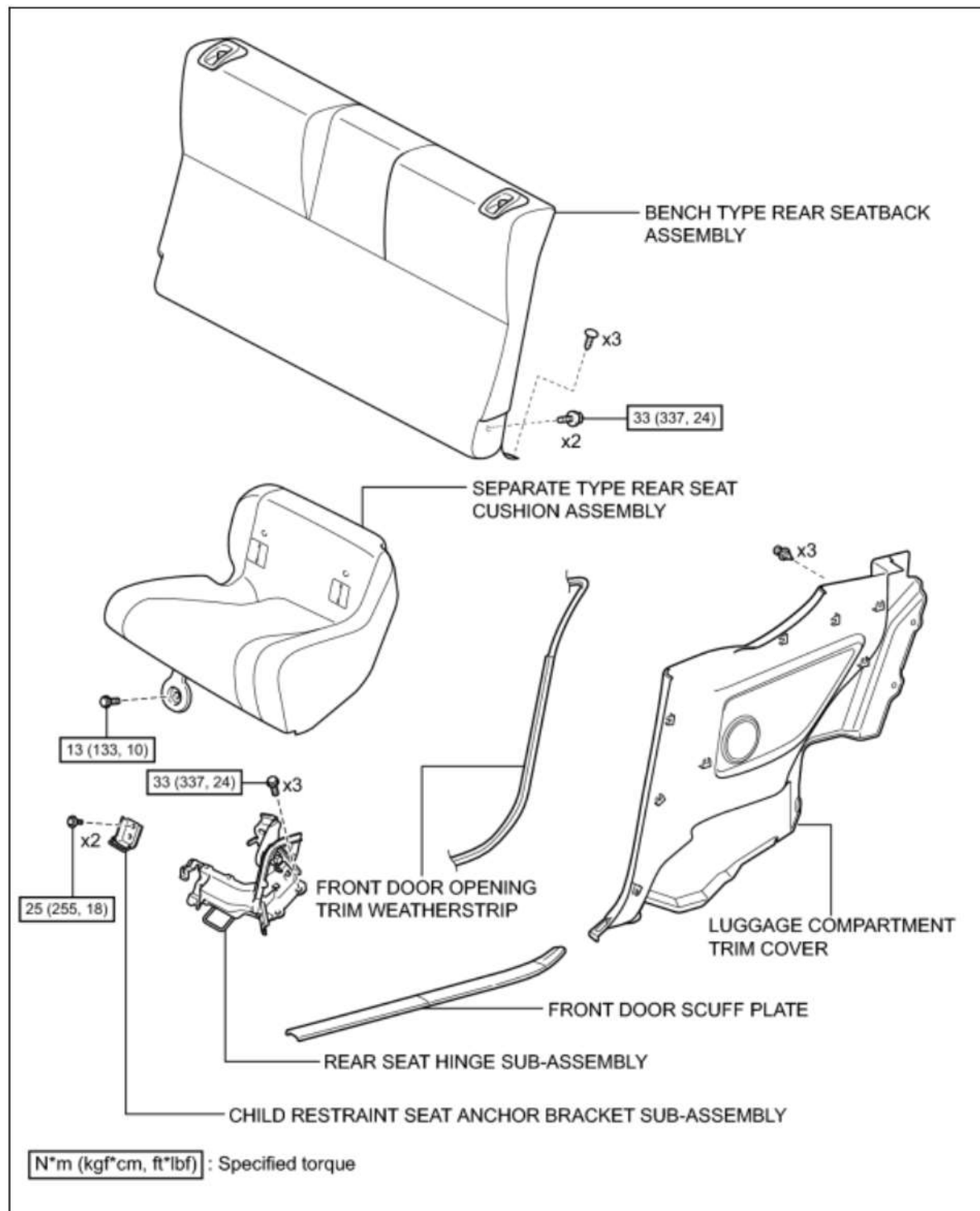


Last Modified: 3-27-2012	6.4 K	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000004S24006X
Title: SEAT BELT: CHILD RESTRAINT SEAT ANCHOR BRACKET: COMPONENTS (2013 FR-S)		

COMPONENTS

ILLUSTRATION



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000004S23007X
Title: SEAT BELT: CHILD RESTRAINT SEAT ANCHOR BRACKET: INSTALLATION (2013 FR-S)		

INSTALLATION

1. INSTALL REAR SEAT HINGE SUB-ASSEMBLY

(a) Install the rear seat hinge sub-assembly with the 3 bolts.

Torque: 33 N·m (337 kgf·cm, 24ft·lbf)

2. INSTALL LUGGAGE COMPARTMENT TRIM COVER INFO

3. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP INFO

4. INSTALL FRONT DOOR SCUFF PLATE INFO

5. INSTALL CHILD RESTRAINT SEAT ANCHOR BRACKET SUB-ASSEMBLY

(a) Install the child restraint seat anchor bracket sub-assembly with the 2 bolts.

Torque: 25 N·m (255 kgf·cm, 18ft·lbf)

6. INSTALL BENCH TYPE REAR SEATBACK ASSEMBLY INFO

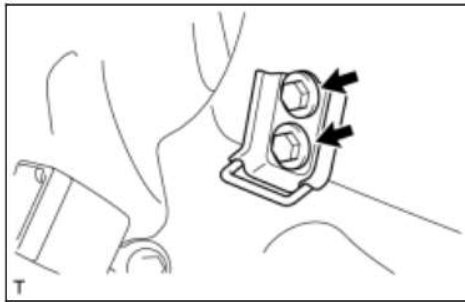
7. INSTALL SEPARATE TYPE REAR SEAT CUSHION ASSEMBLY INFO



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000004S25007X
Title: SEAT BELT: CHILD RESTRAINT SEAT ANCHOR BRACKET: REMOVAL (2013 FR-S)		

REMOVAL

1. REMOVE SEPARATE TYPE REAR SEAT CUSHION ASSEMBLY [INFO](#)
2. REMOVE BENCH TYPE REAR SEATBACK ASSEMBLY [INFO](#)
3. REMOVE CHILD RESTRAINT SEAT ANCHOR BRACKET SUB-ASSEMBLY



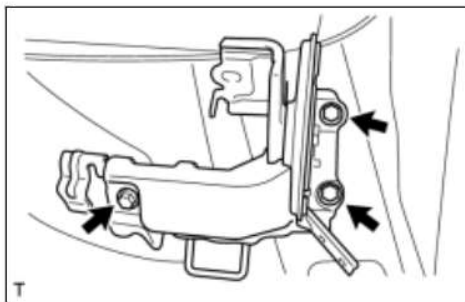
(a) Remove the 2 bolts and child restraint seat anchor bracket sub-assembly.

4. REMOVE FRONT DOOR SCUFF PLATE [INFO](#)
5. DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP

HINT:

Disconnect the front door opening trim weatherstrip to the extent that allows the removal of the luggage compartment trim cover.

6. REMOVE LUGGAGE COMPARTMENT TRIM COVER [INFO](#)
7. REMOVE REAR SEAT HINGE SUB-ASSEMBLY

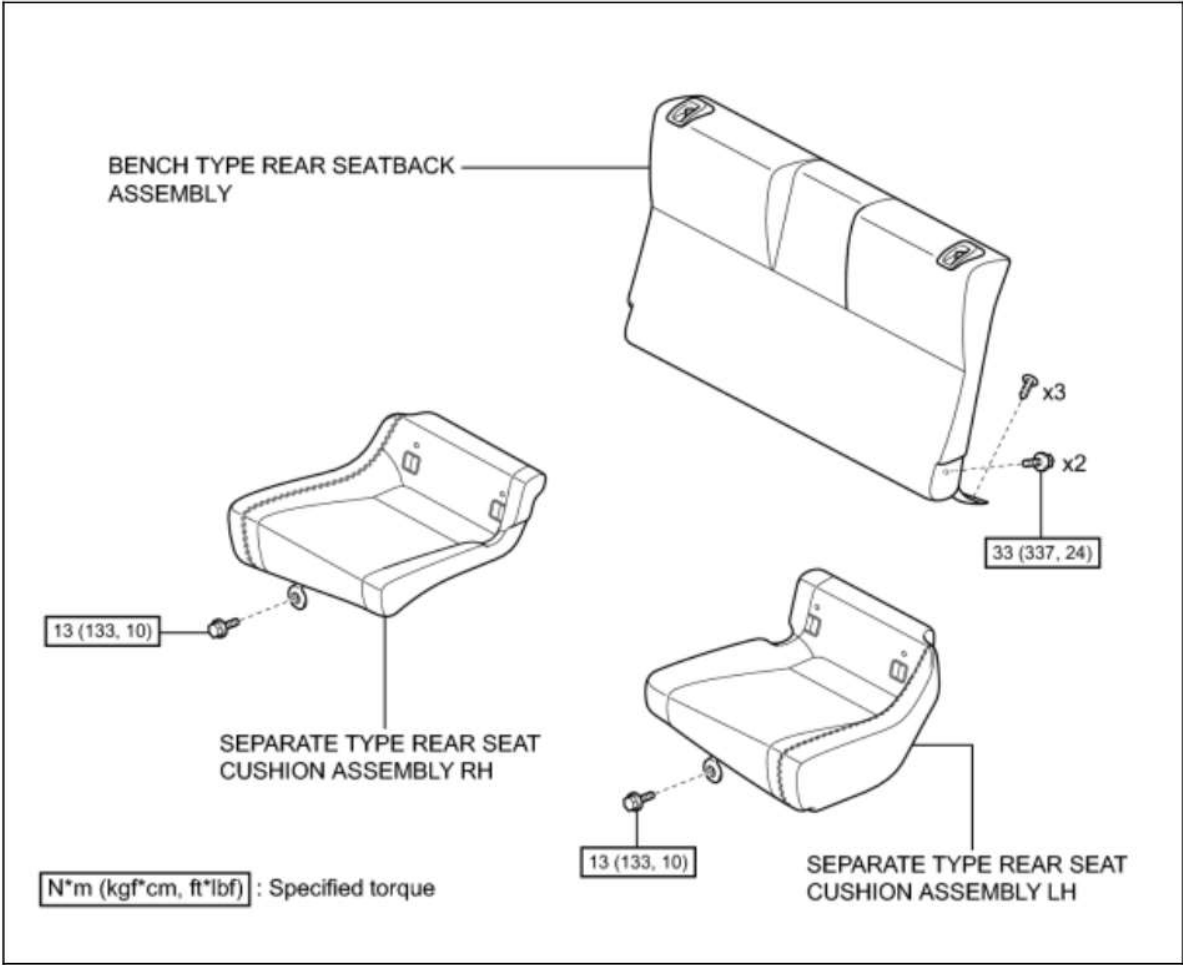


(a) Remove the 3 bolts and rear seat hinge sub-assembly.

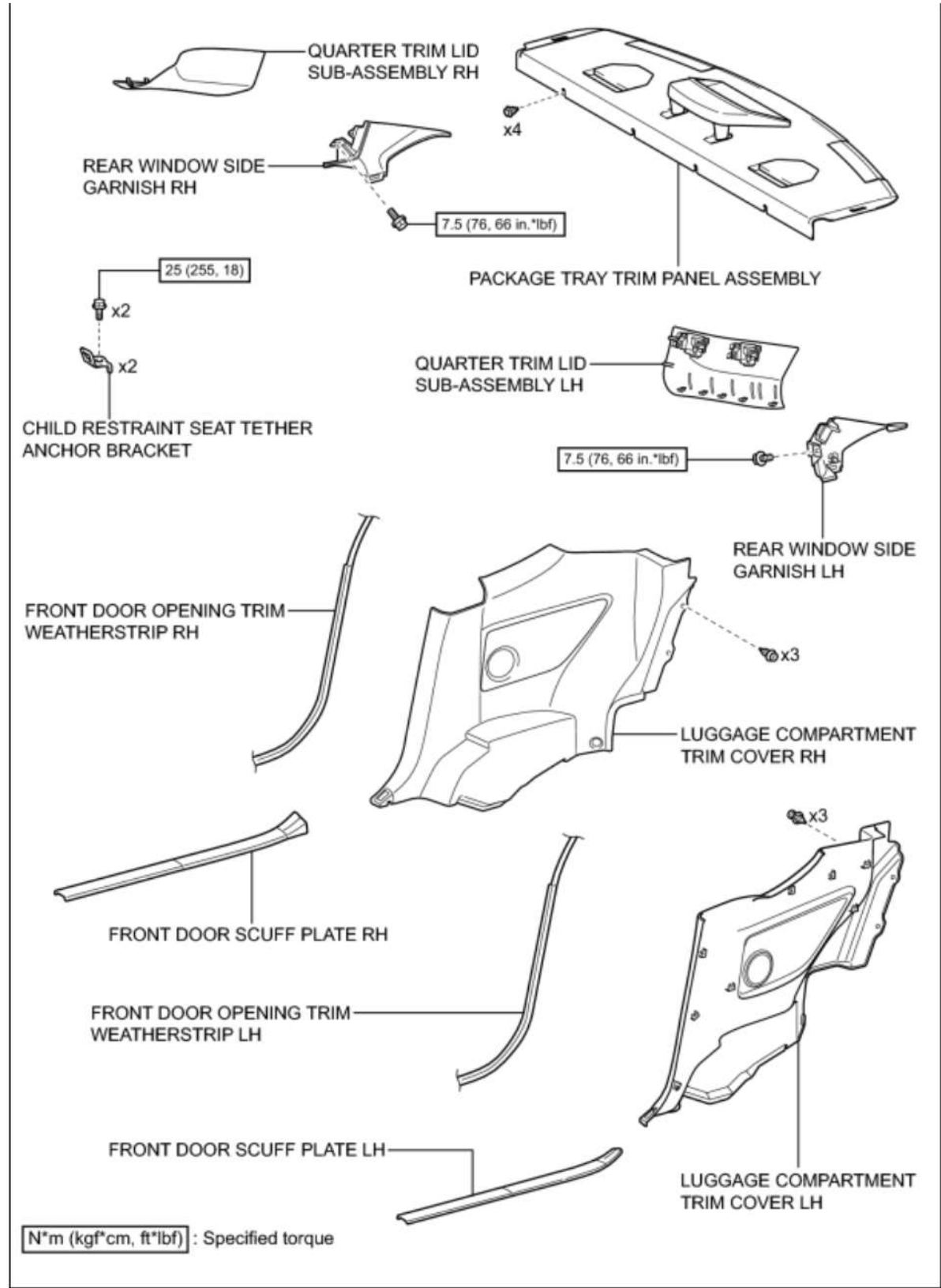
Last Modified: 3-27-2012	6.4 K	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000004S21009X
Title: SEAT BELT: CHILD RESTRAINT SEAT TETHER ANCHOR: COMPONENTS (2013 FR-S)		

COMPONENTS

ILLUSTRATION



ILLUSTRATION



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Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000004S20009X
Title: SEAT BELT: CHILD RESTRAINT SEAT TETHER ANCHOR: INSTALLATION (2013 FR-S)		

INSTALLATION

1. INSTALL CHILD RESTRAINT SEAT TETHER ANCHOR BRACKET

(a) Engage the hook and install the child restraint seat tether anchor bracket with the bolt.

