OCCUPANT CLASSIFICATION ECU



TERMINAL NO. (SYMBOL)	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
R2-3 (GSP) - R2-5 (GND)	Y - W-B *1	Seat position sensor (for front passenger side) ground line	Always	Below 1 Ω
	BE - W-B *2			
R2-4 (SP) - R2-5 (GND)	B - W-B *1	Seat position sensor (for front passenger side) ground line	Always	Low: 5.0 to 6.9 mA Hi: 12 to 17 mA
	V - W-B *2			
R2-5 (GND) - Body ground	W-B - Body ground	Occupant classification ECU ground line	Always	Below 1 V
R2-6 (PS) - R2-15 (GPS)	R - Y *1	Pressure sensor signal line	Ignition switch ON	Below 1 V
	W - GR *2			
R2-7 (VPS) - R2-5 (GND)	W - W-B *1	Pressure sensor +B line	Ignition switch ON	4.75 to 5.25 V
	LG - W-B *2			
R2-8 (GBT) - R2-5 (GND)	Y - W-B	Belt tension sensor ground line	Always	Below 1 V
R2-9 (IG) - R2-5 (GND)	B - W-B	Occupant classification ECU +B line	Ignition switch ON	10 to 14 V

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TERMINAL NO. (SYMBOL)	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
R2-10 (DIA) - R2-5 (GND)	W - W-B	Diagnosis (DLC3)	Ignition switch ON	Pulse generation
R2-11 (FSR+) - R2-12 (FSR-)	W - B	Center airbag sensor assembly communication line	Ignition switch ON	Pulse generation
R2-12 (FSR-) - R2-5 (GND)	B - W-B	Center airbag sensor assembly communication line (-)	Always	Below 1 V
R2-13 (BSW) - R2-14 (BGND)	G - W-B *1 G - P *2	Passenger side buckle switch line	Ignition switch ON	Low: 4 to 7 mA Hi: 12 to 18 mA
R2-14 (BGND) - R2-5 (GND)	W-B - W-B *1 P - W-B *2	Passenger side buckle switch ground line	Always	Below 1 V
R2-15 (GPS) - R2-5 (GND)	Y - W-B *1 GR - W-B *2	Pressure sensor ground line	Always	Below 1 V
R2-16 (BT) - R2-5 (GND)	R - W-B	Belt tension sensor signal line	Ignition switch ON	0 to 5 V
R2-17 (VBT) - R2-5 (GND)	G - W-B	Belt tension sensor +B line	Ignition switch ON	4.75 to 5.25 V

HINT:

***1: TMC Made**

***2: NUMMI, TMMC Made**

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Last Modified: 3-10-2010	6.4 D	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000010VK041X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: DTC CHECK / CLEAR (2010 Corolla)		

DTC CHECK / CLEAR

HINT:

Use the Techstream to read and clear the DTC of the occupant classification ECU, otherwise the DTCs cannot be read or cleared.

1. DTC CHECK

(a) Turn the ignition switch off.

(b) Connect the Techstream to the DLC3.

(c) Turn the ignition switch to ON and turn the Techstream on.

(d) Enter the following menus: Body Electrical / Occupant Detection / Trouble Code.

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

HINT:

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

2. DTC CLEAR

(a) Turn the ignition switch off.

(b) Connect the Techstream to the DLC3.

(c) Turn the ignition switch to ON and turn the Techstream on.

(d) Enter the following menus: Body Electrical / Occupant Detection / Trouble Code.

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

HINT:

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

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Last Modified: 3-10-2010	6.4 U	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000010VM040X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: DATA LIST / ACTIVE TEST (2010 Corolla)		

DATA LIST / ACTIVE TEST

HINT:

Using the Techstream to read the Data List allows the values or states of switches, sensors, actuators and other items to be read without removing any parts. This non-intrusive inspection can be very useful because intermittent conditions or signals may be discovered before parts or wiring is disturbed. Reading the Data List information early in troubleshooting is one way to save diagnostic time.

NOTICE:

In the table below, the values listed under "Normal Condition" are reference values. Do not depend solely on these reference values when deciding whether a part is faulty or not.

1. DATA LIST FOR OCCUPANT CLASSIFICATION ECU

(a) Turn the ignition switch off.

(b) Connect the Techstream to the DLC3.

(c) Turn the ignition switch to ON and turn the Techstream on.

(d) Enter the following menus: Body Electrical / Occupant Detection / Data List.

(e) Check the values by referring to the table below.

HINT:

The Specified Condition for Zero Point Calibration in the table below must be satisfied when the zero point calibration is performed.

Data List

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	SPECIFIED CONDITION FOR ZERO POINT CALIBRATION	DIAGNOSTIC NOTE
Passenger Classification	Passenger classification/ NG: Data is not determined AM50: Adult is seated and seat is in rear position AF05: Adult is seated and seat is in front position CHILD: Child is seated OFF: Vacant	AM50/AF05/CHILD/OFF	OFF	-

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TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	SPECIFIED CONDITION FOR ZERO POINT CALIBRATION	DIAGNOSTIC NOTE
Passenger Buckle SW	Buckle switch (Passenger side)/ Set: Passenger side seat belt is fastened Unset: Passenger side seat belt is unfastened NG: Data is not determined	Unset/Set	Unset	-
Pressure Sensor Output	Pressure sensor output/ Min.: 0 Max.: 255	0 to 210	0 to 2	-
Filtered Pressure Sensor Output	Filtered pressure sensor output/ Min.: 0 Max.: 255	38 to 240	38 to 75	If value is outside range of Specified Condition for Zero Point Calibration, check whether any objects placed on seat cushion and that seat cushion fitted correctly.
Thermistor Temperature Output	Thermistor temperature output/ Min.: -40°C (-40°F) Max.: 90°C (194°F)	-40 to 85°C (-40 to 185°F)	3 to 40°C (37 to 104°F)	If value is outside range of Specified Condition for Zero Point Calibration, adjust temperature to proper range by using air conditioner, etc.
Weight Threshold	Weight threshold/ Min.: 0 Max.: 255	36 to 67 (reference value)	36 to 67 (reference value)	-
Filtered Belt Tension Output	Filtered belt tension output/ Min.: 0 Max.: 255	39 to 229	39 to 64 (no load)	-
Empty Threshold Value from the Seat Factory	Empty threshold value from seat factory/ Min.: 0 Max.: 255	38 to 75	38 to 75	-
Allow Threshold	Threshold value for adult passenger or	43 to 64 (reference	43 to 64 (reference value)	-

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TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	SPECIFIED CONDITION FOR ZERO POINT CALIBRATION	DIAGNOSTIC NOTE
	not from seat factory/ Min.: 0 Max.: 255	value)		
Number of Present DTC	Number of present trouble codes/ Min.: 0 Max.: 255	0	0	-
Number of Past DTC	Number of past trouble codes/ Min.: 0 Max.: 255	0	0	-



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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000010V6049X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: B1771: Passenger Side Buckle Switch Circuit Malfunction (2010 Corolla)		

DTC	**B1771**	**Passenger Side Buckle Switch Circuit Malfunction**

DESCRIPTION

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

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

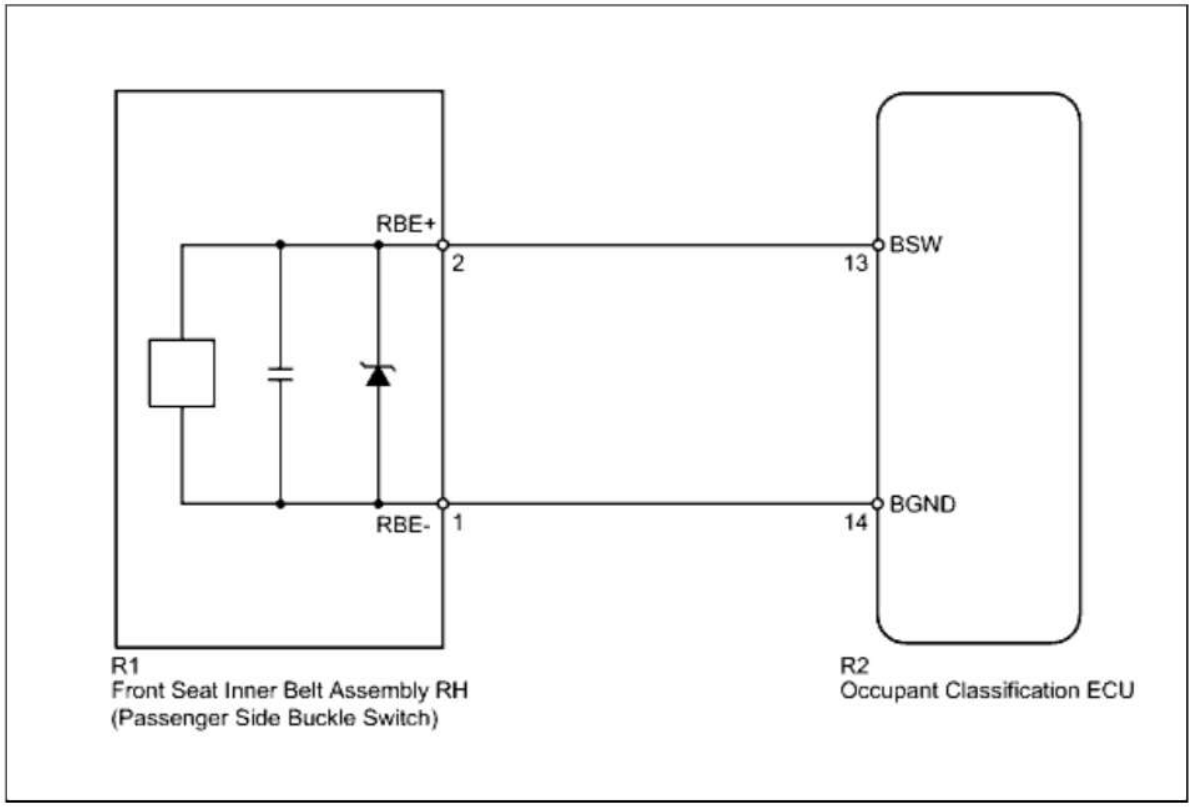
DTC NO.	DTC DETECTING CONDITION	TROUBLE AREA
B1771	• The occupant classification ECU receives a short circuit signal, open circuit signal and short circuit to ground signal or a short circuit to B+ signal in passenger side buckle switch circuit for 2 seconds • Passenger side buckle switch malfunction • Occupant classification ECU malfunction	• Front seat wire RH • Front seat inner belt assembly RH (Passenger side buckle switch) • Occupant classification ECU

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1771 is output, perform troubleshooting for the DTC.

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to access the underside 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 damage the seat or deform the seat rails. Hold the seat only as necessary.

PROCEDURE

1.	**CHECK 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 front seat inner belt assembly RH.

OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

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

(e) Check that the terminals of the connectors are not damaged.

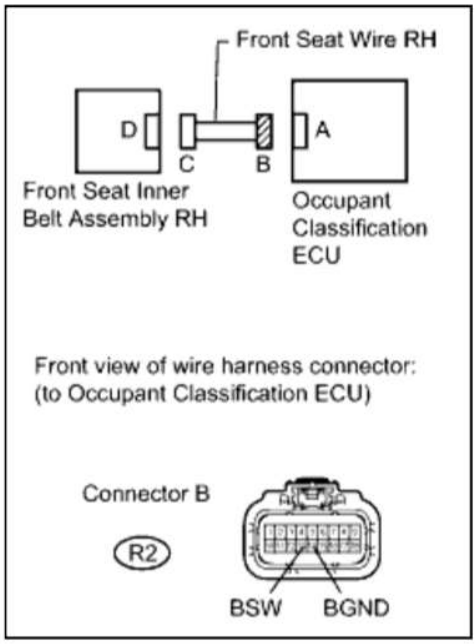
OK:

The terminals are not deformed or damaged.

NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK ▼

2.	CHECK FRONT SEAT WIRE RH (SHORT TO B+)



(a) Connect the cable to the negative (-) battery terminal.

(b) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
R2-13 (BSW) - Body ground	Ignition switch ON	Below 1 V
R2-14 (BGND) - Body ground	Ignition switch ON	Below 1 V

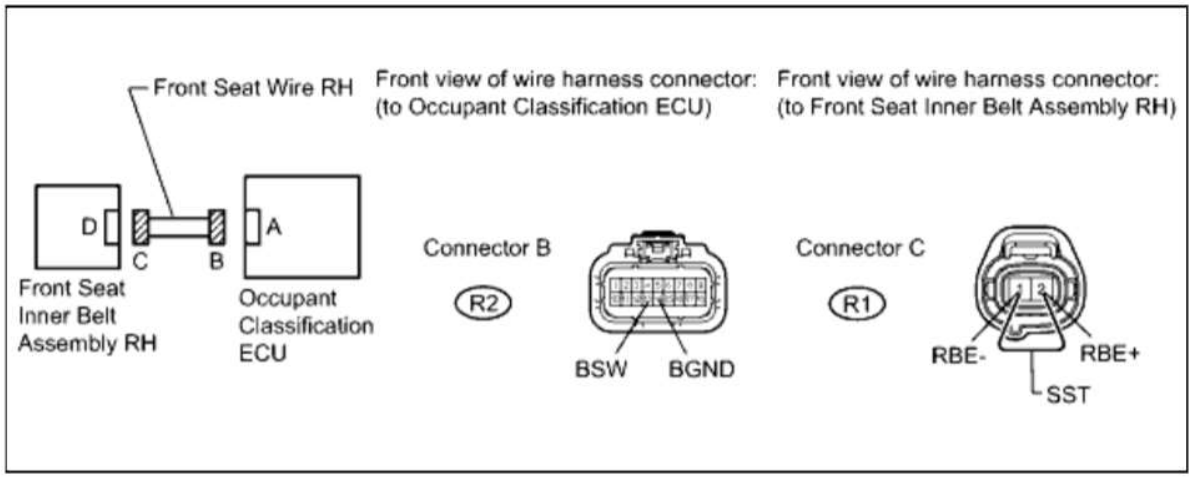
NG ▶ **REPLACE FRONT SEAT WIRE RH**

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OK

3.	CHECK FRONT SEAT WIRE RH (OPEN)

(a) Turn the ignition switch off.



(b) Disconnect the cable from the negative (-) battery terminal.

(c) Using SST, connect terminals 2 (RBE+) and 1 (RBE-) of connector C.

NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

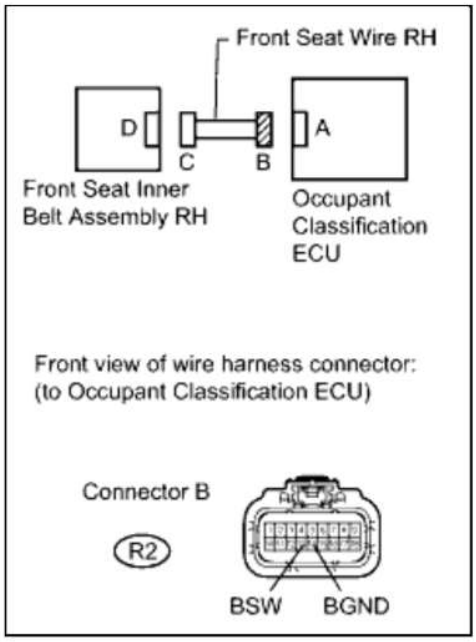
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-13 (BSW) - R2-14 (BGND)	Always	Below 1 Ω

NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK

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4.	CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)



(a) Disconnect SST wire from connector C.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-13 (BSW) - Body ground	Always	1 MΩ or higher
R2-14 (BGND) - Body ground	Always	1 MΩ or higher

NG ▶ **REPLACE FRONT SEAT WIRE RH**

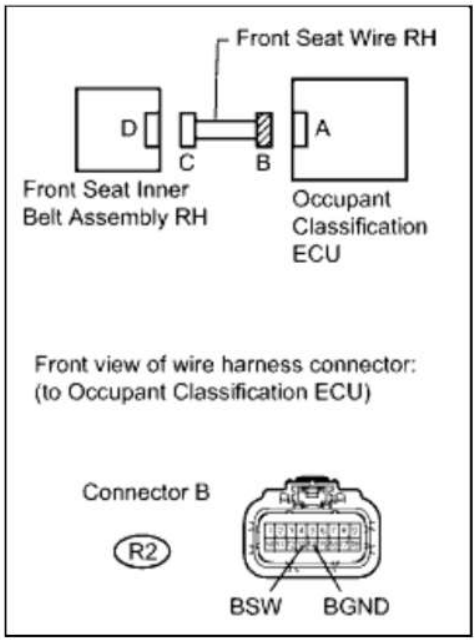
OK ▼

5.	CHECK FRONT SEAT WIRE RH (SHORT)

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

Standard Resistance:

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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-13 (BSW) - R2-14 (BGND)	Always	1 MΩ or higher

NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK ▼

6.	CHECK FOR DTC

(a) Connect the connectors to the occupant classification ECU and the front seat inner belt assembly RH.

(b) Connect the cable to the negative (-) battery terminal.

(c) Turn the ignition switch to ON.

(d) Clear the DTCs stored in the occupant classification ECU INFO .

(e) Clear the DTCs stored in the center airbag sensor assembly INFO .

(f) Turn the ignition switch off.

(g) Turn the ignition switch to ON.

(h) Check for DTCs INFO .

OK:

DTC B1771 is not output.

HINT:

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

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NG ▶ INSPECT FRONT SEAT INNER BELT ASSEMBLY RH

OK ▶ USE SIMULATION METHOD TO CHECK

7.	INSPECT 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 assembly RH with a known good part INFO .

HINT:

Perform an inspection using known good parts from another vehicle if possible.

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the ignition switch to ON.

(f) Clear the DTCs stored in the occupant classification ECU INFO .

(g) Clear the DTCs stored in the center airbag sensor assembly INFO .

(h) Turn the ignition switch off.

(i) Turn the ignition switch to ON.

(j) Check for DTCs INFO .

OK:
DTC B1771 is not output.

HINT:

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

NG ▶ REPLACE OCCUPANT CLASSIFICATION ECU

OK ▶ END

8.	REPLACE OCCUPANT CLASSIFICATION ECU

(a) Connect the Techstream to the DLC3.

(b) Turn the ignition switch to ON.

(c) Using the Techstream, save the ECU data from the ECU currently installed on the vehicle INFO .

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(d) Turn the ignition switch off.

(e) Disconnect the cable from the negative (-) battery terminal.

(f) Replace the occupant classification ECU INFO .

(g) Connect the cable to the negative (-) battery terminal.

(h) Turn the ignition switch to ON.

(i) Using the Techstream, load the previous ECU data stored into the new ECU INFO .

(j) Turn the ignition switch off.

(k) Turn the ignition switch to ON.

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

HINT:

If the DTCs are not cleared at this time, past DTCs will remain.

NEXT

9.	**PERFORM SENSITIVITY CHECK**

(a) Perform the sensitivity check INFO .

NEXT **END**

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001PK501DX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: B1773,B1776: Belt Tension Sensor Circuit Malfunction (2010 Corolla)		

DTC	**B1773**	**Belt Tension Sensor Circuit Malfunction**

DTC	**B1776**	**Seat Belt Tension Sensor Power Source Circuit Malfunction**

DESCRIPTION

The seat belt tension sensor circuit consists of the occupant classification ECU and the seat belt tension sensor.

The seat belt tension sensor sends the seat belt tension signal to the occupant classification ECU.

DTC B1773 and B1776 are recorded when a malfunction is detected in the seat belt tension sensor circuit.

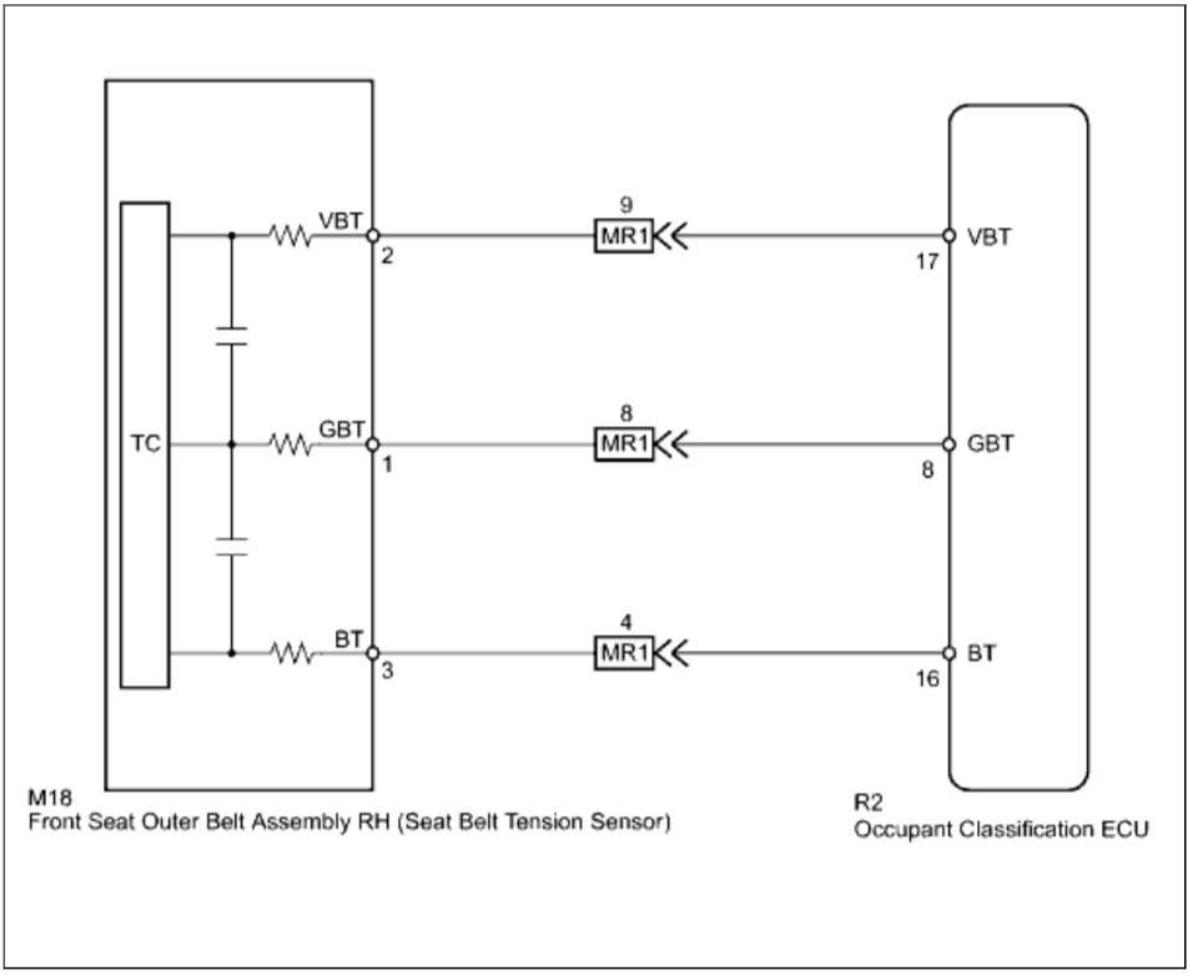
DTC NO.	DTC DETECTING CONDITION	TROUBLE AREA
B1773 B1776	• The occupant classification ECU receives a short circuit signal, open circuit signal and short circuit to ground signal or a short circuit to B+ signal in the seat belt tension sensor circuit for 2 seconds. • Seat belt tension sensor malfunction • Occupant classification ECU malfunction	• No. 2 floor wire • Front seat wire RH • Front seat outer belt assembly RH (Seat belt tension sensor) • Occupant classification ECU

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1773 and B1776 are output, perform troubleshooting for those DTCs.

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the passenger seat installation bolts to access the underside 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 damage the seat or deform the seat rails. Hold the seat only as necessary.

PROCEDURE

1.	**CHECK 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 seat belt tension sensor.

OK:

The connectors are properly connected.

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HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the occupant classification ECU and the seat belt tension sensor.

(e) Check that the terminals of the connectors are not damaged.

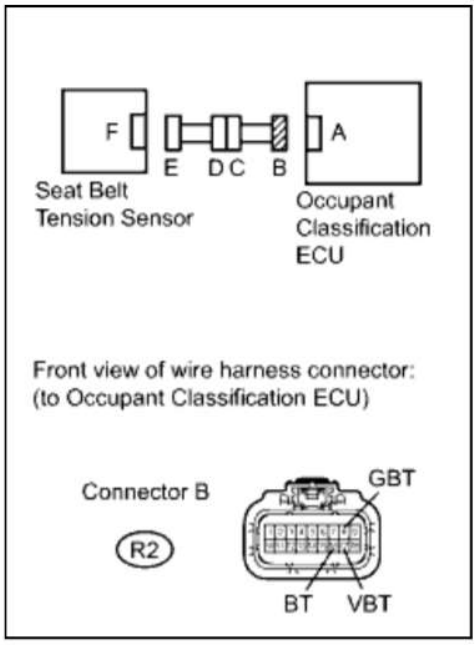
OK:

The terminals are not deformed or damaged.

NG ▶ **REPLACE WIRE HARNESS**

OK ▼

2.	CHECK SEAT BELT TENSION SENSOR CIRCUIT (SHORT TO B+)



(a) Connect the cable to the negative (-) battery terminal.

(b) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
R2-8 (GBT) - Body ground	Ignition switch ON	Below 1 V

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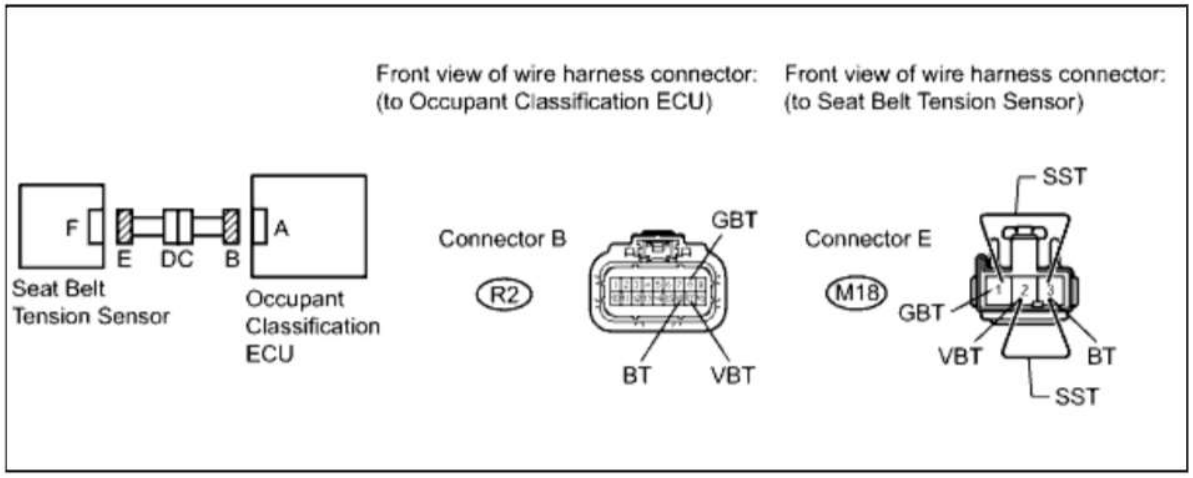
TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
R2-16 (BT) - Body ground	Ignition switch ON	Below 1 V
R2-17 (VBT) - Body ground	Ignition switch ON	Below 1 V

NG ▶ **CHECK FRONT SEAT WIRE RH (SHORT TO B+)**

OK ▼

3.	CHECK SEAT BELT TENSION SENSOR CIRCUIT (OPEN)

(a) Turn the ignition switch off.



(b) Disconnect the cable from the negative (-) battery terminal.

(c) Using SST, connect terminals 1 (GBT) and 3 (BT), and connect terminals 2 (VBT) and 3 (BT) of connector E.

NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-16 (BT) - R2-8 (GBT)	Always	Below 1 Ω

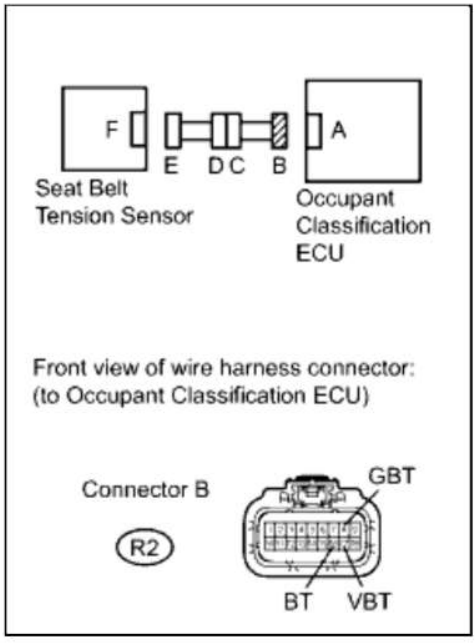
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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-17 (VBT) - R2-16 (BT)	Always	Below 1 Ω

NG ▶ **CHECK FRONT SEAT WIRE RH (OPEN)**

OK ▼

4.	CHECK SEAT BELT TENSION SENSOR CIRCUIT (SHORT TO GROUND)



(a) Disconnect SST from connector E.

