# AIRBAG SENSOR ASSEMBLY COMPONENTS

RS0BK-08



## INSPECTION

1. Vehicle not involved in collision: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

Do a diagnostic system check (See page DI-692).

2. Vehicle involved in collision and airbag is not deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

Do a diagnostic system check (See page DI-692).

3. Vehicle involved in collision and airbag is deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

Replace the airbag sensor assembly (See page RS-69).

RS0BM-03

RS0BO-08

## INSTALLATION

NOTICE:

- Never use SRS parts from another vehicle. When replacing parts, replace them with new parts.
- Never reuse the airbag sensor assembly involved in a collision when the airbag has deployed.
  - Never repair a sensor in order to reuse it.

HINT:

For step 2 to 6, refer to page BO-91.

### 1. INSTALL AIRBAG SENSOR ASSEMBLY

(a) Install the airbag sensor assembly with the 3 bolts.
Torque: 17.5 N-m (178 kgf-cm, 13 ft-lbf)

(b) Connect the airbag sensor connectors.

NOTICE:

- Connection of the connector is done after the sensor assembly has been installed.
- Make sure the sensor assembly is installed with the specified torque.
- If the sensor assembly has been dropped, or there are cracks, dents or other defects in the case, bracket or connector, replace the sensor assembly with a new one.
- When installing the sensor assembly, take care that the SRS wiring does not interfere with other parts and is not pinched between other parts.
- After installing, shake the sensor assembly to check that there is no looseness.
- 2. INSTALL CENTER LOWER INSTRUMENT CLUSTER FINISH PANEL ASSEMBLY
- 3. INSTALL FRONT CONSOLE BOX
- 4. INSTALL REAR CONSOLE BOX WITH CONSOLE REAR END PANEL
- 5. INSTALL UPPER CONSOLE PANEL
- 6. INSTALL TRANSFER SHIFT LEVER KNOB
- 7. INSTALL FRONT SEAT (See page BO-1 17)
- 8. INSPECT SRS WARNING LIGHT (See page DI-692)



## REMOVAL

### NOTICE:

Do not open the cover or the case of the ECU and various electrical devices unless absolutely necessary.

RS0BL-08

(If the IC terminals are touched, the IC may be destroyed by static electricity.)

HINT:

For step 2 to 6, refer to page BO-84.

- 1. REMOVE FRONT SEAT (See page BO-105)
- 2. REMOVE TRANSFER SHIFT LEVER KNOB
- 3. REMOVE UPPER CONSOLE PANEL
- 4. REMOVE REAR CONSOLE BOX WITH CONSOLE REAR END PANEL
- 5. REMOVE FRONT CONSOLE BOX
- 6. REMOVE CENTER LOWER CLUSTER FINISH PANEL ASSEMBLY



### 7. REMOVE AIRBAG SENSOR ASSEMBLY

(a) Disconnect the airbag sensor connectors. **NOTICE:** 

# Disconnect the connectors with the airbag sensor assembly installed.

(b) Remove the 3 bolts and the airbag sensor assembly.

## REPLACEMENT

### **REPLACEMENT REQUIREMENTS**

In the following cases, replace the airbag sensor assembly.

- If the SRS has been deployed in a collision.
- If the airbag sensor assembly has been found to be faulty in troubleshooting.
- If the airbag sensor assembly has been dropped.

### CAUTION:

For removal and installation of the airbag sensor assembly, see page RS-70 and RS-73. Be sure to follow the correct procedure.

RS0BN-01

# CURTAIN SHIELD AIRBAG ASSEMBLY COMPONENTS



RS0N2-11

RS0VO-01

## DISPOSAL

### HINT:

When scrapping vehicles equipped with an SRS or disposing of the side airbag assembly always first deploy the airbag in accordance with the procedure described below. If any abnormality occurs with the airbag deployment, contact the SERVICE DEPT. of TOYOTA MOTOR SALES,.U.S.A., INC.