Torque: 25 N·m (255 kgf·cm, 18ft·lbf)

HINT:

Use the same procedure for the 2 child restraint seat tether anchor brackets.

2. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY INFO

3. INSTALL REAR WINDOW SIDE GARNISH LH INFO

4. REMOVE REAR WINDOW SIDE GARNISH RH

HINT:

Use the same procedure as for the LH side.

5. INSTALL QUARTER TRIM LID SUB-ASSEMBLY LH INFO

6. INSTALL QUARTER TRIM LID SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

7. INSTALL LUGGAGE COMPARTMENT TRIM COVER LH INFO

8. INSTALL LUGGAGE COMPARTMENT TRIM COVER RH

HINT:

Use the same procedure as for the LH side.

9. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH INFO

10. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP RH

HINT:

Use the same procedure as for the LH side.

11. INSTALL FRONT DOOR SCUFF PLATE LH INFO

12. INSTALL FRONT DOOR SCUFF PLATE RH

HINT:

Use the same procedure as for the LH side.

13. INSTALL BENCH TYPE REAR SEATBACK ASSEMBLY

14. INSTALL SEPARATE TYPE REAR SEAT CUSHION ASSEMBLY LH

INFO

15. INSTALL SEPARATE TYPE REAR SEAT CUSHION ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000004S22009X
Title: SEAT BELT: CHILD RESTRAINT SEAT TETHER ANCHOR: REMOVAL (2013 FR-S)		

REMOVAL

1. REMOVE SEPARATE TYPE REAR SEAT CUSHION ASSEMBLY LH INFO

2. REMOVE SEPARATE TYPE REAR SEAT CUSHION ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

3. REMOVE BENCH TYPE REAR SEATBACK ASSEMBLY INFO

4. REMOVE FRONT DOOR SCUFF PLATE LH INFO

5. REMOVE FRONT DOOR SCUFF PLATE RH

HINT:

Use the same procedure as for the LH side.

6. DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP LH

HINT:

Disconnect the front door opening trim weatherstrip to the extent that allows the removal of the luggage compartment trim cover.

7. DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP RH

HINT:

Use the same procedure as for the LH side.

8. REMOVE LUGGAGE COMPARTMENT TRIM COVER LH INFO

9. REMOVE LUGGAGE COMPARTMENT TRIM COVER RH

HINT:

Use the same procedure as for the LH side.

10. REMOVE QUARTER TRIM LID SUB-ASSEMBLY LH INFO

11. REMOVE QUARTER TRIM LID SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

12. REMOVE REAR WINDOW SIDE GARNISH LH INFO

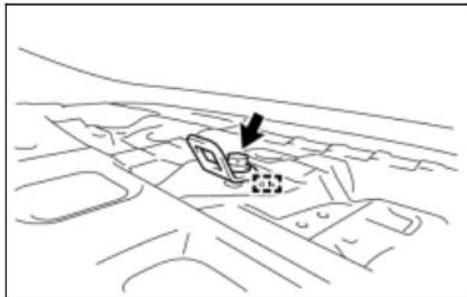
13. REMOVE REAR WINDOW SIDE GARNISH RH

HINT:

Use the same procedure as for the LH side.

14. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY INFO

15. REMOVE CHILD RESTRAINT SEAT TETHER ANCHOR BRACKET



- (a) Remove the bolt and disengage the hook to remove the child restraint seat tether anchor bracket.

HINT:

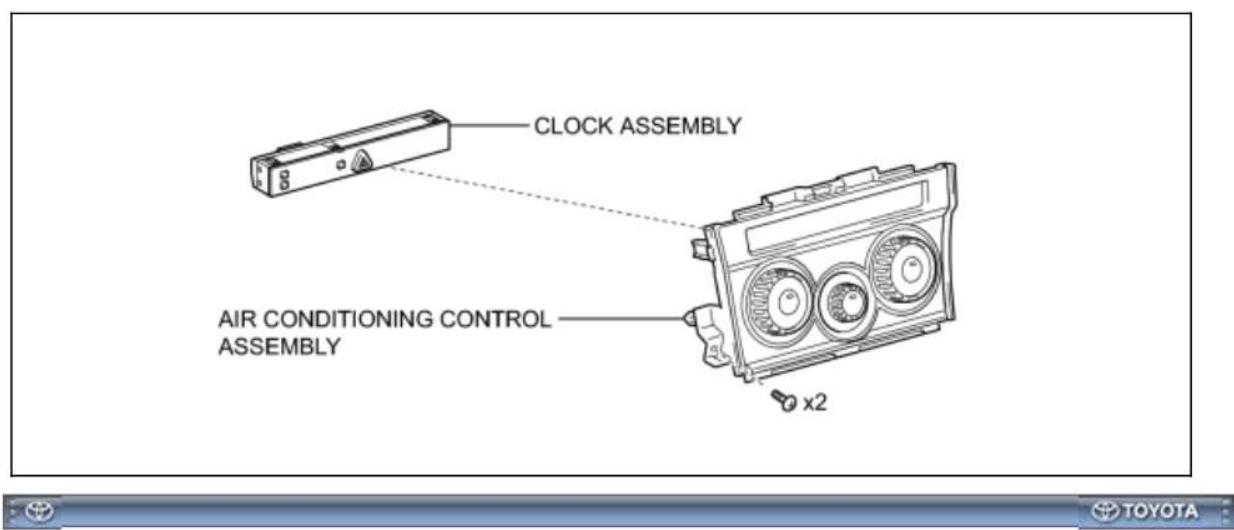
Use the same procedure for the 2 child restraint seat tether anchor brackets.



Last Modified: 3-27-2012	6.4 K	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000003WZK007X
Title: SEAT BELT: FRONT PASSENGER SEAT BELT WARNING LIGHT: COMPONENTS (2013 FR-S)		

COMPONENTS

ILLUSTRATION



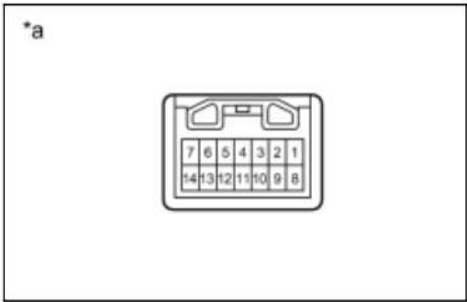
Last Modified: 3-27-2012	6.4 G	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000003WZJ00JX
Title: SEAT BELT: FRONT PASSENGER SEAT BELT WARNING LIGHT: INSPECTION (2013 FR-S)		

INSPECTION

1. INSPECT CLOCK ASSEMBLY

(a) Apply battery voltage to the connector and check the LED illumination condition.

OK:



CONDITION	SPECIFIED CONDITION
Battery positive (+) → 10 Battery negative (-) → 6	Front passenger side seat belt warning light comes on

Text in Illustration

*a	Component without harness connected (Clock Assembly)
----	---

If the result is not as specified, replace the clock assembly.



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000003WZI00DX
Title: SEAT BELT: FRONT PASSENGER SEAT BELT WARNING LIGHT: INSTALLATION (2013 FR-S)		

INSTALLATION

1. INSTALL CLOCK ASSEMBLY

(a) Attach the 4 claws to install the clock assembly.

2. INSTALL AIR CONDITIONING CONTROL ASSEMBLY

INFO

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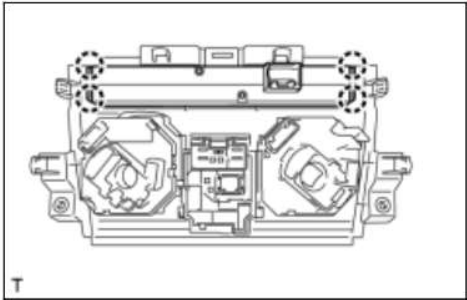
Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000003WZL00DX
Title: SEAT BELT: FRONT PASSENGER SEAT BELT WARNING LIGHT: REMOVAL (2013 FR-S)		

REMOVAL

1. REMOVE AIR CONDITIONING CONTROL ASSEMBLY

INFO

2. REMOVE CLOCK ASSEMBLY



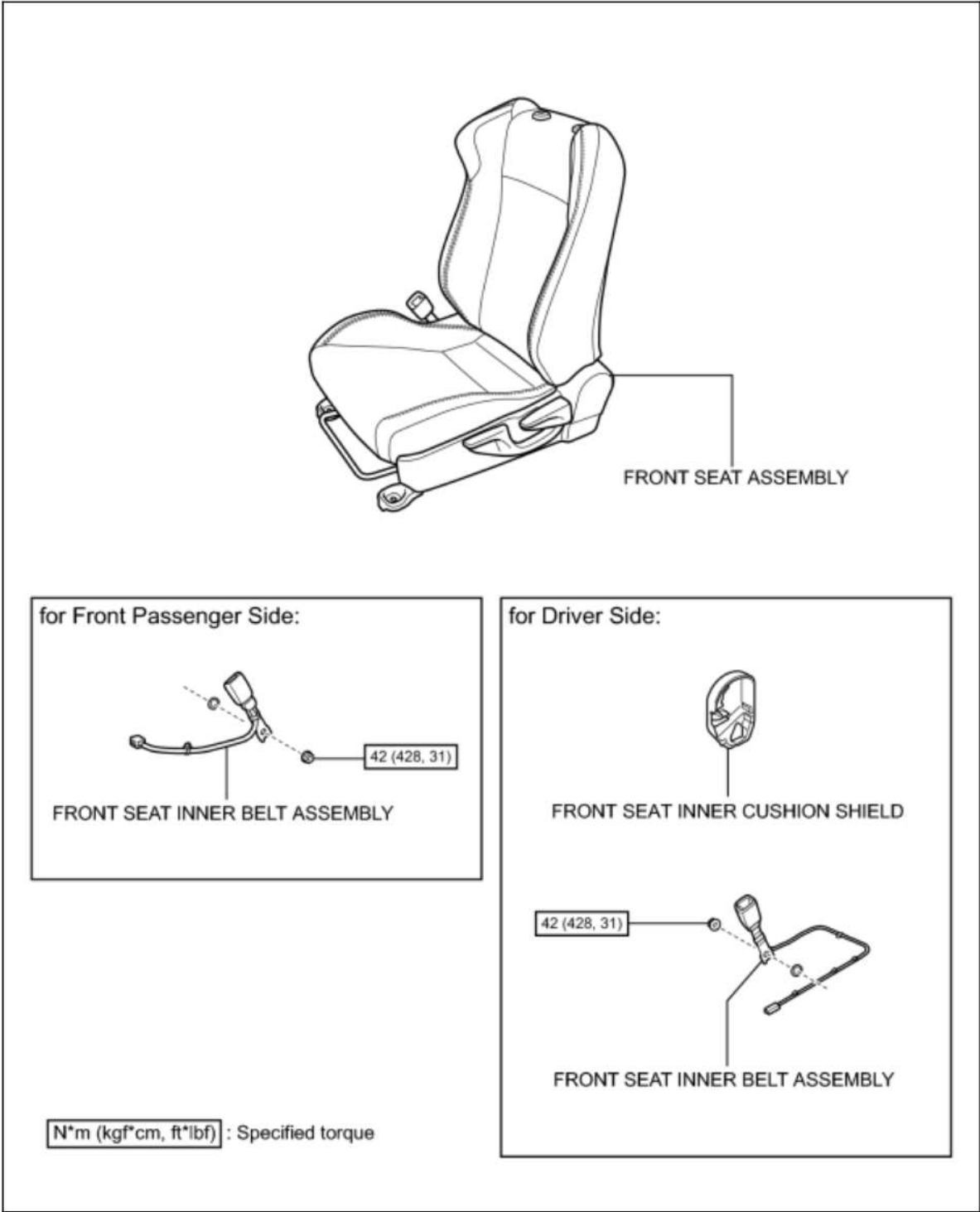
(a) Detach the 4 claws and remove the clock assembly.



Last Modified: 3-27-2012	6.4 K	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000004SCP002X
Title: SEAT BELT: FRONT SEAT INNER BELT ASSEMBLY: COMPONENTS (2013 FR-S)		

COMPONENTS

ILLUSTRATION



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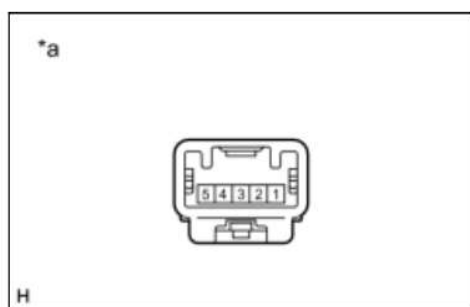
Last Modified: 3-27-2012	6.4 G	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM00000129306PX
Title: SEAT BELT: FRONT SEAT INNER BELT ASSEMBLY: INSPECTION (2013 FR-S)		

INSPECTION

1. INSPECT FRONT SEAT INNER BELT ASSEMBLY (for Driver Side)

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

Standard Resistance:



TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	Driver seat belt unfastened	Below 1 Ω
1 - 2	Driver seat belt fastened	10 k Ω or higher

Text in Illustration

*a	Component without harness connected (Front Seat Inner Belt Assembly (for Driver Side))
----	---

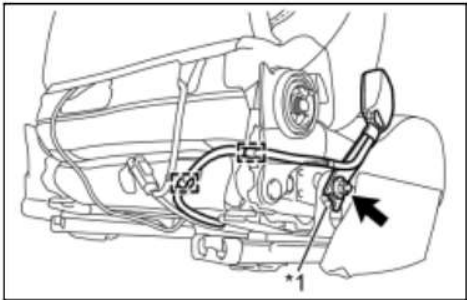
If the result is not as specified, replace the front seat inner belt assembly (for Driver Side).



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000004SCO002X
Title: SEAT BELT: FRONT SEAT INNER BELT ASSEMBLY: INSTALLATION (2013 FR-S)		

INSTALLATION

1. INSTALL FRONT SEAT INNER BELT ASSEMBLY (for Driver Side)



- (a) Install the front seat inner belt assembly with the nut and washer.

Torque: 42 N·m (428 kgf·cm, 31ft·lbf)

NOTICE:

Do not allow the anchor part of the front seat inner belt assembly to overlap the protruding part of the separate type front seat cushion spring assembly.

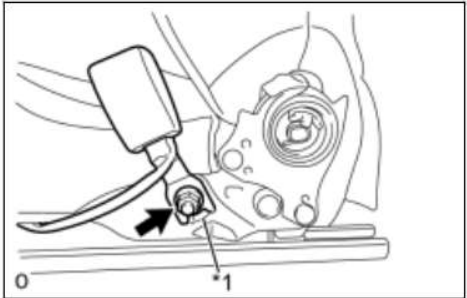
Text in Illustration

*1	Protruding Part
----	-----------------

- (b) Engage the 2 clamps.
(c) Engage the claw and 3 clamps under the front seat assembly.
(d) Connect the rubber band of the separate type front seatback cover.