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

Standard Resistance:

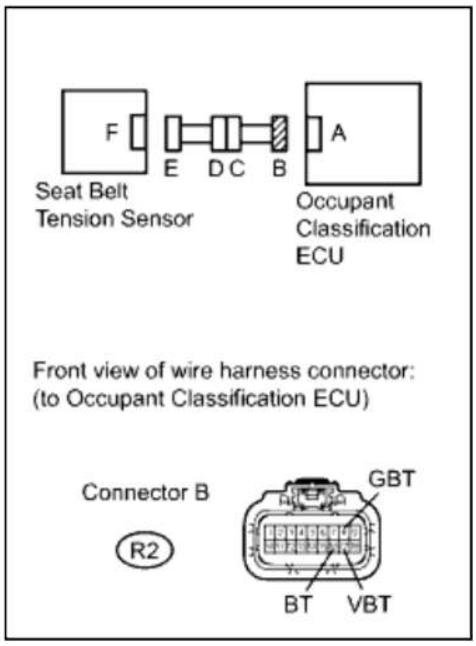
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-8 (GBT) - Body ground	Always	1 MΩ or higher
R2-16 (BT) - Body ground	Always	1 MΩ or higher
R2-17 (VBT) - Body ground	Always	1 MΩ or higher

NG ▶ **CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)**

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OK

5.	CHECK SEAT BELT TENSION SENSOR CIRCUIT (SHORT)



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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-16 (BT) - R2-8 (GBT)	Always	1 MΩ or higher
R2-17 (VBT) - R2-16 (BT)	Always	1 MΩ or higher

NG ▶ **CHECK FRONT SEAT WIRE RH (SHORT)**

OK

6.	CHECK FOR DTC

(a) Connect the connectors to the occupant classification ECU and the seat belt tension sensor.

(b) Connect the cable to the negative (-) battery terminal.

(c) Turn the ignition switch to ON.

(d) Clear the DTCs stored in the occupant classification ECU INFO.

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(e) Clear the DTCs stored in the center airbag sensor assembly INFO .

(f) Turn the ignition switch off.

(g) Turn the ignition switch to ON.

(h) Check for DTCs INFO .

OK:
DTC B1773 and B1776 are not output.

HINT:

Codes other than B1773 and B1776 may be output at this time, but they are not related to this check.

NG ▶ **INSPECT FRONT SEAT OUTER BELT ASSEMBLY RH**

OK ▶ **USE SIMULATION METHOD TO CHECK**

7.	INSPECT FRONT SEAT OUTER BELT ASSEMBLY RH

(a) Turn the ignition switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the front seat outer belt assembly RH with a known good part INFO .

HINT:

Perform an inspection using known good parts from another vehicle if possible.

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the ignition switch to ON.

(f) Clear the DTCs stored in the occupant classification ECU INFO .

(g) Clear the DTCs stored in the center airbag sensor assembly INFO .

(h) Turn the ignition switch off.

(i) Turn the ignition switch to ON.

(j) Check the DTCs INFO .

OK:
DTC B1773 and B1776 are not output.

HINT:

Codes other than B1773 and B1776 may be output at this time, but they are not related to this check.

NG ▶ **REPLACE OCCUPANT CLASSIFICATION ECU**

END

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8.	REPLACE OCCUPANT CLASSIFICATION ECU

(a) Connect the Techstream to the DLC3.

(b) Turn the ignition switch to ON.

(c) Using the Techstream, save the ECU data from the ECU currently installed on the vehicle INFO .

(d) Turn the ignition switch off.

(e) Disconnect the cable from the negative (-) battery terminal.

(f) Replace the occupant classification ECU INFO .

(g) Connect the cable to the negative (-) battery terminal.

(h) Turn the ignition switch to ON.

(i) Using the Techstream, load the previous ECU data stored into the new ECU INFO .

(j) Turn the ignition switch off.

(k) Turn the ignition switch to ON.

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

HINT:

If the DTCs are not cleared at this time, past DTCs will remain.

NEXT

9.	PERFORM SENSITIVITY CHECK

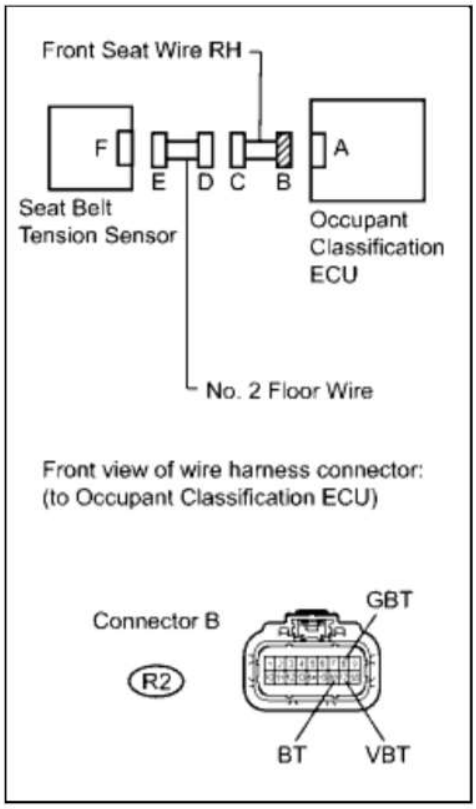
(a) Perform the sensitivity check INFO .

NEXT **END**

10.	CHECK FRONT SEAT WIRE RH (SHORT TO B+)

(a) Turn the ignition switch off.

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(b) Disconnect the cable from the negative (-) battery terminal.

(c) Disconnect the No. 2 floor wire connector from the front seat wire RH.

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
R2-8 (GBT) - Body ground	Ignition switch ON	Below 1 V
R2-16 (BT) - Body ground	Ignition switch ON	Below 1 V
R2-17 (VBT) - Body ground	Ignition switch ON	Below 1 V

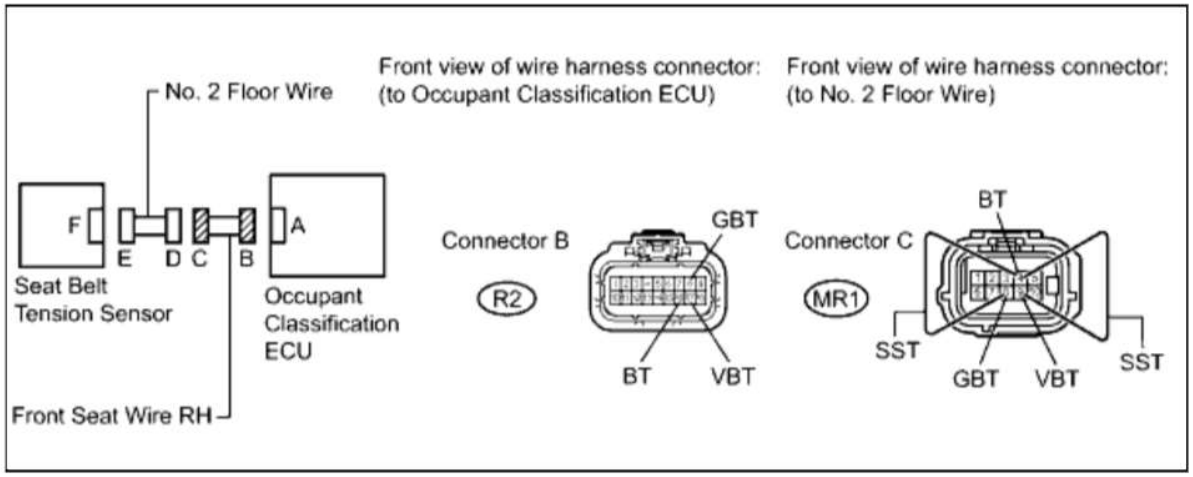
NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK ▶ **REPLACE NO. 2 FLOOR WIRE**

11.	**CHECK FRONT SEAT WIRE RH (OPEN)**

(a) Disconnect the No. 2 floor wire connector from the front seat wire RH.

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(b) Using SST, connect terminals 4 (BT) and 8 (GBT), and connect terminals 4 (BT) and 9 (VBT) of connector C.

NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-16 (BT) - R2-8 (GBT)	Always	Below 1 Ω
R2-16 (BT) - R2-17 (VBT)	Always	Below 1 Ω

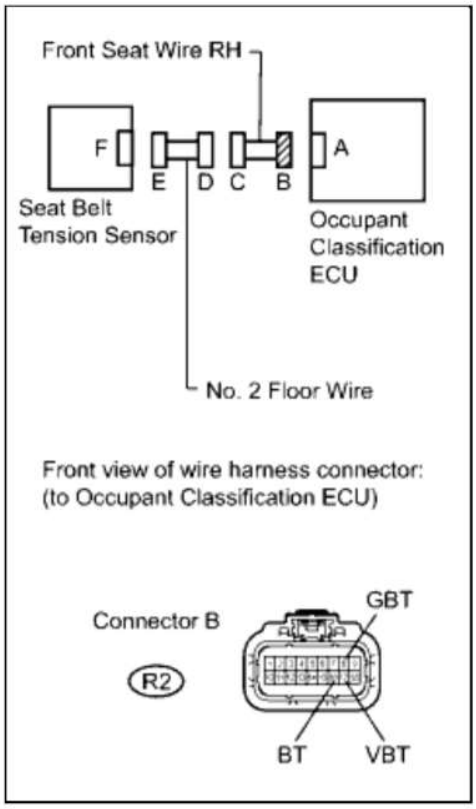
NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK ▶ **REPLACE NO. 2 FLOOR WIRE**

12.	**CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)**

(a) Disconnect the No. 2 floor wire connector from the front seat wire RH.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-8 (GBT) - Body ground	Always	1 MΩ or higher
R2-16 (BT) - Body ground	Always	1 MΩ or higher
R2-17 (VBT) - Body ground	Always	1 MΩ or higher

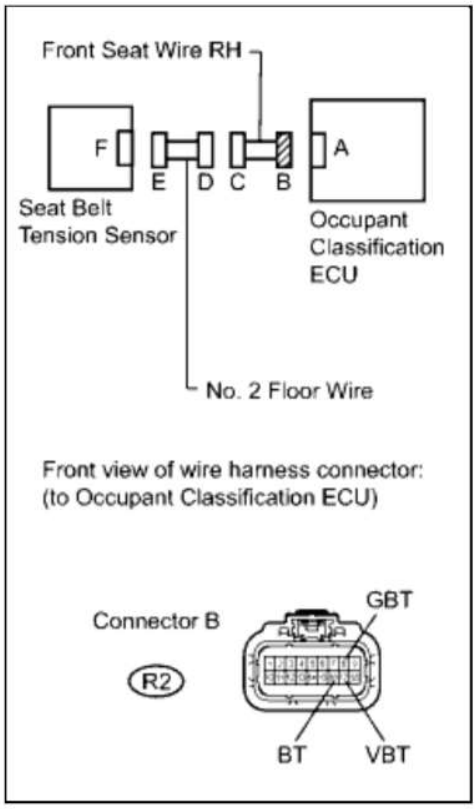
NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK ▶ **REPLACE NO. 2 FLOOR WIRE**

13.	**CHECK FRONT SEAT WIRE RH (SHORT)**

(a) Disconnect the No. 2 floor wire connector from the front seat wire RH.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-16 (BT) - R2-8 (GBT)	Always	1 MΩ or higher
R2-17 (VBT) - R2-16 (BT)	Always	1 MΩ or higher

NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK ▶ **REPLACE NO. 2 FLOOR WIRE**

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Last Modified: 3-10-2010	6.4 U	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000039SE00CX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: FAIL-SAFE CHART (2010 Corolla)		

FAIL-SAFE CHART

1. FAIL SAFE FUNCTION

(a) The following chart shows the status of the controls when the system is normal and malfunctioning.

- The passenger airbag ON/OFF indicator ("ON" and "OFF") comes on for approximately 4 seconds, then goes off for approximately 2 seconds.
- Approximately 6 seconds after the ignition switch is turned to ON, the passenger airbag ON/OFF indicator will indicate ON or OFF depending on the conditions listed below.

CONDITION	ON INDICATOR	OFF INDICATOR	FRONT PASSENGER AIRBAG	FRONT SEAT SIDE AIRBAG RH	FRONT SEAT BELT PRETENSIONER RH	CURTAIN SHIELD AIRBAG RH
Adult is seated	ON	OFF	○	○	○	○
Child is seated	OFF	ON	-	-	○	○
Vacant	OFF	OFF	-	-	-	○
Failure	OFF	ON	-	-	○	○

HINT:

○: Deployable

-: Not deployable

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001PK400IX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: B1772: Seat Position Sensor Circuit Malfunction (2010 Corolla)		

DTC	**B1772**	**Seat Position Sensor Circuit Malfunction**

DESCRIPTION

The seat position sensor circuit consists of the occupant classification ECU and the seat position airbag sensor (passenger side).

The seat position airbag sensor sends the seat position signal to the occupant classification ECU to control the dual stage deployment of the front passenger airbag.

DTC B1772 is recorded when a malfunction is detected in the seat position sensor circuit.

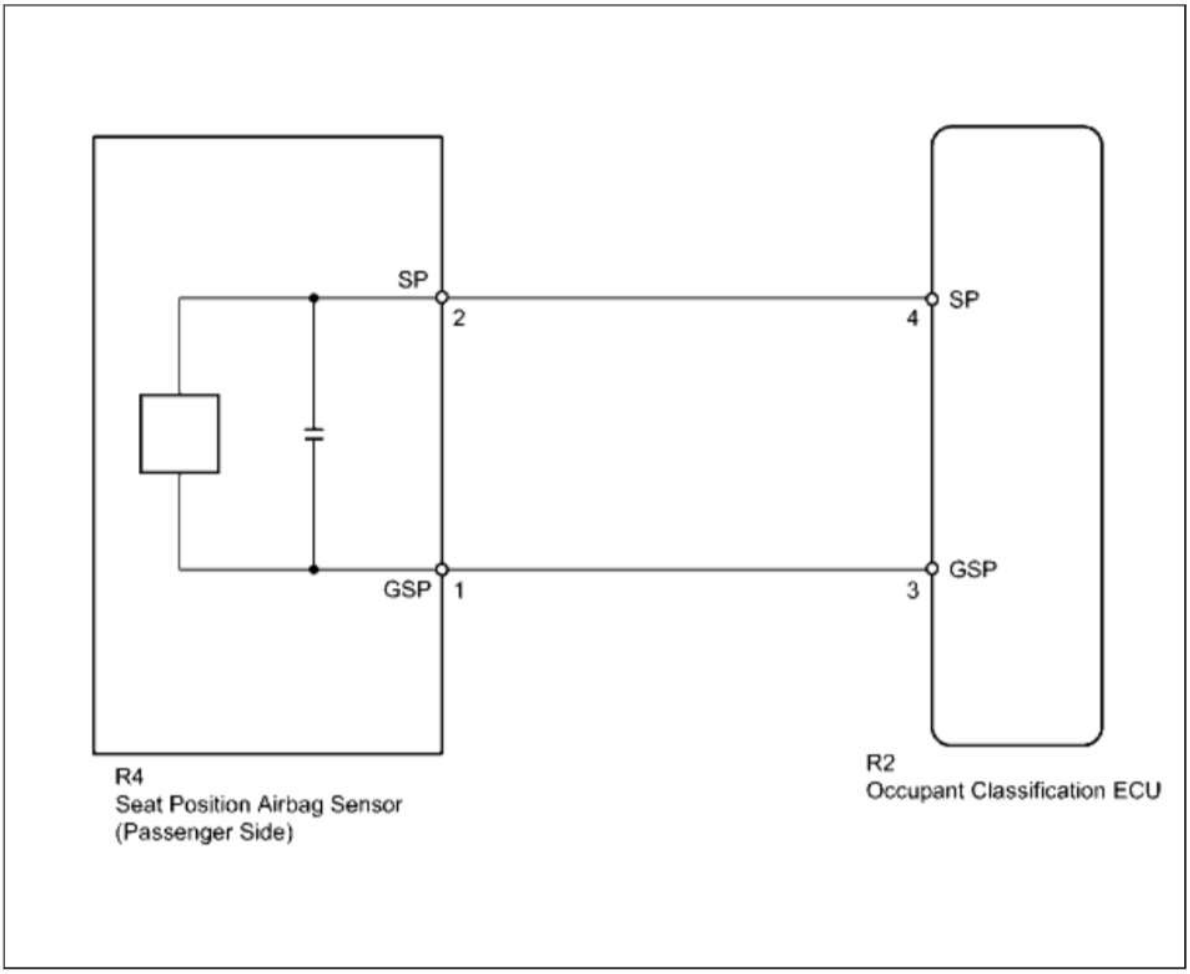
DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
B1772	• Occupant classification ECU receives a short circuit signal, open circuit signal and short circuit to ground signal or short circuit to B+ signal in seat position sensor circuit for 2 seconds. • Seat position airbag sensor (Passenger side) malfunction • Occupant classification ECU malfunction	• Front seat wire RH • Seat position airbag sensor (Passenger side) • Occupant classification ECU

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU, and perform troubleshooting for those DTCs first.

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the passenger seat installation bolts to access the underside of the seat cushion.
- In the above case, hold the seat so that it does not tip over. Holding the seat up for a long period of time may damage the seat or deform the seat rails. Hold the seat up only for as long as necessary.

PROCEDURE

1.	**CHECK 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 seat position airbag sensor (passenger side).

OK:

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The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

(d) Disconnect the connectors from the occupant classification ECU and the seat position airbag sensor (passenger side).

(e) Check that the terminals of the connectors are not damaged.

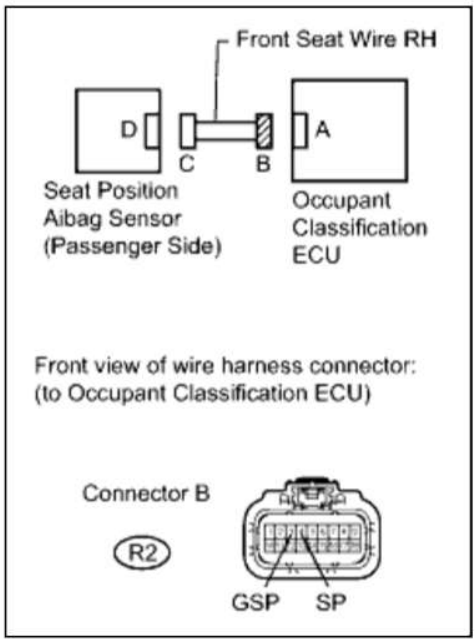
OK:

The terminals are not deformed or damaged.

NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK ▼

2.	CHECK FRONT SEAT WIRE RH (SHORT TO B+)



(a) Connect the cable to the negative (-) battery terminal.

(b) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION

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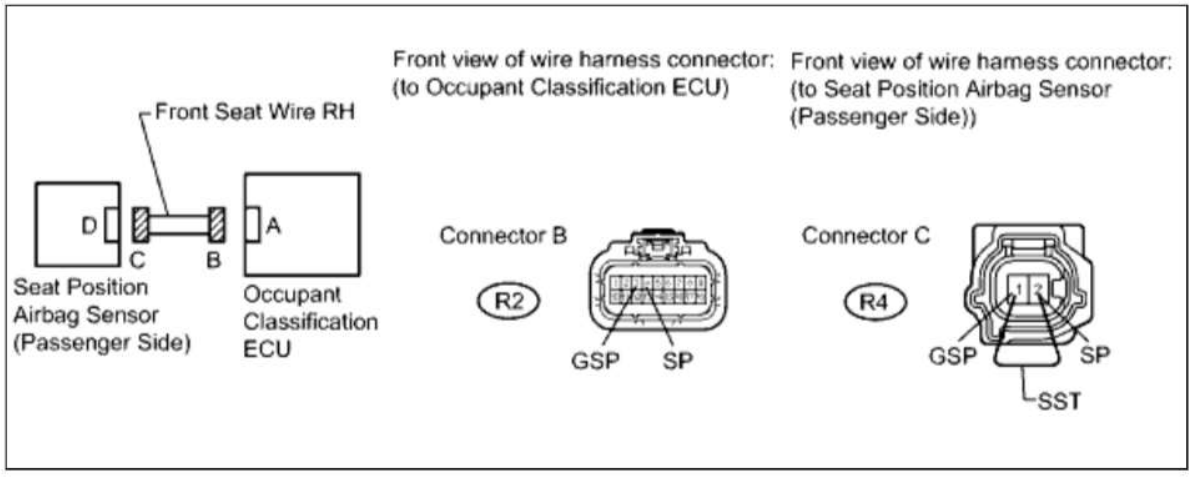
TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
R2-4 (SP) - Body ground	Ignition switch ON	Below 1 V
R2-3 (GSP) - Body ground	Ignition switch ON	Below 1 V

NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK ▼

3.	CHECK FRONT SEAT WIRE RH (OPEN)

(a) Turn the ignition switch off.



(b) Disconnect the cable from the negative (-) battery terminal.

(c) Using SST, connect terminals 2 (SP) and 1 (GSP) of connector C.

NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

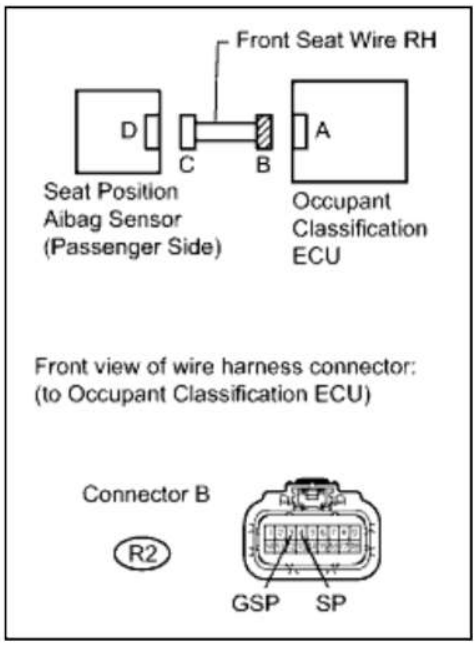
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-4 (SP) - R2-3 (GSP)	Always	Below 1 Ω

NG ▶ **REPLACE FRONT SEAT WIRE RH**

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OK

4.	**CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)**



(a) Disconnect SST from connector C.

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

Standard Resistance:

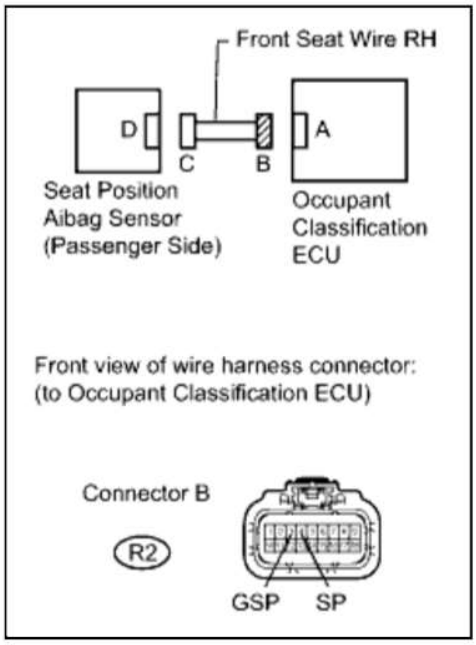
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-4 (SP) - Body ground	Always	1 MΩ or higher
R2-3 (GSP) - Body ground	Always	1 MΩ or higher

NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK

5.	**CHECK FRONT SEAT WIRE RH (SHORT)**

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-4 (SP) - R2-3 (GSP)	Always	1 MΩ or higher

NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK ▼

6.	**CHECK FOR DTC**

(a) Connect the connectors to the occupant classification ECU and the seat position airbag sensor (passenger side).

(b) Connect the cable to the negative (-) battery terminal.

(c) Turn the ignition switch to ON.

(d) Clear the DTCs stored in the occupant classification ECU INFO .

(e) Clear the DTCs stored in the center airbag sensor assembly INFO .

(f) Turn the ignition switch off.

(g) Turn the ignition switch to ON.

(h) Check for DTCs INFO .

OK:

DTC B1772 is not output.

HINT:

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DTCs other than B1772 may be output at this time, but they are not related to this check.

NG ▶ **INSPECT SEAT POSITION AIRBAG SENSOR (PASSENGER SIDE)**

OK ▶ **USE SIMULATION METHOD TO CHECK**

7.	INSPECT SEAT POSITION AIRBAG SENSOR (PASSENGER SIDE)

(a) Turn the ignition switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the seat position airbag sensor with a known good part (passenger side) INFO .

HINT:

- Perform an inspection using known good parts from another vehicle if possible.
- The seat position airbag sensor is installed on the driver side.

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the ignition switch to ON.

(f) Clear the DTCs stored in the occupant classification ECU INFO .

(g) Clear the DTCs stored in the center airbag sensor assembly INFO .

(h) Turn the ignition switch off.

(i) Turn the ignition switch to ON.

(j) Check for DTCs INFO .

OK:
DTC B1772 is not output.

HINT:

DTCs other than B1772 may be output at this time, but they are not related to this check.

NG ▶ **REPLACE OCCUPANT CLASSIFICATION ECU**

OK ▶ **END**

8.	REPLACE OCCUPANT CLASSIFICATION ECU

(a) Connect the Techstream to the DLC3.

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(b) Turn the ignition switch to ON.

(c) Using the Techstream, save the ECU data from the ECU currently installed on the vehicle INFO .

(d) Turn the ignition switch off.

(e) Disconnect the cable from the negative (-) battery terminal.

(f) Replace the occupant classification ECU INFO .

(g) Connect the cable to the negative (-) battery terminal.

(h) Turn the ignition switch to ON.

(i) Using the Techstream, load the previous ECU data stored into the new ECU INFO .

(j) Turn the ignition switch off.

(k) Turn the ignition switch to ON.

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

HINT:

If the DTCs are not cleared at this time, past DTCs will remain.

NEXT

9.	**PERFORM SENSITIVITY CHECK**

(a) Perform the sensitivity check INFO .

NEXT **END**

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Last Modified: 3-10-2010	6.4 S	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001OQL01EX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: DIAGNOSTIC TROUBLE CODE CHART (2010 Corolla)		

DIAGNOSTIC TROUBLE CODE CHART

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, perform troubleshooting for the occupant classification system as shown in the chart below.

Occupant Classification System

DTC CODE	DETECTION ITEM	TROUBLE AREA	PASSENGER AIRBAG ON/OFF INDICATOR (OFF INDICATOR)	SEE PAGE
B1771	Passenger Side Buckle Switch Circuit Malfunction	1. Front seat wire RH 2. Front seat inner belt assembly RH (Passenger side buckle switch) 3. Occupant classification ECU	ON	INFO
B1772	Seat Position Sensor Circuit Malfunction	1. Front seat wire RH 2. Seat position airbag sensor (Passenger side) 3. Occupant classification ECU	ON	INFO
B1773	Belt Tension Sensor Circuit Malfunction	1. No. 2 floor wire 2. Front seat wire RH 3. Front seat outer belt assembly RH (Seat belt tension sensor) 4. Occupant classification ECU	ON	INFO
B1774	Pressure Sensor Circuit Malfunction	1. Front seat wire RH 2. Occupant classification sensor 3. Occupant classification ECU	ON	INFO
B1775	Pressure Sensor Power Source Circuit Malfunction	1. Front seat wire RH 2. Occupant classification sensor 3. Occupant classification ECU	ON	INFO
B1776	Seat Belt Tension Sensor Power Source Circuit Malfunction	1. No. 2 floor wire 2. Front seat wire RH 3. Front seat outer belt assembly RH (Seat belt tension sensor) 4. Occupant classification ECU	ON	INFO

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DTC CODE	DETECTION ITEM	TROUBLE AREA	PASSENGER AIRBAG ON/OFF INDICATOR (OFF INDICATOR)	SEE PAGE
B1790	Center Airbag Sensor Assembly Communication Circuit Malfunction	1. No. 2 floor wire 2. Front seat wire RH 3. Occupant classification ECU 4. Center airbag sensor assembly	ON	INFO
B1795	Occupant Classification ECU Malfunction	Occupant classification ECU	ON	INFO
B1797	Calibration Malfunction	1. There is no malfunction if this DTC is not output again after performing occupant classification system zero point calibration. 2. Occupant classification sensor 3. Occupant classification ECU	ON	INFO



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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001PK601DX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: B1774,B1775: Pressure Sensor Circuit Malfunction (2010 Corolla)		

DTC	**B1774**	**Pressure Sensor Circuit Malfunction**

DTC	**B1775**	**Pressure Sensor Power Source Circuit Malfunction**

DESCRIPTION

The pressure sensor circuit consists of the occupant classification ECU and the occupant classification sensor.

