# SEAT BELT WARNING SYSTEM LOCATION



### **PROBLEM SYMPTOMS TABLE**

Symptom	Suspected Area	See page
Driver' seat belt warning lamp does not light up	1. GAUGE 10 A Fuse	<u>ن</u>
	2. Combination meter	71–25
	3. Air bag sensor assembly center	05–687
	4. Front seat inner belt assembly LH	61–3
	5. Wire harness	2
Passenger' seat belt warning lamp does not light up	1. GAUGE 10 A Fuse	S
	2. Clock assembly	71–26
	3. Front seat inner belt assembly RH	61–3
	4. Wire harness	Ċ

### **INSPECTION**



#### 1. INSPECT FRONT SEAT INNER BELT ASSY LH

- (a) When fastening the seat belt (Buckle switch is ON).
  - (1) Inspect the continuity and resistance between the terminals.

#### Standard (TMC made):

Terminal No.	Specified condition
1⇔3	330 Ω

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



#### Standard (TMMK made):

Terminal No.	Specified condition
1 ⇔ 4	330 Ω

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

TMC Made



(1) Inspect the continuity and resistance between the terminals.

#### Standard (TMC made):

Terminal No.	Specified condition
1⇔3	1,330Ω

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

#### Standard (TMMK made):

Terminal No.	Specified condition
$1 \Leftrightarrow 4$	1330Ω

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

<sup>(</sup>b) When releasing the seat belt (Buckle switch is OFF).

TMC Made



#### 2. INSPECT FRONT SEAT INNER BELT ASSY RH

(a) Short between connector terminals 1 and 3 of the occupation sensor.

- (b) When fastening the seat belt (Buckle switch is ON).
  - (1) Check the continuity between the connector terminals of the warning switch.

#### Standard (TMC made):

Terminal No.	Specified condition
1⇔3	No continuity
2 ⇔ 4	Continuity

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

#### Standard (TMMK made):

Terminal No.	Specified condition
1⇔3	No continuity

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



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- (c) When releasing the seat belt (Buckle switch is OFF).
  - (1) Check the continuity between the connector terminals of the warning switch.

#### Standard (TMC made):

Terminal No.	Specified condition
$2 \Leftrightarrow 4$	Continuity
1⇔3	Continuity

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

#### Standard (TMMK made):

Terminal No.	Specified condition
$5 \Leftrightarrow 4$	Continuity
1⇔3	Continuity

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



(d) Release the occupation sensor connector.



TMMK Made

When fastening the seat belt (Buckle switch is ON).

(1) Check the continuity between the connector terminals of the warning switch.

#### Standard (TMC made):

(e)

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Terminal No.	Specified condition
2 ⇔ 4	No continuity
1⇔3	No continuity

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

#### Standard (TMMK made):

Terminal No.	Specified condition
$5 \Leftrightarrow 4$	No continuity
1 ⇔ 3	No continuity

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

TMC Made



(f) When releasing the seat belt (Buckle switch is OFF).

(1) Check the continuity between the connector terminals of the warning switch.

#### Standard (TMC made):

Terminal No.	Specified condition
$2 \Leftrightarrow 4$	No continuity
1⇔3	Continuity

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

#### Standard (TMMK made):

Terminal No.	Specified condition
$5 \Leftrightarrow 4$	No continuity
1⇔3	Continuity

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

## FRONT SEAT BELT COMPONENTS

Rear Door Opening Trim Weatherstrip RH Center Pillar Garnish RH Front Door Opening Trim Weatherstrip RH Rear Door Scuff Plate RH Ò. 42 (420, 31) Center Pillar Garnish Lower RH Front Door Scuff Plate RH Belt Guide Front Seat Outer Belt Assy RH-Front Seat Assy RH 42 (420, 31)  $\mathcal{C}$ Lap Belt Outer Anchor Cover Front Seat Inner Belt Assy RH 42 (420, 31) **TMMK Made:** Front Seat Inner Belt Assy RH 42 (420, 31) C N·m (kgf·cm ft.·lbf) : Specified torque 0<sub>\_\_\_\_\_</sub> B57644