2. INSTALL FRONT SEAT INNER CUSHION SHIELD (for Driver Side) INFO

3. INSTALL FRONT SEAT INNER BELT ASSEMBLY (for Front Passenger Side)



- (a) Install the front seat inner belt assembly with the nut and washer.

Torque: 42 N·m (428 kgf·cm, 31ft·lbf)

NOTICE:

Do not allow the anchor part of the front seat inner belt assembly to overlap the protruding part of the separate type front seat cushion spring assembly.

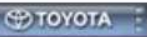
Text in Illustration

*1	Protruding Part
----	-----------------

- (b) Engage the clamp.
(c) Connect the connector.

4. INSTALL FRONT SEAT ASSEMBLY

INFO



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000004SCQ002X
Title: SEAT BELT: FRONT SEAT INNER BELT ASSEMBLY: REMOVAL (2013 FR-S)		

REMOVAL

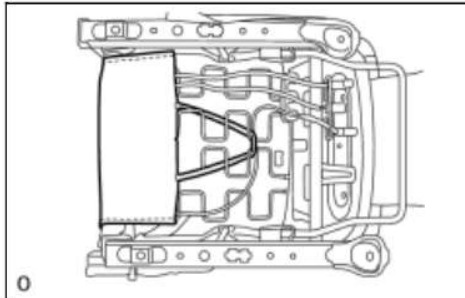
1. REMOVE FRONT SEAT ASSEMBLY

INFO

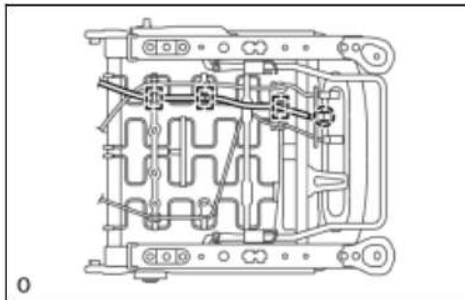
2. REMOVE FRONT SEAT INNER CUSHION SHIELD (for Driver Side)

INFO

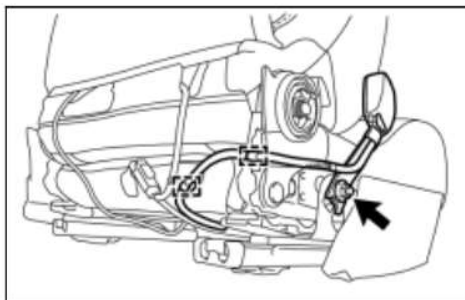
3. REMOVE FRONT SEAT INNER BELT ASSEMBLY (for Driver Side)



(a) Disconnect the rubber band of the separate type front seatback cover.

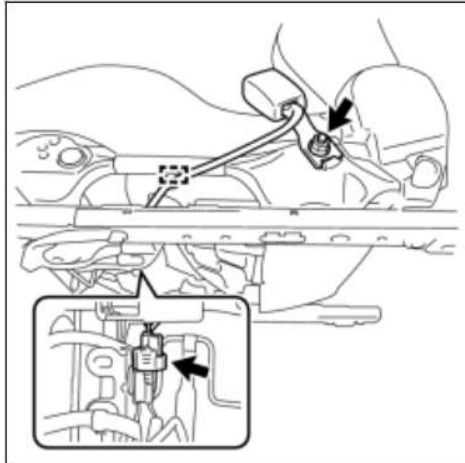


(b) Disengage the claw and the 3 clamps under the front seat assembly.



(c) Disengage the 2 clamps.

(d) Remove the nut, washer and front seat inner belt assembly.

4. REMOVE FRONT SEAT INNER BELT ASSEMBLY (for Front Passenger Side)

(a) Disconnect the connector.

(b) Disengage the clamp.

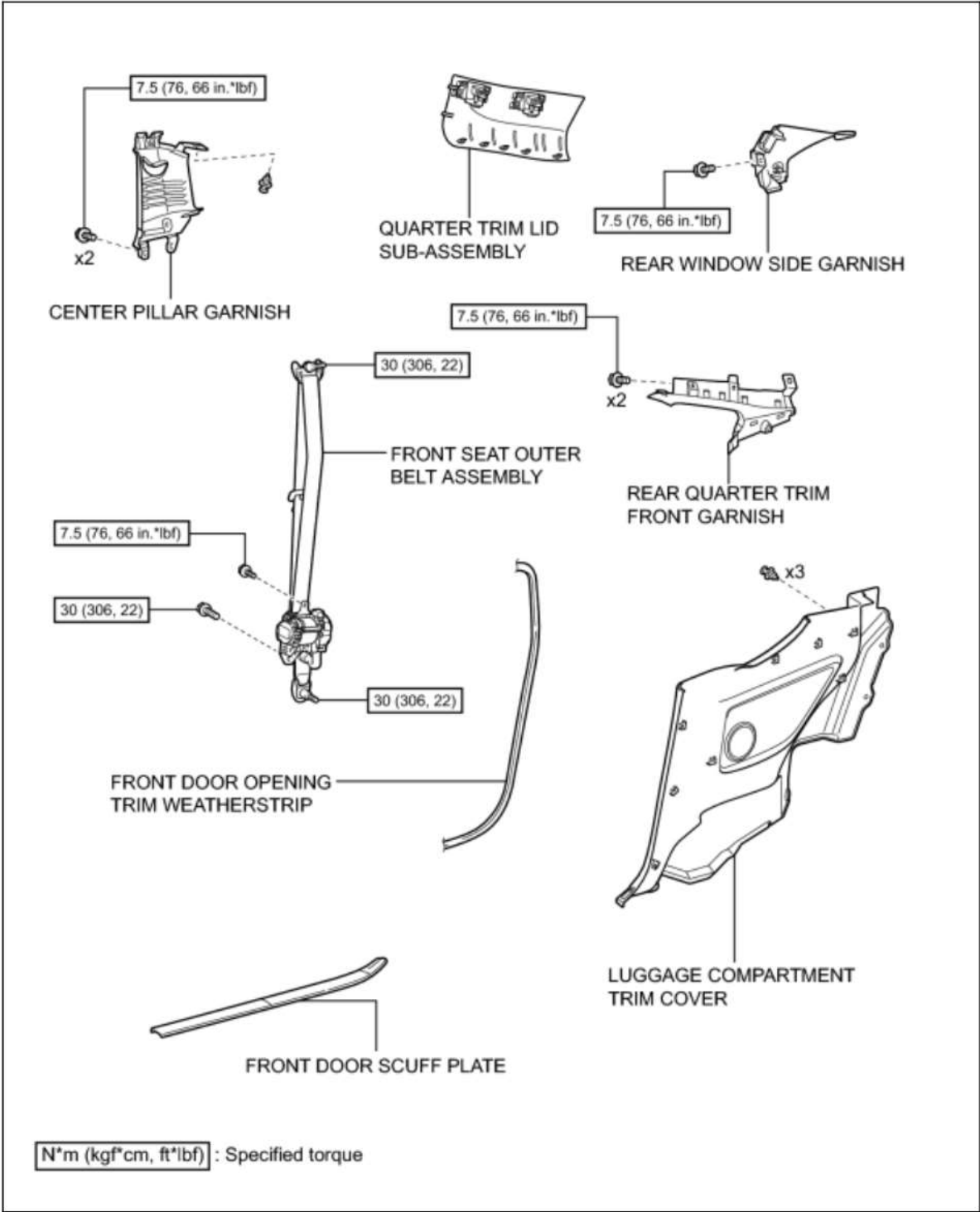
(c) Remove the nut, washer and front seat inner belt assembly.



Last Modified: 3-27-2012	6.4 K	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM00000209Q031X
Title: SEAT BELT: FRONT SEAT OUTER BELT ASSEMBLY: COMPONENTS (2013 FR-S)		

COMPONENTS

ILLUSTRATION



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Last Modified: 3-27-2012	6.4 N	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000011CX05FX
Title: SEAT BELT: FRONT SEAT OUTER BELT ASSEMBLY: DISPOSAL (2013 FR-S)		

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.

HINT:

When scrapping vehicles equipped with a seat belt pretensioner or disposing of a front seat outer belt assembly (with a seat belt pretensioner), always deploy the procedures described below. If any abnormality occurs during deployment of the seat belt pretensioner, contact the SERVICE DEPARTMENT of TOYOTA MOTOR SALES, U.S.A., INC.

1. DISPOSE OF FRONT SEAT OUTER BELT ASSEMBLY (When Installed in Vehicle)

CAUTION:

- Use gloves and safety glasses when handling a front seat outer belt assembly with a deployed pretensioner.
- Always wash your hands with water after completing the operation.
- Do not apply water, etc. to a front seat outer belt assembly with a deployed pretensioner.
- When deploying a seat belt pretensioner, always use the specified SST (SRS airbag deployment tool). Perform the operation in a place away from electrical interference.
- When disposing of a front seat outer belt assembly with a pretensioner, never deploy the pretensioner in the customer's vehicle.

NOTICE:

- Never dispose of a front seat outer belt assembly with a pretensioner that has not been deployed.
- The front seat outer belt assembly produces an exploding sound when the pretensioner deploys, so perform the operation outdoors where it will not disturb local residents.
- When deploying a seat belt pretensioner, perform the operation at least 10 m (32.8 ft.) away from the front seat outer belt assembly.
- Be sure to follow the procedure listed below when deploying a seat belt pretensioner.

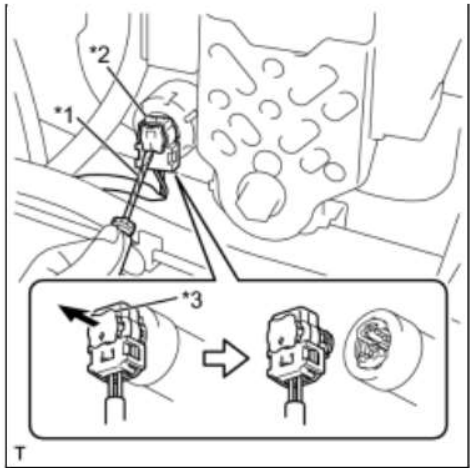
(a) Disconnect the seat belt pretensioner connector.

- (1) Disconnect the cable from the negative (-) battery terminal.
- (2) Remove the front door scuff plate .
- (3) Disconnect the front door opening trim weatherstrip .
- (4) Remove the quarter trim panel .

- (5) Using a screwdriver with the tip wrapped with protective tape, release the pretensioner connector lock and disconnect the pretensioner connector.

Text in Illustration

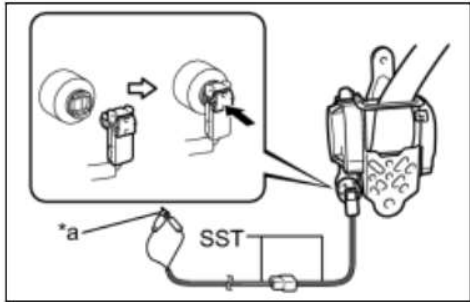




*1	Protective Tape
*2	Pretensioner Connector
*3	Pretensioner Connector Lock

HINT:
Tape the screwdriver tip before use.

(b) Connect SST.

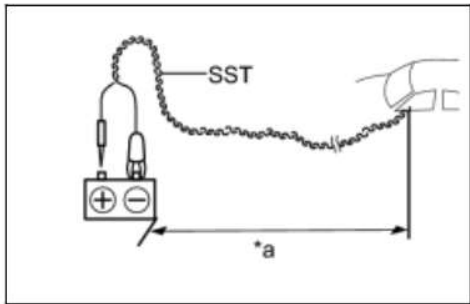


(1) Short the clip and terminal of SST.
SST: 09082-18010
SST: 09082-18020
Text in Illustration

*a	Short the clip and terminal
----	-----------------------------

(2) Connect 2 SST, and then connect them to the seat belt pretensioner.

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



(3) Move SST at least 10 m (32.8 ft.) away from the front of the vehicle.
Text in Illustration

*a	10 m or more
----	--------------

(4) Close all the doors and windows of the vehicle.

NOTICE:
Do not damage the SST wire harness.

- (c) Deploy the seat belt pretensioner.
- (1) Confirm that no one is inside the vehicle or within a 10 m (32.8 ft.) radius of the vehicle.
 - (2) Connect the clip of SST to the battery positive (+) terminal.

- (3) Connect the terminal of SST to the battery (-) terminal to the deploy the seat belt pretensioner.
- (d) Dispose of the front seat outer belt assembly.

(1) Remove the front seat outer belt assembly and SST.

(2) Place the front seat outer belt assembly in a plastic bag, tie the end tightly, and dispose of it in the same way as other general parts.

CAUTION:

- The front seat outer belt assembly becomes very hot when the pretensioner is deployed, so leave it untouched for at least 40 minutes after the pretensioner is deployed.
- Use gloves and safety glasses when handling a front seat outer belt assembly with a deployed pretensioner.
- Always wash your hands with water after completing the operation.
- Do not apply water, etc. to a front seat outer belt assembly with a deployed pretensioner.

HINT:

When scrapping a vehicle, deploy the seat belt pretensioner, and then scrap the vehicle with the front seat outer belt assembly installed.

2. DISPOSE OF FRONT SEAT OUTER BELT ASSEMBLY (When not Installed in Vehicle)

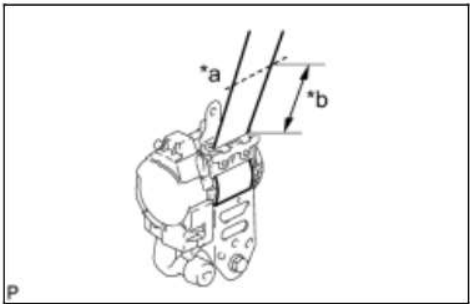
CAUTION:

- Use gloves and safety glasses when handling a front seat outer belt assembly with a deployed pretensioner.
- Always wash your hands with water after completing the operation.
- Do not apply water, etc. to a front seat outer belt assembly with a deployed pretensioner.
- When deploying a seat belt pretensioner, always use the specified SST (SRS airbag deployment tool). Perform the operation in a place away from electrical interference.

NOTICE:

- When disposing of a front seat outer belt assembly with a pretensioner, never deploy the pretensioner in the customer's vehicle.
- Never dispose of a front seat outer belt assembly with a pretensioner that has not been deployed.
- The front seat outer belt assembly produces an exploding sound when the pretensioner deploys, so perform the operation outdoors where it will not disturb local residents.
- When deploying a seat belt pretensioner, perform the operation at least 10 m (32.8 ft.) away from the front seat outer belt assembly.
- Be sure to follow the procedure listed below when deploying a seat belt pretensioner.