The occupant classification sensor sends the pressure signal to the occupant classification ECU.

DTC B1774 and B1775 are recorded when a malfunction is detected in the pressure sensor circuit.

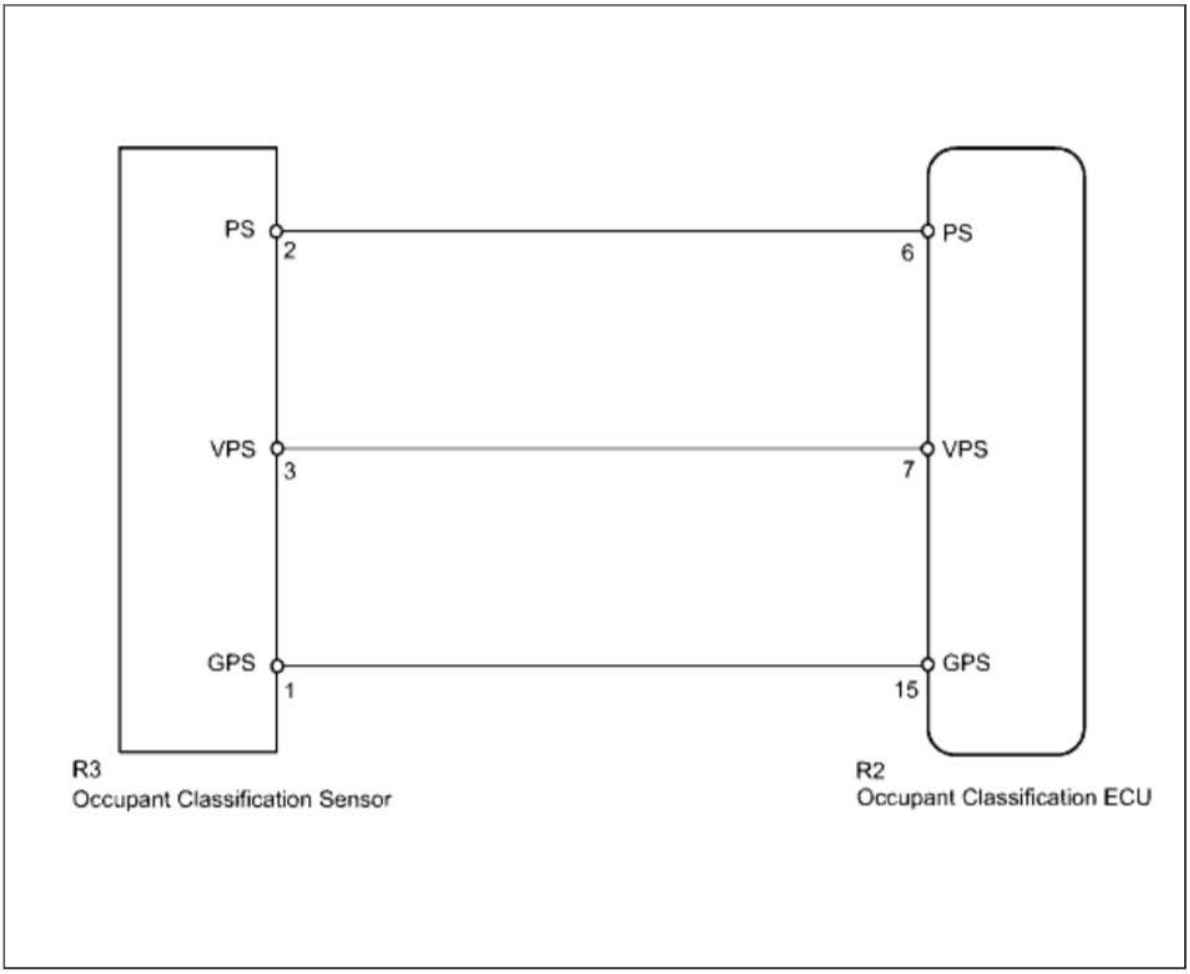
DTC NO.	DTC DETECTING CONDITION	TROUBLE AREA
B1774 B1775	• The occupant classification ECU receives a short circuit signal, open circuit signal and short circuit to ground signal or a short circuit to B+ signal in the pressure sensor circuit for 2 seconds. • Occupant classification sensor malfunction • Occupant classification ECU malfunction	• Front seat wire RH • Occupant classification sensor • Occupant classification ECU

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1774 and B1775 are output, perform troubleshooting for those DTCs.

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the passenger seat installation bolts to access the underside 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 damage the seat and deform the seat rails. Hold the seat only as necessary.
- After performing the zero point calibration, check for DTCs to confirm that the calibration is completed normally. (If it fails, DTC B1797 will be output.)

PROCEDURE

1.	**CHECK 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 occupant classification sensor.

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OK:

The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

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

(e) Check that the terminals of the connectors are not damaged.

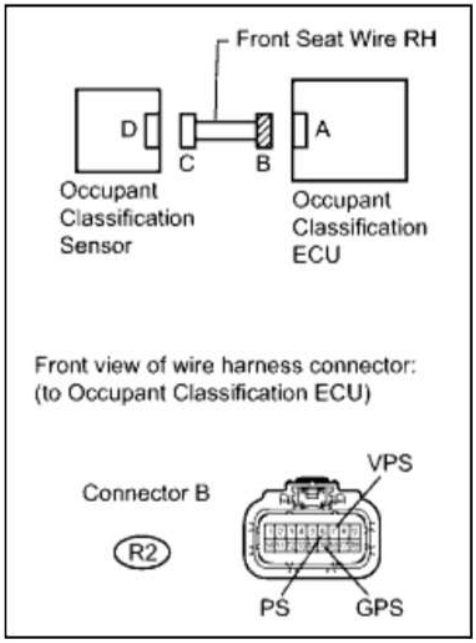
OK:

The terminals are not deformed or damaged.

NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK ▼

2.	**CHECK FRONT SEAT WIRE RH (SHORT TO B+)**



(a) Connect the cable to the negative (-) battery terminal.

(b) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION

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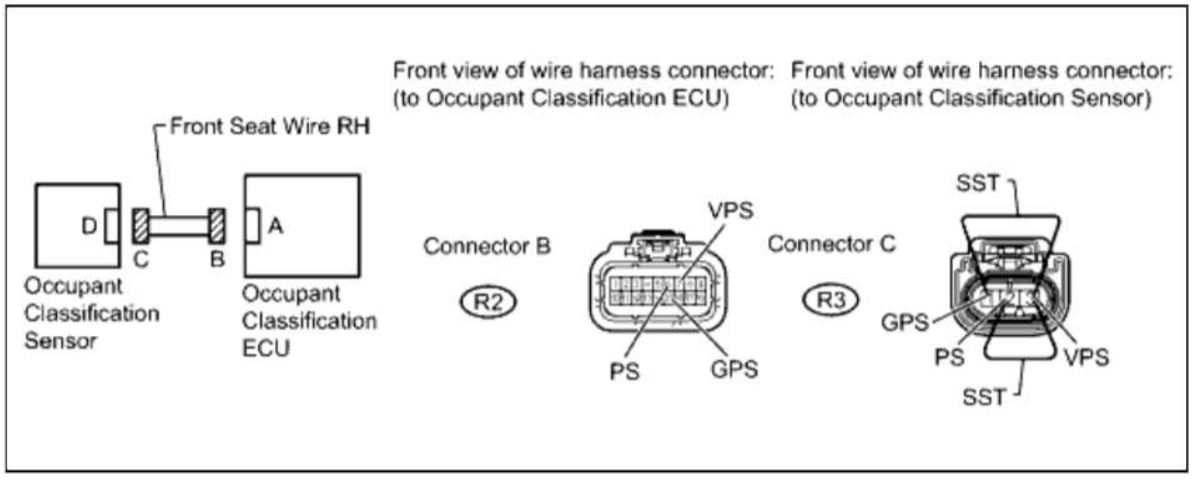
TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
R2-6 (PS) - Body ground	Ignition switch ON	Below 1 V
R2-7 (VPS) - Body ground	Ignition switch ON	Below 1 V
R2-15 (GPS) - Body ground	Ignition switch ON	Below 1 V

NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK ▼

3.	**CHECK FRONT SEAT WIRE RH (OPEN)**

(a) Turn the ignition switch off.



(b) Disconnect the cable from the negative (-) battery terminal.

(c) Using SST, connect terminals 1 (GPS) and 3 (VPS), and connect terminals 2 (PS) and 3 (VPS) of connector C.

NOTICE:

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

SST: 09843-18040

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION

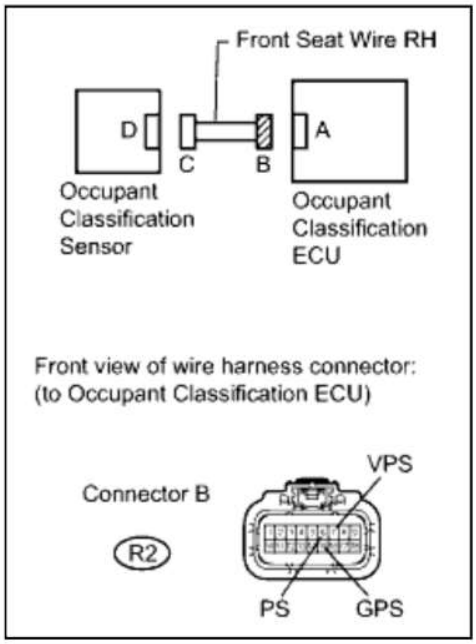
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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-6 (PS) - R2-7 (VPS)	Always	Below 1 Ω
R2-7 (VPS) - R2-15 (GPS)	Always	Below 1 Ω

NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK ▼

4.	CHECK FRONT SEAT WIRE RH (SHORT TO GROUND)



(a) Disconnect SST from connector C.

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

Standard Resistance:

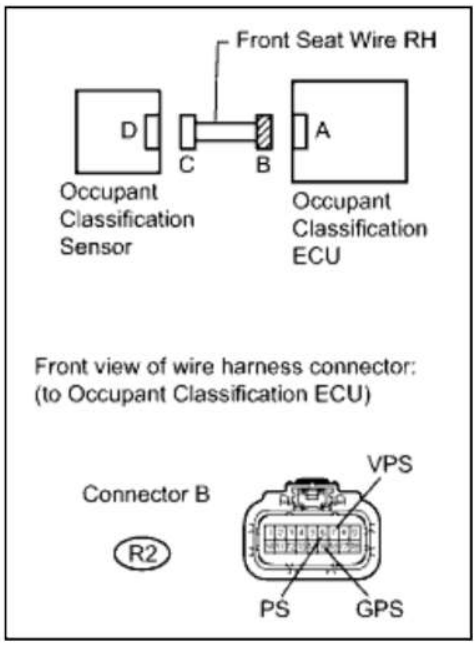
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-6 (PS) - Body ground	Always	1 MΩ or higher
R2-7 (VPS) - Body ground	Always	1 MΩ or higher
R2-15 (GPS) - Body ground	Always	1 MΩ or higher

NG ▶ **REPLACE FRONT SEAT WIRE RH**

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OK

5.	CHECK FRONT SEAT WIRE RH (SHORT)



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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-6 (PS) - R2-15 (GPS)	Always	1 MΩ or higher
R2-7 (VPS) - R2-15 (GPS)	Always	1 MΩ or higher

NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK

6.	CHECK FOR DTC

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

(b) Connect the cable to the negative (-) battery terminal.

(c) Turn the ignition switch to ON.

(d) Clear the DTCs stored in the occupant classification ECU INFO .

(e) Clear the DTCs stored in the center airbag sensor assembly INFO .

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(f) Turn the ignition switch off.

(g) Turn the ignition switch to ON.

(h) Check for DTCs INFO .

OK:

DTCs B1774 and B1775 are not output.

HINT:

Codes other than B1774 and B1775 may be output at this time, but they are not related to this check.

NG ▶ **REPLACE OCCUPANT CLASSIFICATION SENSOR (FRONT SEAT CUSHION ASSEMBLY)**

OK ▶ **USE SIMULATION METHOD TO CHECK**

7.	REPLACE OCCUPANT CLASSIFICATION SENSOR (FRONT SEAT CUSHION ASSEMBLY)

(a) Turn the ignition switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the front seat cushion assembly (with occupant classification ECU and occupant classification sensor) with a known good part INFO .

HINT:

Perform an inspection using known good parts from another vehicle if possible.

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the ignition switch to ON.

(f) Clear the DTCs stored in the occupant classification ECU INFO .

(g) Clear the DTCs stored in the center airbag sensor assembly INFO .

(h) Turn the ignition switch off.

(i) Turn the ignition switch to ON.

(j) Check for DTCs INFO .

OK:

DTC B1774 and B1775 are not output.

HINT:

Codes other than B1774 and B1775 may be output at this time, but they are not related to this check.

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NEXT

8.	PERFORM ZERO POINT CALIBRATION

(a) Connect the Techstream to the DLC3.

(b) Turn the ignition switch to ON.

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

(d) Turn the ignition switch off.

(e) Turn the ignition switch to ON.

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

HINT:

If the DTCs are not cleared at this time, past DTCs will remain.

NEXT

9.	CHECK FOR DTC

HINT:

Check that the zero point calibration is completed normally. If either of the following conditions is met, DTC B1797 will be output (Refer to Initialization: INFO):

- Zero point calibration is performed when the conditions for the calibration are not satisfied.
- Zero point calibration has failed.

(a) Turn the ignition switch to ON.

(b) Clear the DTCs stored in the occupant classification ECU INFO .

(c) Clear the DTCs stored in the center airbag sensor assembly INFO .

(d) Turn the ignition switch off.

(e) Turn the ignition switch to ON.

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(f) Check for DTCs INFO .

OK:

DTC B1797 is not output.

NG ▶ GO TO DTC B1797

OK ▼

10.	PERFORM SENSITIVITY CHECK

(a) Perform the sensitivity check INFO .

NEXT ▶ END

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM0000010VF03NX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: B1790: Center Airbag Sensor Assembly Communication Circuit Malfunction (2010 Corolla)		

DTC	**B1790**	**Center Airbag Sensor Assembly Communication Circuit Malfunction**

DESCRIPTION

The center airbag sensor assembly communication circuit consists of the occupant classification ECU and the center airbag sensor assembly.

DTC B1790 is recorded when a malfunction is detected in the center airbag sensor assembly communication circuit.

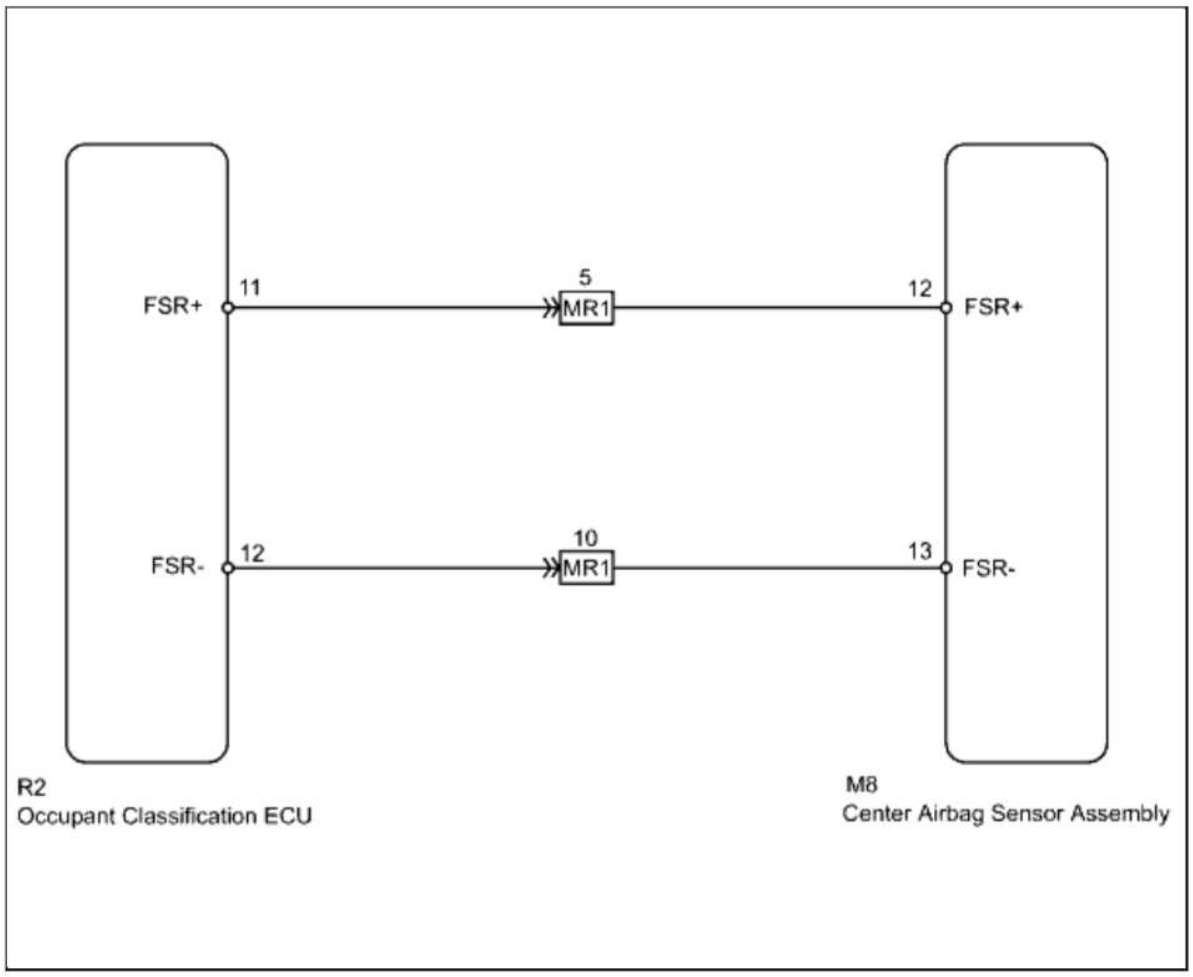
DTC NO.	DTC DETECTING CONDITION	TROUBLE AREA
B1790	• The occupant classification ECU receives a short circuit signal, an open circuit signal and short circuit to ground signal or a short circuit to B+ signal in the center airbag sensor assembly communication circuit for 2 seconds. • Center airbag sensor assembly malfunction • Occupant classification ECU malfunction	• No. 2 floor wire • Front seat wire RH • Occupant classification ECU • Center airbag sensor assembly

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1790 is output, perform troubleshooting for the DTC.

WIRING DIAGRAM

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INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to access the underside 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 damage the seat or deform the seat rails. Hold the seat only as necessary.

PROCEDURE

1.	**CHECK CONNECTORS**

(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 center airbag sensor assembly.

OK:

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The connectors are properly connected.

HINT:

If the connectors are not connected securely, reconnect the connectors and proceed to the next inspection.

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

(e) Check that the terminals of the connectors are not damaged.

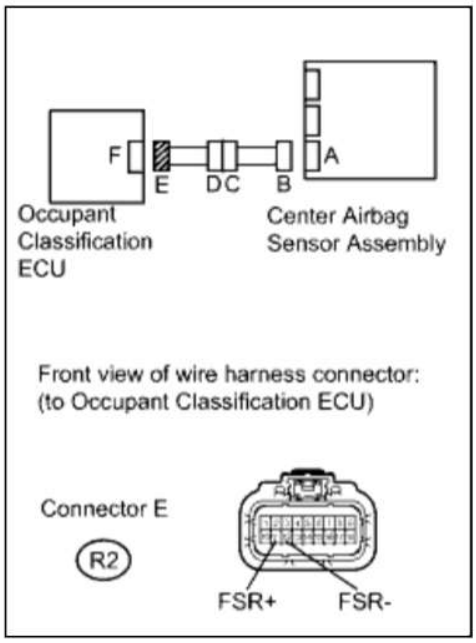
OK:

The terminals are not deformed or damaged.

NG ▶ **REPLACE WIRE HARNESS**

OK ▼

2.	CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT (SHORT TO B+)



(a) Connect the cable to the negative (-) battery terminal.

(b) Turn the ignition switch to ON.

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION

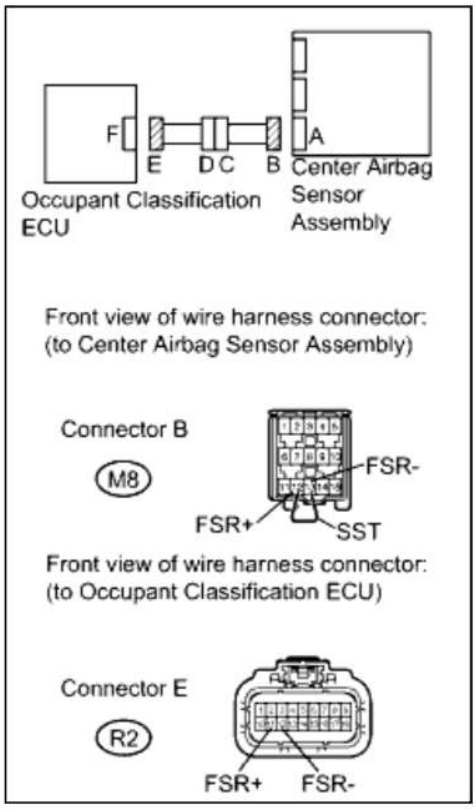
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TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
R2-11 (FSR+) - Body ground	Ignition switch ON	Below 1 V
R2-12 (FSR-) - Body ground	Ignition switch ON	Below 1 V

NG ▶ **CHECK NO. 2 FLOOR WIRE (SHORT TO B+)**

OK ▼

3.	CHECK OCCUPANT CLASSIFICATION SYSTEM 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 SST, connect terminals 12 (FSR+) and 13 (FSR-) of connector B.

NOTICE:

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

SST: 09843-18040

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

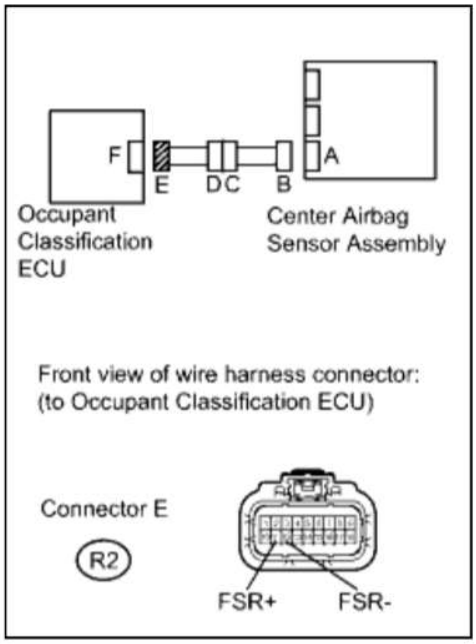
Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-11 (FSR+) - R2-12 (FSR-)	Always	Below 1 Ω

NG ▶ **CHECK NO. 2 FLOOR WIRE (OPEN)**

OK ▼

4.	CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT (SHORT)



(a) Disconnect SST from connector B.

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

Standard Resistance:

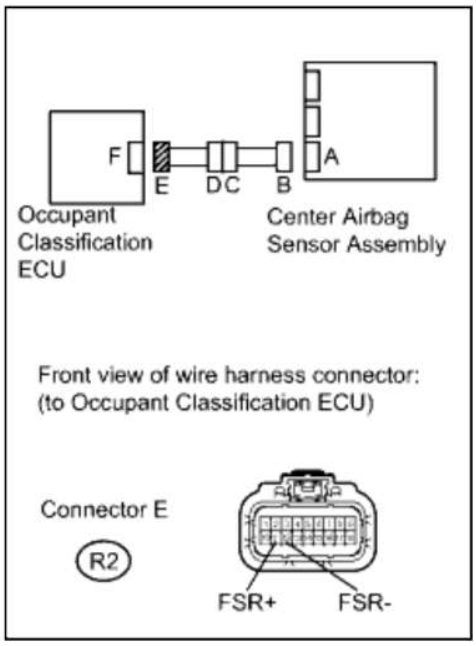
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-11 (FSR+) - R2-12 (FSR-)	Always	1 MΩ or higher

NG ▶ **CHECK NO. 2 FLOOR WIRE (SHORT)**

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OK

5.	CHECK OCCUPANT CLASSIFICATION SYSTEM CIRCUIT (SHORT TO GROUND)



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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R2-11 (FSR+) - Body ground	Always	1 MΩ or higher
R2-12 (FSR-) - Body ground	Always	1 MΩ or higher

NG ▶ **CHECK NO. 2 FLOOR WIRE (SHORT TO GROUND)**

OK

6.	RECHECK FOR DTC

(a) Connect the connectors to the occupant classification ECU and the center airbag sensor assembly.

(b) Connect the Techstream to the DLC3.

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

(d) Turn the ignition switch to ON.

(e) Clear the DTCs stored in the occupant classification ECU INFO .

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(f) Clear the DTCs stored in the center airbag sensor assembly INFO .

(g) Turn the ignition switch off.

(h) Turn the ignition switch to ON.

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

OK:
DTC B1790 is not output.

HINT:

Codes other than DTC B1790 may be output at this time, but they are not related to this check.

NG ▶ **REPLACE OCCUPANT CLASSIFICATION ECU**

OK ▶ **USE SIMULATION METHOD TO CHECK**

7.	REPLACE OCCUPANT CLASSIFICATION ECU

(a) Connect the Techstream to the DLC3.

(b) Turn the ignition switch to ON.

(c) Using the Techstream, save the ECU data from the ECU currently installed on the vehicle INFO .

(d) Turn the ignition switch off.

(e) Disconnect the cable from the negative (-) battery terminal.

(f) Replace the occupant classification ECU INFO .

(g) Connect the cable to the negative (-) battery terminal.

(h) Turn the ignition switch to ON.

(i) Using the Techstream, load the previous ECU data stored into the new ECU INFO .

(j) Turn the ignition switch off.

(k) Turn the ignition switch to ON.

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

HINT:

If the DTCs are not cleared at this time, past DTCs will remain.

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NEXT

8.	RECHECK FOR DTC

(a) Turn the ignition switch to ON.

(b) Clear the DTCs stored in the occupant classification ECU INFO .

(c) Clear the DTCs stored in the center airbag sensor assembly INFO .

(d) Turn the ignition switch off.

(e) Turn the ignition switch to ON.

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

OK:
DTC B1790 is not output.

HINT:

Codes other than DTC B1790 may be output at this time, but they are not related to this check.

NG ▶ **REPLACE CENTER AIRBAG SENSOR ASSEMBLY**

OK

9.	PERFORM SENSITIVITY CHECK

(a) Perform the sensitivity check INFO .

NEXT ▶ **END**

10.	REPLACE CENTER AIRBAG SENSOR ASSEMBLY

(a) Turn the ignition switch off.

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

(c) Replace the center airbag sensor assembly INFO .

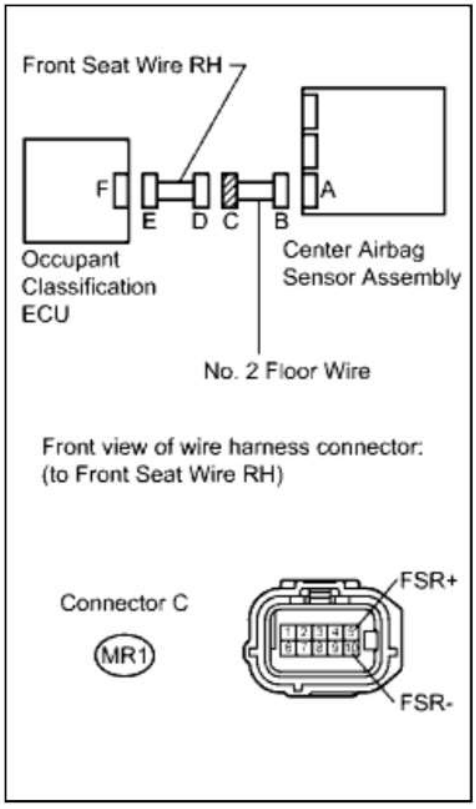
NEXT

11.	PERFORM SENSITIVITY CHECK

(a) Perform the sensitivity check INFO .