### REPLACEMENT

- 1. **DISCONNECT BATTERY NEGATIVE TERMINAL**
- 2. REMOVE FRONT SEAT ASSY RH (See page 72–7)
- **REMOVE FRONT DOOR SCUFF PLATE RH** 3. (See page 76-20)
- 4. **REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP RH** (See page 76–20)
- 5. **REMOVE REAR DOOR SCUFF PLATE RH** (See page 76–20)
- 6. **REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP RH** (See page 76-20)
- 7. **REMOVE LAP BELT OUTER ANCHOR COVER** (See page 76–20)
- 8. **REMOVE CENTER PILLAR GARNISH LOWER RH** (See page 76–20)
- 9. **REMOVE CENTER PILLAR GARNISH UPPER RH** (See page 76–20)

#### 10. REMOVE FRONT SEAT OUTER BELT ASSY RH

#### NOTICE:

- Removal operation of the seat belt with pretensioner must be started in 90 seconds or more after the ignition switch is turned OFF and the battery negative terminal is disconnected.
- Carefully read the notices for the "pretensioner" in the SRS airbag system and the front seat outer belt assembly.
- Remoe the 2 screws and belt guide. (a)
- Remove the nut and the shoulder anchor. (b)
- Disconnect the connector. (c)
  - Using a screwdriver, pull the locking button of the (1) pretensioner connector to your side to release the lock.

HINT:

Tape the screwdriver tip before use.

Remove the 2 bolts and the front seat outer belt assem-(d) bly.

#### 11. **REMOVE FRONT SEAT INNER BELT ASSY RH**

- (a) Disconnect the connector and clamp.
- TMC made: (b)

Remove the bolt and the front seat inner belt assembly.

TMMK made: (c) Remove the nut and the front seat inner belt assembly.



#### 12. INSTALL FRONT SEAT INNER BELT ASSY RH

- (a) TMC made: Install the front seat inner belt assembly with the bolt.
   Torque: 42 N⋅m (420 kgf⋅cm, 31 ft⋅lbf)
- (b) TMMK made: Install the front seat inner belt assembly with the nut. Torque: 42 N·m (420 kgf·cm, 31 ft·lbf)



#### 13. INSTALL FRONT SEAT OUTER BELT ASSY RH

- (a) Check the degree of tilt when beginning to lock the ELR.
  - (1) Check the belt will not lock within 15 degrees of tilt in all the direction but the belt will lock over 45 degrees of tilt when moving the installed retractor gently.

#### NOTICE:

#### Do not disassemble the retractor.

(b) Install the retractor with the 2 bolts. **Torque:** 

7.5 N m (80 kgf cm, 66 in. lbf) (Upper part of retractor) 42 N m (420 kgf cm, 31 ft lbf) (Lower part of retractor)

- (c) Install the shoulder anchor with the nut.
   Torque: 42 N⋅m (420 kgf⋅cm, 31 ft⋅lbf)
- (d) Install the floor anchor with the bolt.
   Torque: 42 N·m (420 kgf·cm, 31 ft·lbf)

### DISPOSAL

#### HINT:

When scrapping vehicles equipped with a seat belt pretensioner or disposing of a front seat outer belt (with seat belt pretensioner) always first active the seat belt pretensioner in accordance with the procedure described below. If any abnormality occurs in the seat belt pretensioner operation, contact the SERVICE DEPT. of the TOYOTA MOTOR SALES, U.S.A., INC. When disposing of a front seat outer belt (with seat belt pretensioner) activated in a collision, follow the same procedure given in step 1–(d) in "DISPOSAL".



#### CAUTION:

- Never dispose of front seat outer belt which has an inactivated pretensioner.
- The seat belt pretensioner produces a sizeable exploding sound when it activates, so perform the operation out-of-door and where it will not create a nuisance to nearby residents.
- When activating a front seat outer belt (with seat belt pretensioner), perform the operation at least 10 m (33 ft) away from the front seat outer belt.
- Use gloves and safety glasses when handling a front seat belt with activated pretensioner.
- Always wash your hands with water after completing the operation.
- Do not apply water, etc. to a front seat outer belt with activated pretensioner.
- When activating the seat belt pretensioner, always use the specified SST. (SRS Airbag Deployment Tool) Perform the operation in a place away from electrical noise.

SST 09082-00700



#### 1. DISPOSE FRONT SEAT OUTER BELT ASSY RH(WHEN SCRAPPING VEHICLE DEPLOYMENT METHOD)

HINT:

Check that the battery positive voltage is above 12 V.