- (a) Remove the front seat outer belt assembly
- INFO
- .



- (b) Wind the seat belt webbing with the retractor.

Text in Illustration

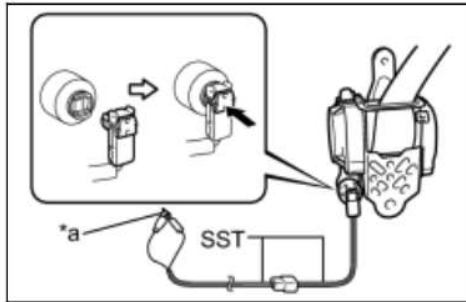
*a	Cut
*b	100 mm

- (c) When the seat belt webbing is sufficiently wound, cut the seat belt webbing approximately 100 mm (3.94 in.) from the retractor, as shown in the illustration.

HINT:

The retractor resistance increases in correlation with how much the seat belt webbing is wound.

- (d) Connect SST.



- (1) Short the clip and terminal of SST.

SST: 09082-18010

SST: 09082-18020

Text in Illustration

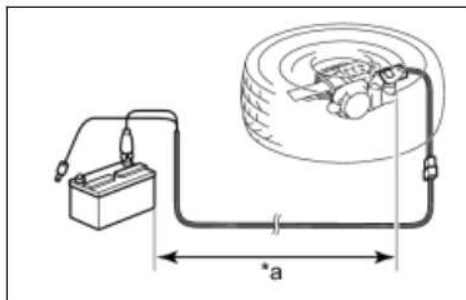
*a	Short the clip and terminal
----	-----------------------------

- (2) Connect 2 SST, and then connect them to the seat belt pretensioner.

NOTICE:

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

- (3) Place the front seat outer belt assembly on the ground and cover it with a tire and wheel assembly.



Text in Illustration

*a	10 m or more
----	--------------

NOTICE:

- Position the front seat outer belt assembly as shown in the illustration.
- Use a scrap tire and wheel assembly when disposing of a seat belt pretensioner.

- (4) Position and hold SST at least 10 m (32.8 ft.) away from the wheel.

NOTICE:

Do not damage the SST wire harness.

- (e) Deploy the seat belt pretensioner.

- (1) Check that no one is within a 10 m (32.8 ft.) radius of the wheel.
- (2) Connect the clip of SST to the battery positive (+) terminal.
- (3) Connect the terminal of SST to the battery (-) terminal to the deploy the seat belt pretensioner.

- (f) Dispose of the front seat outer belt assembly.

- (1) Remove the tire and wheel assembly and SST.
- (2) Place the front seat outer belt assembly in a plastic bag, tie the end tightly, and dispose of it in the same way as other general parts.

CAUTION:

- The front seat outer belt assembly becomes very hot when the pretensioner is deployed, so leave it untouched for at least 40 minutes after the pretensioner is deployed.
- Use gloves and safety glasses when handling a front seat outer belt assembly with a deployed pretensioner.
- Always wash your hands with water after completing the operation.
- Do not apply water, etc. to a front seat outer belt assembly with a deployed pretensioner.



Last Modified: 3-27-2012	6.4 G	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000000U9903RX
Title: SEAT BELT: FRONT SEAT OUTER BELT ASSEMBLY: INSPECTION (2013 FR-S)		

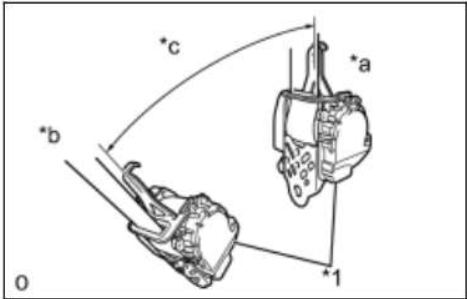
INSPECTION

1. INSPECT FRONT SEAT OUTER BELT ASSEMBLY

- (a) Before installing the front seat outer belt assembly, check the ELR function.

NOTICE:
Do not disassemble the retractor.

- (1) When the inclination of the retractor is 12° or less, check that the belt can be pulled from the retractor. When the inclination of the retractor is over 27°, check that the belt locks.



Text in Illustration

*1	Retractor
*a	Unlocked
*b	Locked
*c	27°

If the result is not as specified, replace the front seat outer belt assembly.



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM00000120906OX
Title: SEAT BELT: FRONT SEAT OUTER BELT ASSEMBLY: INSTALLATION (2013 FR-S)		

INSTALLATION

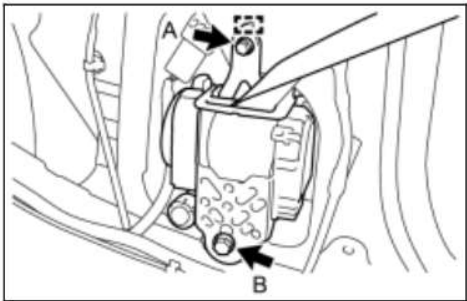
HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. INSPECT FRONT SEAT OUTER BELT ASSEMBLY

INFO

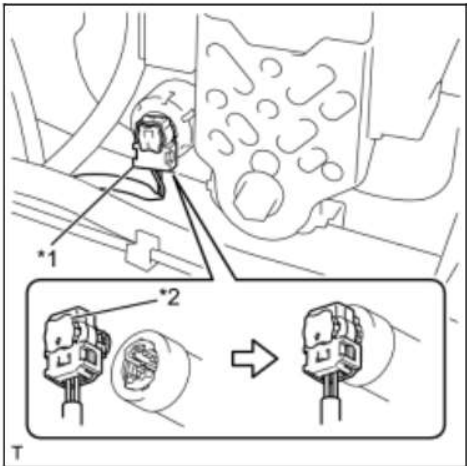
2. INSTALL FRONT SEAT OUTER BELT ASSEMBLY



(a) Engage the hook and install the front seat outer belt assembly with the 2 bolts.

Bolt A - Torque: 7.5 N·m (76 kgf·cm, 66in·lbf)

Bolt B - Torque: 30 N·m (306 kgf·cm, 22ft·lbf)



(b) Connect the pretensioner connector.

Text in Illustration

*1	Pretensioner Connector
*2	Pretensioner Connector Lock

NOTICE:

When connecting any pretensioner connector, take care not to damage the pretensioner wire harness.

- (c) Push in the lock to install the pretensioner connector.
- (d) Install the shoulder anchor of the front seat outer belt assembly with the bolt.

Torque: 30 N·m (306 kgf·cm, 22ft·lbf)

3. INSTALL CENTER PILLAR GARNISH

INFO

4. CONNECT FRONT SEAT OUTER BELT ASSEMBLY

- (a) Install the floor anchor of the front seat outer belt assembly with the bolt.

Torque: 30 N·m (306 kgf·cm, 22ft·lbf)

- (b) Check if the ELR locks.

NOTICE:

The check should be performed with the front seat outer belt assembly installed.

- (1) With the front seat outer belt assembly installed, check that the belt locks when it is pulled out quickly.
- (c) Install the floor anchor cover.

5. INSTALL REAR QUARTER TRIM FRONT GARNISH INFO

6. INSTALL REAR WINDOW SIDE GARNISH INFO

7. INSTALL QUARTER TRIM LID SUB-ASSEMBLY INFO

8. INSTALL LUGGAGE COMPARTMENT TRIM COVER INFO

9. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP INFO

10. INSTALL FRONT DOOR SCUFF PLATE INFO

11. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Torque: 6.0 N·m (61 kgf·cm, 53in·lbf)

12. INSPECT SRS WARNING LIGHT

INFO



Last Modified: 3-27-2012	6.4 G	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000000WYH065X
Title: SEAT BELT: FRONT SEAT OUTER BELT ASSEMBLY: ON-VEHICLE INSPECTION (2013 FR-S)		

ON-VEHICLE INSPECTION

CAUTION:

Be sure to correctly follow the removal and installation procedures for the front seat outer belt assembly.

1. INSPECT FRONT SEAT OUTER BELT ASSEMBLY (for Vehicle not Involved in Collision)

- (a) Perform a diagnostic system check .
- (b) Visually check for defects with the front seat outer belt assembly installed on the vehicle.
 - (1) The defects are as follows:

- Cuts on the front seat outer belt assembly
- Small cracks on the front seat outer belt assembly
- Significant discoloration on the front seat outer belt assembly

OK:

No defects are found.

HINT:

If any of the defects is found, replace the front seat outer belt assembly with a new one.

2. INSPECT FRONT SEAT OUTER BELT ASSEMBLY (for Vehicle Involved in Collision)

- (a) Perform a diagnostic system check .
- (b) Visually check for defects with the front seat outer belt assembly removed from the vehicle.
 - (1) The defects are as follows:

- Cuts on the front seat outer belt assembly
- Small cracks on the front seat outer belt assembly
- Significant discoloration on the front seat outer belt assembly
- Cracks or other damage to the connector

OK:

No defects are found.

HINT:

If any of the defects is found, replace the front seat outer belt assembly with a new one.

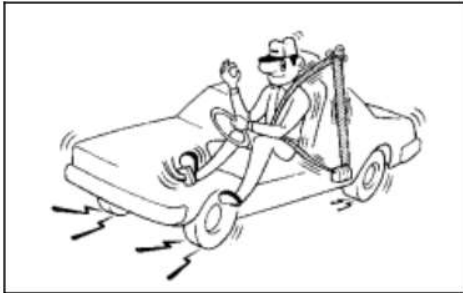


Last Modified: 3-27-2012	6.4 L	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000001228064X
Title: SEAT BELT: FRONT SEAT OUTER BELT ASSEMBLY: PRECAUTION (2013 FR-S)		

PRECAUTION

CAUTION:

Replace any faulty parts of the seat belt systems (outer belt, inner belt, bolts, nuts, tether anchor hardware and other related parts). When inspecting a vehicle that was in a collision, be sure to check all of the seat belt systems regardless of whether or not the system was activated in the collision. Replace any damaged or malfunctioning systems.



1. ROAD TEST (IN SAFE AREA)

CAUTION:

Conduct this test in a safe area.

- (a) Fasten the front seat belts.
- (b) Drive the vehicle at 16 km/h (10 mph) and firmly depress the brake pedal. Check that the belts lock and cannot be extended at this time.

If a belt does not lock, replace the seat belt assembly [INFO](#) .

HINT:

Inspect the seat belt assembly before installing it [INFO](#) .



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM00000120B06LX
Title: SEAT BELT: FRONT SEAT OUTER BELT ASSEMBLY: REMOVAL (2013 FR-S)		

REMOVAL

1. PRECAUTION

NOTICE:

After turning the ignition switch off, waiting time may be required before disconnecting the cable from the negative (-) battery terminal. Therefore, make sure to read the disconnecting the cable from the negative (-) battery terminal notices before proceeding with work [INFO](#).

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

CAUTION:

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

NOTICE:

The power window system utilizes a mechanism that the door glass moves down slightly when the door is opened, and that the glass moves up when closing the door in order to prevent the door molding from being damaged. When the battery negative (-) terminal needs to be disconnected for servicing, fully open the driver and passenger door glasses in advance.

3. REMOVE FRONT DOOR SCUFF PLATE [INFO](#)

4. DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP

HINT:

Disconnect the front door opening trim weatherstrip to the extent that allows the removal of the luggage compartment trim cover.

5. REMOVE LUGGAGE COMPARTMENT TRIM COVER [INFO](#)

6. REMOVE QUARTER TRIM LID SUB-ASSEMBLY [INFO](#)

7. REMOVE REAR WINDOW SIDE GARNISH [INFO](#)

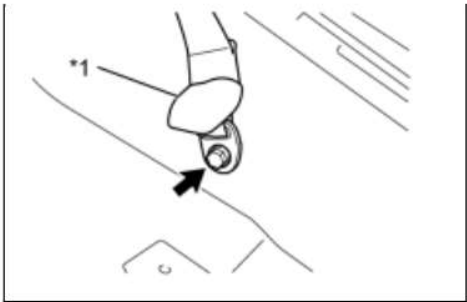
8. REMOVE REAR QUARTER TRIM FRONT GARNISH [INFO](#)

9. DISCONNECT FRONT SEAT OUTER BELT ASSEMBLY

(a) Turn back the floor anchor cover.

Text in Illustration

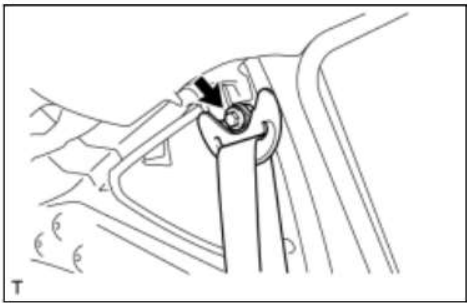
*1	Floor Anchor Cover
----	--------------------



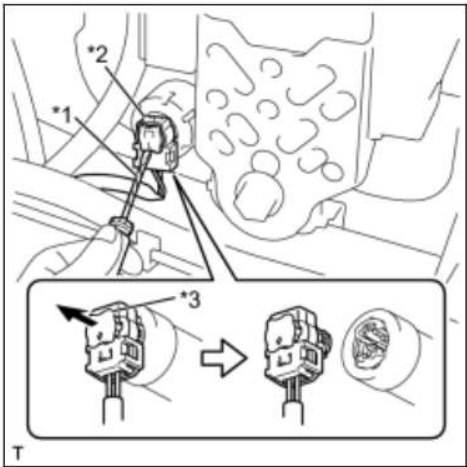
(b) Loosen the bolt and disconnect the floor anchor of the front seat outer belt assembly.

10. REMOVE CENTER PILLAR GARNISH INFO

11. REMOVE FRONT SEAT OUTER BELT ASSEMBLY



(a) Loosen the bolt and disconnect the shoulder anchor of the front seat outer belt assembly.



(b) Using a screwdriver with the tip wrapped with protective tape, release the pretensioner connector lock and disconnect the pretensioner connector.

Text in Illustration

*1	Protective Tape
*2	Pretensioner Connector
*3	Pretensioner Connector Lock

HINT:

Tape the screwdriver tip before use.

(c) Remove the 2 bolts and disengage the hook to remove the front seat outer belt assembly.