### CAUTION:

- Never dispose of a curtain shield airbag assembly of which airbag has not been deployed.
- The airbag produces a sizeable exploding sound when it deploys, so perform the operation out-ofdoors 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.
  SST 09082-00700
- When deploying an airbag, perform the operation at least 10 m (33 ft) away from the airbag assembly.
- The side airbag assembly is very hot when the airbag is deployed, so leave it alone for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling side airbag assembly with the deployed airbag.
- Always wash your hands with water after completing the operation.
- Do not apply water, etc. to a side airbag assembly with the deployed airbag.



### 1. AIRBAG DEPLOYMENT WHEN SCRAPPING VE-HICLE

HINT:

Have a battery ready as the power source to deploy the airbag.

- (a) Check the function of the SST (See step 1-(a) on page RS-20).
  - SST 09082-00700

(b) Disconnect the curtain shield airbag connector. **NOTICE:** 

When handling the airbag connector, take care not to damage the airbag wire harness.



Battery

10 m (33 ft) or more



(1) Connect the connectors of the SST to the airbag connector.

SST 09082-00700, 09082-00760

NOTICE:

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

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

### NOTICE:

R13455

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

- (4) Connect the SST red clip to the battery positive (+) terminal and the black clip to the battery negative (-) terminal.
- (d) Deploy the airbag.
  - (1) Check that no one is inside the vehicle or within 10 m (33 ft) area around the vehicle.
  - (2) Press the SST activation switch and deploy the airbag.

### CAUTION:

- The curtain shield airbag assembly is very hot when the airbag is deployed, so leave it alone for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling the curtain shield airbag assembly with the deployed airbag.
- Do not apply water, etc. to the curtain shield airbag assembly with the deployed airbag.
- Always wash your hands with water after completing the operation.
- When scrapping a vehicle, deploy the airbag and scrap the vehicle with the curtain shield airbag assembly still installed.

HINT:

The airbag deploys as the LED of the SST activation switch comes on.

SST

2. DEPLOYMENT WHEN DISPOSING OF CURTAIN SHIELD AIRBAG ASSEMBLY

### NOTICE:

- When disposing of the curtain shield airbag assembly only, never use the customer's vehicle to deploy the airbag.
- Be sure to follow the procedure given below when deploying the airbag.

HINT:

Have a battery ready as the power source to deploy the airbag.

- Remove the curtain shield airbag assembly (See page RS-59).
- (b) Cut off the deployment section in airbag from inflator.



Using a service-purpose wire harness, tie down the curtain shield airbag assembly to the tire.
Wire harness: Stripped wire harness section
1.25 mm<sup>2</sup> or more (0.0019 in<sup>2</sup>. or more)

#### **CAUTION:**

If a wire harness which is too thin or some other thing is used to tie down the curtain shield airbag assembly, it may be snapped by the shock when the airbag is deployed. This is highly dangerous. Always use a wire harness for vehicle use which is at least 1.25 mm<sup>2</sup> (0.0019 in<sup>2</sup>.). HINT:

To calculate the square of the stripped wire harness section-Square = 3.14 x (Diameter)<sup>2</sup> divided by 4



2004 LAND CRUISER (RM1071U)

(1) Passing the wire harness through the installation holes as shown in the illustration.



**RS-64** 

(2) Position the curtain shield airbag assembly inside the tire with the airbag deployment direction facing inside.

Tire size: Must exceed the following dimensions-Width: 185 mm (7.28 in.)

Inner diameter: 360 mm (14.17 in.)

### CAUTION:

Make sure that the wire harness is tight. It is very dangerous when a loose wire harness results in the curtain shield airbag assembly coming free due to the shock from the airbag deploying.

NOTICE:

The tire will be marked by the airbag deployment, so when disposing of the airbag use a redundant tire.



(d) Check the function of the SST (See step 1-(a) on page RS-20).
SST 09082-00700

(e) Place the tires.

### CAUTION:

Tires

(5 or More)

### Place the tire so that the deployment direction of the curtain shield airbag will be downward.

- (1) Place at least 2 tires under the tire to which the side airbag assembly is tied.
  - (2) Place at least 2 tires over the tire to which the side airbag assembly is tied. The top tire should have the wheel installed.

(3) Tie the tires together with 2 wire harnesses. **CAUTION:** 

Make sure that the wire harnesses are tight. It is very dangerous when loose wire harness results in the tires coming free due to the shock from the airbag deploying. HINT:

Place the SST connector and wire harness inside tires. Secure at least 1 m (3 ft) of slack for the wire harness.