(a) Check functioning of SST.
CAUTION:
When activating the seat belt pretensioner, always use a specified SST.

SST 09082-00700, 09082-00770



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

HINT:

Do not connect the yellow connector which will be connected to the seat belt pretensioner.



(2) Check functioning of SST. Press the SST activation switch, and check that the

LED of the SST activation switch lights up.

#### **CAUTION:**

If the LED lights up when the activation switch is not pressed, the SST probably malfunctions, so definitely do not use the SST.

- (b) Disconnect the pretensioner connector.
  - (1) Remove the front door scuff plate RH (See page 76–20).
  - (2) Remove the rear door scuff plate RH (See page 76–20).
  - (3) Remove the front door opening trim weather strip RH (See page 76–20).
  - (4) Remove the rear door opening trim weather strip RH (See page 76–20).
  - (5) Remove the center pillar garnish lower RH (See page 76–20).
  - (6) Remove the center pillar garnish upper RH (See page 76-20).



(7) Disconnect the pretensioner connector as shown in the illustration.

(c) Install the SST.

(1) Install the floor anchor of the seat belt.



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

SST 09082–00700, 09082–00770

NOTICE:

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

- (3) Move the SST at least 10 m (33 ft) away from the front of the vehicle.
- (4) Close all the doors and windows of the vehicle.

NOTICE:

#### Take care not to damage the SST wire harness.

- (5) Connect the SST red clip to the battery positive (+) terminal and the black clip to the negative (–) terminal.
- (d) Activate the seat belt pretensioner.
  - (1) Confirm that no one is inside the vehicle or within 10 m (33 ft) area around the vehicle.
  - (2) Press the SST activation switch and activate the seat belt pretensioner.

#### HINT:

The seat belt pretensioner operates simultaneously with the LED of the SST activation switch lighting up. (e) Dispose of the front seat outer belt (with seat belt pretensioner).

#### CAUTION:

- The rear outer belt is very hot when the seat belt pretensioner is activated, so leave it alone for at least 30 minutes after activation.
- Use gloves and safety glasses when handling a front seat outer belt with activated seat belt pretensioner.
- Always wash your hands with water after completing the operation.

#### • Do not apply water, etc. to a front seat outer belt with activated seat belt pretensioner. HINT:

When scrapping a vehicle, activate the seat belt pretensioner and scrap the vehicle with activated front seat outer belt being installed.

2. DISPOSE FRONT SEAT OUTER BELT ASSY RH(WHEN DISPOSING OF AIRBAG ASSEMBLY DEPLOYMENT METHOD)

#### NOTICE:

- When disposing of a front seat outer belt (with seat belt pretensioner) only, never use the customer's vehicle to activate the seat belt pretensioner.
- Be sure to follow the procedure given on the next page when activating the seat belt pretensioner.
- (a) Remove the front seat outer belt (See page 61–7).

#### HINT:

Cut the belt near the seat belt retractor.



SST

(b) Check functioning of SST (See step 1–(a)). SST 09082–00700, 09082–00770

SST SST P B51763

Battery

B50511



(1) Connect the 2 SSTs, then connect them to the seat belt pretensioner.

SST 09082-00700, 09082-00770

#### NOTICE:

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





(2) Place the front seat outer belt on the ground and cover it with the disc wheel with tire.

#### NOTICE:

#### Place the front seat outer belt as shown in the illustration.

(3) Move the SST at least 10 m (33 ft) away from the disc wheel.

#### NOTICE:

Take care not to damage the SST wire harness.

- (d) Activate the seat belt pretensioner.
  - Connect the SST red clip to the battery positive (+) terminal and black clip to the battery negative (-) terminal.
  - (2) Check that no one is within 10 m (33 ft) area around the disc wheel.
  - (3) Press the SST activation switch and activate the seat belt pretensioner.

HINT:

The seat belt pretensioner operates simultaneously with the LED of the SST activation switch lighting up.

- (e) Dispose of the front seat outer belt (with seat belt pretensioner).
  - (1) Remove the disc wheel and SST.
  - (2) Place the front seat outer belt in a vinyl bag, tie the end tightly and dispose of it in the same way as other general parts.