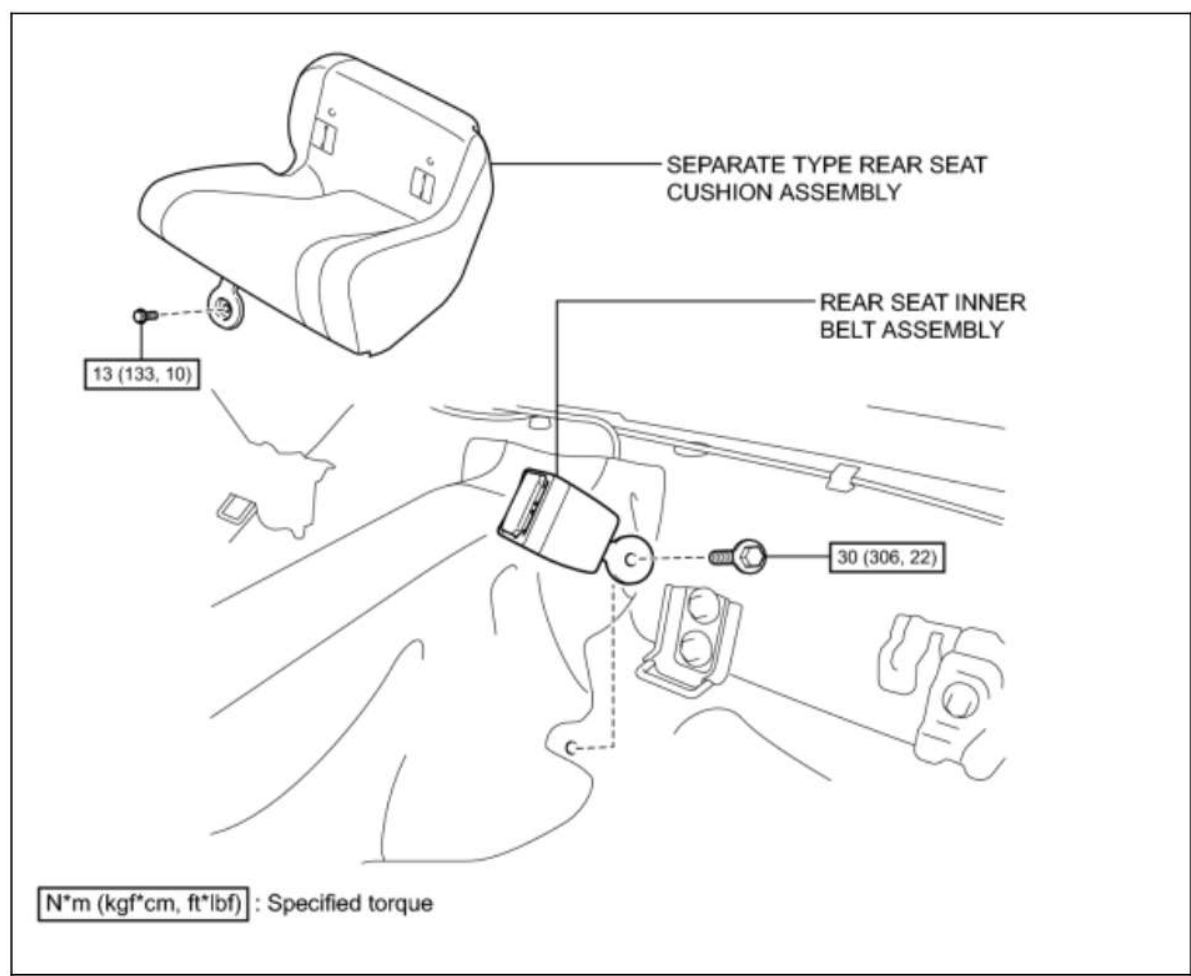


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Last Modified: 3-27-2012	6.4 K	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000004S1V00HX
Title: SEAT BELT: REAR SEAT INNER BELT ASSEMBLY: COMPONENTS (2013 FR-S)		

COMPONENTS

ILLUSTRATION



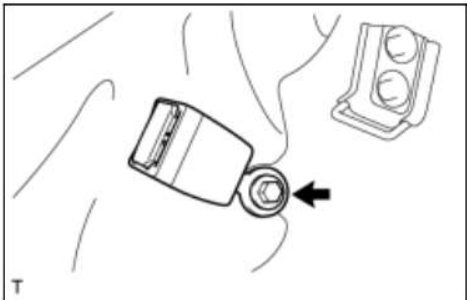
Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000003WKC01CX
Title: SEAT BELT: REAR SEAT INNER BELT ASSEMBLY: INSTALLATION (2013 FR-S)		

INSTALLATION

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. INSTALL REAR SEAT INNER BELT ASSEMBLY



(a) Install the rear seat inner belt assembly with the bolt in the direction of the illustration.

Torque: 30 N·m (306 kgf·cm, 22ft·lbf)

2. INSTALL SEPARATE TYPE REAR SEAT CUSHION ASSEMBLY

INFO



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000003WKE01CX
Title: SEAT BELT: REAR SEAT INNER BELT ASSEMBLY: REMOVAL (2013 FR-S)		

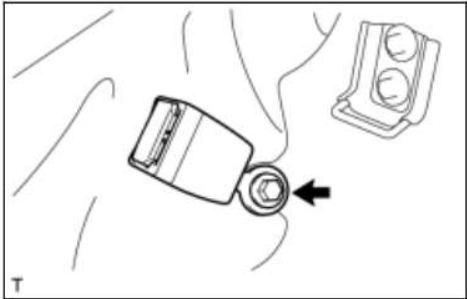
REMOVAL

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. REMOVE SEPARATE TYPE REAR SEAT CUSHION ASSEMBLY INFO

2. REMOVE REAR SEAT INNER BELT ASSEMBLY



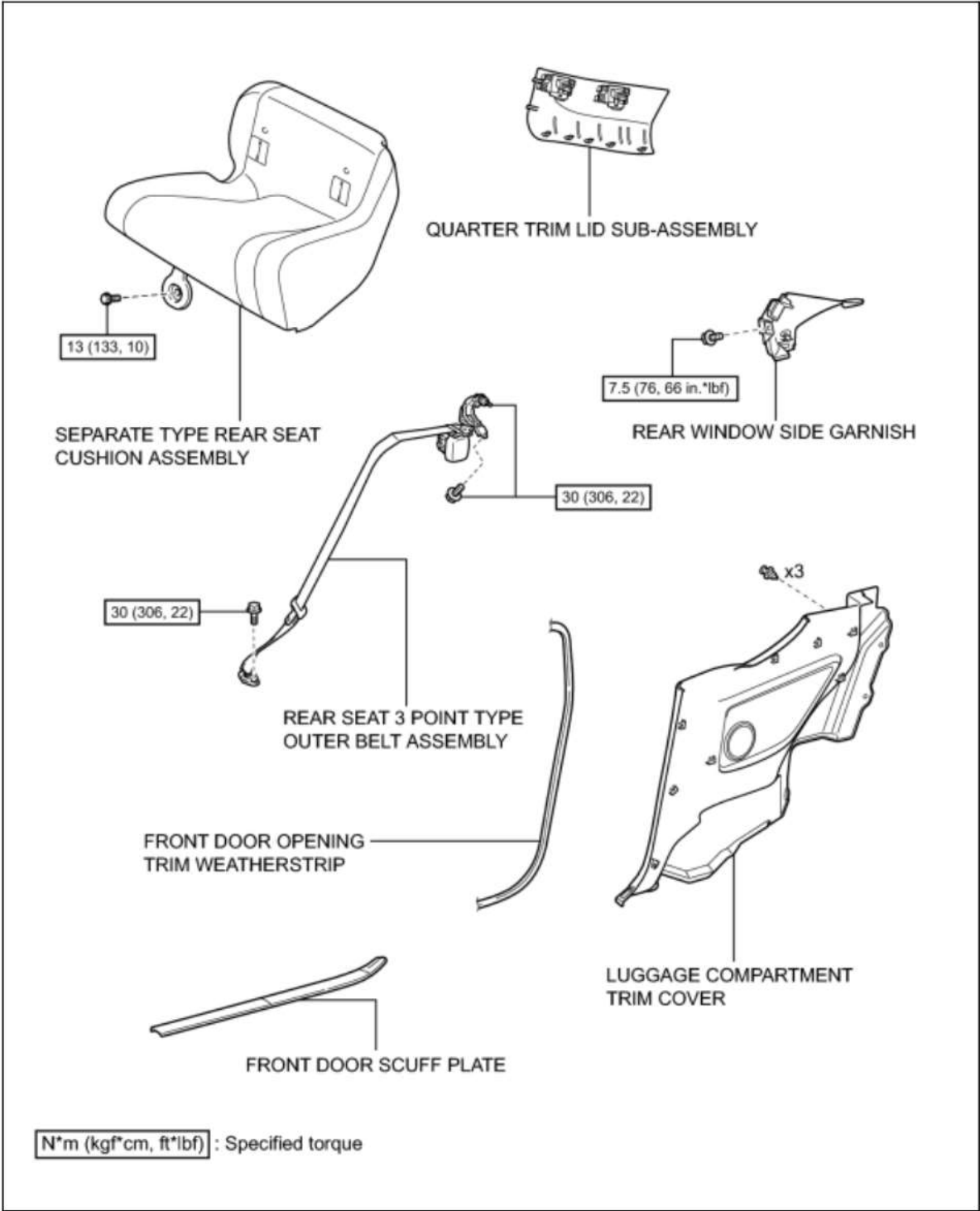
(a) Remove the bolt and rear seat inner belt assembly.



Last Modified: 3-27-2012	6.4 K	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000004S1Y00HX
Title: SEAT BELT: REAR SEAT OUTER BELT ASSEMBLY: COMPONENTS (2013 FR-S)		

COMPONENTS

ILLUSTRATION



Last Modified: 3-27-2012	6.4 G	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000000U9903TX
Title: SEAT BELT: REAR SEAT 3 POINT TYPE OUTER BELT ASSEMBLY: INSPECTION (2013 FR-S)		

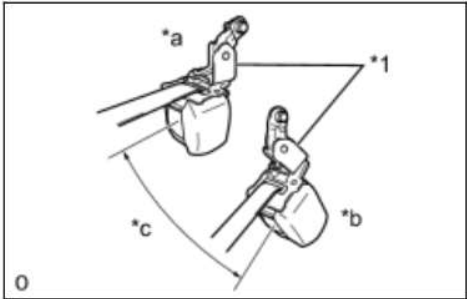
INSPECTION

1. INSPECT REAR SEAT 3 POINT TYPE OUTER BELT ASSEMBLY

- (a) Before installing the rear seat 3 point type outer belt assembly, check the ELR function.

NOTICE:
Do not disassemble the retractor.

- (1) When the inclination of the retractor is 12° or less, check that the belt can be pulled from the retractor. When the inclination of the retractor is over 27°, check that the belt locks.



Text in Illustration

*1	Retractor
*a	Unlocked
*b	Locked
*c	27°

If the result is not as specified, replace the rear seat 3 point type outer belt assembly.



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000003WKG01DX
Title: SEAT BELT: REAR SEAT OUTER BELT ASSEMBLY: INSTALLATION (2013 FR-S)		

INSTALLATION

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. INSPECT REAR SEAT 3 POINT TYPE OUTER BELT ASSEMBLY

INFO

2. INSTALL REAR SEAT 3 POINT TYPE OUTER BELT ASSEMBLY



(a) Tighten the bolt B to install the rear seat 3 point type outer belt assembly.

Torque: 30 N·m (306 kgf·cm, 22ft·lbf)

(b) Install the bolt A.

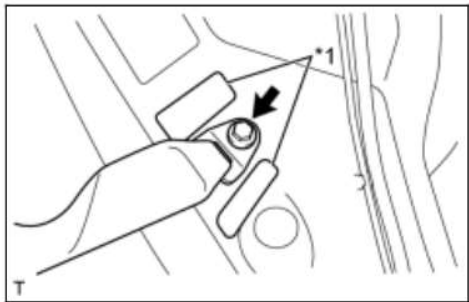
Torque: 30 N·m (306 kgf·cm, 22ft·lbf)

(c) Check if the ELR locks.

NOTICE:

The check should be performed with the rear seat 3 point type outer belt assembly installed.

- (1) With the rear seat 3 point type outer belt assembly installed, check that the belt locks when it is pulled out quickly.



(d) Connect the floor anchor of the rear seat 3 point type outer belt assembly with the bolt.

Text in Illustration

*1	Protruding Part
----	-----------------

Torque: 30 N·m (306 kgf·cm, 22ft·lbf)

NOTICE:

Do not allow the anchor part of the rear seat 3 point type outer belt assembly to overlap the protruding parts of the floor panel.

3. INSTALL REAR WINDOW SIDE GARNISH

INFO

4. INSTALL QUARTER TRIM LID SUB-ASSEMBLY [INFO](#)

5. INSTALL LUGGAGE COMPARTMENT TRIM COVER [INFO](#)

6. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP [INFO](#)

7. INSTALL FRONT DOOR SCUFF PLATE [INFO](#)

8. INSTALL SEPARATE TYPE REAR SEAT CUSHION ASSEMBLY [INFO](#)



Last Modified: 3-27-2012	6.4 G	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000000WYH067X
Title: SEAT BELT: REAR SEAT OUTER BELT ASSEMBLY: ON-VEHICLE INSPECTION (2013 FR-S)		

ON-VEHICLE INSPECTION

CAUTION:

Be sure to correctly follow the removal and installation procedures for the rear seat 3 point type outer belt assembly.

1. INSPECT REAR SEAT 3 POINT TYPE OUTER BELT ASSEMBLY (for Vehicle not Involved in Collision)

(a) Visually check for defects with the rear seat 3 point type outer belt assembly installed on the vehicle.

(1) The defects are as follows:

- Cuts on the rear seat 3 point type outer belt assembly
- Small cracks on the rear seat 3 point type outer belt assembly
- Significant discoloration on the rear seat 3 point type outer belt assembly

OK:

No defects are found.

HINT:

If any of the defects is found, replace the rear seat 3 point type outer belt assembly with a new one.

2. INSPECT REAR SEAT 3 POINT TYPE OUTER BELT ASSEMBLY (for Vehicle Involved in Collision)

(a) Visually check for defects with the rear seat 3 point type outer belt assembly removed from the vehicle.

(1) The defects are as follows:

- Cuts on the rear seat 3 point type outer belt assembly
- Small cracks on the rear seat 3 point type outer belt assembly
- Significant discoloration on the rear seat 3 point type outer belt assembly
- Cracks or other damage to the connector

OK:

No defects are found.

HINT:

If any of the defects is found, replace the rear seat 3 point type outer belt assembly with a new one.



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000003WKI01CX
Title: SEAT BELT: REAR SEAT OUTER BELT ASSEMBLY: REMOVAL (2013 FR-S)		

REMOVAL

HINT:

- Use the same procedure for the RH side and LH side.
- The procedure listed below is for the LH side.

1. REMOVE SEPARATE TYPE REAR SEAT CUSHION ASSEMBLY INFO

2. REMOVE FRONT DOOR SCUFF PLATE INFO

3. DISCONNECT FRONT DOOR OPENING TRIM WEATHERSTRIP

HINT:

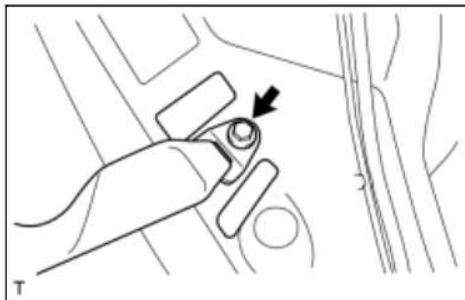
Disconnect the front door opening trim weatherstrip to the extent that allows the removal of the luggage compartment trim cover.