Author :



2004 LAND CRUISER (RM1071U)



Install the SST.

Connect the connectors of the SST to the curtain shield airbag assembly connector.

SST 09082-00700, 09082-00760

NOTICE:

(f)

To avoid damaging the SST connector and wire harness, do not lock the secondary lock of the twin lock. Also, secure some slack for the SST wire harness inside the tire.

- (g) Deploy the airbag.
  - (1) Connect the SST red clip to the battery positive (+) terminal and the black clip to the battery negative (-) terminal.
  - (2) Check that no one is within 10 m (33 ft) area around the tire which the side airbag assembly is tied to.
  - (3) Press the SST activation switch and deploy the airbag.

### HINT:

The airbag deploys as the LED of the SST activation switch comes on.



CAUTION:

- The curtain shield airbag assembly is very hot when the airbag is deployed, so leave it alone for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a curtain shield airbag assembly with the deployed airbag.
- Do not apply water etc. to a curtain shield airbag assembly with the 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 the end tightly and dispose of it as the other general parts disposal.





3. DEPLOYMENT WHEN DISPOSING OF CURTAIN SHIELD AIRBAG ASSEMBLY WITH AIRBAG DEPLOYED IN COLLISION

Dispose of the curtain shield airbag assembly. **CAUTION:** 

- The curtain shield airbag assembly is very hot when the airbag is deployed, so leave it alone for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a curtain shield airbag assembly with the deployed airbag.
- Do not apply water etc. to a curtain shield airbag assembly with the deployed airbag.
- Always wash your hands with water after completing the operation.
  - (1) Remove the curtain shield airbag assembly (See page RS-59).
  - (2) Place the curtain shield airbag assembly in a plastic bag, tie the end tightly and dispose of it as the other general parts disposal.

1.

## INSPECTION

Vehicle not involved in collision:

RS0N4-09

- INSPECT SUPPLEMENTAL RESTRAINT SYSTEM
- (a) Do a diagnostic system check (See page DI-692).
- (b) Do a visual check which includes the following items with the curtain shield airbag assembly installed in the vehicle. Check cuts, minute cracks or marked discoloration on the front pillar garnish and roof headlining.
- 2. Vehicle involved in a collision and airbag is not deployed:

### INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

(a) Do a diagnostic system check (See page DI-692).



- (b) Do a visual check which includes the following items with the curtain shield airbag assembly removed from the vehicle.
  - Check cuts, tears and cracks, or marked discoloration of the curtain shield airbag assembly.
  - Check cuts and cracks in wire harness, and chipping in connectors.

### CAUTION:

For removal and installation of the curtain shield airbag assembly, see page RS-59 and RS-68. Be sure to follow the correct procedure.

- 3. Vehicle involved in a collision and airbag is deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM
- (a) Do a diagnostic system check (See page DI-692).
- (b) Do a visual check which includes the following items with the curtain shield airbag assembly removed from the vehicle.
  - Check the deformation or cracks on the body that the curtain shield airbag installed on.
  - Check the damage to the connector and wire harness.

HINT:

If the body that the curtain shield airbag was installed on is deformed or cracked, replace it.



2004 LAND CRUISER (RM1071U)

Date :

## INSTALLATION

NOTICE:

Never use airbag parts from another vehicle. When replacing parts, replace them with new parts.

RS0TH-03



- 1. INSTALL CURTAIN SHIELD AIRBAG ASSEMBLY
- (a) In the order shown in the illustration, install the curtain shield airbag with the 8 bolts.

Torque: 9.8 N·m (100 kgf·cm, 86 in.-lbf) CAUTION:

Pay due attention not to twist the deployment section of the curtain shield airbag assembly.