NEXT **END**

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



(a) Turn the ignition switch off.

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

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(c) Disconnect the front seat wire RH connector from the No. 2 floor wire.

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the ignition switch to ON.

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

Standard Voltage:

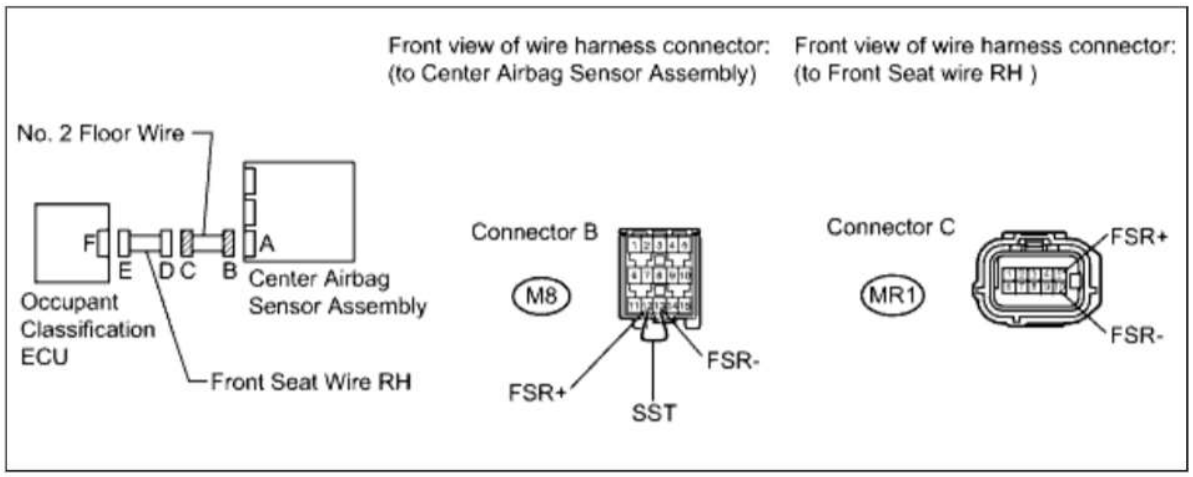
TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
MR1-5 (FSR+) - Body ground	Ignition switch ON	Below 1 V
MR1-10 (FSR-) - Body ground	Ignition switch ON	Below 1 V

NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▶ **REPLACE FRONT SEAT WIRE RH**

13.	CHECK NO. 2 FLOOR WIRE (OPEN)

(a) Disconnect the front seat wire RH connector from the No. 2 floor wire.



HINT:

SST has already been inserted into connector B.

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

Standard Resistance:

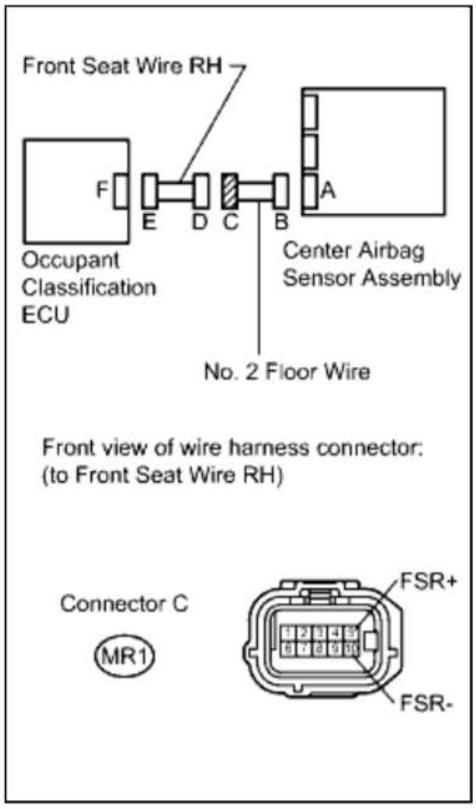
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
MR1-5 (FSR+) - MR1-10 (FSR-)	Always	Below 1 Ω

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NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▶ **REPLACE FRONT SEAT WIRE RH**

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



(a) Disconnect the front seat wire RH connector from the No. 2 floor wire.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
MR1-5 (FSR+) - MR1-10 (FSR-)	Always	1 MΩ or higher

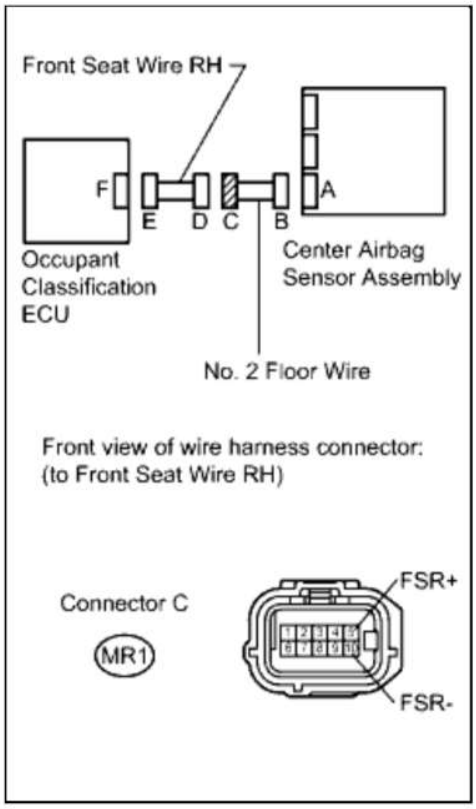
NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▶ **REPLACE FRONT SEAT WIRE RH**

15.	**CHECK NO. 2 FLOOR WIRE (SHORT TO GROUND)**

(a) Disconnect the front seat wire RH connector from the

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No. 2 floor wire.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
MR1-5 (FSR+) - Body ground	Always	1 MΩ or higher
MR1-10 (FSR-) - Body ground	Always	1 MΩ or higher

NG ▶ **REPLACE NO. 2 FLOOR WIRE**

OK ▶ **REPLACE FRONT SEAT WIRE RH**

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001PK801DX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: B1797: Calibration Malfunction (2010 Corolla)		

DTC	**B1797**	**Calibration Malfunction**

DESCRIPTION

DTC B1797 is output when the following conditions are met:

- Zero point calibration is performed when the conditions for the calibration are not satisfied.
- Zero point calibration has failed.

Condition for the Zero Point Calibration

ITEM	CONDITION
DTC	Not recorded
Front passenger seat occupant	Vacant
Front passenger side buckle switch	OFF (The seat belt is not fastened)
ECU temperature	0 to 46°C (32 to 114.8°F)
Filtered pressure	38 to 75 count

DTC NO.	DTC DETECTING CONDITION	TROUBLE AREA
B1797	• Zero point calibration is performed when the conditions for the calibration are not satisfied. • Zero point calibration has failed.	• There is no malfunction if this DTC is not output again after performing occupant classification system zero point calibration. • Occupant classification sensor • Occupant classification ECU

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1797 is output, perform troubleshooting for the DTC.

INSPECTION PROCEDURE

PROCEDURE

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1.	CHECK FOR DTC

(a) Turn the ignition switch to ON.

(b) Clear the DTCs stored in the occupant classification ECU INFO .

(c) Clear the DTCs stored in the center airbag sensor assembly INFO .

(d) Turn the ignition switch off.

(e) Turn the ignition switch to ON, and wait for at least 10 seconds.

(f) Check for DTCs INFO .

OK:
DTC B1797 is not output.

HINT:

Codes other than B1797 may be output at this time, but they are not related to this check.

NG ▶ **READ VALUE USING DATA LIST (SPECIFIED CONDITION FOR ZERO POINT CALIBRATION)**

OK ▶ **PERFORM ZERO POINT CALIBRATION**

2.	READ VALUE USING DATA LIST (SPECIFIED CONDITION FOR ZERO POINT CALIBRATION)

(a) Connect the Techstream to the DLC3.

(b) Turn the ignition switch to ON.

(c) Using the Techstream, read the Data List INFO .

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	SPECIFIED CONDITION FOR ZERO POINT CALIBRATION
Pressure Sensor Output	Pressure sensor output/ Min.: 0 Max.: 255	0 to 210 (reference value)	0 to 2
Thermistor Temperature Output	Thermistor temperature output/ Min.: -40°C (-40°F) Max.: 90°C (194°F)	-40 to 85°C (-40 to 185°F)	3 to 40°C (37 to 104°F)

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TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	SPECIFIED CONDITION FOR ZERO POINT CALIBRATION
Number of Present DTC	Number of present trouble codes/ Min.: 0 Max.: 255	0	0
Number of Past DTC	Number of past trouble codes/ Min.: 0 Max.: 255	0	0

Result:

RESULT	PROCEED TO
All items correspond to the range of specified condition for zero point calibration.	A
THERMISTOR TEMP does not correspond to the range of specified condition for zero point calibration.	B

B ▶ **REPLACE OCCUPANT CLASSIFICATION SENSOR (FRONT SEAT CUSHION ASSEMBLY)**

A ▼

3.	**CHECK FOR DTC**

HINT:

Check that the zero point calibration is completed normally. If any of the following conditions is met, DTC B1797 will be output (Refer to Initialization: INFO).

- Zero point calibration is performed when the calibration conditions are not satisfied.
- Zero point calibration has failed.

(a) Turn the ignition switch to ON.

(b) Clear the DTCs stored in the occupant classification ECU INFO .

(c) Clear the DTCs stored in the center airbag sensor assembly INFO .

(d) Turn the ignition switch off.

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(e) Turn the ignition switch to ON.

(f) Check for DTCs INFO.

OK:
DTC B1797 is not output.

NEXT

4.	PERFORM ZERO POINT CALIBRATION

(a) Connect the Techstream to the DLC3.

(b) Turn the ignition switch to ON.

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

(d) Turn the ignition switch off.

(e) Turn the ignition switch to ON.

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

HINT:

If the DTCs are not cleared at this time, past DTCs will remain.

NEXT

5.	CHECK FOR DTC

(a) Turn the ignition switch to ON.

(b) Clear the DTCs stored in the occupant classification ECU INFO.

(c) Clear the DTCs stored in the center airbag sensor assembly INFO.

(d) Turn the ignition switch off.

(e) Turn the ignition switch to ON.

(f) Check for DTCs INFO.

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OK:
DTC B1797 is not output.

HINT:

Codes other than B1797 may be output at this time, but they are not related to this check.

NEXT ▶ END

6.	REPLACE OCCUPANT CLASSIFICATION SENSOR (FRONT SEAT CUSHION ASSEMBLY)

(a) Turn the ignition switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the front seat cushion assembly (with occupant classification ECU and occupant classification sensor) INFO .

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the ignition switch to ON.

(f) Clear the DTCs stored in the occupant classification ECU INFO .

(g) Clear the DTCs stored in the center airbag sensor assembly INFO .

(h) Turn the ignition switch off.

(i) Turn the ignition switch to ON.

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

OK:
DTC is not output.

NEXT ▼

7.	PERFORM ZERO POINT CALIBRATION

(a) Connect the Techstream to the DLC3.

(b) Turn the ignition switch to ON.

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

(d) Turn the ignition switch off.

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(e) Turn the ignition switch to ON.

(f) Clear the DTCs stored in the occupant classification ECU INFO .

HINT:

If the DTCs are not cleared at this time, past DTCs will remain.

NEXT

8.	CHECK FOR DTC

(a) Turn the ignition switch to ON.

(b) Clear the DTCs stored in the occupant classification ECU INFO .

(c) Clear the DTCs stored in the center airbag sensor assembly INFO .

(d) Turn the ignition switch off.

(e) Turn the ignition switch to ON.

(f) Check for DTCs INFO .

OK:
DTC B1797 is not output.

NEXT

9.	PERFORM SENSITIVITY CHECK

(a) Perform the sensitivity check INFO .

NEXT END

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Last Modified: 3-10-2010	6.4 C	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM00000158201TX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: B1795: Occupant Classification ECU Malfunction (2010 Corolla)		

DTC	**B1795**	**Occupant Classification ECU Malfunction**

DESCRIPTION

DTC B1795 is recorded when a malfunction is detected in the occupant classification ECU.

DTC NO.	DTC DETECTING CONDITION	TROUBLE AREA
B1795	Occupant classification ECU malfunction	Occupant classification ECU

HINT:

When DTC B1650/32 is detected as a result of troubleshooting for the airbag system, check the DTCs stored in the occupant classification ECU. When DTC B1795 is output, perform troubleshooting for the DTC.

INSPECTION PROCEDURE

HINT:

- If troubleshooting (wire harness inspection) is difficult to perform, remove the front passenger seat installation bolts to access the underside 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 damage the seat or deform the seat rails. Hold the seat only as necessary.

PROCEDURE

1.	**CHECK FOR DTC**

(a) Turn the ignition switch to ON.

(b) Clear the DTCs stored in the occupant classification ECU INFO .

(c) Clear the DTCs stored in the center airbag sensor assembly INFO .

(d) Turn the ignition switch off.

(e) Turn the ignition switch to ON, and wait for at least 10 seconds.

(f) Check for DTCs INFO .

OK:

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DTC B1795 is not output.

HINT:

Codes other than B1795 may be output at this time, but they are not related to this check.

NG ▶ **REPLACE OCCUPANT CLASSIFICATION ECU**

OK ▶ **USE SIMULATION METHOD TO CHECK**

2.	REPLACE OCCUPANT CLASSIFICATION ECU

(a) Connect the Techstream to the DLC3.

(b) Turn the ignition switch to ON.

(c) Using the Techstream, save the ECU data from the ECU currently installed on the vehicle INFO .

(d) Turn the ignition switch off.

(e) Disconnect the cable from the negative (-) battery terminal.

(f) Replace the occupant classification ECU INFO .

(g) Connect the cable to the negative (-) battery terminal.

(h) Turn the ignition switch to ON.

(i) Using the Techstream, load the previous ECU data stored into the new ECU INFO .

(j) Turn the ignition switch off.

(k) Turn the ignition switch to ON.

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

HINT:

If the DTCs are not cleared at this time, past DTCs will remain.

NEXT ▼

3.	PERFORM SENSITIVITY CHECK

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(a) Perform the sensitivity check INFO .

NEXT ▶ END



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Last Modified: 3-10-2010	6.4 J	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000001P3801DX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION SYSTEM: Trouble in Passenger Airbag ON/OFF Indicator (2010 Corolla)		

Trouble in Passenger Airbag ON/OFF Indicator

DESCRIPTION

The occupant classification system detects the front passenger seat condition. It then informs a passenger of the front passenger airbag assembly and front seat side airbag assembly condition (activated/not activated) by the passenger airbag ON/OFF indicator.

HINT:

Approximately 6 seconds after the ignition switch is turned to ON, the passenger airbag ON/OFF indicator will be ON/OFF depending on the conditions listed below.

FRONT PASSENGER SEAT CONDITION	PASSENGER AIRBAG ON/OFF INDICATOR		SRS WARNING LIGHT
	ON INDICATOR	OFF INDICATOR	
Adult is seated	ON	OFF	OFF
Child is seated	OFF	ON	OFF
Vacant	OFF	OFF	OFF
Occupant classification system failure	OFF	ON	ON

INSPECTION PROCEDURE

HINT:

When the indicator is malfunctioning, if the SRS warning light is off, follow the procedures below as a DTC is not output. If the SRS warning light is on, a DTC is output. Troubleshoot the output DTC.

PROCEDURE

1.	**PERFORM ZERO POINT CALIBRATION**

(a) Connect the Techstream to the DLC3.

(b) Turn the ignition switch to ON.

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

(d) Turn the ignition switch off.

(e) Turn the ignition switch to ON.

(f) Clear the DTCs stored in the occupant classification ECU INFO.

HINT:

If the DTCs are not cleared at this time, past DTCs will remain.

NEXT

2.	**CHECK FOR DTC**

(a) Turn the ignition switch to ON.

(b) Clear the DTCs stored in the occupant classification ECU INFO.

(c) Clear the DTCs stored in the center airbag sensor assembly INFO.

(d) Turn the ignition switch off.

(e) Turn the ignition switch to ON.

(f) Check the DTCs of the occupant classification ECU INFO.

OK:
DTC B1797 is not output.

HINT:

Codes other than DTC B1797 may be output at this time, but they are not related to this check.

NG ▶ **GO TO DTC B1797**

OK

3.	**CHECK PASSENGER AIRBAG ON/OFF INDICATOR (PERFORM SENSITIVITY CHECK)**

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(a) Perform the sensitivity check INFO .

NG ▶ READ VALUE USING DATA LIST (PASSENGER SIDE BUCKLE SWITCH)

OK ▶ END

4.	READ VALUE USING DATA LIST (PASSENGER SIDE BUCKLE SWITCH)

(a) Turn the ignition switch to ON.

(b) Using the Techstream, read the Data List INFO .

(1) Read the display when the passenger side buckle switch is operated.

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Passenger Buckle SW	Buckle switch (Passenger side)/ Unset: The seat belt is not fastened Set: The seat belt is fastened NG: Data is not determined	Unset/Set	-

OK:
The Techstream display changes correctly in accordance with the operation of the buckle switch.

NG ▶ REPLACE FRONT SEAT INNER BELT ASSEMBLY RH

OK ▼

5.	READ VALUE USING DATA LIST (SEAT BELT TENSION SENSOR)

(a) Fasten the passenger side seat belt.

(b) Turn the ignition switch to ON.

(c) Using the Techstream, read the value of the Data List INFO .

TESTER DISPLAY	MEASUREMENT	NORMAL	DIAGNOSTIC

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	ITEM/RANGE	CONDITION	NOTE
Filtered Pressure Sensor Output	Filtered belt tension output/ Min.: 0 Max.: 255	39 to 64 (no load)	-

OK:

When there is no tension on the belt, 39 to 64 is displayed on the Techstream.

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

OK ▼

6.	CHECK CONNECTORS

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

(b) Check that the terminals of the connectors are not damaged.

OK:

The terminals are not deformed or damaged.

NG ▶ **REPLACE FRONT SEAT WIRE RH**

OK ▼

7.	REPLACE FRONT SEAT CUSHION ASSEMBLY

(a) Turn the ignition switch off.

(b) Disconnect the cable from the negative (-) battery terminal.

(c) Replace the front seat cushion assembly (with occupant classification ECU and occupant classification sensor) INFO .

(d) Connect the cable to the negative (-) battery terminal.

(e) Turn the ignition switch to ON.

(f) Clear the DTCs stored in the occupant classification ECU INFO .

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(g) Clear the DTCs stored in the center airbag sensor assembly INFO .

(h) Turn the ignition switch off.

(i) Turn the ignition switch to ON.

(j) Check for DTCs INFO .

OK:
DTC is not output.

NEXT

8.	PERFORM ZERO POINT CALIBRATION

(a) Connect the Techstream to the DLC3.

(b) Turn the ignition switch to ON.

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

(d) Turn the ignition switch off.

(e) Turn the ignition switch to ON.

(f) Clear the DTCs stored in the occupant classification ECU INFO .

HINT:

If the DTCs are not cleared at this time, past DTCs will remain.

NEXT

9.	PERFORM SENSITIVITY CHECK

(a) Perform the sensitivity check INFO .

NEXT **END**

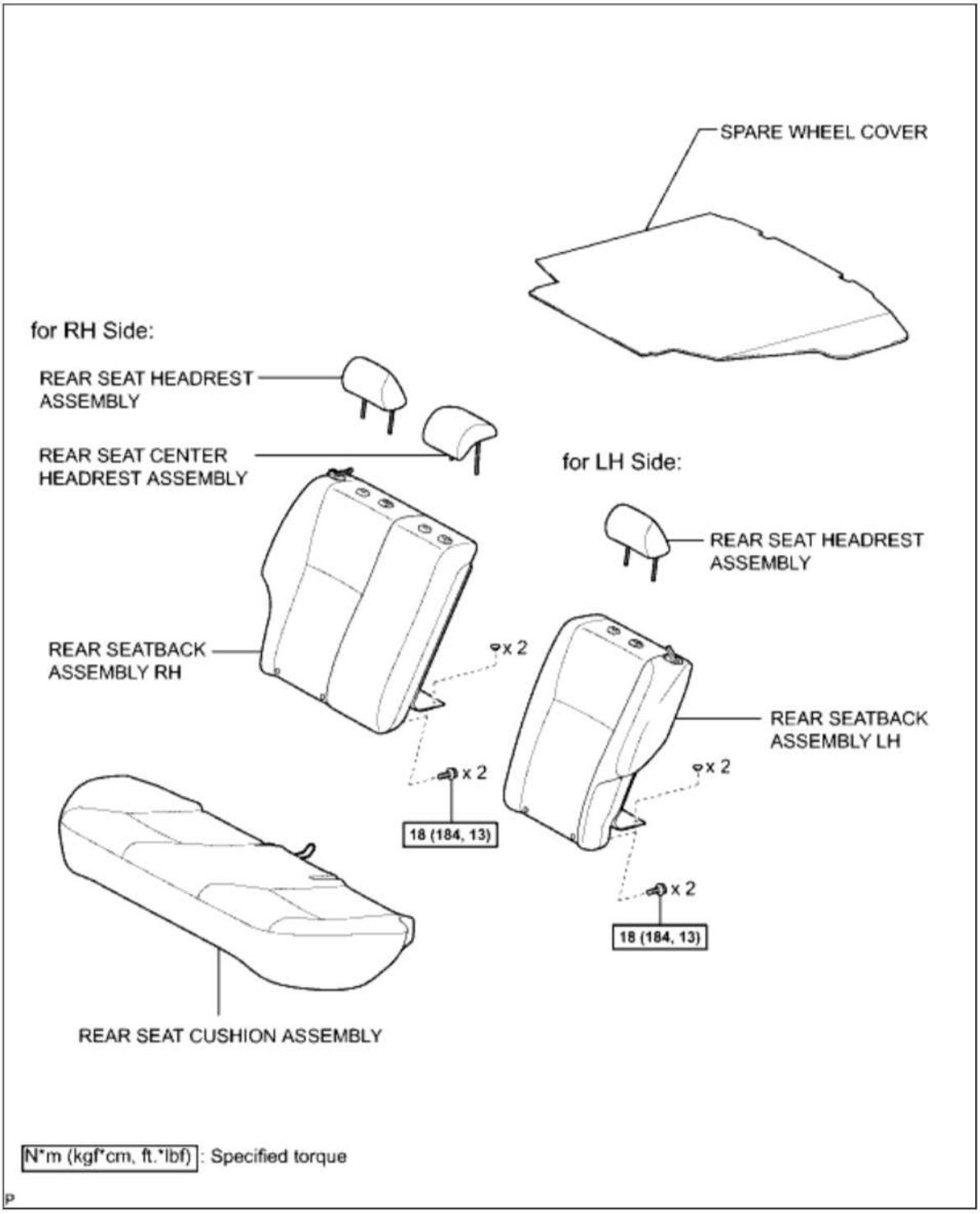
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Last Modified: 3-10-2010	6.4 K	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWQ02XX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: REAR AIRBAG SENSOR: COMPONENTS (2010 Corolla)		

COMPONENTS

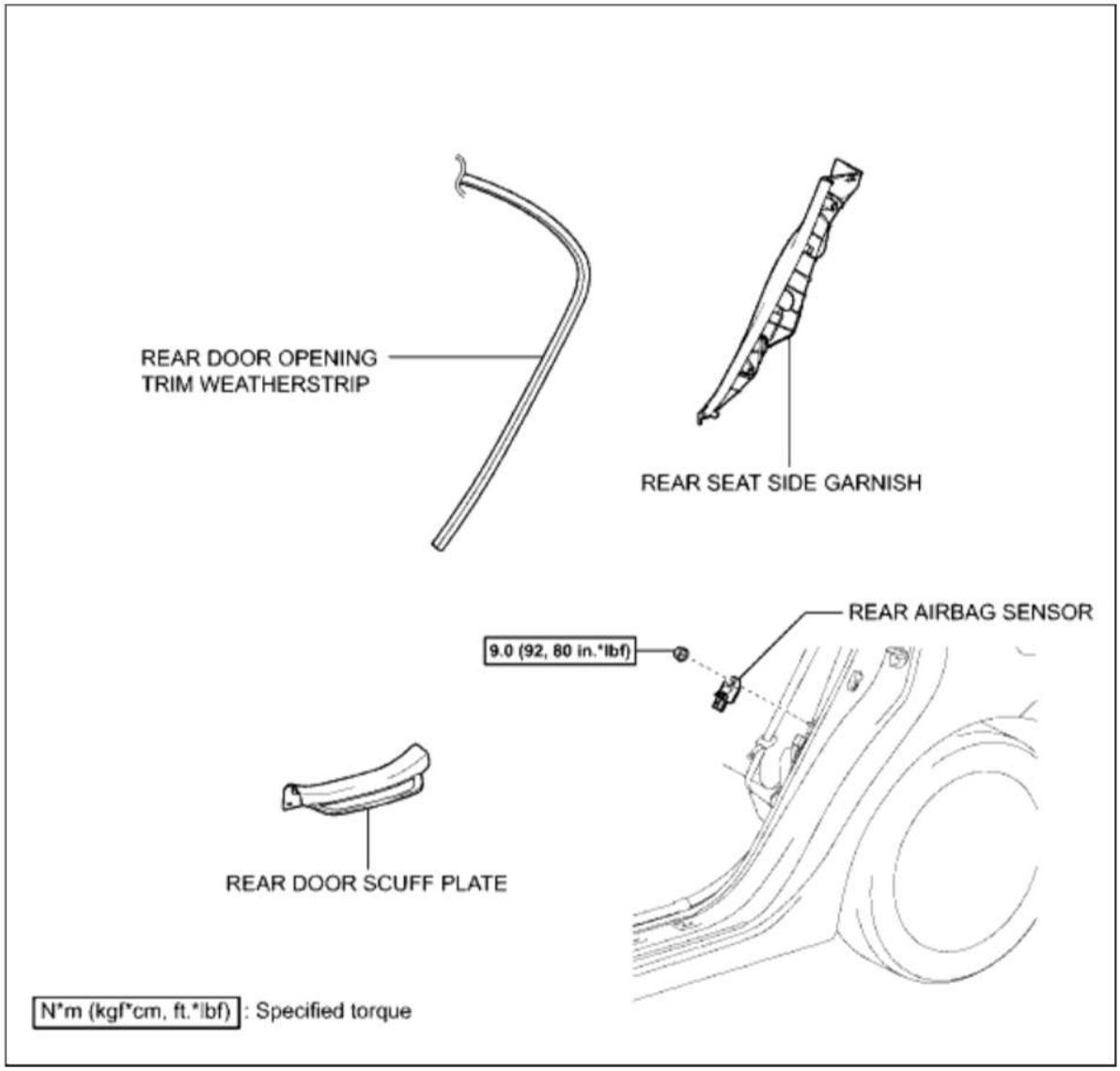
ILLUSTRATION

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Last Modified: 3-10-2010	6.4 G	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000VPW04EX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: REAR AIRBAG SENSOR: ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

1. INSPECT REAR AIRBAG SENSOR (VEHICLE NOT INVOLVED IN COLLISION)

(a) Perform a diagnostic system check INFO .

2. INSPECT REAR AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS NOT DEPLOYED)

(a) Perform a diagnostic system check INFO .

(b) When the quarter panel of the vehicle or the surrounding area is damaged, check if there is any damage to the rear airbag sensor. If there are any following defects, replace the rear airbag sensor with a new one:

- Cracks, dents or chips on the sensor housing.
- Cracks or other damage to the connector.
- Peeling off of the label or damage to the serial number.

CAUTION:

Be sure to follow the correct removal and installation procedures of the rear airbag sensor.

3. INSPECT REAR AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG IS DEPLOYED)

(a) When airbags have deployed as the result of a collision, be certain to replace all rear airbag sensors in the damaged area (anywhere in need of repair). Furthermore, it is also necessary to replace any rear airbag sensors in undamaged areas that have registered a major collision, or which exhibit any of the following abnormalities:

- Cracks, dents or chips on the sensor housing.
- Cracks or other damage to the connector.
- Peeling off of the label or damage to the serial number.

CAUTION:

Be sure to follow the correct removal and installation procedures of the rear airbag sensor.