Author :

## REAR SEAT BELT COMPONENTS



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## REAR SEAT BELT (TMC MADE)

### REPLACEMENT

- 1. REMOVE REAR SEAT CUSHION ASSY (See page 72–34)
- 2. REMOVE ROOF SIDE GARNISH INNER RH (See page 76–20)
- 3. REMOVE ROOF SIDE GARNISH INNER LH (See page 76–20)
- 4. REMOVE CENTER STOP LAMP ASSY (See page 65–16)



#### 5. REMOVE REAR SEAT SHOULDER BELT COVER RH

(a) Using a screwdriver, disengage the claws in the front side. HINT:

Tape the screwdriver tip before use.

- (b) Pull out the shoulder belt cover to the front side to disengage the claws.
- (c) Pull out the shoulder belt from the slit to remove the shoulder belt cover.
- 6. REMOVE REAR SIDE SEAT BACK ASSY RH (See page 72–33)
- 7. REMOVE REAR SIDE SEAT BACK ASSY LH (See page 72–33)



#### REMOVE PACKAGE TRAY TRIM PANEL ASSY

Remove the 3 bolts and the floor anchor of the seat belt.
 Disengage the clips and claws and pull out the belt to remove the package tray trim.

#### 9. REMOVE REAR SEAT 3 POINT TYPE BELT ASSY OUTER

- (a) Remove the bolt in the retractor, and disengage the claws of the stopper to remove the rear seat belt assembly outer.
- 10. REMOVE REAR SEAT INNER W/CENTER BELT ASSY RH
- (a) Remove the bolt, and disengage the claws of the stopper to remove the rear seat inner with center belt assembly RH.
- 11. REMOVE REAR SEAT INNER W/CENTER BELT ASSY LH
- (a) Remove the bolt in the retractor, and remove the rear seat inner with center belt assembly LH.



#### 12. INSTALL REAR SEAT INNER W/CENTER BELT ASSY RH

(a) Install the floor anchor with the bolt.
 Torque: 42 N⋅m (420 kgf⋅cm, 31 ft⋅lbf)
 NOTICE:

Take care for the anchor not to run onto the protrusion part of the floor panel.

#### 13. INSTALL REAR SEAT 3 POINT TYPE BELT ASSY OUTER

- (a) Install the retractor with the bolt.
   Torque: 42 N⋅m (420 kgf⋅cm, 31 ft⋅lbf)
- (b) Install the anchor of the rear seat 3 point type belt assembly outer RH with the bolt.

Torque: 42 N·m (420 kgf·cm, 31 ft·lbf)

#### NOTICE:

## Take care for the anchor not to run onto the protrusion part of the floor panel.

- (c) Check the degree of tilt when the belt begins to lock the ELR.
  - (1) Check the degree in the same way as the rear seat inner with center belt assembly RH.
- (d) Check the ELR lock.
  - (1) Check that the belt will lock when pulling out the belt quickly with the belt installed.
- (e) Check the fastening function for child restraint system.
  - (1) Check the function in the same way as the rear seat inner with center belt assembly RH.





## Protrusion Front Protrusion Protrusion

## 14. INSTALL REAR SEAT INNER W/CENTER BELT ASSY LH

- (a) Check the degree of tilt when the belt begins to lock the ELR.
  - (1) Check the belt will not lock within 15 degrees of tilt in all the direction but the belt will lock over 45 degrees of tilt when moving the installed retractor gently.
- (b) Install the retractor with the bolt.

#### Torque: 42 N m (420 kgf cm, 31 ft lbf)

- (c) Check the ELR lock.
  - (1) Check that the belt will lock when pulling out the belt quickly with the belt installed.

(d) Check the fastening function for child restraint system. **NOTICE:** 

#### Check should be done with the assembly installed.

- (1) Check that the belt cannot be pulled out any more but can be rewound after the belt is fully pulled out.
- (2) Check that the belt can be pulled out and rewound after the belt is fully rewound.
- (e) Install the floor anchor with the bolt, directing an arrow mark on the plate to the vehicle's front direction.

Torque: 42 N·m (420 kgf·cm, 31 ft·lbf) NOTICE:

## Take care for the anchor not to run onto the protrusion part of the floor panel.

- (f) Check the ELR lock.
  - (1) Check that the belt will lock when pulling out the belt quickly with the belt installed.