4. REMOVE LUGGAGE COMPARTMENT TRIM COVER INFO

5. REMOVE QUARTER TRIM LID SUB-ASSEMBLY INFO

6. REMOVE REAR WINDOW SIDE GARNISH INFO

7. REMOVE REAR SEAT 3 POINT TYPE OUTER BELT ASSEMBLY



- (a) Remove the bolt and disconnect the floor anchor of the rear seat 3 point type outer belt assembly.



- (b) Remove the bolt A.

(c) Loosen the bolt B and remove the rear seat 3 point type outer belt assembly.



Last Modified: 3-27-2012	6.4 A	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000004N7R00UX
Title: SEAT BELT: SEAT BELT WARNING SYSTEM: CUSTOMIZE PARAMETERS (2013 FR-S)		

CUSTOMIZE PARAMETERS

1. CUSTOMIZE SEAT BELT WARNING SYSTEM

HINT:

The following items can be customized.

NOTICE:

- When the customer requests a change in a function, first make sure that the function can be customized.
- Be sure to make a note of the current settings before customizing.
- When troubleshooting a function, first make sure that the function is set to the default setting.
- These buzzers should be ON for safe driving. Perform this procedure only if it is necessary to set the buzzer to OFF (disabled).

(a) Customizing with the Techstream

- (1) Connect the Techstream to the DLC3.
- (2) Turn the ignition switch to ON.
- (3) Turn the Techstream on.
- (4) Enter the following menus: Customize Setting / Warning.
- (5) Select the setting by referring to the table below.

Warning

DISPLAY	DEFAULT	CONTENT	SETTING	RELEVANT ECU
Driver Side Seatbelt Warning Buzzer	ON	Function to sound the driver seat belt warning buzzer	ON/OFF	Combination meter assembly
Front Passenger Side Seatbelt Warning Buzzer	ON	Function to sound the front passenger seat belt warning buzzer	ON/OFF	

HINT:

This setting is only valid when the vehicle is driven at 20 km/h (12 mph) or more.



Last Modified: 3-27-2012	6.4 U	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000012G70CIX
Title: SEAT BELT: SEAT BELT WARNING SYSTEM: DATA LIST / ACTIVE TEST (2013 FR-S)		

DATA LIST / ACTIVE TEST

1. DATA LIST

HINT:

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

NOTICE:

In the following table, 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.

- Connect the Techstream to the DLC3.
- Turn the ignition switch to ON.
- Turn the Techstream on.
- Enter the following menus: Body Electrical / Combination Meter, Occupant Detection or SRS Airbag / Data List.
- Read the Data List according to the display on the Techstream.

Combination Meter (Combination Meter Assembly)

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Driver Side Seatbelt Warning Buzzer	Driver seat belt warning buzzer/ON or OFF	Customized value displayed	-
P-Seatbelt Warning Buzzer	Front passenger seat belt warning buzzer/ON or OFF	Customized value displayed	-

Occupant Detection (Occupant Detection ECU)

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Status of Passenger Side Buckle SW	Front passenger buckle switch/ON or OFF	Unset: Seat belt not fastened Set: Seat belt fastened NG: Data is not determined	-

SRS Airbag (Airbag ECU Assembly)

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE

Driver Buckle SW	Driver buckle switch/Unset, Set or NG	Unset: Seat belt not fastened Set: Seat belt fastened NG: Data is not determined	-
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2. ACTIVE TEST

Using the Techstream to perform Active Tests allows relays, VSVs, actuators and other items to be operated without removing any parts. This non-intrusive functional inspection can be very useful because intermittent operation may be discovered before parts or wiring is disturbed. Performing Active Tests early in troubleshooting is one way to save diagnostic time. Data List information can be displayed while performing Active Tests.

- (a) Connect the Techstream to the DLC3.
- (b) Turn the ignition switch to ON.
- (c) Turn the Techstream on.
- (d) Enter the following menus: Body Electrical / Combination Meter / Active Test.
- (e) Perform the Active Test according to the display on the Techstream.

Combination Meter (Combination Meter Assembly)

TESTER DISPLAY	TEST PART	CONTROL RANGE	DIAGNOSTIC NOTE
Driver Side Seat Belt	Seat belt warning light	OFF/ON	-
Front passenger Side Seat Belt	Seat belt warning light	OFF/ON	-



Last Modified: 3-27-2012	6.4 J	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000014DK0AGX
Title: SEAT BELT: SEAT BELT WARNING SYSTEM: Driver Side Seat Belt Warning Light does not Operate (2013 FR-S)		

Driver Side Seat Belt Warning Light does not Operate

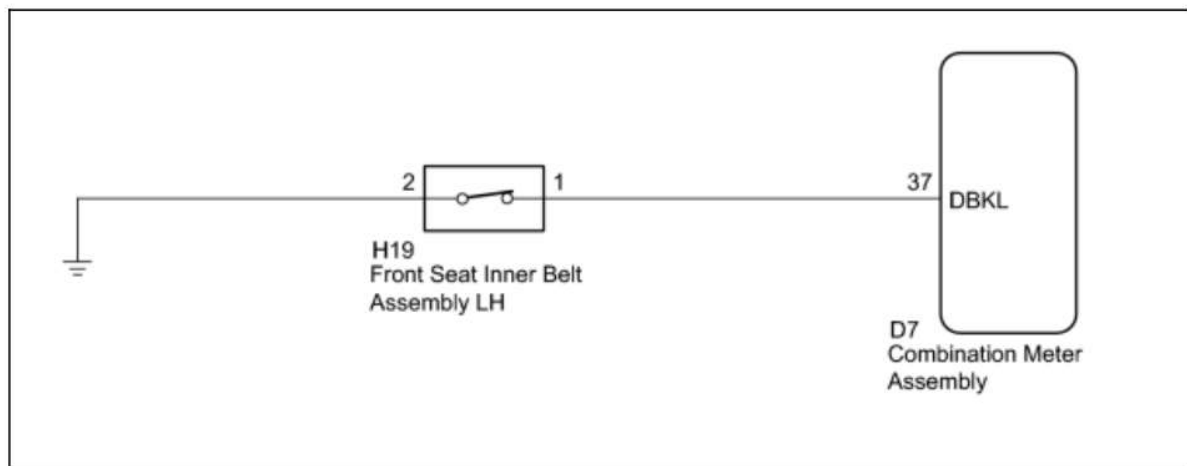
DESCRIPTION

The combination meter assembly illuminates, blinks or turns off the seat belt warning light on the combination meter assembly in accordance with the state of the front seat inner belt assembly LH.

HINT:

The seat belt warning light on the combination meter assembly is used for both the driver seat and front passenger seat.

WIRING DIAGRAM



INSPECTION PROCEDURE

PROCEDURE

1.

PERFORM ACTIVE TEST USING TECHSTREAM (DRIVER SIDE SEAT BELT WARNING LIGHT)

- (a) Connect the Techstream to the DLC3.
- (b) Turn the ignition switch to ON.
- (c) Turn the Techstream on.
- (d) Enter the following menus: Body Electrical / Combination Meter / Active Test.
- (e) Perform the Active Test according to the display on the Techstream.

OK:

Driver side seat belt warning light condition can be switched by Active Test.

Combination Meter

TESTER DISPLAY	TEST PART	CONTROL RANGE	DIAGNOSTIC NOTE
Driver Side Seat Belt	Driver side seat belt warning light	ON/OFF	-

NG ► **REPLACE COMBINATION METER ASSEMBLY**

OK



2.	INSPECT FRONT SEAT INNER BELT ASSEMBLY LH
-----------	--

(a) Remove the front seat inner belt assembly LH .(b) Inspect the front seat inner belt assembly LH .

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

OK



3.	CHECK HARNESS AND CONNECTOR (FRONT SEAT INNER BELT ASSEMBLY LH - COMBINATION METER ASSEMBLY - BODY GROUND)
-----------	---

(a) Disconnect the H19 front seat inner belt assembly LH connector.

(b) Disconnect the D7 combination meter assembly connector.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
D7-37 (DBKL) - H19-1	Always	Below 1 Ω
H19-1 - Body ground	Always	10 k Ω or higher
H19-2 - Body ground	Always	Below 1 Ω

REPAIR OR REPLACE HARNESS OR CONNECTOR

NG ►

OK ► REPLACE COMBINATION METER
ASSEMBLY



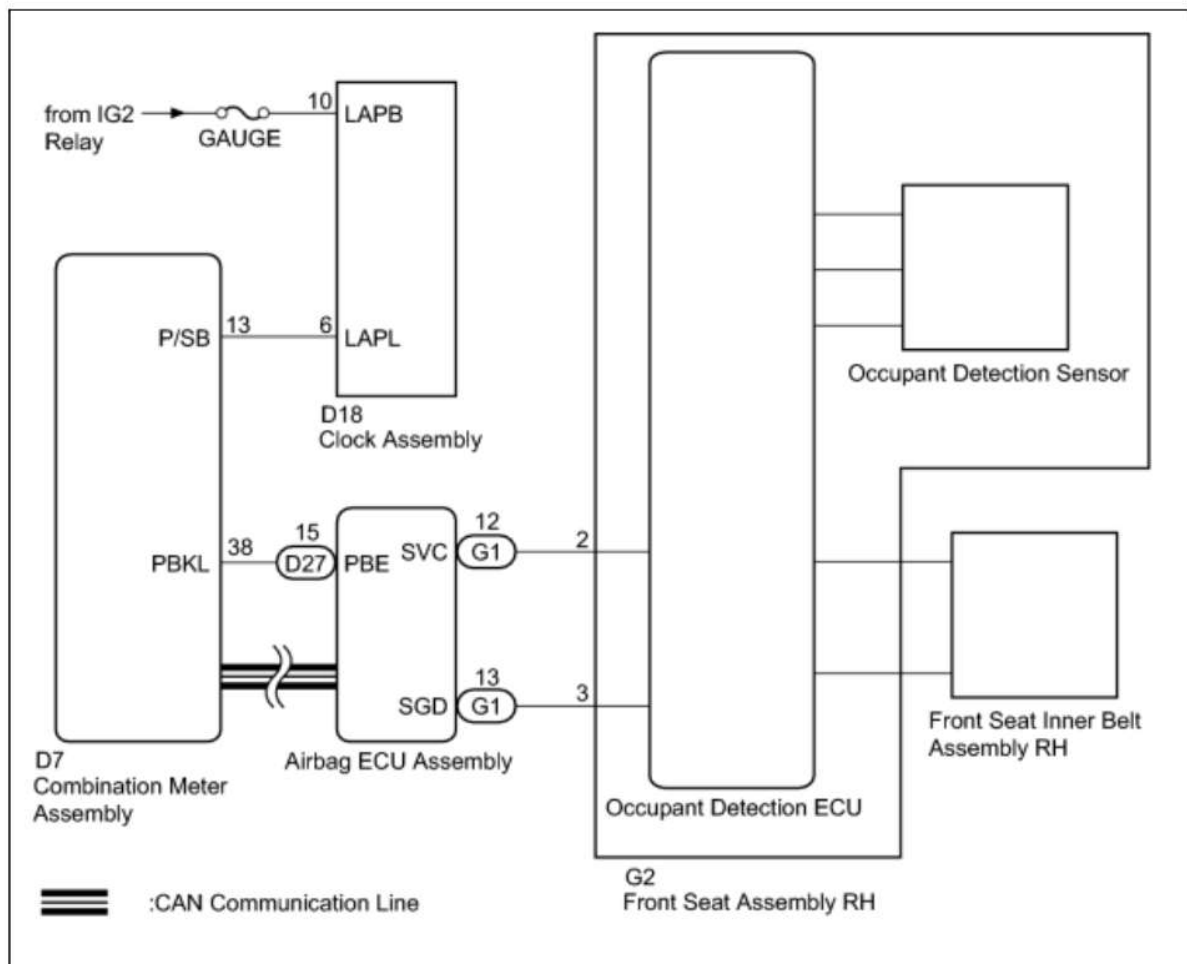
Last Modified: 3-27-2012	6.4 J	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000014DL09QX
Title: SEAT BELT: SEAT BELT WARNING SYSTEM: Front Passenger Side Seat Belt Warning Light Malfunction (2013 FR-S)		

Front Passenger Side Seat Belt Warning Light Malfunction

DESCRIPTION

When the ignition switch is ON, the occupant detection ECU sends a signal to the airbag sensor assembly to indicate the state of the front seat inner belt assembly RH and also whether the front passenger seat is occupied. The airbag sensor assembly sends those signals to the combination meter assembly. The telltale light assembly illuminates, blinks or turns off the seat belt warning light on the combination meter assembly in accordance with these signals.

WIRING DIAGRAM



INSPECTION PROCEDURE

NOTICE:

- Inspect the fuses for circuits related to this system before performing the following inspection

procedure.

- The seat belt warning system uses the CAN communication system. First, confirm that there is no malfunction in the CAN communication system. Refer to the How to Proceed with Troubleshooting procedure [INFO](#).

PROCEDURE

1. CHECK DTC OUTPUT (OCCUPANT CLASSIFICATION SYSTEM)

(a) Clear DTCs [INFO](#).

(b) Recheck for DTCs [INFO](#).

Result:

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

B ► **GO TO OCCUPANT CLASSIFICATION SYSTEM**

A



2. CHECK DTC OUTPUT (AIRBAG SYSTEM)

(a) Clear DTCs [INFO](#).

(b) Recheck for DTCs [INFO](#).

Result:

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

B ► **GO TO AIRBAG SYSTEM**

A



--	--

3. READ VALUE USING TECHSTREAM

- (a) Connect the Techstream to the DLC3.
- (b) Turn the ignition switch to ON.
- (c) Turn the Techstream on.
- (d) Enter the following menus: Body Electrical / Occupant Detection / Data List.
- (e) Read the Data List according to the display on the Techstream.

Occupant Detection (Occupant Detection ECU)

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Status of Passenger Side Buckle SW	Front passenger buckle switch/Set, Unset or NG	Set: Seat belt fastened Unset: Seat belt not fastened NG: Data is not determined	-

Result

RESULT	PROCEED TO
Unset or Set is displayed on the Techstream screen according to the front passenger seat belt condition	A
Unset or Set is not displayed normally on the Techstream screen according to the front passenger seat belt condition	B
NG is displayed on the Techstream screen	C

B ► REPLACE FRONT SEAT INNER BELT ASSEMBLY RH

C ► REPLACE FRONT SEAT ASSEMBLY RH

A



4. READ VALUE USING TECHSTREAM

- (a) Connect the Techstream to the DLC3.
- (b) Turn the ignition switch to ON.

(c) Turn the Techstream on.

(d) Enter the following menus: Body Electrical / Combination Meter / Data List.

(e) Read the Data List according to the display on the Techstream.