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWR03OX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: REAR AIRBAG SENSOR: REMOVAL (2010 Corolla)		

REMOVAL

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO .

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

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

3. REMOVE REAR DOOR SCUFF PLATE INFO

4. DISCONNECT REAR DOOR OPENING TRIM WEATHERSTRIP INFO

5. REMOVE SPARE WHEEL COVER INFO

6. REMOVE REAR SEAT CUSHION ASSEMBLY INFO

7. REMOVE REAR SEAT HEADREST ASSEMBLY (for LH Side)

8. REMOVE REAR SEATBACK ASSEMBLY LH (for LH Side) INFO

9. REMOVE REAR SEAT HEADREST ASSEMBLY (for RH Side)

10. REMOVE REAR SEAT CENTER HEADREST ASSEMBLY (for RH Side)

11. REMOVE REAR SEATBACK ASSEMBLY RH (for RH Side) INFO

12. REMOVE REAR SEAT SIDE GARNISH INFO

13. REMOVE REAR AIRBAG SENSOR

(a) Check that the ignition switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

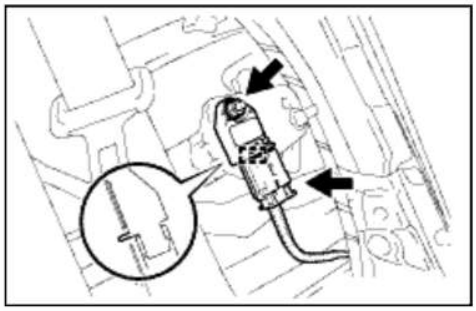
Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

(c) Disconnect the connector.

NOTICE:

When disconnecting the airbag connector, take care not to

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damage the airbag wire harness.

(d) Remove the nut and rear airbag sensor.

NOTICE:

Loosen the nut while holding the rear airbag sensor because the rear airbag sensor pin (stopper) is easily damaged.

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWO03QX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: REAR AIRBAG SENSOR: INSTALLATION (2010 Corolla)		

INSTALLATION

1. INSTALL REAR AIRBAG SENSOR

(a) Check that the ignition switch is off.

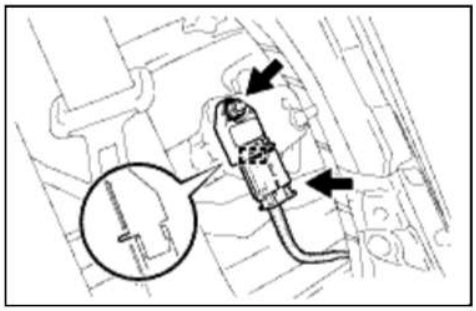
(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

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

(c) Install the rear airbag sensor with the nut and pin.

Torque: 9.0 N·m (92 kgf·cm, 80in·lbf)



NOTICE:

- If the rear airbag sensor has been dropped, or there are any cracks, dents or other defects in the case or connector, replace it with a new one.
- When installing the rear airbag sensor, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.
- Make sure that the pin is securely inserted into the body hole.
- Tighten the nut while holding the rear airbag sensor because the rear airbag sensor pin (stopper) is easily damaged.

(d) Connect the connector.

NOTICE:

When connecting the airbag connector, take care not to damage the airbag wire harness.

(e) Check that there is no looseness in the installation parts of the rear airbag sensor.

2. INSTALL REAR SEAT SIDE GARNISH INFO

3. INSTALL REAR SEATBACK ASSEMBLY LH (for LH Side) INFO

4. INSTALL REAR SEAT HEADREST ASSEMBLY (for LH Side)

5. INSTALL REAR SEATBACK ASSEMBLY RH (for RH Side) INFO

6. INSTALL REAR SEAT CENTER HEADREST ASSEMBLY (for RH Side)

7. INSTALL REAR SEAT HEADREST ASSEMBLY (for RH Side)

8. INSTALL REAR SEAT CUSHION ASSEMBLY INFO

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9. INSTALL SPARE WHEEL COVER INFO

10. INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP INFO

11. INSTALL REAR DOOR SCUFF PLATE INFO

12. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

13. INSPECT SRS WARNING LIGHT

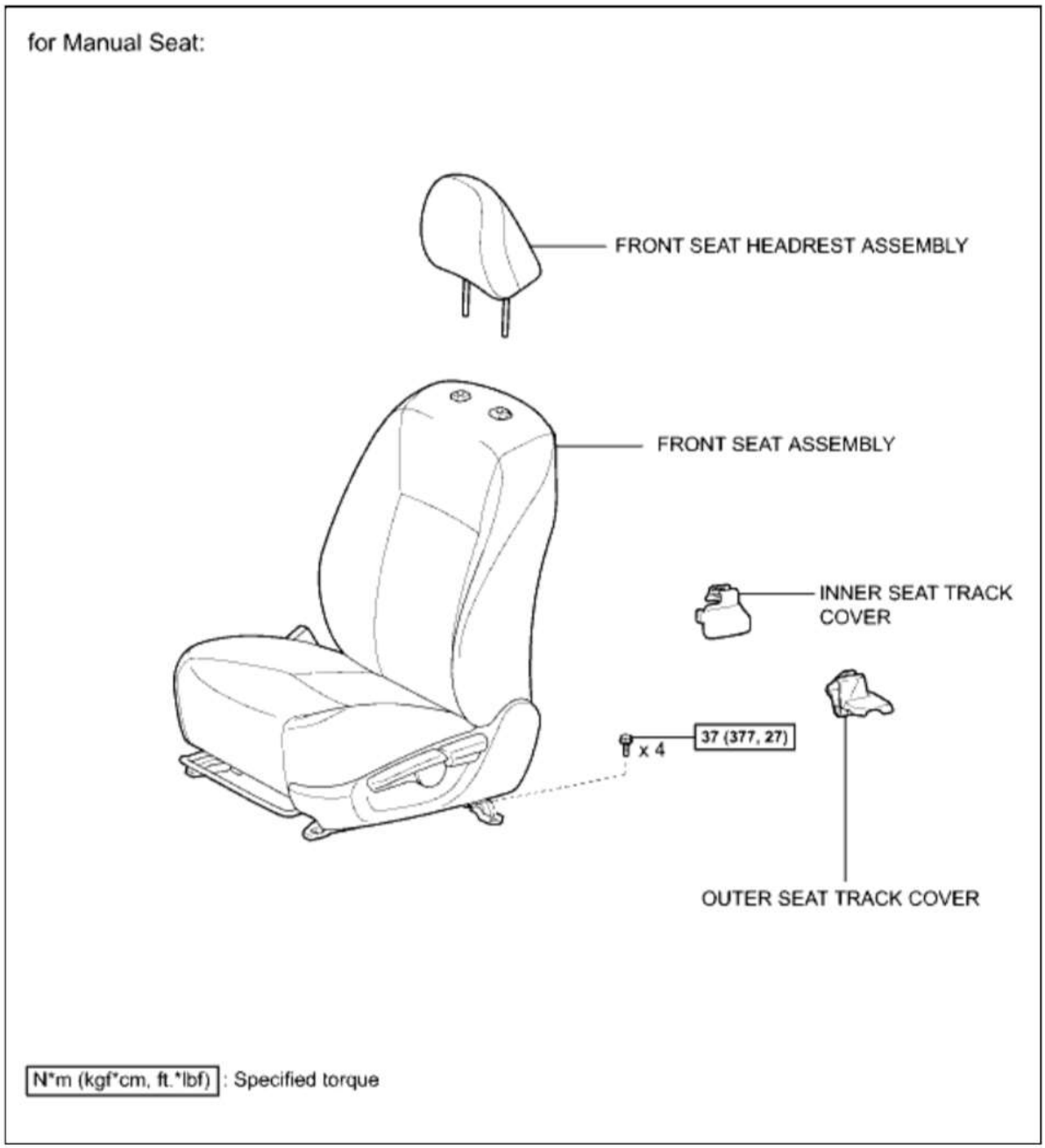
(a) Inspect the SRS warning light INFO .

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Last Modified: 3-10-2010	6.4 K	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWI02FX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SEAT POSITION SENSOR: COMPONENTS (2010 Corolla)		

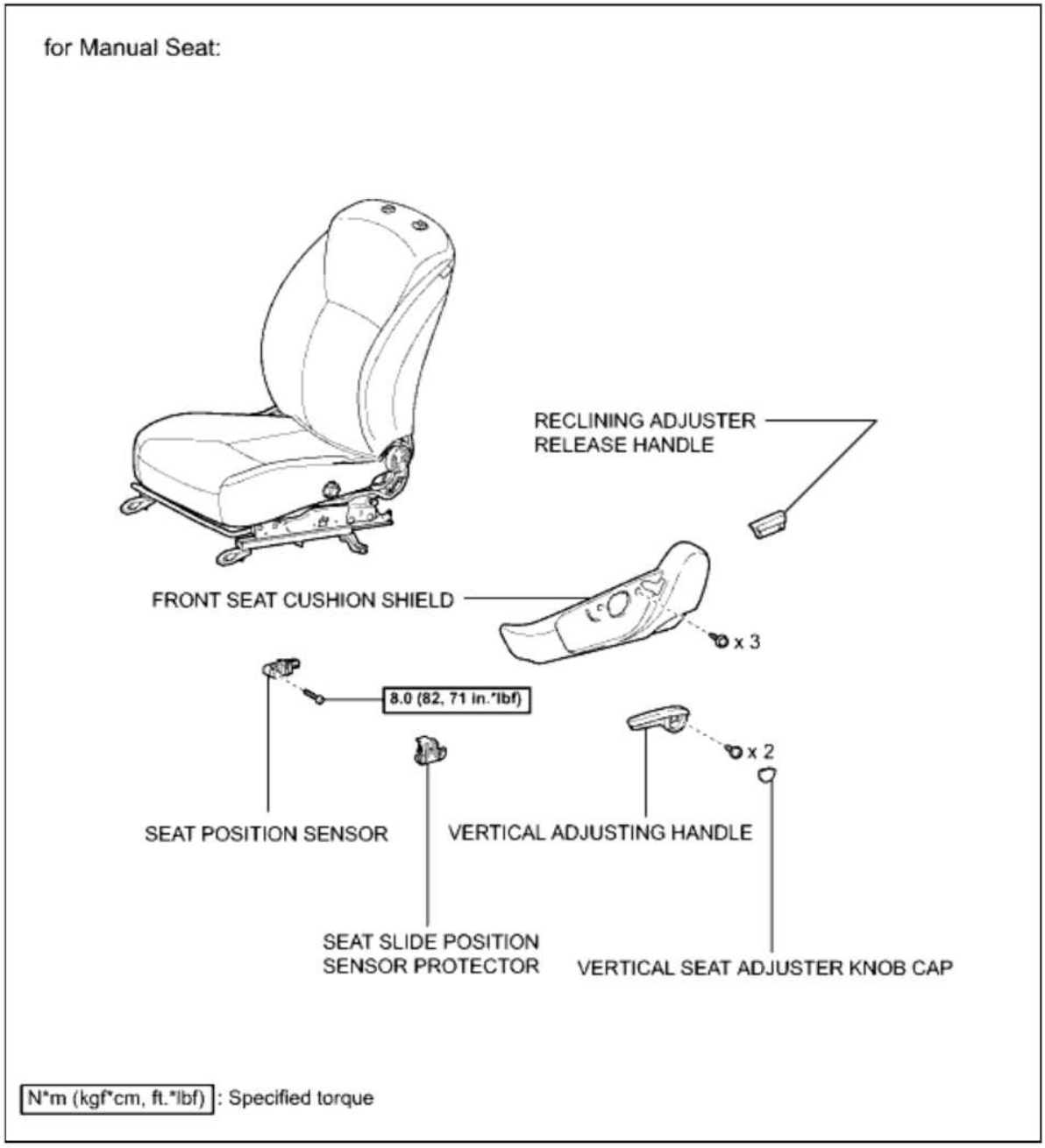
COMPONENTS

ILLUSTRATION



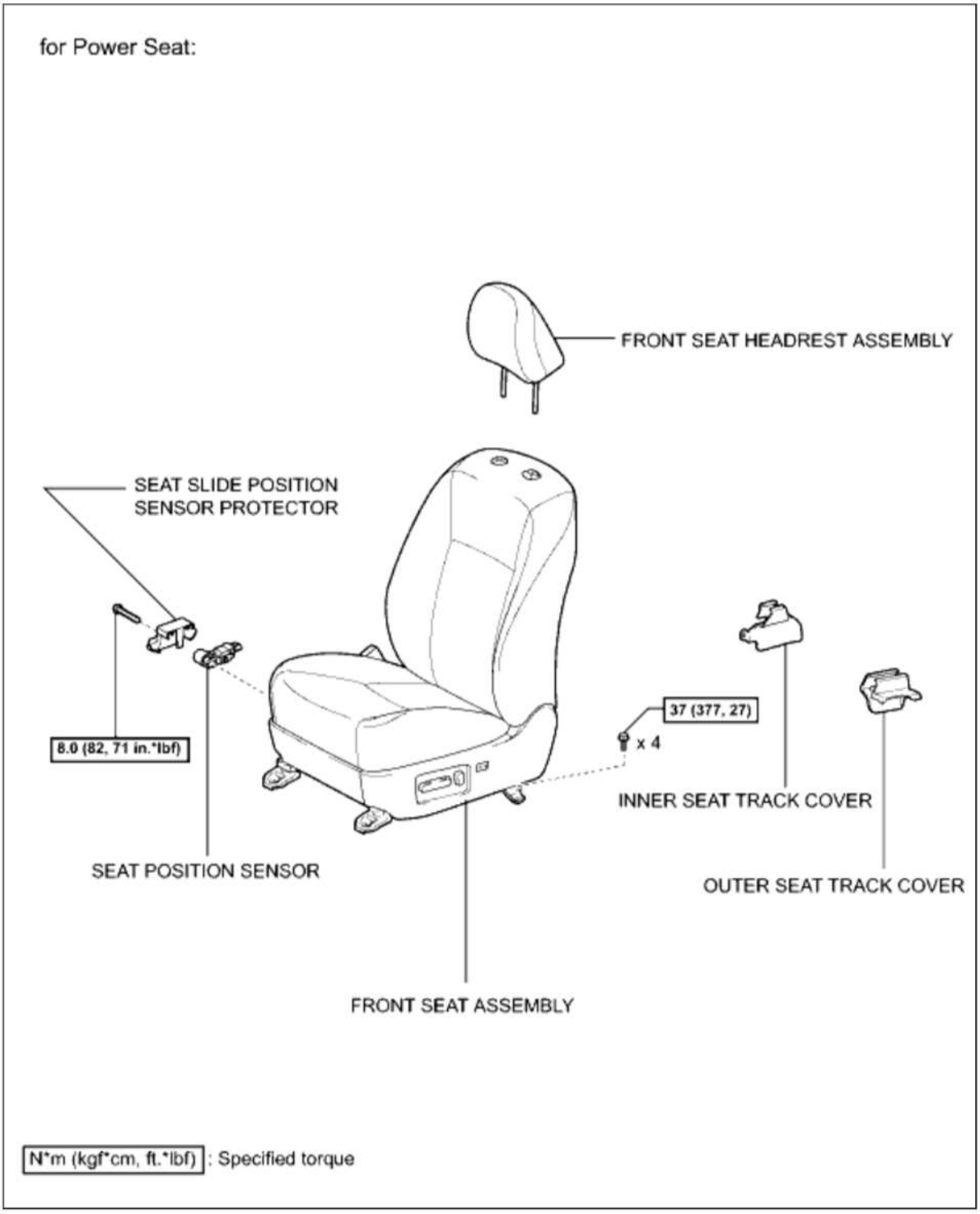
ILLUSTRATION

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Last Modified: 3-10-2010	6.4 G	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000VPX03PX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SEAT POSITION SENSOR: ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

1. INSPECT SEAT POSITION SENSOR (VEHICLE NOT INVOLVED IN COLLISION)

(a) Perform a diagnostic system check INFO.

2. INSPECT SEAT POSITION SENSOR (VEHICLE INVOLVED IN COLLISION)

(a) Perform a diagnostic system check INFO.

(b) Even if an airbag was not deployed, check if there is any damage to the seat position sensor.

If there are any following defects, replace the seat position sensor with a new one:

- Cracks, dents or chips on the sensor housing.
- Cracks or other damage to the connector.

CAUTION:

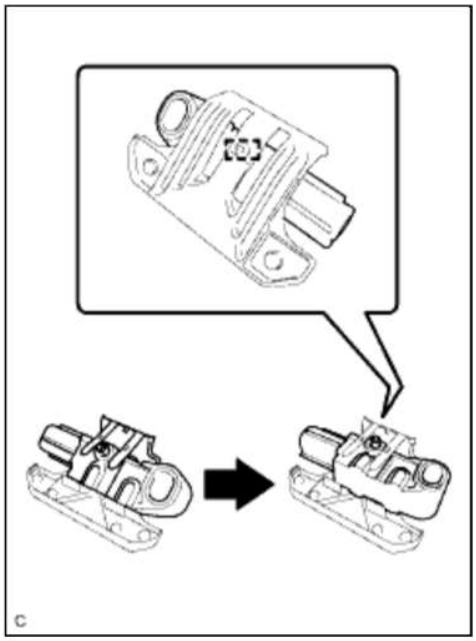
Be sure to follow the correct removal and installation procedures of the seat position sensor.

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWG033X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SEAT POSITION SENSOR: INSTALLATION (2010 Corolla)		

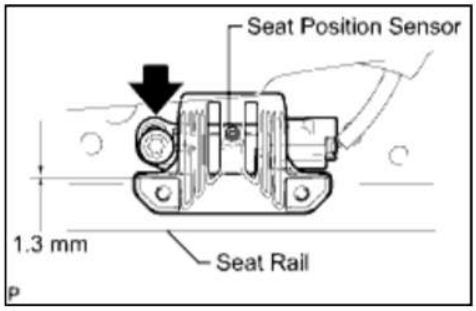
INSTALLATION

1. INSTALL SEAT POSITION SENSOR (for Manual Seat)



(a) Install the seat position sensor to the seat slide position sensor protector with the pin as shown in the illustration.

(b) Using a 1.3 mm (0.0512 in.) feeler gauge, temporarily install the seat position sensor with seat slide position sensor protector.



NOTICE:

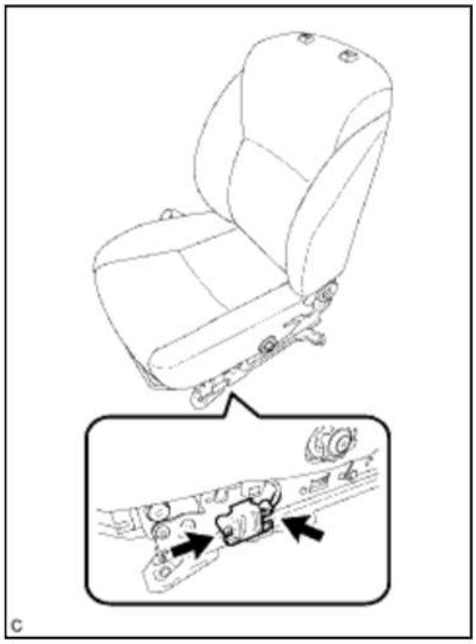
- If the seat position sensor has been dropped, or there are any cracks, dents or other defects in the case or connector, replace the seat position sensor with a new one.
- When installing the seat position sensor, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.

HINT:

Be sure that the clearance between the seat position sensor and the seat rail is within 0.6 mm (0.0236 in.) to 2.0 mm (0.0787 in.).

(c) Using a "TORX" socket wrench (T30), tighten the "TORX"

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screw to install the seat position sensor with seat slide position sensor protector.

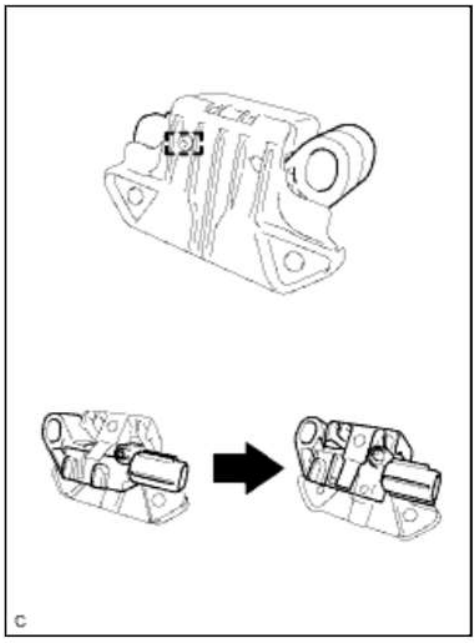
Torque: 8.0 N·m (82 kgf·cm, 71in·lbf)

(d) Make sure that the clearance between the seat position sensor and the seat rail is within 0.6 mm (0.0236 in.) to 2.0 mm (0.0787 in.).

(e) Connect the connector.

(f) Check that there are no loose parts after installing the seat position sensor.

2. INSTALL SEAT POSITION SENSOR (for Power Seat)

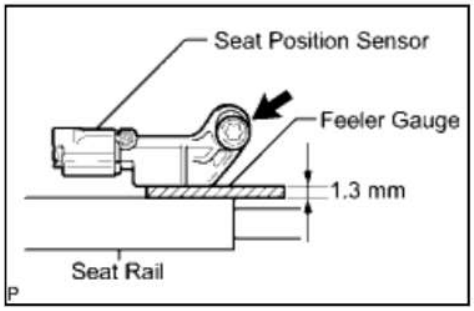


(a) Install the seat position sensor to the seat slide position sensor protector with the pin as shown in the illustration.

(b) Using a 1.3 mm (0.0512 in.) feeler gauge, temporarily

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install the seat position sensor with seat slide position sensor protector.



NOTICE:

- If the seat position sensor has been dropped, or there are any cracks, dents or other defects in the case or connector, replace the seat position sensor with a new one.
- When installing the seat position sensor, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.

HINT:

Be sure that the clearance between the seat position sensor and the seat rail is within 0.6 mm (0.0236 in.) to 2.0 mm (0.0787 in.).



(c) Using a "TORX" socket wrench (T30), tighten the "TORX" screw to install the seat position sensor with seat slide position sensor protector.

Torque: 8.0 N·m (82 kgf·cm, 71in·lbf)

(d) Make sure that the clearance between the seat position sensor and the seat rail is within 0.6 mm (0.0236 in.) to 2.0 mm (0.0787 in.).

(e) Connect the connector.

(f) Check that there are no loose parts after installing the seat position sensor.

3. INSTALL FRONT SEAT CUSHION SHIELD (for Manual Seat) INFO

4. INSTALL VERTICAL ADJUSTING HANDLE (for Manual Seat) INFO

5. INSTALL VERTICAL SEAT ADJUSTER KNOB CAP (for Manual Seat) INFO

6. INSTALL RECLINING ADJUSTER RELEASE HANDLE (for Manual Seat) INFO

7. INSTALL FRONT SEAT ASSEMBLY (for Manual Seat)

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(a) Install the front seat assembly INFO .

8. INSTALL FRONT SEAT ASSEMBLY (for Power Seat)

(a) Install the front seat assembly INFO .



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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWJ02ZX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SEAT POSITION SENSOR: REMOVAL (2010 Corolla)		

REMOVAL

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO .

2. REMOVE FRONT SEAT ASSEMBLY (for Manual Seat)

(a) Remove the front seat assembly INFO .

3. REMOVE FRONT SEAT ASSEMBLY (for Power Seat)

(a) Remove the front seat assembly INFO .

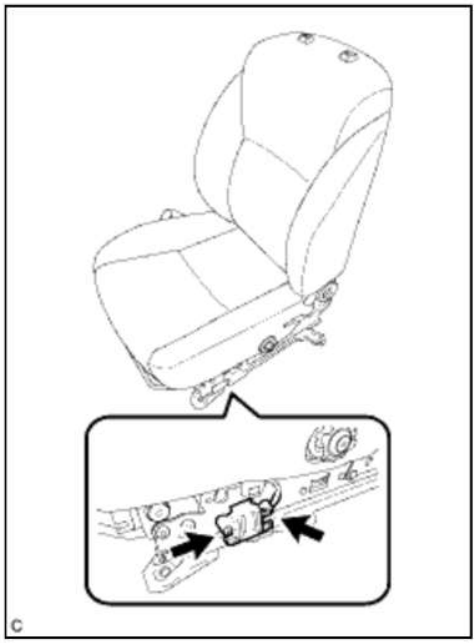
4. REMOVE RECLINING ADJUSTER RELEASE HANDLE (for Manual Seat) INFO

5. REMOVE VERTICAL SEAT ADJUSTER KNOB CAP (for Manual Seat) INFO

6. REMOVE VERTICAL ADJUSTING HANDLE (for Manual Seat) INFO

7. REMOVE FRONT SEAT CUSHION SHIELD (for Manual Seat) INFO

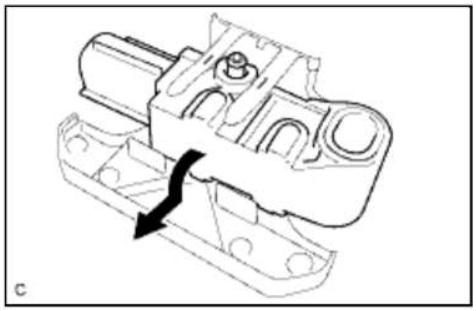
8. REMOVE SEAT POSITION SENSOR (for Manual Seat)



(a) Disconnect the connector.

(b) Using a "TORX" socket wrench (T30), remove the "TORX" screw and seat position sensor with the seat slide position sensor protector.

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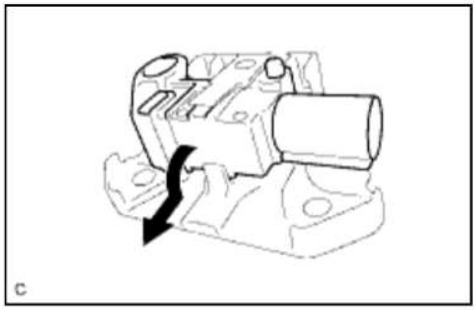
(c) Remove the seat position sensor from the seat slide position sensor protector as shown in the illustration.

9. REMOVE SEAT POSITION SENSOR (for Power Seat)



(a) Disconnect the connector.

(b) Using a "TORX" socket wrench (T30), remove the "TORX" screw and seat position sensor with the seat slide position sensor protector.



(c) Remove the seat position sensor from the seat slide position sensor protector as shown in the illustration.