## REAR SEAT BELT (TMMK MADE)

### REPLACEMENT

- 1. REMOVE REAR SEAT CUSHION ASSY (See page 72–38)
- 2. REMOVE ROOF SIDE GARNISH INNER RH (See page 76–20)
- 3. REMOVE ROOF SIDE GARNISH INNER LH (See page 76–20)
- 4. REMOVE CENTER STOP LAMP ASSY (See page 65–16)



#### 5. REMOVE REAR SEAT SHOULDER BELT COVER RH

(a) Using a screwdriver, disengage the claws in the front side. HINT:

Tape the screwdriver tip before use.

- (b) Pull out the shoulder belt cover to the front side to disengage the claws.
- (c) Pull out the shoulder belt from the slit to remove the shoulder belt cover.
- 6. REMOVE REAR SIDE SEAT BACK ASSY RH (See page 72–38)
- 7. REMOVE REAR SIDE SEAT BACK ASSY LH (See page 72–38)



#### REMOVE ROOM PARTITION BOARD ASSY

(a) Remove the 9 clips and room partition board.



#### REMOVE PACKAGE TRAY TRIM PANEL ASSY

(a) Remove the 3 bolts and the floor anchor of the seat belt.(b) Disengage the clips and claws and pull out the belt to remove the package tray trim.

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#### 10. REMOVE REAR SEAT 3 POINT TYPE BELT ASSY OUTER

- (a) Remove the bolt in the retractor, and disengage the claws of the stopper to remove the rear seat belt assembly outer.
- 11. REMOVE REAR SEAT INNER W/CENTER BELT ASSY RH
- (a) Remove the bolt, and disengage the claws of the stopper to remove the rear seat inner with center belt assembly RH.
- 12. REMOVE REAR SEAT INNER W/CENTER BELT ASSY LH
- (a) Remove the bolt in the retractor, and remove the rear seat inner with center belt assembly LH.



#### 13. INSTALL REAR SEAT INNER W/CENTER BELT ASSY RH

(a) Install the floor anchor with the bolt.
 Torque: 42 N⋅m (420 kgf⋅cm, 31 ft⋅lbf)
 NOTICE:

Take care for the anchor not to run onto the protrusion part of the floor panel.

#### 14. INSTALL REAR SEAT 3 POINT TYPE BELT ASSY OUTER

- (a) Install the retractor with the bolt.
   Torque: 42 N⋅m (420 kgf⋅cm, 31 ft⋅lbf)
- (b) Install the anchor of the rear seat 3 point type belt assembly outer RH with the bolt.

Torque: 42 N·m (420 kgf·cm, 31 ft·lbf)

#### NOTICE:

## Take care for the anchor not to run onto the protrusion part of the floor panel.

- (c) Check the degree of tilt when the belt begins to lock the ELR.
  - (1) Check in the same way as the rear seat inner with center belt assembly RH.
- (d) Check the ELR lock.
  - (1) Check the degree that the belt will lock when pulling out the belt quickly with the belt installed.
- (e) Check the fastening function for child restraint system.
  - (1) Check the function in the same way as the rear seat inner with center belt assembly RH.





#### 15. **INSTALL REAR SEAT INNER W/CENTER BELT ASSY** LH

- Check the degree of tilt when the belt begins to lock the (a) ELR.
  - (1) Check the belt will not lock within 15 degrees of tilt in all the direction but the belt will lock over 45 degrees of tilt when moving the installed retractor aently.
- Install the retractor with the bolt. (b)

#### Torque: 42 N·m (420 kgf·cm, 31 ft·lbf)

- (c) Check the ELR lock.
  - (1) Check that the belt will lock when pulling out the belt quickly with the belt installed.

(d) Check the fastening function for child restraint system.

### NOTICE:

#### Check should be done with the assembly installed.

- (1)Check that the belt cannot be pulled out any more but can be rewound after the belt is fully pulled out.
- (2) Check that the belt can be pulled out and rewound after the belt is fully rewound.
- (e) Install the floor anchor with the bolt, directing an arrow mark on the plate to the vehicle's front direction.

Torque: 42 N·m (420 kgf·cm, 31 ft·lbf) NOTICE:

#### Take care for the anchor not to run onto the protrusion part of the floor panel.

- (f) Check the ELR lock.
  - Check that the belt will lock when pulling out the belt (1) quickly with the belt installed.