SRS Airbag (Airbag Sensor Assembly)

TESTER DISPLAY	MEASUREMENT ITEM/RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
P-Seatbelt Buckle SW	Front passenger buckle switch/ON or OFF	ON: Seat belt is not fastened OFF: Seat belt is fastened	-

Result

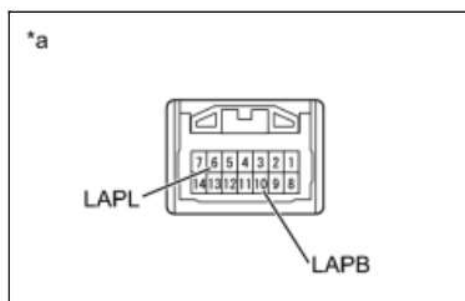
RESULT	PROCEED TO
ON or OFF is displayed on the Techstream screen according to the front passenger seat belt condition	A
ON or OFF is not displayed normally on the Techstream screen according to the front passenger seat belt condition	B

B ► REPLACE COMBINATION METER ASSEMBLY

A ▼

5. INSPECT CLOCK ASSEMBLY

(a) Remove the clock assembly **INFO**.



(b) Apply battery voltage to the connector and check the illumination condition.

Result:

CONDITION	SPECIFIED CONDITION
Battery positive (+) → 10 (LAPB) Battery negative (-) → 6 (LAPL)	Front passenger side seat belt warning light comes on

Text in Illustration

*a	Component without harness connected
----	-------------------------------------

(Clock Assembly)

NG  **REPLACE CLOCK ASSEMBLY****OK****6.****CHECK HARNESS AND CONNECTOR (BATTERY - CLOCK ASSEMBLY - COMBINATION METER ASSEMBLY)**

- (a) Disconnect the D18 clock assembly connector.
- (b) Disconnect the D7 combination meter assembly connector.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
D18-6 (LAPL) - D7-13 (P/SB)	Always	Below 1 Ω
D18-6 (LAPL) - Body ground	Always	10 k Ω or higher

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

Standard Voltage:

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
D18-10 (LAPB) - Body ground	Ignition switch ON	11 to 14 V

NG  **REPAIR OR REPLACE HARNESS OR CONNECTOR****OK**  **USE SIMULATION METHOD TO CHECK**

Last Modified: 3-27-2012	6.4 D	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000000Y5IOBNX
Title: SEAT BELT: SEAT BELT WARNING SYSTEM: HOW TO PROCEED WITH TROUBLESHOOTING (2013 FR-S)		

HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

- Use these procedures to troubleshoot the seat belt warning system.
- *: Use a Techstream.

1.	VEHICLE BROUGHT TO WORKSHOP
-----------	------------------------------------

NEXT



2.	INSPECT BATTERY VOLTAGE
-----------	--------------------------------

Standard voltage:

11 to 14 V

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

NEXT



3.	CHECK COMMUNICATION FUNCTION OF CAN COMMUNICATION SYSTEM*
-----------	--

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

Result:

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

B  **GO TO CAN COMMUNICATION SYSTEM**

A



4.	PROBLEM SYMPTOMS TABLE
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Result:

RESULT	PROCEED TO
Fault is not listed in problem symptoms table	A
Fault is listed in problem symptoms table	B

B ► Go to step 6**A**

5.	OVERALL ANALYSIS AND TROUBLESHOOTING*
-----------	--

(a) Operation Check INFO(b) Data List/ Active Test INFO(c) Terminals of ECU INFO**NEXT**

6.	REPAIR OR REPLACE
-----------	--------------------------

NEXT

7.	CONFIRMATION TEST
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NEXT ► **END**

Last Modified: 3-27-2012	6.4 D	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000002N53029X
Title: SEAT BELT: SEAT BELT WARNING SYSTEM: OPERATION CHECK (2013 FR-S)		

OPERATION CHECK

1. INSPECT DRIVER SIDE SEAT BELT WARNING LIGHT

- (a) Turn the ignition switch to ON.
- (b) When the driver seat belt is not fastened, check that the front seat belt warning light in the combination meter assembly blinks.

2. INSPECT PASSENGER SIDE SEAT BELT WARNING LIGHT

- (a) Turn the ignition switch to ON.
- (b) When the front passenger side seat belt is not fastened with the front passenger seat occupied, check that the front passenger side seat belt warning light in the telltale light assembly blinks.
- (c) When the front passenger seat belt is fastened with the front passenger seat occupied, check that the front seat belt warning light in the telltale light assembly turns off.

3. INSPECT SEAT BELT WARNING BUZZER

HINT:

If the buzzer does not sound, the buzzer cancel setting may be set to on .

- (a) Lift up the vehicle using a swing arm type lift .
- (b) Turn the ignition switch to ON.
- (c) Place a weight of 20 kg (44.0 lb) on the front passenger seat.

NOTICE:

Place the weight on the seat cushion and do not allow it to come into contact with the seatback.

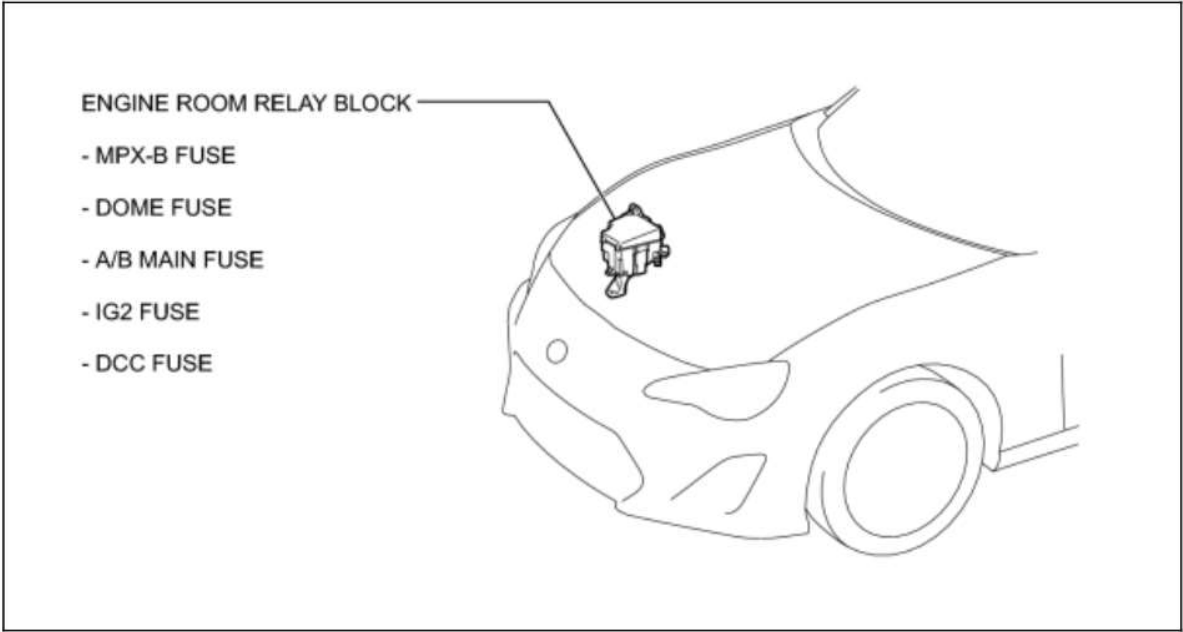
- (d) When the vehicle is driven at approximately 20 km/h (12.5 mph) or more while the driver or front passenger seat belt is not fastened, check that the buzzer in the combination meter assembly sounds at an interval of 1.2 seconds for 30 seconds, and then sounds at an interval of 0.4 seconds for 90 seconds.
- (e) Check that the buzzer stops 2 minutes after the buzzer starts sounding.
- (f) After the buzzer stops, turn the ignition switch off and then start the engine again. Then drive the vehicle at approximately 20 km/h (12.5 mph) or more while the driver or front passenger seat belt is not fastened, and check that the buzzer sounds again.
- (g) After the buzzer stops, fasten the driver and front passenger seat belts. Drive the vehicle at approximately 20 km/h (12.5 mph) or more and unfasten the driver or front passenger seat belt, and then check that the buzzer sounds again.
- (h) After the buzzer stops, move the shift lever to R, and then move it to D. Drive the vehicle at approximately 20 km/h (12.5 mph) or more, and then check that the buzzer sounds again.



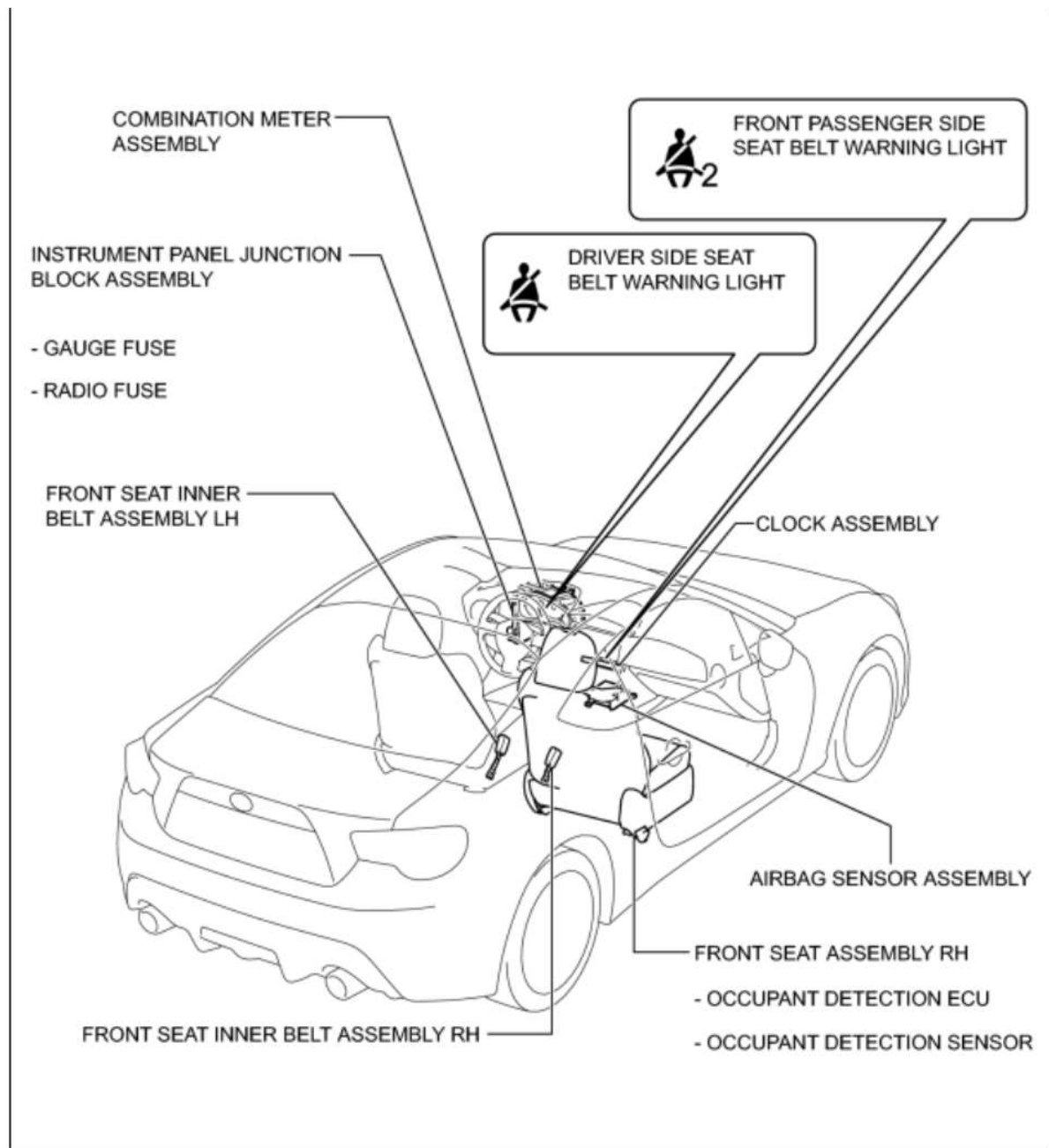
Last Modified: 3-27-2012	6.4 R	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000003FD201PX
Title: SEAT BELT: SEAT BELT WARNING SYSTEM: PARTS LOCATION (2013 FR-S)		

PARTS LOCATION

ILLUSTRATION



ILLUSTRATION



TOYOTA

Last Modified: 3-27-2012	6.4 T	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM00000148Y08DX
Title: SEAT BELT: SEAT BELT WARNING SYSTEM: PROBLEM SYMPTOMS TABLE (2013 FR-S)		

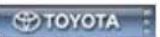
PROBLEM SYMPTOMS TABLE

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.

Seat Belt Warning System

SYMPTOM	SUSPECTED AREA	SEE PAGE
Driver side seat belt warning light does not operate	Proceed to "Driver Side Seat Belt Warning Light does not Operate"	INFO
Front passenger side seat belt warning light malfunction	Airbag system	-
	Occupant classification system	-
	Proceed to "Front Passenger Side Seat Belt Warning Light Malfunction"	INFO
	Front seat inner belt assembly RH	-
	Combination meter assembly	-
Seat belt warning buzzer does not operate	Meter/Gauge system	-



Last Modified: 3-27-2012	6.4 D	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000001OKO07NX
Title: SEAT BELT: SEAT BELT WARNING SYSTEM: SYSTEM DESCRIPTION (2013 FR-S)		

SYSTEM DESCRIPTION

1. SEAT BELT WARNING SYSTEM DESCRIPTION

(a) Driver seat belt warning light:

When the driver seat belt is not fastened with the ignition switch ON, the front seat belt warning light in the combination meter assembly blinks to inform the driver. The combination meter assembly displays the driver seat belt status and vehicle speed.

(b) Front passenger seat belt warning light:

When the front passenger seat belt is not fastened with the ignition switch ON and the front passenger seat occupied, the front seat belt warning light in the telltale light assembly blinks. The combination meter assembly detects the front passenger seat belt status and whether the front passenger seat is occupied.

(c) Seat belt warning buzzer:

After turning the ignition switch to ON, if the driver seat belt is not fastened within 1.8 seconds, check that the seat belt warning buzzer in the combination meter assembly sounds at 1.2 second intervals for 6 seconds.

When the vehicle is driven at 20 km/h (12 mph) or more with the front passenger seat occupied and the driver or front passenger seat belt not fastened, the seat belt warning buzzer in the combination meter assembly sounds once.

When 30 seconds have passed after the buzzer sounded, the seat belt warning buzzer in the combination meter assembly sounds at an interval of 1.2 seconds for 30 seconds.

After that, the seat belt warning buzzer in the combination meter assembly sounds at an interval of 0.4 seconds for 90 seconds.