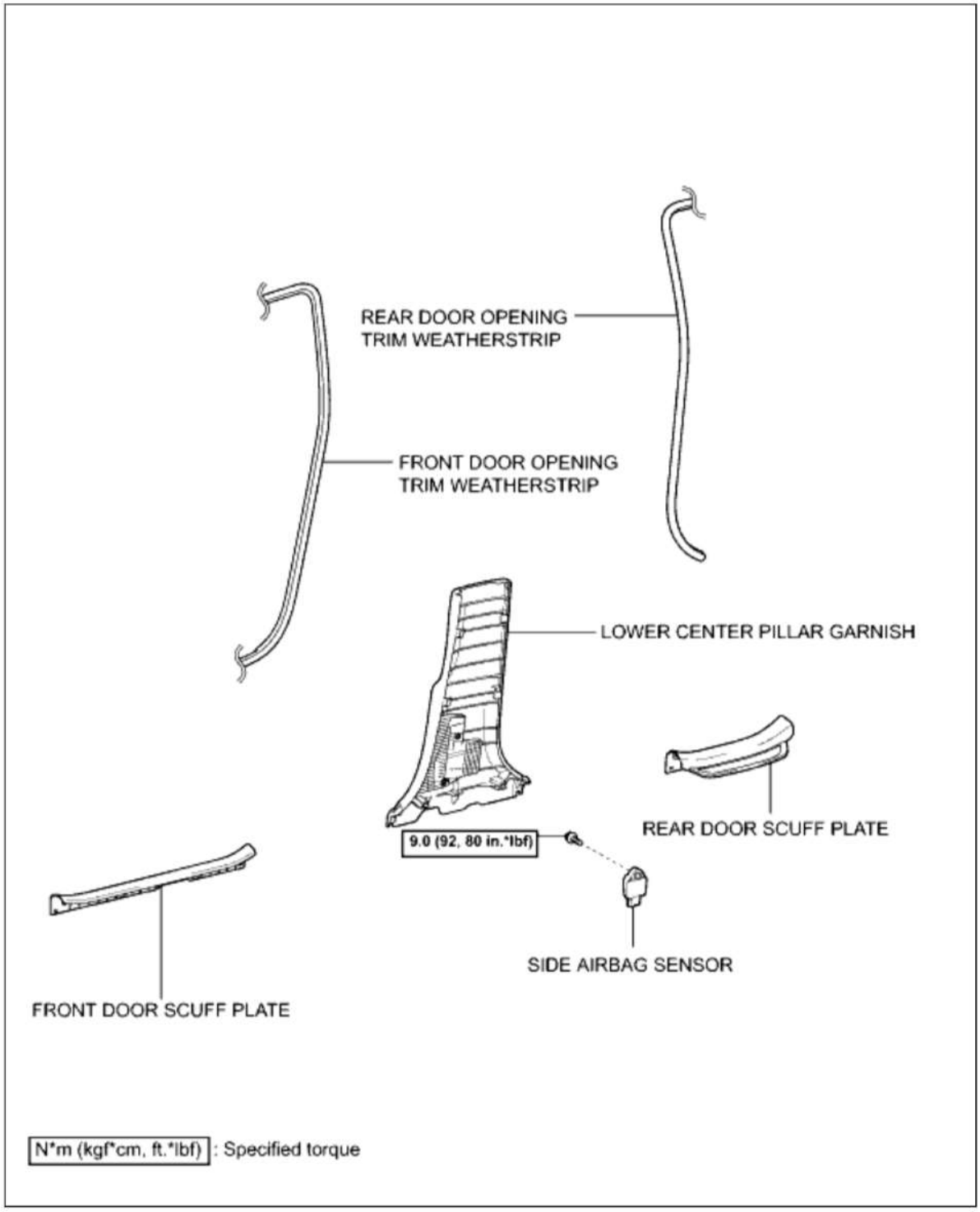
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Last Modified: 3-10-2010	6.4 K	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWM032X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SIDE AIRBAG SENSOR: COMPONENTS (2010 Corolla)		

COMPONENTS

ILLUSTRATION

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Last Modified: 3-10-2010	6.4 G	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000VPV04OX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SIDE AIRBAG SENSOR: ON-VEHICLE INSPECTION (2010 Corolla)		

ON-VEHICLE INSPECTION

1. INSPECT SIDE AIRBAG SENSOR (VEHICLE NOT INVOLVED IN COLLISION)

(a) Perform a diagnostic system check INFO .

2. INSPECT SIDE AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS NOT DEPLOYED)

(a) Perform a diagnostic system check INFO .

(b) When the center pillar of the vehicle or the surrounding area is damaged, check if there is any damage to the side airbag sensor. If there are any following defects, replace the side airbag sensor with a new one:

- Cracks, dents or chips on the sensor housing.
- Cracks or other damage to the connector.
- Peeling off of the label or damage to the serial number.

CAUTION:

Be sure to follow the correct removal and installation procedures of the side airbag sensor.

3. INSPECT SIDE AIRBAG SENSOR (VEHICLE INVOLVED IN COLLISION AND AIRBAG IS DEPLOYED)

(a) When airbags have deployed as the result of a collision, be certain to replace all side airbag sensors in the damaged area (anywhere in need of repair). Furthermore, it is also necessary to replace any side airbag sensors in undamaged areas that have registered a major collision, or which exhibit any of the following abnormalities:

- Cracks, dents or chips on the sensor housing.
- Cracks or other damage to the connector.
- Peeling off of the label or damage to the serial number.

CAUTION:

Be sure to follow the correct removal and installation procedures of the side airbag sensor.

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWN03RX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SIDE AIRBAG SENSOR: REMOVAL (2010 Corolla)		

REMOVAL

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO .

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

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

3. REMOVE FRONT DOOR SCUFF PLATE INFO

4. DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP INFO

5. REMOVE REAR DOOR SCUFF PLATE INFO

6. DISCONNECT REAR DOOR OPENING TRIM WEATHERSTRIP INFO

7. REMOVE LOWER CENTER PILLAR GARNISH INFO

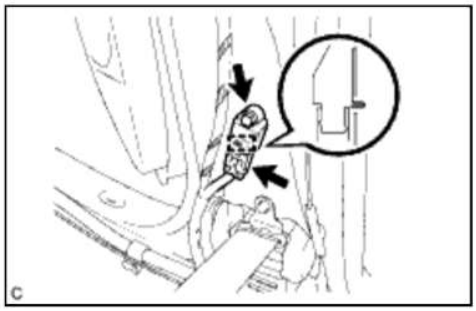
8. REMOVE SIDE AIRBAG SENSOR

(a) Check that the ignition switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

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



(c) Disconnect the connector.

NOTICE:

When disconnecting the airbag connector, take care not to damage the airbag wire harness.

(d) Remove the bolt, disengage the pin and remove the side airbag sensor.

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NOTICE:

Loosen the bolt while holding the side airbag sensor because the side airbag sensor pin (stopper) is easily damaged.



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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWK03TX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SIDE AIRBAG SENSOR: INSTALLATION (2010 Corolla)		

INSTALLATION

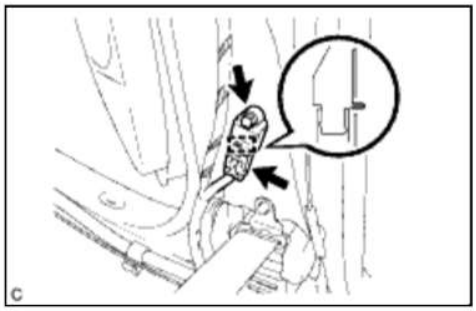
1. INSTALL SIDE AIRBAG SENSOR

(a) Check that the ignition switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

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



(c) Install the side airbag sensor with the bolt and pin.

Torque: 9.0 N·m (92 kgf·cm, 80in·lbf)

NOTICE:

- If the side airbag sensor has been dropped, or there are any cracks, dents or other defects in the case or connector, replace it with a new one.
- When installing the side airbag sensor, be careful that the SRS wiring does not interfere with other parts and that it is not pinched between other parts.
- Make sure that the pin is securely inserted into the body hole.
- Tighten the bolt while holding the side airbag sensor because the side airbag sensor pin (stopper) is easily damaged.

(d) Connect the connector.

NOTICE:

When connecting the airbag connector, take care not to damage the airbag wire harness.

(e) Check that there is no looseness in the installation parts of the side airbag sensor.

2. INSTALL LOWER CENTER PILLAR GARNISH INFO

3. CONNECT REAR DOOR OPENING TRIM WEATHERSTRIP INFO

4. INSTALL REAR DOOR SCUFF PLATE INFO

5. CONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP INFO

6. INSTALL FRONT DOOR SCUFF PLATE INFO

7. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

8. INSPECT SRS WARNING LIGHT

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(a) Inspect the SRS warning light INFO .

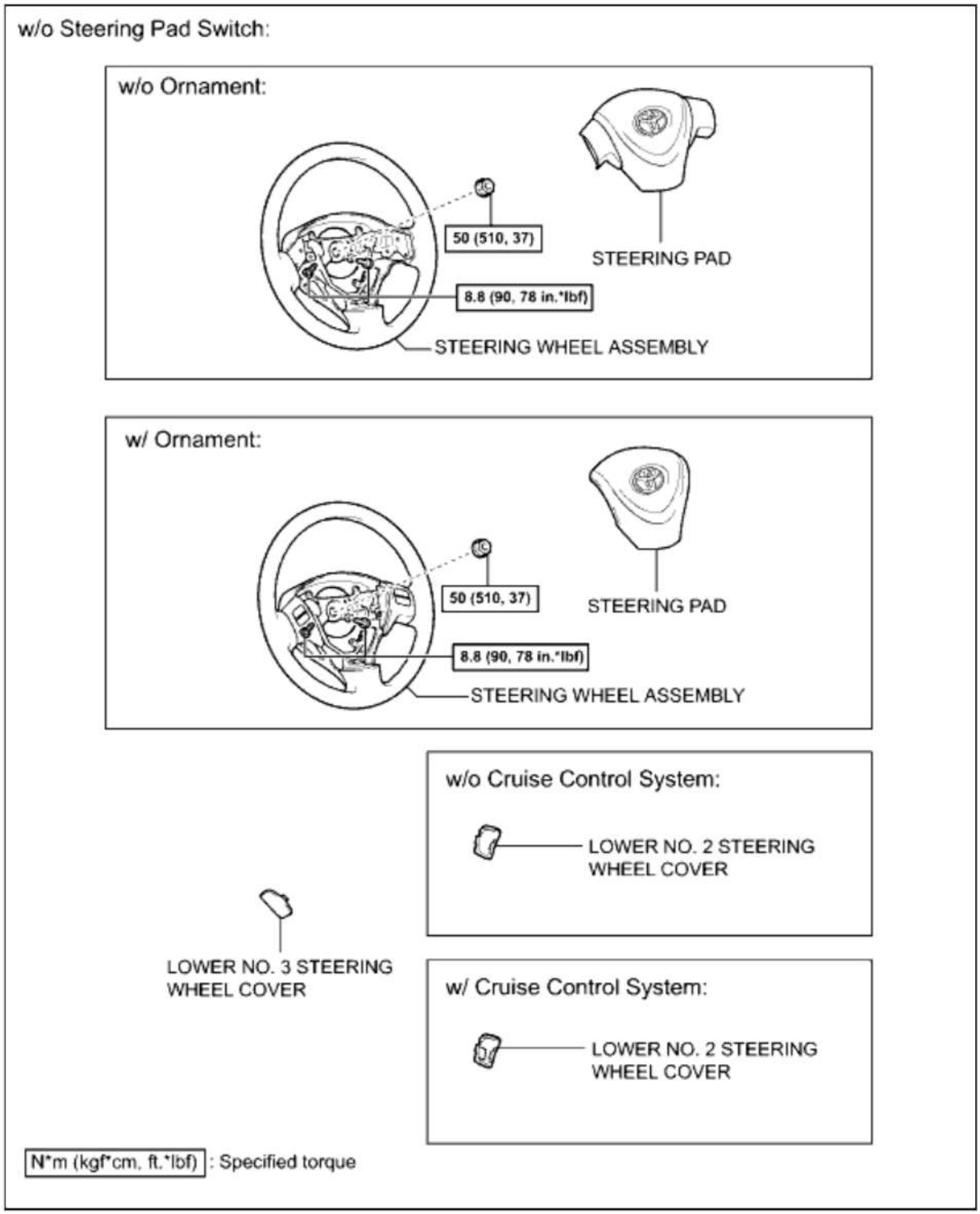


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Last Modified: 3-10-2010	6.4 K	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWC030X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SPIRAL CABLE: COMPONENTS (2010 Corolla)		

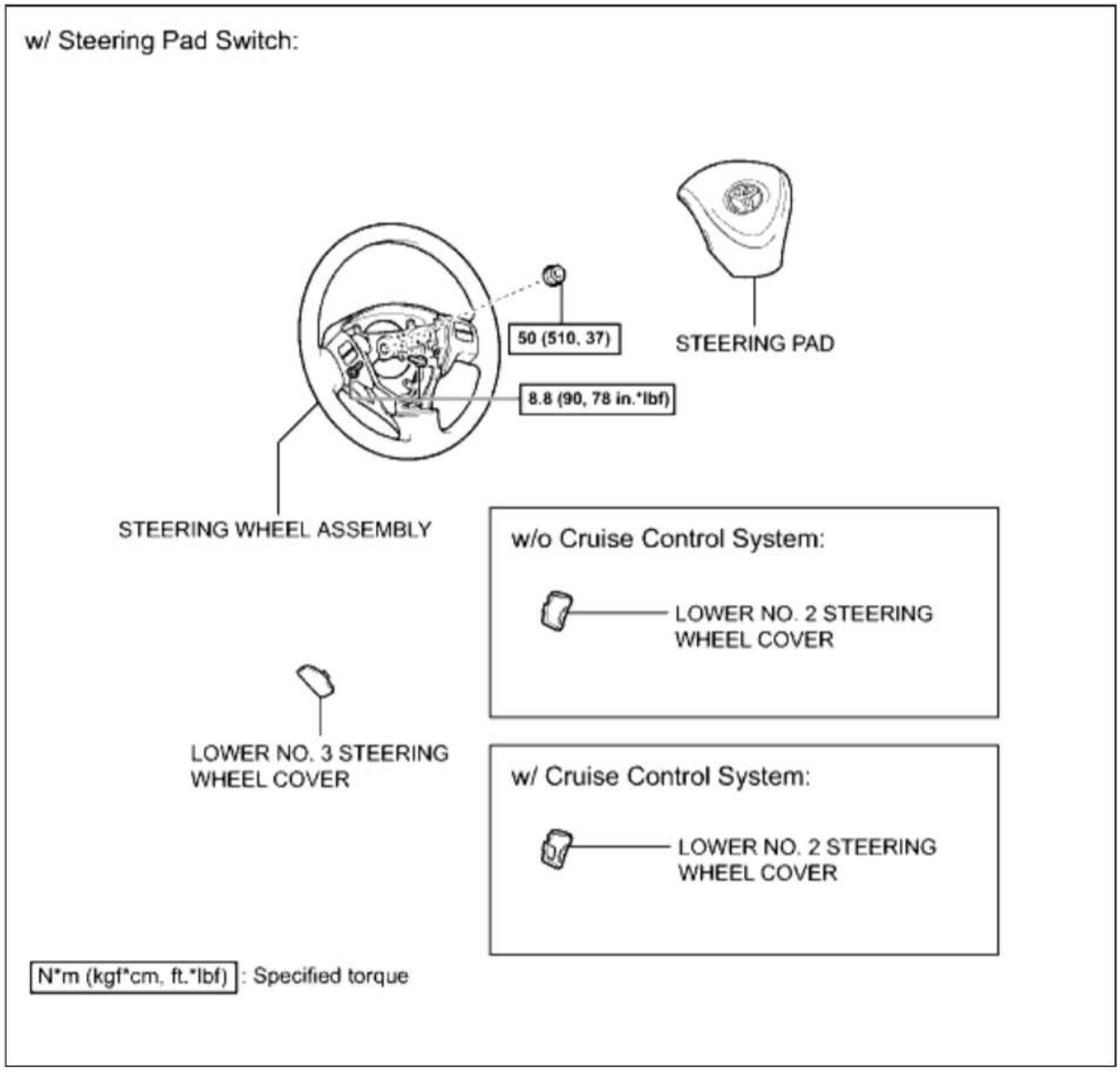
COMPONENTS

ILLUSTRATION



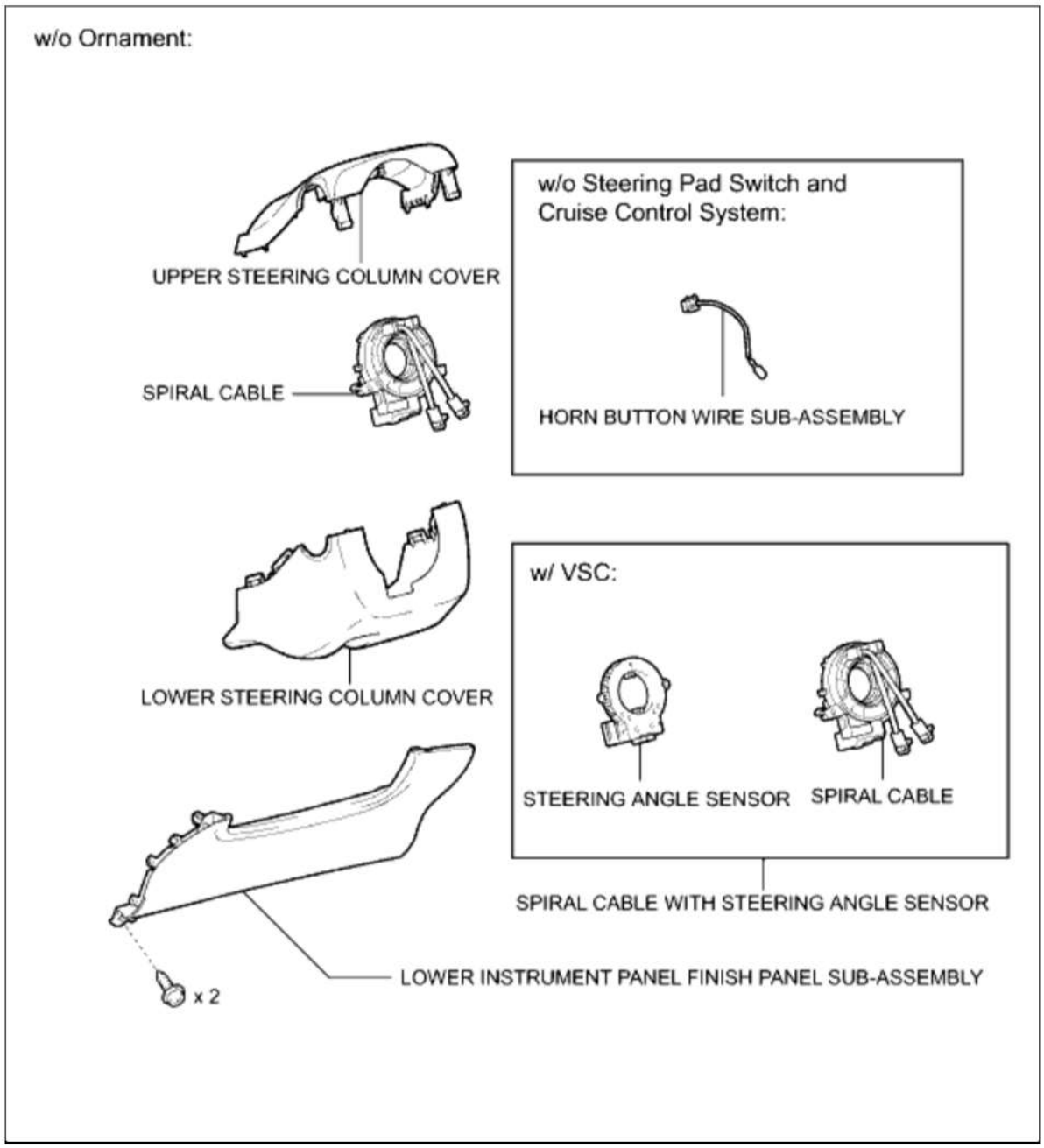
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ILLUSTRATION



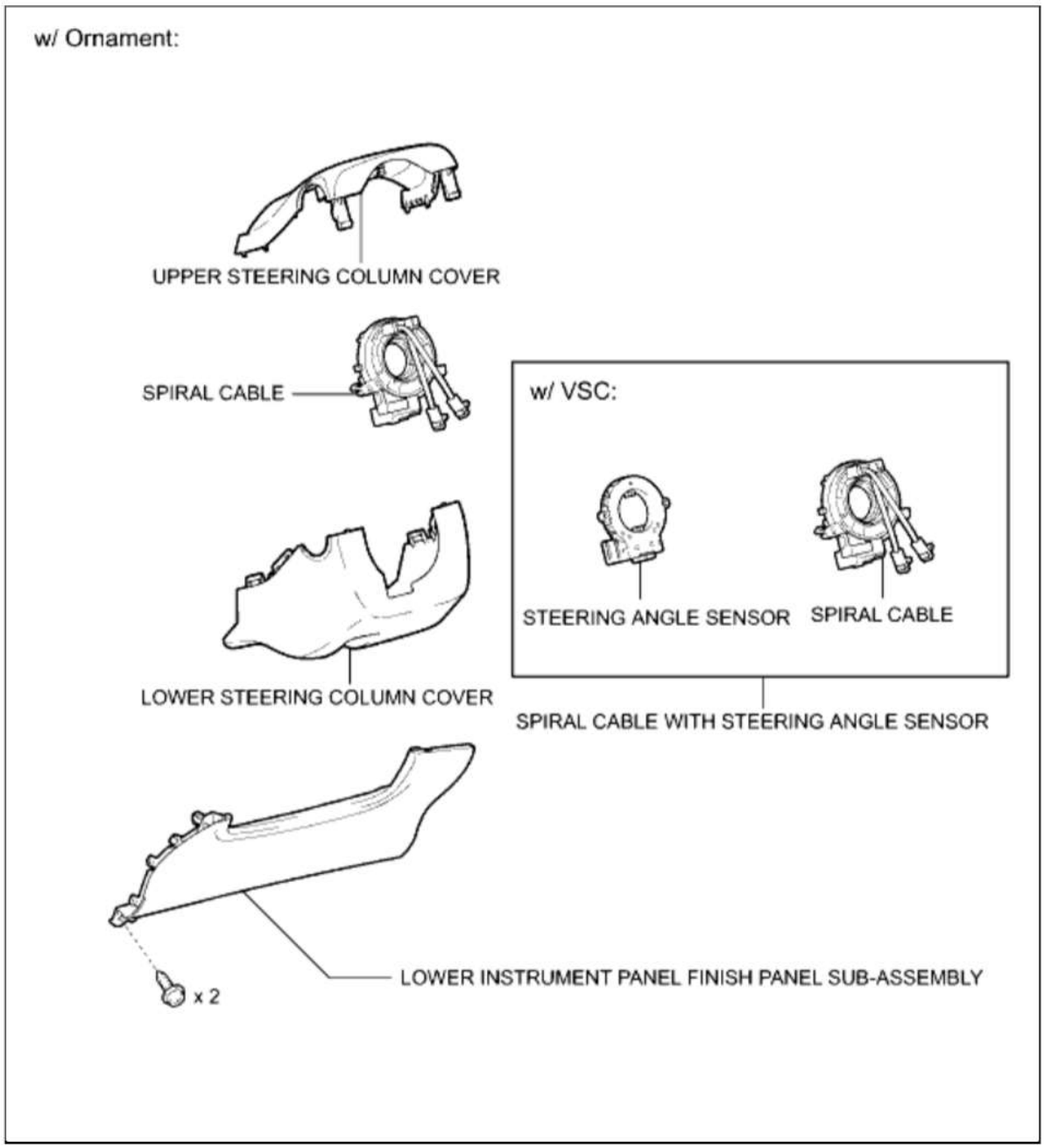
ILLUSTRATION

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ILLUSTRATION

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWD042X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SPIRAL CABLE: REMOVAL (2010 Corolla)		

REMOVAL

1. PRECAUTION

CAUTION:

Be sure to read Precaution thoroughly before servicing INFO .

2. TURN FRONT WHEELS TO FACE STRAIGHT AHEAD

3. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

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

4. REMOVE LOWER NO. 3 STEERING WHEEL COVER INFO

5. REMOVE LOWER NO. 2 STEERING WHEEL COVER INFO

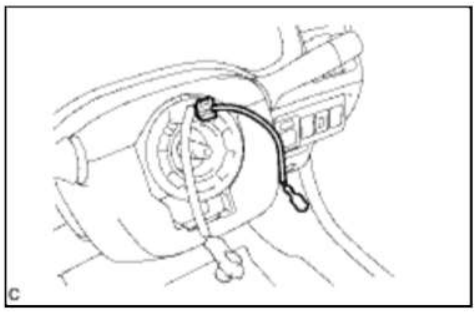
6. REMOVE STEERING PAD INFO

7. REMOVE STEERING WHEEL ASSEMBLY INFO

8. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY INFO

9. REMOVE HORN BUTTON WIRE SUB-ASSEMBLY (w/o Steering Pad Switch and Cruise Control System)

(a) w/o Ornament:



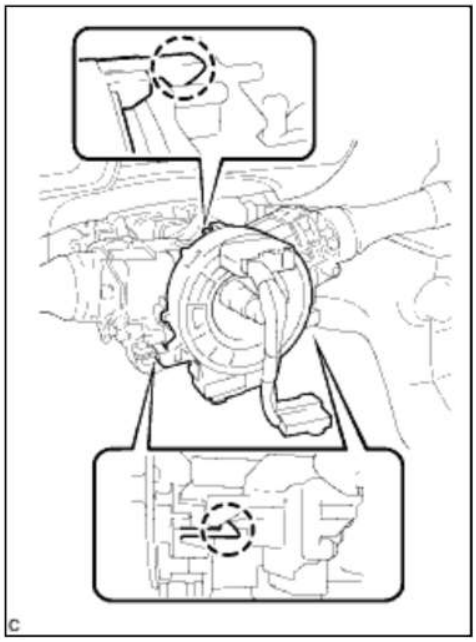
(1) Disconnect the connector and remove the horn button wire sub-assembly.

10. REMOVE LOWER STEERING COLUMN COVER INFO

11. REMOVE UPPER STEERING COLUMN COVER INFO

12. REMOVE SPIRAL CABLE (w/o VSC)

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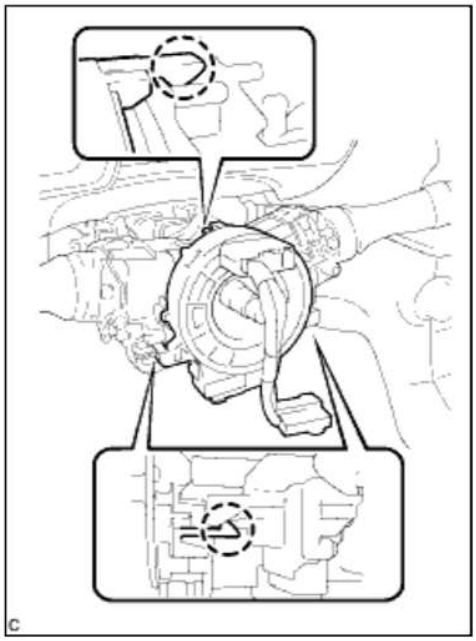
(a) Disconnect the connectors from the spiral cable.

NOTICE:

When disconnecting the airbag connector, take care not to damage the airbag wire harness.

(b) Disengage the 3 claws and remove the spiral cable.

13. REMOVE SPIRAL CABLE WITH STEERING ANGLE SENSOR (w/ VSC)



(a) Disconnect the connectors from the spiral cable with steering angle sensor.

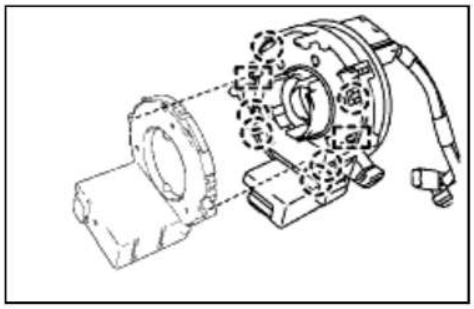
NOTICE:

When disconnecting the airbag connector, take care not to damage the airbag wire harness.

(b) Disengage the 3 claws and remove the spiral cable with steering angle sensor.

14. REMOVE SPIRAL CABLE (w/ VSC)

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(a) Disengage the 6 claws and 2 pins, and remove the spiral cable from the steering angle sensor.

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Last Modified: 3-10-2010	6.4 G	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWB042X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SPIRAL CABLE: INSPECTION (2010 Corolla)		

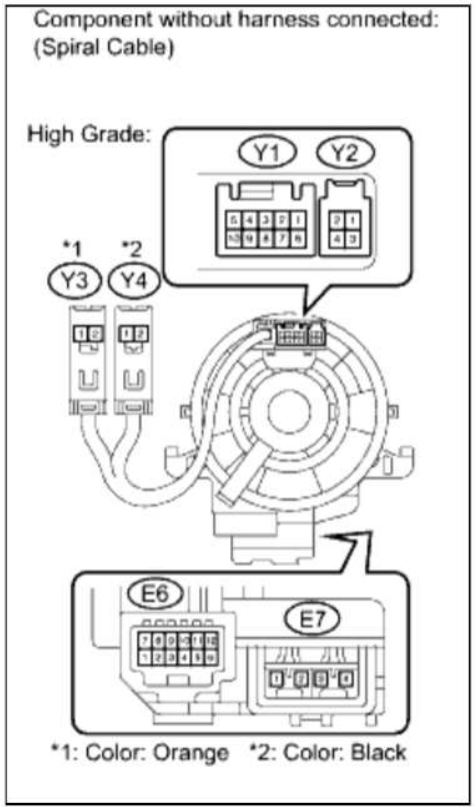
INSPECTION

1. INSPECT SPIRAL CABLE

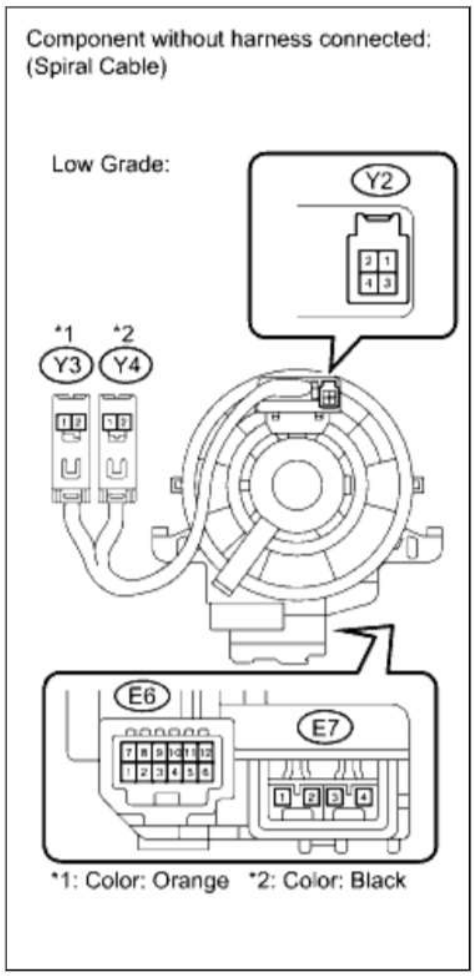
(a) If there are any defects as mentioned below, replace the spiral cable with a new one:

- Scratches, cracks, dents or chips on the connector or the spiral cable.