NOTICE:

- Make sure that the curtain shield airbag assembly is installed to the specified torque.
- If the curtain shield airbag assembly has been dropped, or there are cracks, dents or other defects in the case or connector, replace the curtain shield airbag assembly with a new one.
- When installing the curtain shield airbag assembly, take care it is not pinched between other parts.
- (b) Connect the connector of the curtain shield airbag assembly.
- 2. INSTALL ROOF HEADLINING (See page BO-101)
- 3. INSPECT SRS WARNING LIGHT (See page DI-692)

RS0TG-03

## REMOVAL

NOTICE:

- If the wiring connector of the SRS is disconnected and the ignition switch is at ON position, DTCs will be recorded.
- Never use the airbag parts from another vehicle. When replacing parts, replace them with new parts.
- 1. REMOVE ROOF HEADLINING (See page BO-97)
- 2. REMOVE CURTAIN SHIELD AIRBAG ASSEMBLY

(a) Disconnect the curtain shield airbag connector. **NOTICE:** 

When handling the airbag connector, take care not to damage the airbag wire harness.



(b) In the order shown in the illustration, remove the bolts and curtain shield airbag assembly.

HINT:

- Loosen the bolt (3) before removing the bolt (2).
- Bind the front and rear parts of the curtain shield airbag assembly before removing the bolt (3).



(c) Put the removed curtain shield airbag in a clear plastic bag and keep it in a safe place.
CAUTION:

Never disassemble the curtain shield airbag assembly. NOTICE:

Plastic bag is not reusable.

RS0N6-06

## REPLACEMENT

### **REPLACEMENT REQUIREMENTS**

In the following cases, replace the curtain shield airbag assembly or curtain shield airbag cover.

Case	Replacing part
If the curtain shield airbag has been deployed.	Curtain shield airbag assembly
If the curtain shield airbag assembly has been found to be faulty in trouble- shooting.	Curtain shield airbag assembly
If the curtain shield airbag assembly has been found to be faulty during checking items (See page $RS-60$ ).	Curtain shield airbag assembly
If the front pillar garnish has been found to be faulty during checking items (See page RS-60).	Front pillar garnish
If the roof headlining has been found to be faulty during checking items (See page RS-60).	Roof headlining
If the curtain shield airbag assembly has been dropped.	Curtain shield airbag assembly

### CAUTION:

For removal and installation of the curtain shield airbag assembly, see page RS-59 and RS-68. Be sure to follow the correct procedure.

RS0SH-04

# CURTAIN SHIELD AIRBAG SENSOR ASSEMBLY COMPONENTS



## **INSPECTION**

1. Vehicle not involved in collision: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

Do a diagnostic system check (See page DI-692).

2. Vehicle involved in collision and airbag is not deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

Do a diagnostic system check (See page DI-692).

3. Vehicle involved in collision and airbag is deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

Replace the curtain shield airbag sensor assembly (See page RS-85).

RS0SJ-03

RS0SL-04

## INSTALLATION

NOTICE:

- Never use SRS parts from another vehicle. When replacing parts, replace them with new ones.
- Never reuse the curtain shield airbag sensor assembly involved in a collision when the airbag has deployed.

• Never repair a sensor in order to reuse it. HINT:

For step 2 to 8, refer to page BO-101.



- 1. INSTALL CURTAIN SHIELD AIRBAG SENSOR AS-SEMBLY
- (a) Install the curtain shield airbag sensor assembly with the 2 bolts.
  - Torque: 17.5 N·m (178 kgf·cm, 13 ft·lbf)

(b) Connect the connector.

NOTICE:

- Connection of the connector is done after the sensor assembly has been installed.
- Make sure that the sensor assembly is installed with the specified torque.
- If the sensor assembly has been dropped, or there are cracks, dents or other defects in the case, bracket or connector, replace the sensor assembly with a new one.
- When installing the sensor assembly, take care that the SRS wiring does not interfere with other parts and is not pinched between other parts.
- After installation, shake the sensor assembly to check that there is no looseness.
- 2. INSTALL QUARTER TRIM PANEL
- 3. INSTALL STRIKER PLATES
- 4. INSTALL REAR NO. 2 SEAT
- 5. INSTALL REAR MAT SET PLATE
- 6. INSTALL REAR SEAT BELT ANCHOR
- 7. INSTALL REAR DOOR OPENING TRIM
- 8. INSTALL REAR DOOR SCUFF PLATE
- 9. INSPECT SRS WARNING LIGHT (See page DI-692)

## REMOVAL

NOTICE:

- Do not open the cover or the case of the ECU and various electrical devices unless absolutely necessary. (If the IC terminals are touched, the IC may be destroyed by static electricity.)
- If the wiring connector of the SRS is disconnected and the ignition switch is at ON position, DTCs will be recorded.