2. FUNCTION OF MAIN COMPONENTS

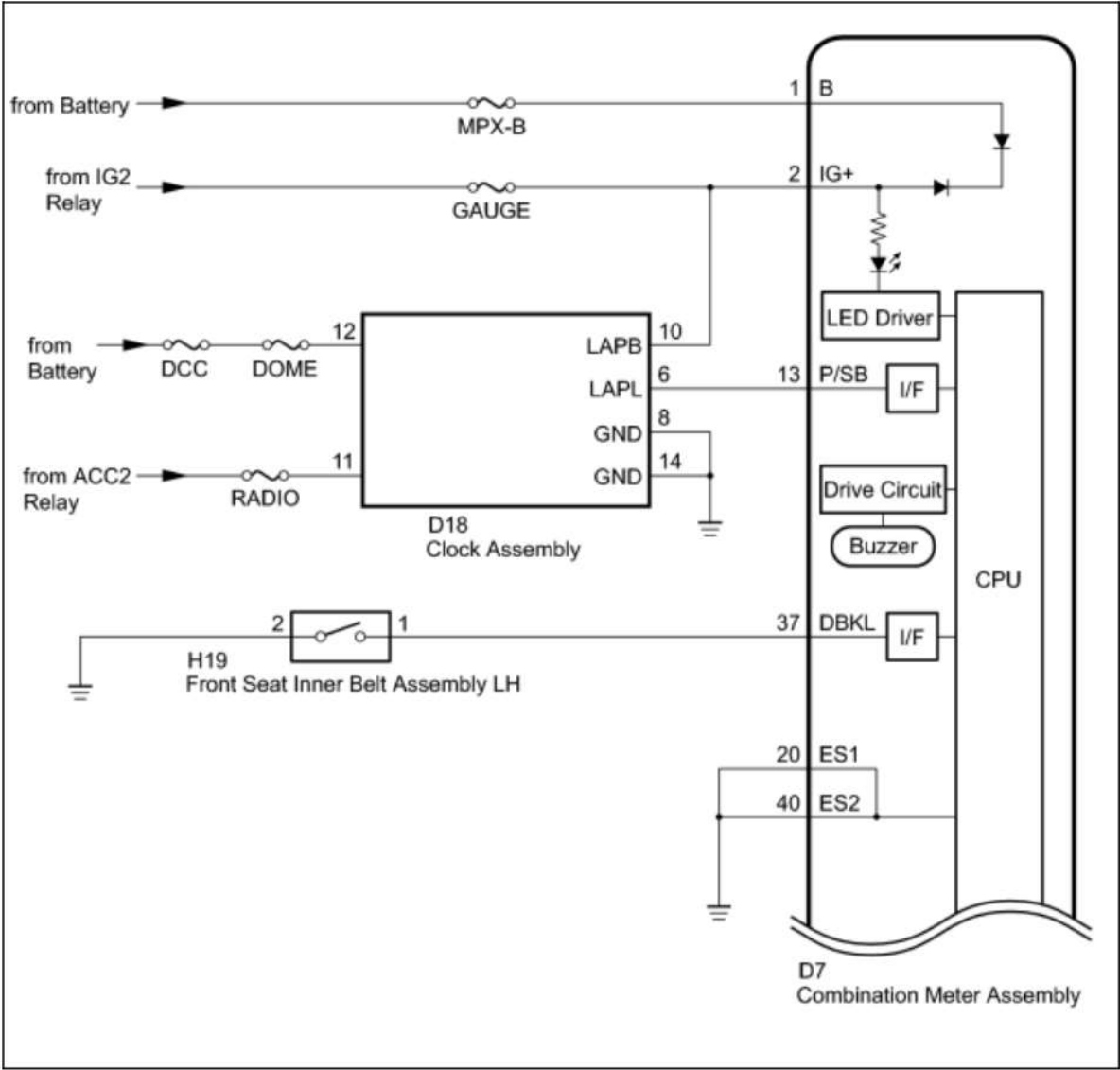
COMPONENT	FUNCTION
Front seat inner belt (driver side buckle switch)	Informs the combination meter assembly of the driver seat belt condition (fastened or unfastened).
Front seat inner belt (front passenger side buckle switch)	Informs the occupant detection ECU of the front passenger seat belt condition (fastened or unfastened).
Occupant detection sensor	Informs the occupant detection ECU of the front passenger seat condition (occupied or unoccupied).
Occupant detection ECU	Sends the front passenger seat belt buckle switch signal and occupant detection signal to the Airbag ECU assembly.
Airbag ECU assembly	Sends the front passenger seat belt buckle switch signal to the combination meter assembly.
Driver side seat belt warning light	If driver seat belt is unfastened and ignition switch is ON, combination meter flashes seat belt warning light in combination meter assembly as reminder.

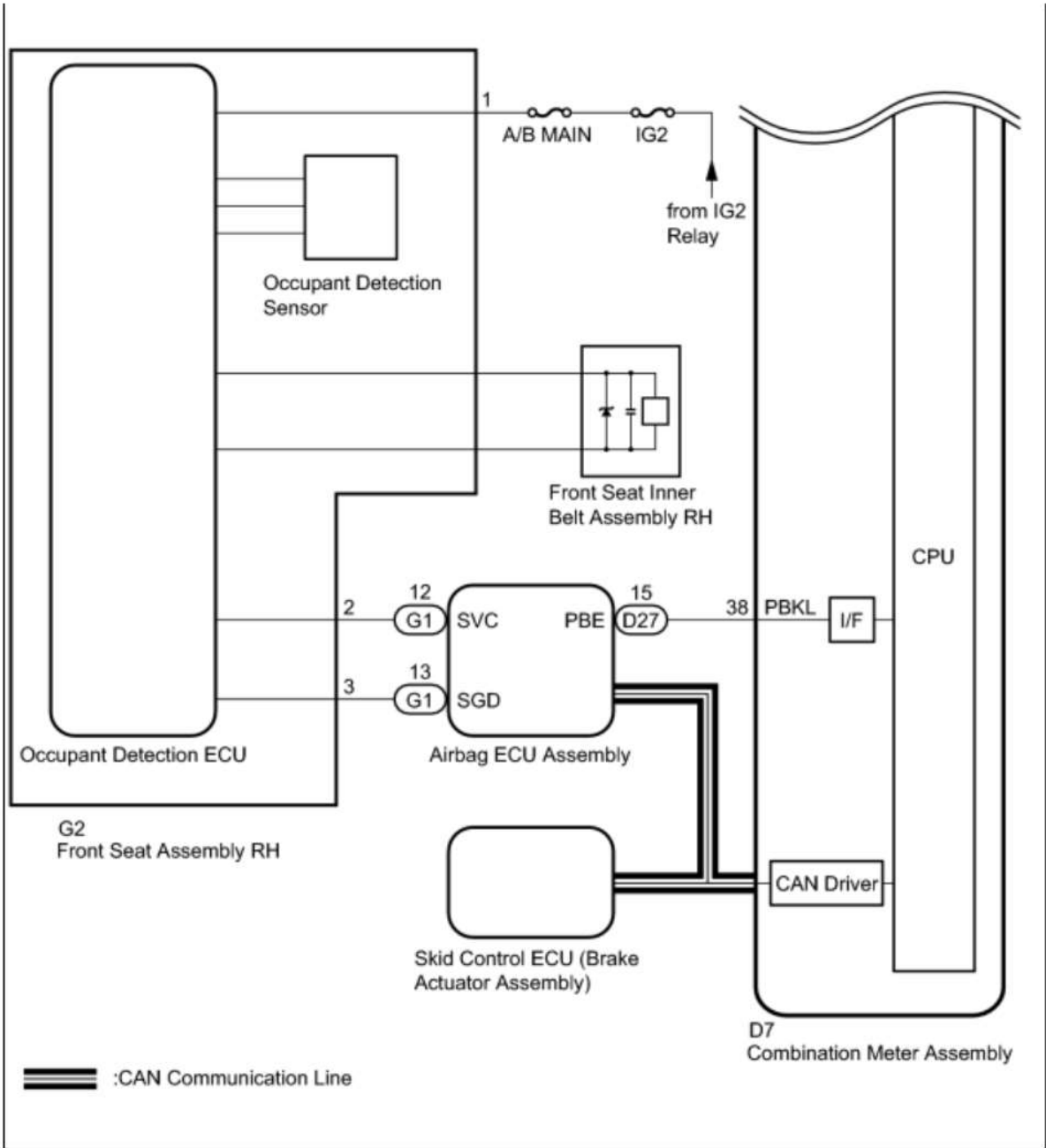
Front passenger side seat belt warning light	When front passenger seat is occupied and ignition switch is ON, if front passenger seat belt is unfastened, combination meter flashes seat belt warning light in the telltale light assembly as reminder.
Seat belt warning buzzer	If vehicle is driven at approximately 20 km/h (12.5 mph) or more with any of following conditions met, combination meter sounds buzzer as reminder: 1) driver seat belt is unfastened, 2) front passenger seat belt is unfastened with front passenger seat occupied.
Skid control ECU	Sends the vehicle speed signal to the combination meter assembly via CAN communication.



Last Modified: 3-27-2012	6.4 U	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM000001OC706MX
Title: SEAT BELT: SEAT BELT WARNING SYSTEM: SYSTEM DIAGRAM (2013 FR-S)		

SYSTEM DIAGRAM





Communication Table

SENDER	RECEIVER	SIGNAL	COMMUNICATION METHOD
Airbag ECU assembly	Combination meter assembly	Occupant detection	CAN
Skid control ECU	Combination meter assembly	Vehicle speed	

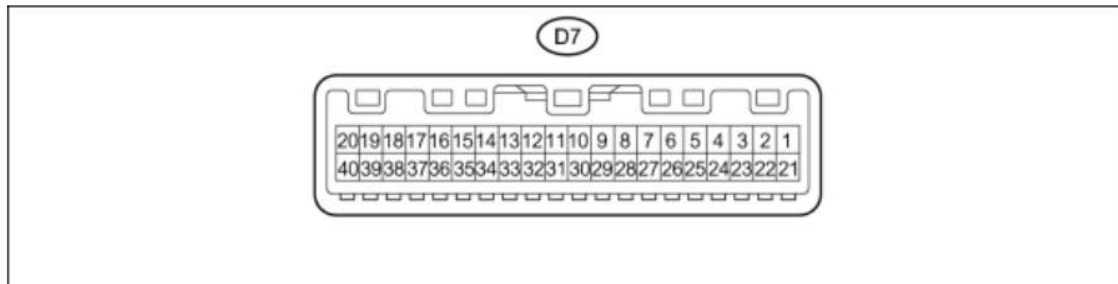


Last Modified: 3-27-2012	6.4 U	From: 201203
Model Year: 2013	Model: FR-S	Doc ID: RM0000014DJ07VX
Title: SEAT BELT: SEAT BELT WARNING SYSTEM: TERMINALS OF ECU (2013 FR-S)		

TERMINALS OF ECU

1. CHECK COMBINATION METER ASSEMBLY

- (a) Disconnect the D7 combination meter assembly connector.



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

HINT:

Measure the values on the wire harness side with the connector disconnected.

TESTER CONNECTION	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
D7-1 (+B) - Body ground	R-W - Body ground	Combination meter +B line	Always	11 to 14 V
D7-2 (IG+) - Body ground	W-G - Body ground	Combination meter IG line	Ignition switch ON	11 to 14 V
			Ignition switch off	Below 1 V
D7-20 (ES1) - Body ground	B-Y - Body ground	Ground	Always	Below 1 Ω
D7-37 (DBKL) - Body ground	R-B - Body ground	Driver seat belt signal	Driver seat belt fastened	10 k Ω or higher
			Driver seat belt unfastened	Below 1 Ω
D7-40 (ES2) - Body ground	B-Y - Body ground	Ground	Always	Below 1 Ω

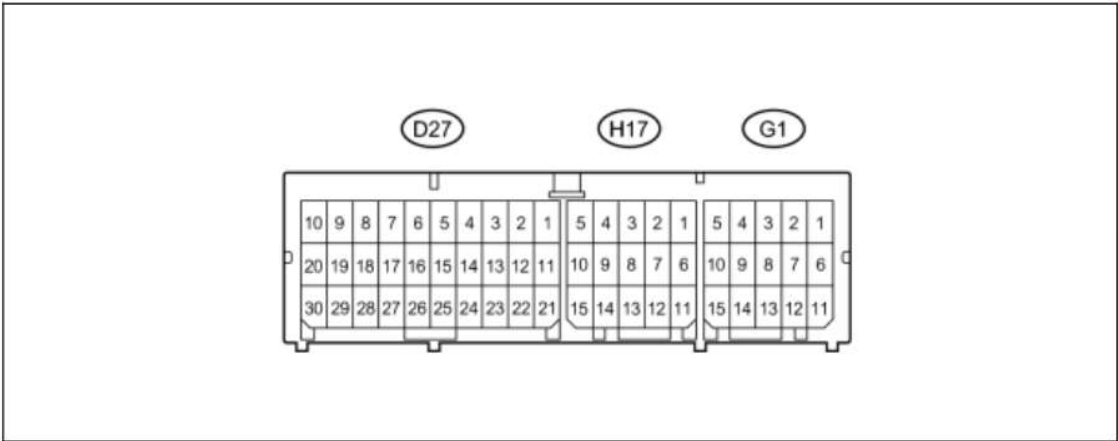
If the result is not as specified, there may be a malfunction in the wire harness.

- (c) Reconnect the D7 combination meter assembly connector.
 (d) Measure the voltage according to the value(s) in the table below.

TESTER CONNECTION	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFIED CONDITION
D7-13 (P/SB) - Body ground	BR-R - Body ground	Front passenger seat belt warning signal	Front passenger seat occupied, seat belt fastened	Below 1 V
			Front passenger seat occupied, seat belt unfastened	11 to 14 V

If the result is not as specified, the combination meter assembly may have a malfunction.

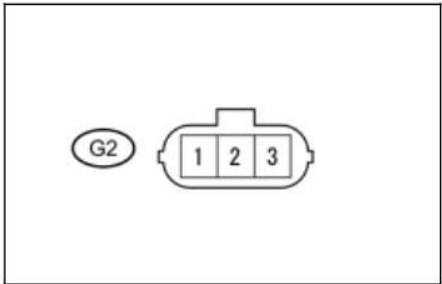
2. CHECK AIRBAG ECU ASSEMBLY



TERMINAL NO.	TERMINAL SYMBOL	DESTINATION
G1-12	SVC	Occupant detection ECU
G1-13	SGD	Occupant detection ECU

3. CHECK OCCUPANT DETECTION ECU

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



TESTER CONNECTION	WIRING COLOR	TERMINAL DESCRIPTION	CONDITION	SPECIFICATION
G2-1 - Body ground	G - Body ground	Occupant detection ECU IG line	Ignition switch ON	11 to 14 V
G2-2 - G2-3	Y-G - Y	Airbag ECU assembly communication line	Ignition switch ON	Pulse generation

If the result is not as specified, the occupant detection ECU may have a malfunction.