(b) Inspect the spiral cable.



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

NOTICE:

To avoid breakage of the spiral cable, do not turn the spiral cable more than necessary.

If the value is not within the specified range, replace the spiral cable.

Standard Resistance

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Y1-1 - E6-8 (HO)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
Y1-5 - E6-12 (IL+2)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
Y1-6 - E6-2 (ECC)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	

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TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
Y1-8 - E6-4 (EAU)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
Y1-9 - E6-5 (AU2)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
Y1-10 - E6-6 (AU1)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
Y2-2 - E6-8 (HO)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
Y2-3 - E6-1 (CCS)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
Y2-4 - E6-2 (ECC)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
Y3-1 (D-) - E7-2 (D-)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
Y3-2 (D+) - E7-1 (D+)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
Y4-1 (D2-) - E7-3 (D2-)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	
Y4-2 (D2+) - E7-4 (D2+)	Center	Below 1 Ω
	2.5 rotations to the left	
	2.5 rotations to the right	

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UWA042X
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SPIRAL CABLE: INSTALLATION (2010 Corolla)		

INSTALLATION

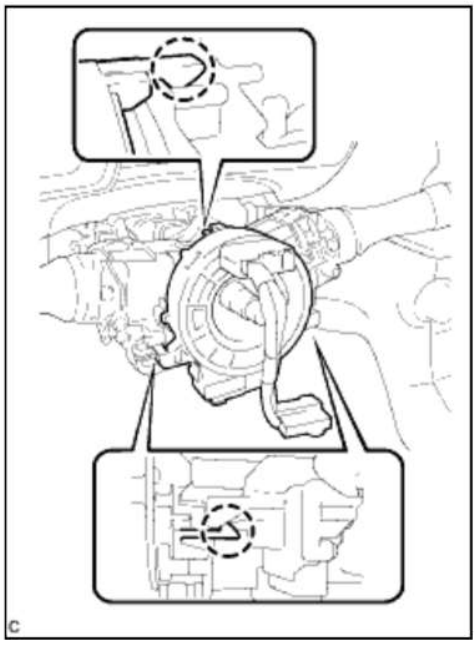
1. INSTALL SPIRAL CABLE (w/o VSC)

(a) Check that the front wheels are facing straight ahead.

(b) Set the turn signal switch to the neutral position.

NOTICE:

If it is not in the neutral position, the turn signal switch pin may be snapped.



(c) Install the spiral cable with the 3 claws.

NOTICE:

When replacing the spiral cable with a new one, remove the lock pin before installing the steering wheel assembly.

(d) Connect the connectors to the spiral cable.

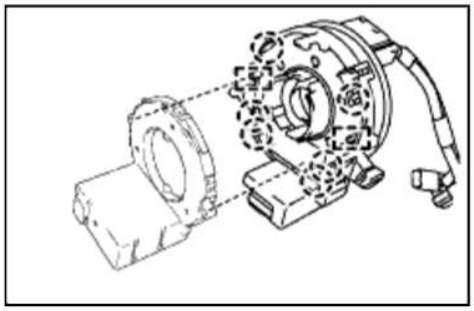
NOTICE:

When connecting the airbag connector, take care not to damage the airbag wire harness.

2. INSTALL SPIRAL CABLE (w/ VSC)

(a) Install the spiral cable to the steering angle sensor with the 6 claws and 2 pins.

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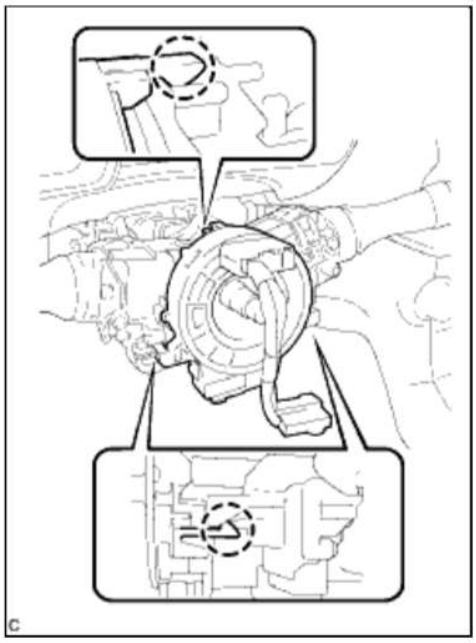
3. INSTALL SPIRAL CABLE WITH STEERING ANGLE SENSOR (w/ VSC)

(a) Check that the front wheels are facing straight ahead.

(b) Set the turn signal switch to the neutral position.

NOTICE:

If it is not in the neutral position, the turn signal switch pin may be snapped..



(c) Install the spiral cable with steering angle sensor with the 3 claws.

NOTICE:

When replacing the spiral cable with a new one, remove the lock pin before installing the steering wheel assembly.

(d) Connect the connectors to the spiral cable with steering angle sensor.

NOTICE:

When connecting the airbag connector, take care not to damage the airbag wire harness.

4. INSTALL UPPER STEERING COLUMN COVER INFO

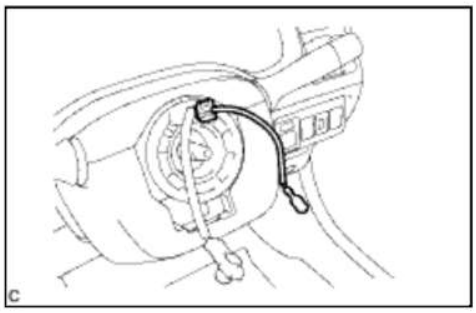
5. INSTALL LOWER STEERING COLUMN COVER INFO

6. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY INFO

7. INSTALL HORN BUTTON WIRE SUB-ASSEMBLY (w/o Steering Pad Switch and Cruise Control System)

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(a) w/o Ornament:



(1) Connect the connector and install the horn button wire sub-assembly.

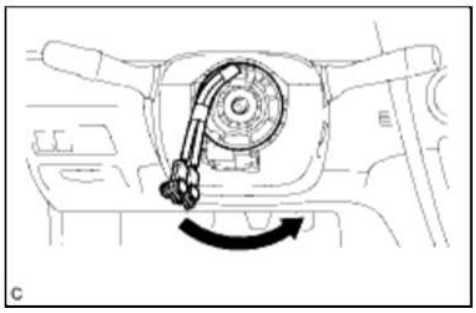
8. ADJUST SPIRAL CABLE

(a) Check that the ignition switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

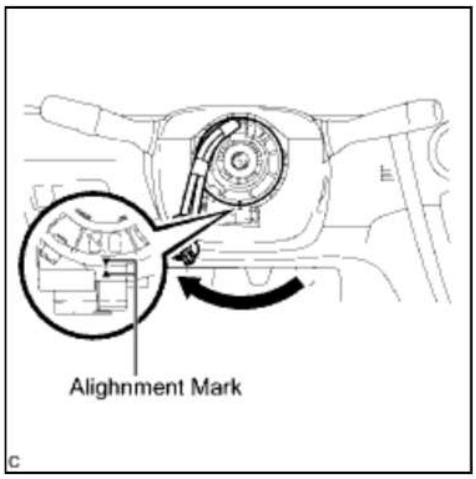
Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.



(c) Rotate the spiral cable counterclockwise slowly by hand until it stops.

NOTICE:

Do not turn the spiral cable using the airbag wire harness.



(d) Rotate the spiral cable clockwise approximately 2.5 turns to align the marks.

NOTICE:

Do not turn the spiral cable using the airbag wire harness.

HINT:

The spiral cable will rotate approximately 2.5 turns to both the left and right from the center.

9. INSTALL STEERING WHEEL ASSEMBLY

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10. INSTALL STEERING PAD INFO

11. INSTALL LOWER NO. 3 STEERING WHEEL COVER INFO

12. INSTALL LOWER NO. 2 STEERING WHEEL COVER INFO

13. INSPECT STEERING WHEEL CENTER POINT

14. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

15. INSPECT STEERING PAD INFO

16. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light INFO .

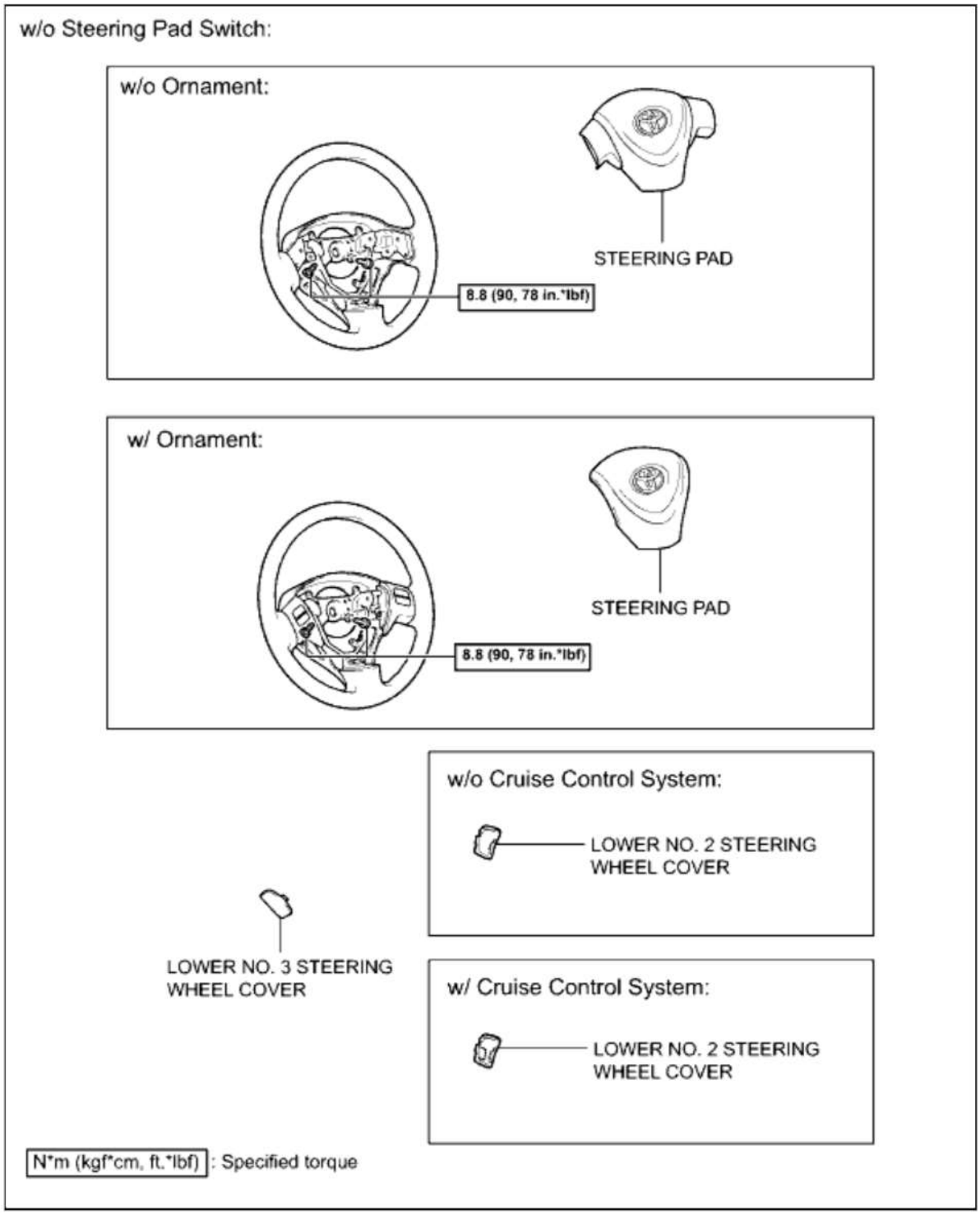


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Last Modified: 3-10-2010	6.4 K	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UW403HX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: STEERING PAD: COMPONENTS (2010 Corolla)		

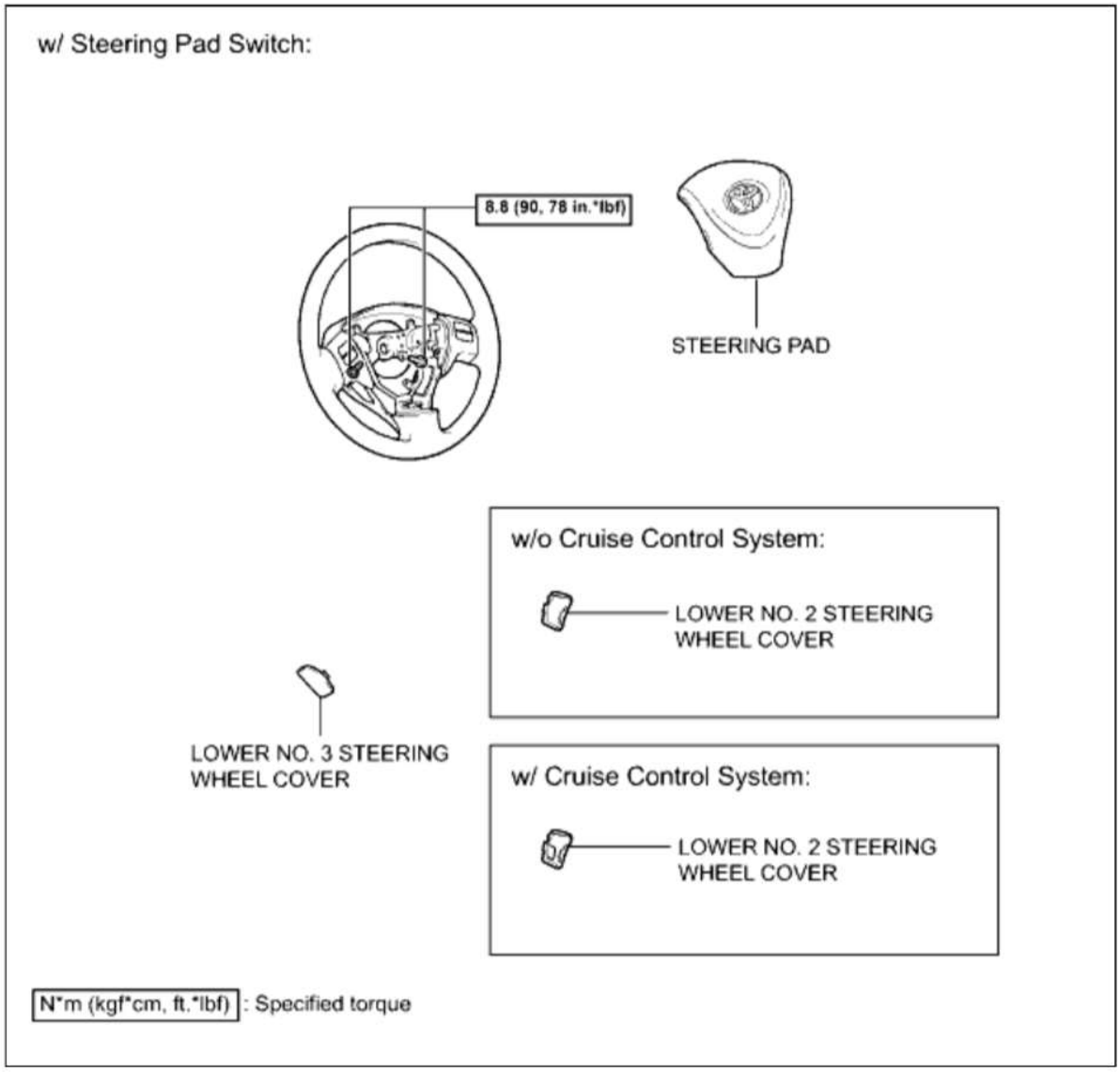
COMPONENTS

ILLUSTRATION



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ILLUSTRATION



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Last Modified: 3-10-2010	6.4 N	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UW504FX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: STEERING PAD: DISPOSAL (2010 Corolla)		

DISPOSAL

CAUTION:

Before performing pre-disposal deployment of any SRS component, review and closely follow all applicable environmental and hazardous material regulations. Pre-disposal deployment may be considered hazardous material treatment.

1. PRECAUTION

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:

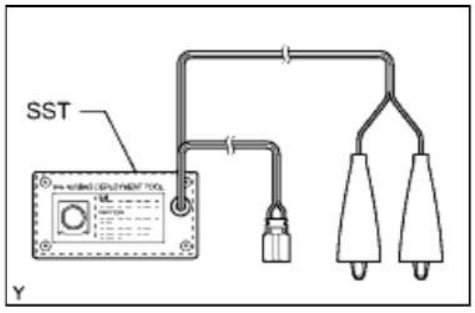
- An airbag or pretensioner may be activated by static electricity. To prevent this, be sure to touch a metal surface with bare hands to discharge static electricity before performing this procedure.
- Never dispose of a steering pad with an undeployed airbag.
- The airbag produces an exploding sound when it is deployed, so perform the operation outdoors and where it will not create a nuisance to nearby residents.
- When deploying the airbag, always use the specified SST (SRS Airbag Deployment Tool). Perform the operation in a place away from electrical noise.
- When deploying the airbag, perform the operation at least 10 m (33 ft.) away from the steering pad.
- The steering pad becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a steering pad with a deployed airbag.
- Do not apply water, etc. to a steering pad with a deployed airbag.
- Always wash your hands with water after completing the operation.

2. DISPOSE OF STEERING PAD (WHEN INSTALLED IN VEHICLE)

HINT:

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

(a) Check the function of SST.



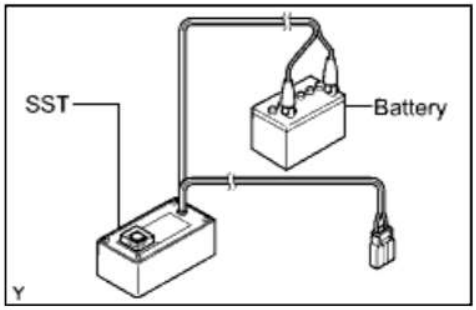
SST: 09082-00700

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CAUTION:

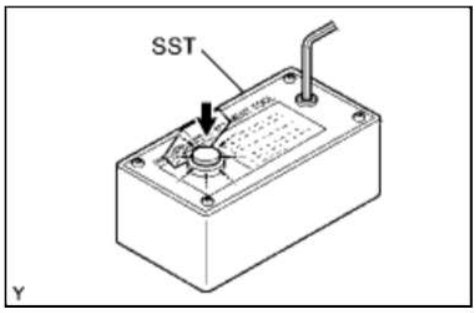
When deploying the airbag, always use the specified SST:

SRS Airbag Deployment Tool



(1) Connect SST to the battery.

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



(2) Check the function of SST.

Press the SST activation switch and check that the LED of the SST activation switch comes on.

CAUTION:

- Do not connect the SST connector (yellow colored one) to the airbag.
- If the LED comes on when the activation switch is not being pressed, an SST malfunction is possible, so replace SST with a new one.

(3) Disconnect SST from the battery.

(b) Refer to Precaution INFO .

(c) Disconnect the cable from the negative (-) battery terminal.

CAUTION:

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

(d) Remove the steering column cover (lower) INFO .

(e) Install the steering wheel assembly INFO .

(f) Install the steering pad INFO .

(g) Install SST.

CAUTION:

Check that there is no looseness in the steering wheel assembly and steering pad.

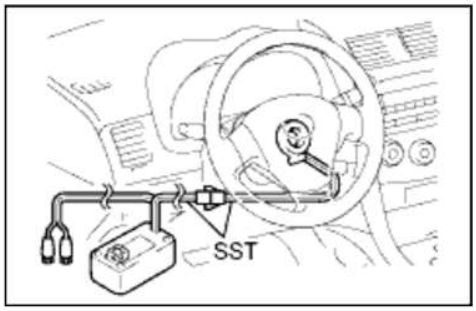
(1) Disconnect the airbag connector (yellow colored one) from the spiral cable.

NOTICE:

When disconnecting the airbag connector, take care not to damage the airbag wire harness.

(2) Connect the SST connector to the airbag connector of

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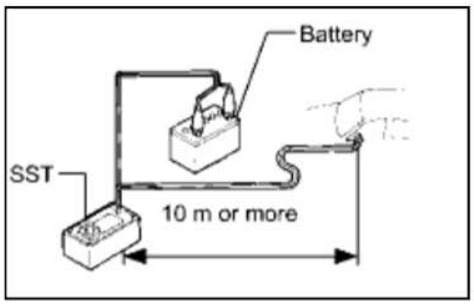
the spiral cable.

SST: 09082-00700

SST: 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 vehicle front side window.

(4) Maintaining sufficient clearance for the SST wire harness in the front side window, close all doors and windows of the vehicle.

NOTICE:

Take care not to damage the SST wire harness.

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

(h) Deploy the airbag.

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

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

CAUTION:

- When deploying the airbag, make sure that no one is near the vehicle.
- The steering pad becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a steering pad with a deployed airbag.
- Do not apply water, etc. to a steering pad with a deployed airbag.
- Always wash your hands with water after completing the operation.

HINT:

The airbag is deployed as the LED of the SST activation switch comes on.

3. DISPOSE OF STEERING PAD (WHEN NOT INSTALLED IN VEHICLE)

NOTICE:

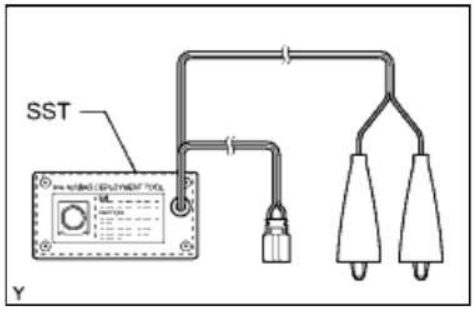
- When disposing of the steering pad, never use the customer's vehicle to deploy the airbag.
- Be sure to follow the following procedure when deploying the airbag.

HINT:

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

(a) Check the function of SST.

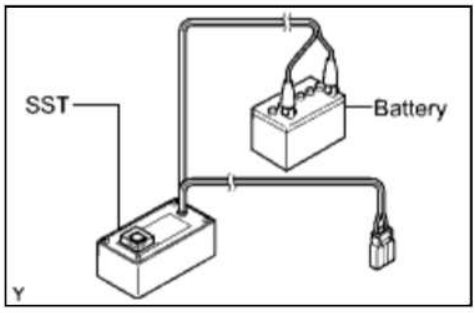


SST: 09082-00700

CAUTION:

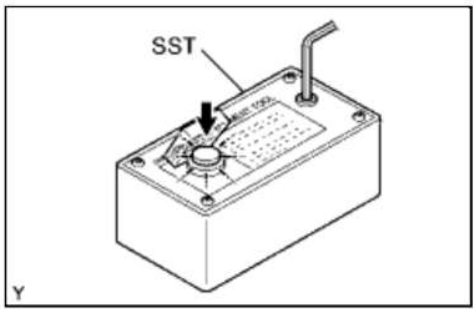
When deploying the airbag, always use the specified SST:

SRS Airbag Deployment Tool



(1) Connect SST to the battery.

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



(2) Check the function of SST.

Press the SST activation switch and check that the LED of the SST activation switch comes on.

CAUTION:

- Do not connect the SST connector (yellow colored one) to the airbag.
- If the LED comes on when the activation switch is not being pressed, an SST malfunction is possible, so replace SST with a new one.

(3) Disconnect SST from the battery.

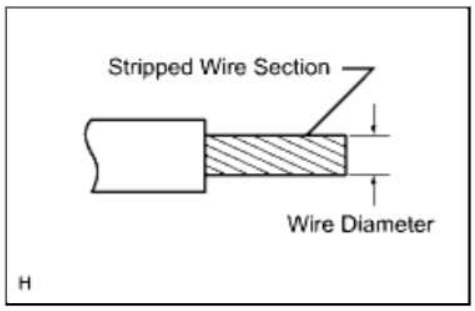
(b) Remove the steering pad INFO .

CAUTION:

- When removing the steering pad, before the work is started, leave the vehicle at least 90 seconds after turning the ignition switch off and disconnecting the cable from the negative (-) battery terminal.
- When storing the steering pad, keep the airbag deployment side facing upward.

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(c) Using braided wire, tie down the steering pad to an unneeded wheel.



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

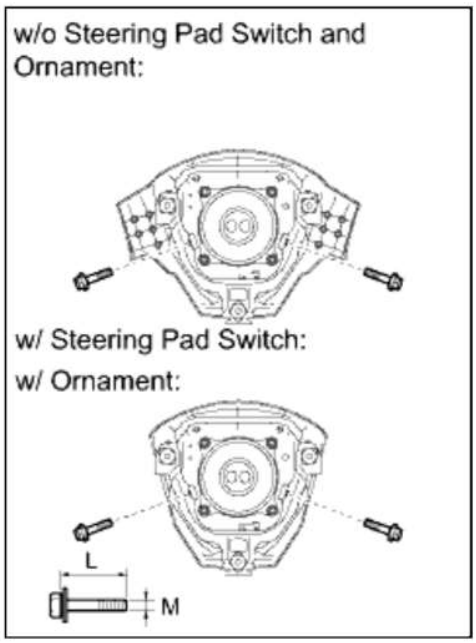
CAUTION:

If the wire is too thin or an alternative object is used to tie down the steering pad, it may be snapped by the shock when the airbag is deployed. Always use a wire for vehicle use with an area of at least 1.25 mm^2 (0.0019 $in.^2$).

HINT:

To calculate the area of the stripped wire section:

Area = 3.14 x (Diameter)^2 divided by 4



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

Bolt:
L
35.0 mm (1.38 in.)
M
6.0 mm (0.236 in.)
Pitch
1.0 mm (0.0394 in.)

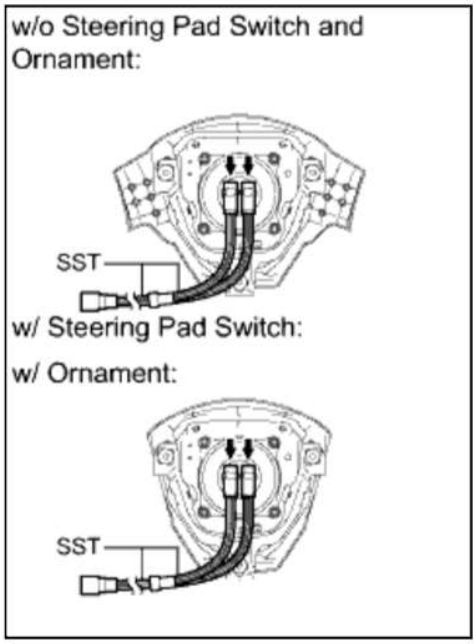
NOTICE:

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

(2) After connecting the following SST to each other, connect them to the steering pad.