HINT:

For the step 1 to 7, refer to page BO-97.

- 1. REMOVE REAR DOOR SCUFF PLATE
- 2. REMOVE REAR DOOR OPENING TRIM
- 3. REMOVE REAR SEAT BELT ANCHOR
- 4. REMOVE REAR MAT SET PLATE
- 5. REMOVE REAR NO. 2 SEAT
- 6. REMOVE STRIKER PLATES
- 7. REMOVE QUARTER TRIM PANEL
- 8. REMOVE CURTAIN SHIELD AIRBAG SENSOR AS-SEMBLY
- (a) Disconnect the connector.

### NOTICE:

# Disconnect the connector with the sensor assembly installed.

(b) Remove the 2 bolts and curtain shield airbag sensor assembly.



RS0SI-04

## REPLACEMENT

### **REPLACEMENT REQUIREMENTS**

In the following cases, replace the curtain shield airbag sensor assembly.

- If the curtain shield airbag sensor assembly has been deployed in a collision.
- If the curtain shield airbag sensor assembly has been found to be faulty in troubleshooting.
- If the curtain shield airbag sensor assembly has been dropped.

### CAUTION:

For removal and installation of the curtain shield airbag sensor assembly, see page RS-86 and RS-89. Be sure to follow the correct procedure.

RS0SK-02

# FRONT AIRBAG SENSOR COMPONENTS

RS0BP-08







1. Vehicle not involved in collision: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

RS0BR-08

- Do a diagnostic system check (See page DI-692).
- 2. Vehicle involved in collision: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM
- (a) Do a diagnostic system check (See page DI-692).
- (b) If the front fender of the vehicle or its periphery is damaged, do a visual check for damage to the front airbag sensor, which includes the following items even if the airbag was not deployed:
  - Bracket deformation.
  - Paint peeling off the bracket.
  - Cracks, dents or chips in the case.
  - Cracks, dents, chipping and scratches in the connector.
  - Peeling off of the label or damage to the serial number.





## INSTALLATION

NOTICE:

• Never use SRS parts from another vehicle. When replacing parts, replace them with new parts.

RS0BT-06

- Never reuse the sensor involved in a collision when the SRS has deployed.
- Never repair a sensor in order to reuse it.
- 1. INSTALL FRONT AIRBAG SENSOR
- (a) Install the front airbag sensor with the arrow on the sensor facing toward the front of the vehicle.
  - Torque: 7.5 N·m (76 kgf·cm, 66 in.·lbf)

NOTICE:

- Make sure that the sensor is installed with the specified torque.
- If the sensor has been dropped, or there are cracks, dents or other defects in the case, brackets or connector, replace the removed sensor with a new one.
- The front sensor is equipped with an electrical connection check mechanism. Be sure to lock this mechanism securely when connecting the connector. If the connector is not securely locked, a malfunction code will be detected by the diagnostic system.
- (b) Connect the front airbag sensor connector.
- 2. INSTALL BATTERY AND BATTERY CARRIER
- 3. INSPECT SRS WARNING LIGHT (See page DI-692)

RS0BQ-07

## REMOVAL

NOTICE:

- If the wiring connector of the SRS is disconnected and the ignition switch is at ON position, DTCs will be recorded.
- Never use SRS parts from another vehicle. When replacing parts, replace them with new parts.
- Never reuse the sensor involved in a collision when the SRS has deployed.
- Never repair a sensor in order to reuse it.





### 1. REMOVE FRONT AIRBAG SENSOR LH

- (a) Remove the battery carrier and battery.
- (b) Disconnect the front airbag sensor connector.

### NOTICE:

### Disconnect the connector with sensor assembly installed.

- (c) Pull the windshield washer tank opening as shown in the illustration.
- (d) Remove the 2 bolts and front airbag sensor LH.

### 2. REMOVE FRONT AIRBAG SENSOR RH

(a) Disconnect the front airbag sensor connector. **NOTICE:** 

### Disconnect the connector with sensor assembly installed.

(b) Remove the 2 bolts and front airbag sensor RH.