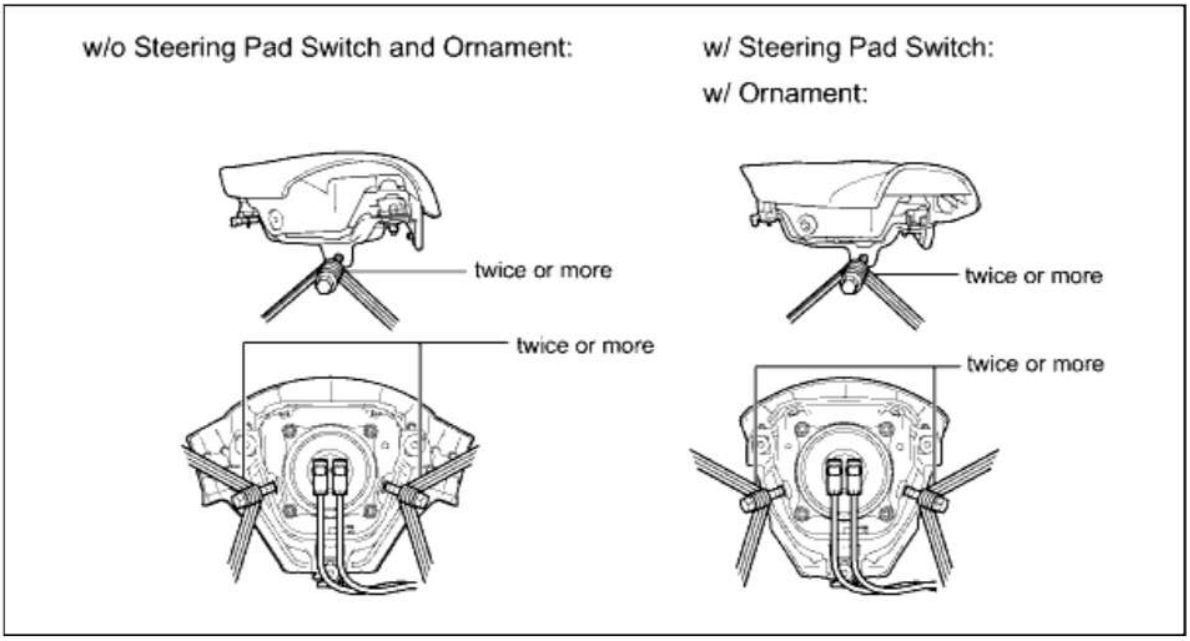
SST: 09082-00802
09082-10801

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09082-30801

(3) Wind 3 wires at least twice each around each of the bolts installed on the left and right sides of the steering pad.

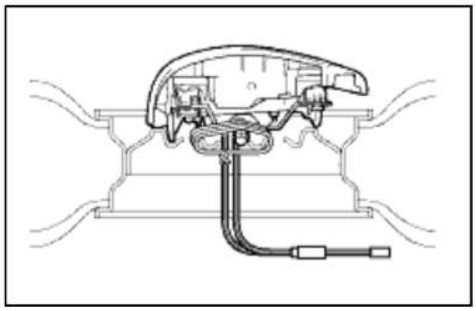


CAUTION:

- Tightly wind the wires around the bolts so that there is no slack.
- Make sure that the wires are tight. If there is slack in the wires, the steering pad may break loose due to the shock when the airbag is deployed.

(4) Face the airbag deployment side of the steering pad upward on top of an unneeded tire and wheel set.

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Separately tie the left and right sides of the steering pad to the wheel through the hub nut holes. Position the SST connector so that it hangs downward through the hub hole of the wheel.

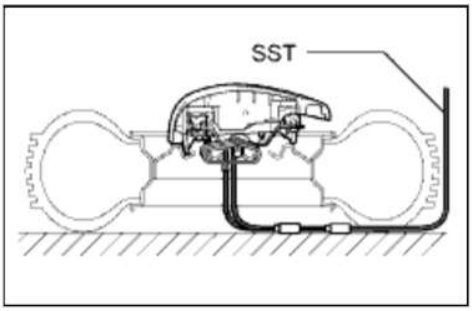
CAUTION:

- Make sure that the wires are tight. If there is slack in the wires, the steering pad may break loose due to the shock when the airbag is deployed.
- Always tie down the steering pad with the airbag deployment side facing upward.

NOTICE:

The wheel will be damaged by the airbag deployment, so use an unneeded wheel.

(d) Install SST.



CAUTION:

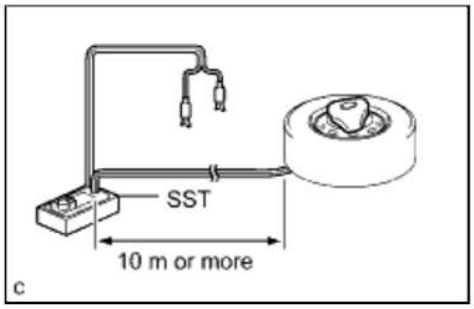
Place the wheel on level ground.

(1) Connect the SST connector.

SST: 09082-00700

NOTICE:

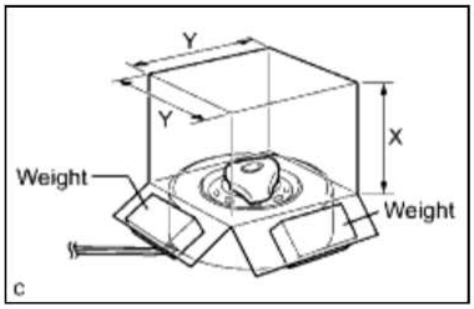
To avoid damaging the SST connector and wire harness, do not lock the secondary lock of the twin lock. Also, secure some slack for the SST wire harness inside the disc wheel.



(2) Move SST at least 10 m (33 ft.) away from the airbag tied down to the wheel.

(e) Cover the steering pad (using a cardboard box).

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(1) Cover the steering pad with the cardboard box.

(2) Place weights on the cardboard box in 4 places totalling at least 190 N (19 kg, 42.7 lb).

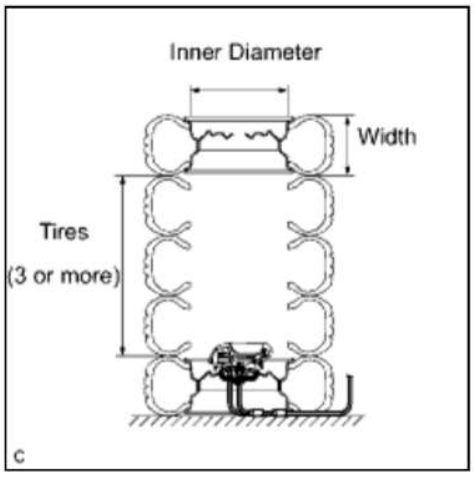
Minimum cardboard box size:
Must exceed the following dimensions
X
460 mm (18.1 in.)
Y
650 mm (25.6 in.)

NOTICE:

- When dimension Y of the cardboard box exceeds the diameter of the wheel and tire which the steering pad is tied to, X should be the following size.

  X = 460 mm (18.1 in.) + width of tire
- If a cardboard box which is smaller than the specified size is used, the cardboard box may be broken by the shock from the airbag deployment.

(f) Cover the steering pad (using tires).



(1) Place at least 3 tires without wheels onto the wheel and tire which the steering pad is tied to.

(2) Place the wheel and tire on top of them.

Minimum tire size:
Must exceed the following dimensions
Width:
185 mm (7.28 in.)
Inner diameter:
360 mm (14.2 in.)

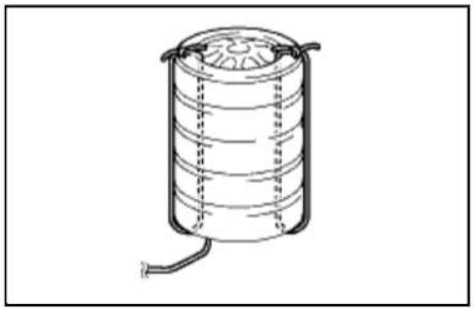
CAUTION:

Do not use tires with wheels except for on the top and bottom.

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NOTICE:

- The tires may be damaged by the airbag deployment, so use an extra tires.
- Do not place the SST connector under the tire because it could be damaged.

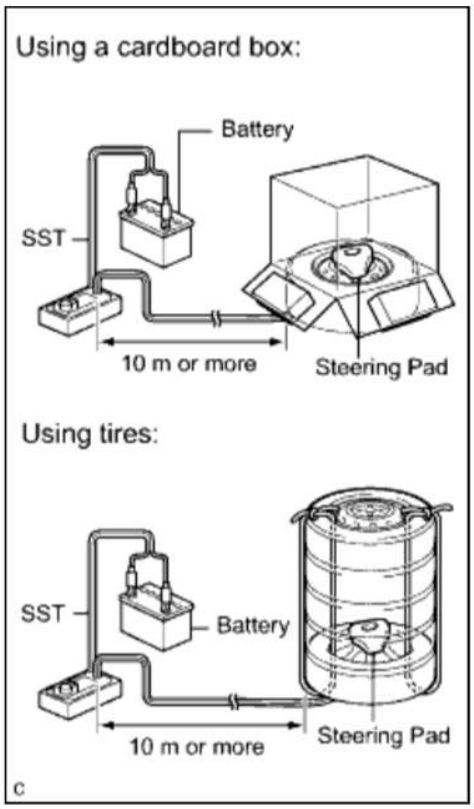


(3) Tie the tires together with the 2 wires.

CAUTION:

Make sure that the wires are tight. Looseness in the wires results in the tires breaking loose due to the shock when the airbag is deployed.

(g) Deploy the airbag.



(1) Connect the red clip of SST to the positive (+) battery terminal and the black clip of SST to the negative (-) battery terminal.

(2) Check that no one is within a 10 m (33 ft.) radius of the wheel which the steering pad is tied to.

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

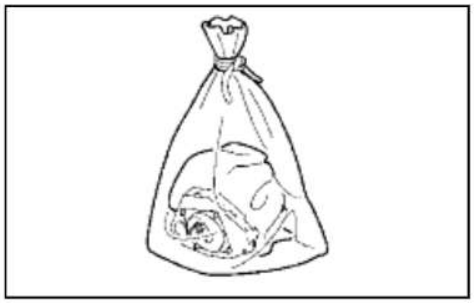
CAUTION:

When deploying the airbag, make sure that no one is near the tire.

HINT:

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The airbag is deployed as the LED of the SST activation switch comes on.



(h) Dispose of the steering pad.

CAUTION:

- The steering pad becomes extremely hot when the airbag is deployed, so do not touch it for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a steering pad with a deployed airbag.
- Do not apply water, etc. to a steering pad with a deployed airbag.
- Always wash your hands with water after completing the operation.

(1) Remove the steering pad from the wheel.

(2) Place the steering pad in a plastic bag, tie it tightly and dispose of it according to local regulations.

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Last Modified: 3-10-2010	6.4 G	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UW904CX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: STEERING PAD: ON-VEHICLE INSPECTION (2010 Corolla)		

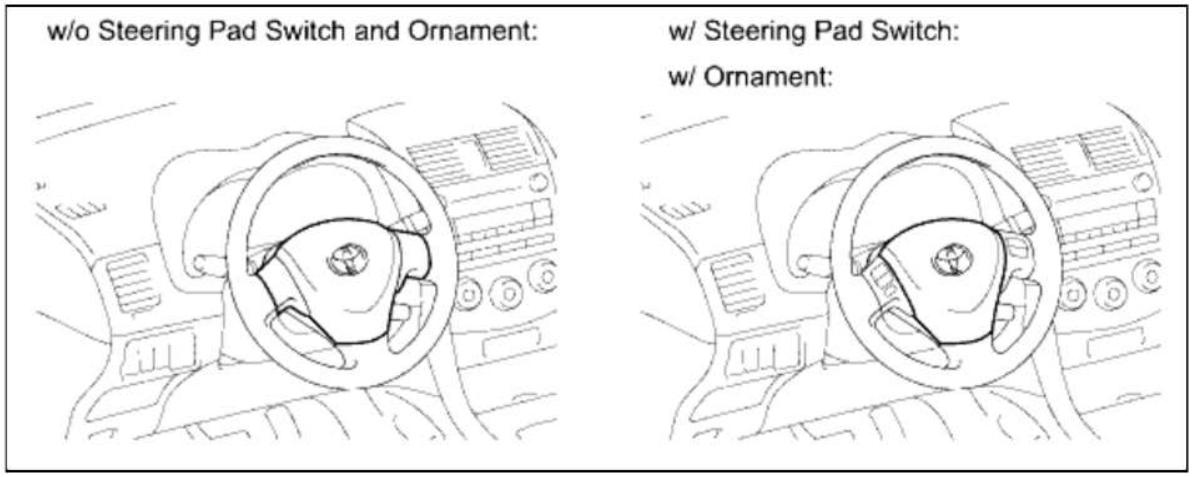
ON-VEHICLE INSPECTION

1. INSPECT STEERING PAD (VEHICLE NOT INVOLVED IN COLLISION) (w/o Steering Pad Switch)

(a) Perform a diagnostic system check INFO .

(b) With the steering pad installed on the vehicle, perform a visual check. If there are any following defects, replace the steering pad with a new one:

- Cuts, minute cracks or marked discoloration on the steering pad top surface or grooves.



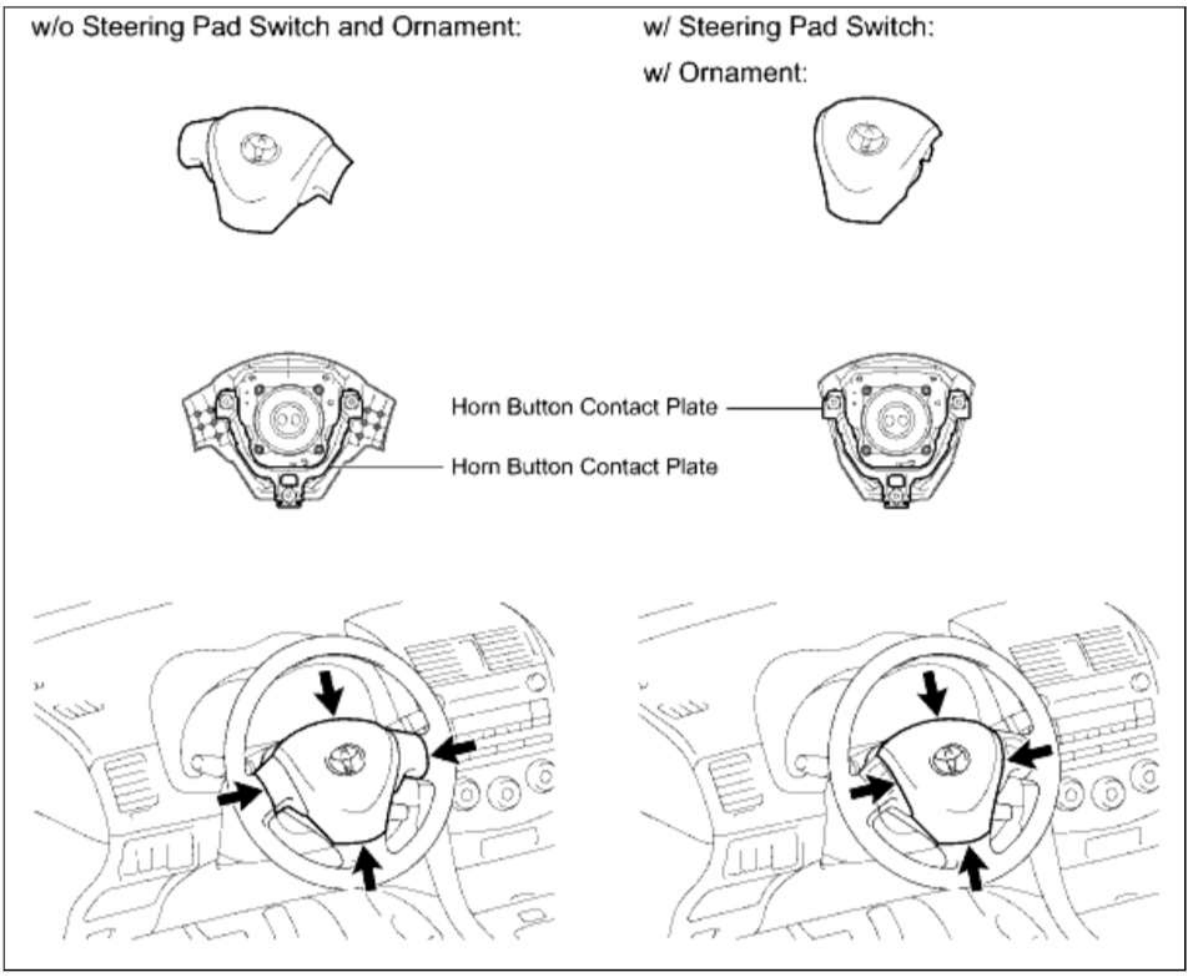
2. INSPECT STEERING PAD (VEHICLE INVOLVED IN COLLISION AND AIRBAG HAS NOT DEPLOYED)

(a) Perform a diagnostic system check INFO .

(b) With the steering pad removed from the vehicle, perform a visual check. If there are any following defects, replace the steering pad or steering wheel assembly with a new one:

- Cuts, minute cracks or marked discoloration on the steering pad top surface or grooves.
- Cracks or other damage to the connectors.
- Deformation of the steering wheel assembly.
- Deformation of the horn button contact plate of the steering pad.
- There should be no interference between the steering pad and steering wheel assembly, and the clearance should be uniform all the way around when a new steering pad is installed on the steering wheel assembly.

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CAUTION:

Be sure to follow the correct removal and installation procedures of the steering pad.

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UW804AX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: STEERING PAD: REMOVAL (2010 Corolla)		

REMOVAL

1. PRECAUTION

CAUTION:

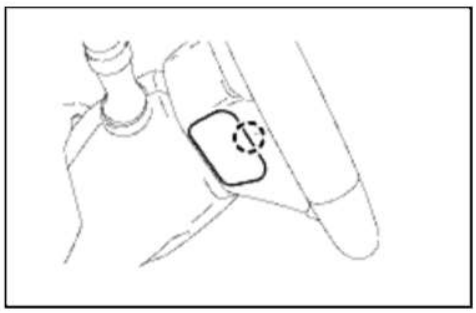
Be sure to read Precaution thoroughly before servicing INFO .

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

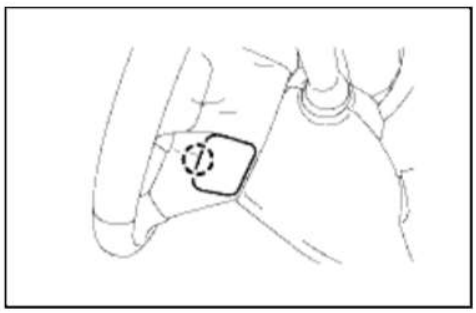
Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

3. REMOVE LOWER NO. 3 STEERING WHEEL COVER



(a) Disengage the claw and remove the lower No. 3 steering wheel cover.

4. REMOVE LOWER NO. 2 STEERING WHEEL COVER

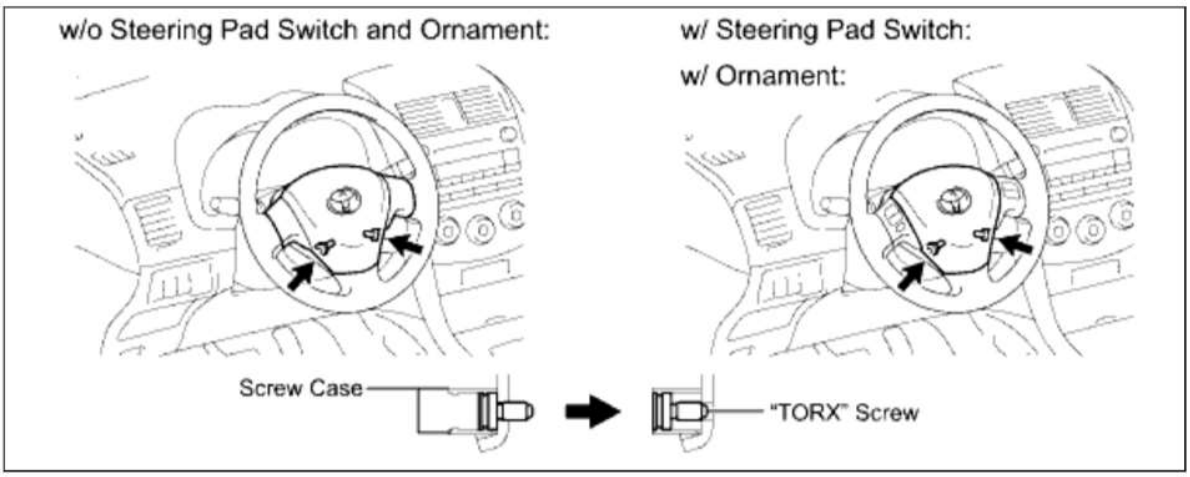


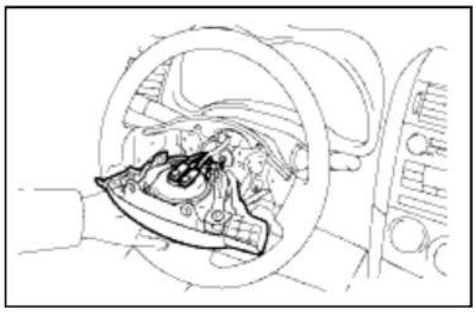
(a) Disengage the claw and remove the lower No. 2 steering wheel cover.

5. REMOVE STEERING PAD

(a) Using a "TORX" socket wrench (T30), loosen the 2 "TORX" screws until the groove along the screw circumference catches on the screw case.

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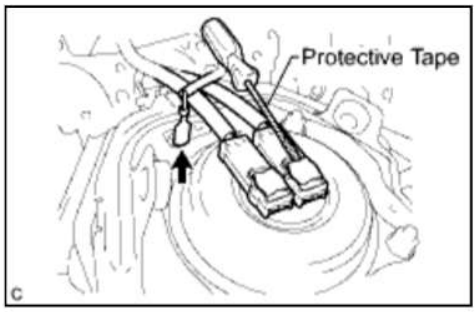




(b) Pull out the steering pad from the steering wheel assembly and support the steering pad with one hand as shown in the illustration.

NOTICE:

When removing the steering pad, do not pull the airbag wire harness.



(c) Disconnect the horn connector from the steering pad.

(d) Using a screwdriver with the tip wrapped with protective tape, disconnect the 2 airbag connectors and remove the steering pad.

NOTICE:

When disconnecting the airbag connector, take care not to damage the airbag wire harness.

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Last Modified: 3-10-2010	6.4 A	**From:** 200901
Model Year: 2010	**Model:** Corolla	**Doc ID:** RM000000UW604CX
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: STEERING PAD: INSTALLATION (2010 Corolla)		

INSTALLATION

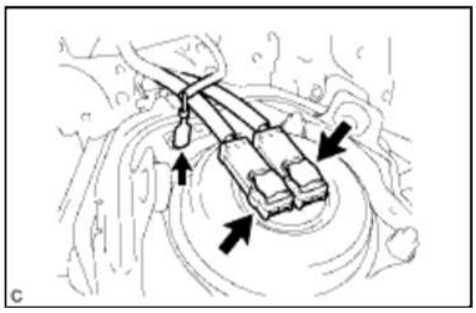
1. INSTALL STEERING PAD

(a) Check that the ignition switch is off.

(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

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



(c) Connect the 2 airbag connectors to the steering pad.

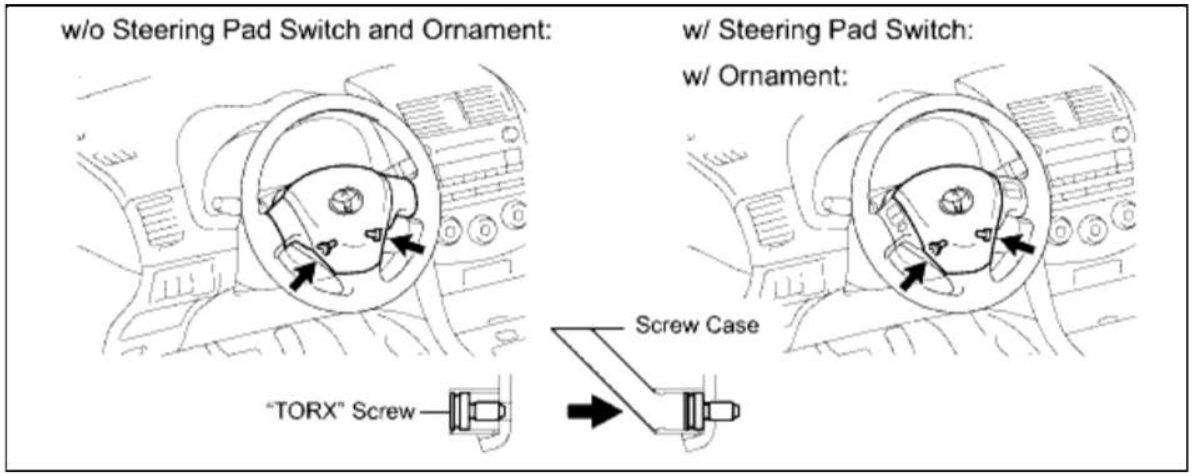
NOTICE:

When connecting the airbag connector, take care not to damage the airbag wire harness.

(d) Connect the horn connector to the steering pad.

(e) Confirm that the circumference groove of the "TORX" screw fits in the screw case, and place the steering pad onto the steering wheel assembly.

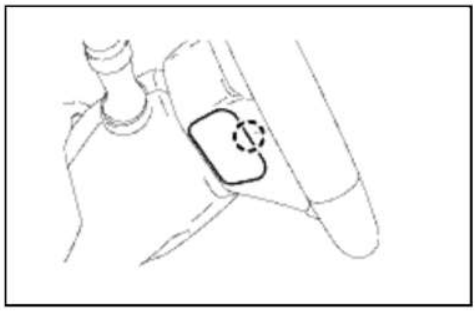
(f) Using a "TORX" socket wrench (T30), tighten the 2 "TORX" screws.



Torque: 8.8 N·m (90 kgf·cm, 78in·lbf)

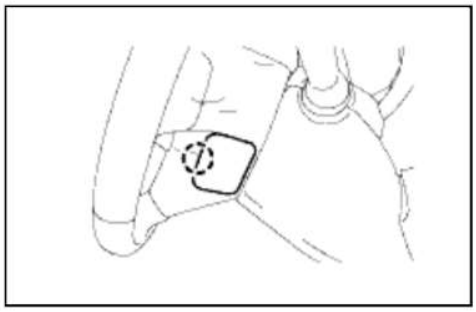
2. INSTALL LOWER NO. 3 STEERING WHEEL COVER

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(a) Install the lower No. 3 steering wheel cover with the claw.

3. INSTALL LOWER NO. 2 STEERING WHEEL COVER



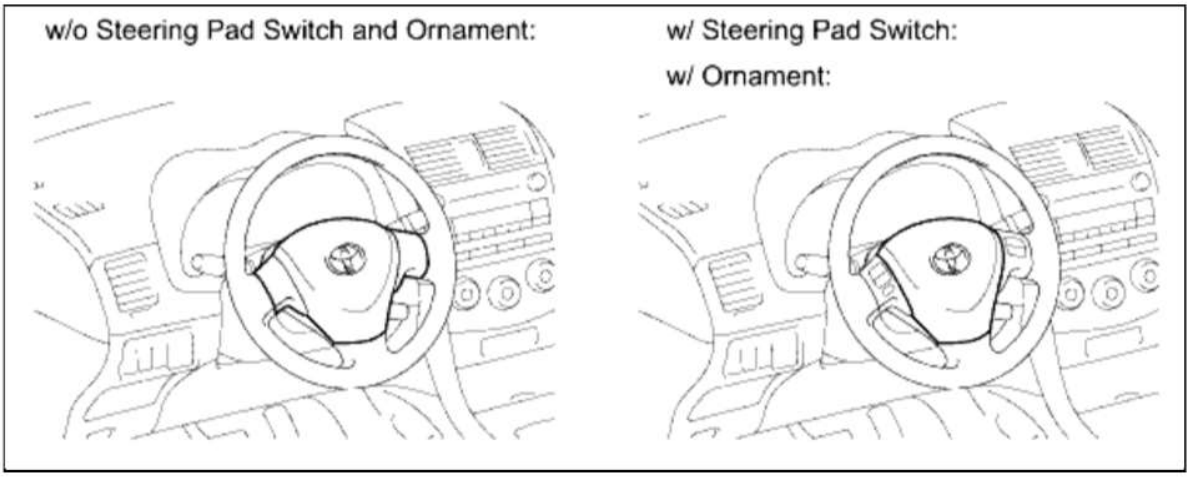
(a) Install the lower No. 2 steering wheel cover with the claw.

4. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

5. INSPECT STEERING PAD

(a) With the steering pad installed on the vehicle, perform a visual check. If there are any following defects, replace the steering pad with a new one:

- Cuts, minute cracks or marked discoloration on the steering pad top surface or grooves.



(b) Make sure that the horn sounds.

HINT:

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If the horn does not sound, inspect the horn system INFO .

6. INSPECT SRS WARNING LIGHT

(a) Inspect the SRS warning light INFO .



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