## REPLACEMENT

### **REPLACEMENT REQUIREMENTS**

In the following cases, replace the front airbag sensor.

- If the SRS has been deployed in a collision. (Replace both the left and right airbag sensors.)
- If the front airbag sensor has been found to be faulty in troubleshooting.
- If the front airbag sensor has been found to be faulty during checking items (See page RS-76).
- If the front airbag sensor has been dropped.

### CAUTION:

For removal and installation of the front airbag sensor, see page RS-75 and RS-78. Be sure to follow the correct procedure.

**RS-77** 

# FRONT PASSENGER AIRBAG ASSEMBLY COMPONENTS

Defroster Nozzle Assembly চ্চি ആ Instrument Panel No. 5 Heater to Register Duct No. 2 Side Defroster Nozzle Duct Front Passenger Airbag Assembly 9 20 (205, 15) 6.0 (61, 53 in.-lbf) Center Bracket 夏 <sup>C</sup>  $\left\lceil N \cdot m \text{ (kgf} \cdot cm, \text{ ft} \cdot \text{lbf)} \right\rceil$ : Specified torque H20922

RS0BE-08

## DISPOSAL

### HINT:

When scrapping vehicle equipped with an SRS or disposing of a front passenger airbag assembly, always first deploy the airbag 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:** 

RS0VK-01

- Never dispose of a front passenger airbag assembly of which airbag has not been deployed.
- The airbag produces a sizeable exploding sound when it deploys, so perform the operation out of doors 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.
  SST 09082-00700
- When deploying an airbag, perform the operation at least 10 m (33 ft) away from the front passenger airbag assembly.
- The front passenger airbag assembly is very hot when the airbag is deployed, so leave it alone for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front passenger airbag assembly with deployed airbag.
- Always wash your hands with water after completing the operation.
- Do not apply water, etc. to a front passenger airbag assembly with deployed airbag.



### 1. AIRBAG DEPLOYMENT WHEN SCRAPPING VE-HICLE

HINT:

Have a battery ready as the power source to deploy the airbag.

(a) Check the function of the SST (See page RS-20).



- (b) Disconnect the airbag connector.
  - (1) Remove the glove compartment door.
  - (2) Remove the No. 1 under cover.

NOTICE:

When handling the airbag connector, take care not to damage the airbag wire harness.

- (3) Pull up the connector.
- (4) Disconnect the airbag connector.



- (c) Install the SST.
  - (1) Connect the connector of SST to the front passenger airbag assembly connector.
  - SST 09082-00700, 09082-00780

### NOTICE:

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

10 m (33 ft) or more



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

### NOTICE:

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

- (4) Connect the red clip of the SST to the battery positive (+) terminal and the black clip to the negative (+) terminal.
- (d) Deploy the airbag.
  - (1) Check that no one is inside the vehicle, nor within 10 m (33 ft) area around the vehicle.
  - (2) Press the SST activation switch and deploy the airbag.

### CAUTION:

• The front passenger airbag assembly is very hot when the airbag is deployed, so leave it alone for at least 30 minutes after deployment.

- Use gloves and safety glasses when handling a front passenger airbag assembly with deployed airbag.
- Always wash your hands with water after completing the operation.
- Do not apply water, etc. to a front passenger airbag assembly with deployed airbag.
- When scrapping a vehicle, deploy the airbag and scrap the vehicle with the front passenger airbag assembly still installed.
- When moving a vehicle for scrapping which has a front passenger airbag assembly with deployed airbag, use gloves and safety glasses.

HINT:

The airbag deploys as the LED of the SST activation switch comes on.

2. DEPLOYMENT WHEN DISPOSING OF FRONT PAS-SENGER AIRBAG ASSEMBLY ONLY

NOTICE:

- When disposing of the front passenger airbag assembly only, never use the customer's vehicle to deploy the airbag.
- Be sure to follow the procedure given below when deploying the airbag.

HINT:

Have a battery ready as the power source to deploy the airbag.



 (a) Remove the front passenger airbag assembly (See page RS-31).

CAUTION:

- When removing the front passenger airbag assembly, work must be started 90 seconds after the ignition switch is turned to the "LOCK" position and the negative (-) terminal cable is disconnected from the battery.
- When storing the front passenger airbag assembly, keep the upper surface of the airbag deployment side facing upward.



(b) 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<sup>2</sup> or more (0.0019 in.<sup>2</sup> or more)

### CAUTION:

If a wire harness which is too thin or some other thing is used to tie down the front passenger airbag assembly, it may be snapped by the shock when the airbag is deployed. This is highly dangerous. Always use a wire harness which is at least  $1.25 \text{ mm}^2$  (0.0019 in.<sup>2</sup>).

HINT:

To calculate the square of the stripped wire harness section: Square = 3.14 X (Diameter)<sup>2</sup> divided by 4







(2) Position the front passenger airbag assembly inside the tire with the airbag deployment side facing inside.

Tire size: Must exceed the following dimensions-Width: 185 mm (7.28 in.)

Inner diameter: 360 mm (14.17 in.)

### CAUTION:

- Make sure that the wire harness is tight. It is very dangerous if looseness in the wire harness results in the front passenger airbag assembly coming free due to the shock from the airbag deployment.
- Always tie down the front passenger airbag assembly with the airbag deployment side facing inside.

NOTICE:

The tire will be marked by the airbag deployment, so use a redundant tire.

SST

Check the functioning of the SST (See step 1-(a) on page RS-20).

09082-00700

(c)





- (d) Place tires.
  - (1) Place at least 2 tires under the tire to which the front passenger airbag assembly is tied.
  - (2) Place at least 2 tires over the tire to which the front passenger airbag assembly is tied. The top tire should have the wheel installed.





(3) Tie the tires together with 2 wire harnesses.

CAUTION:

Make sure that the wire harnesses are tight. It is very dangerous if loose wire harnesses result in the tires coming free due to the shock from the airbag deploying. HINT:

Place the SST connector and wire harness inside tires. Provide at least 1 m (3 ft) of slack for the wire harness.

(e) Install the SST.

Connect the connector of the SST to the front passenger airbag assembly connector.

SST 09082-00700, 09082-00780

### NOTICE:

To avoid damaging the SST connector and wire harness, do not lock the secondary lock of the twin lock. Also, secure some slack for the SST wire harness inside the tires.

- (f) Deploy the airbag.
  - Connect the red clip to the battery positive (+) terminal and the black clip to the battery negative (-) terminal.
  - (2) Confirm that no one is within 10 m (33 ft) area around the tire which the front passenger airbag assembly is tied to.
  - (3) Press the SST activation switch and deploy the airbag.

HINT:

The airbag deploys as the LED of the SST activation switch comes on.



(g) Dispose of the front passenger airbag assembly. **CAUTION:** 

- The front passenger airbag assembly is very hot when the airbag is deployed, so leave it alone for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front passenger airbag assembly with deployed airbag.
- Always wash your hands with water after completing the operation.
  - Do not apply water, etc. to a front passenger airbag assembly with deployed airbag.
    - (1) Remove the front passenger airbag assembly from the tire.
    - (2) Place the front passenger airbag assembly in a plastic bag, tie the end tightly and dispose of it in the same way as other general parts disposal.



3. DEPLOYMENT WHEN-DISPOSING OF FRONT PAS-SENGER AIRBAG ASSEMBLY DEPLOYED IN A COL-LISION

Dispose of the front passenger airbag assembly. **CAUTION:** 

- The front passenger airbag assembly is very hot when the airbag is deployed, so leave it alone for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a front passenger airbag assembly with deployed airbag.
  - Always wash your hands with water after completing the operation.
  - Do not apply water, etc. to a front passenger airbag assembly with deployed airbag.
    - (1) Remove the front passenger airbag assembly from the tire.
    - (2) Place the front passenger airbag assembly in a plastic bag, tie the end tightly and dispose of it as the other general parts disposal.



## INSPECTION

1. Vehicle not involved in collision: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

RS0BG-06

- (a) Do a diagnostic system check (See page DI-692).
- (b) Do a visual check which includes the following items with the front passenger airbag assembly installed in the vehicle.

Check cuts, minute cracks or marked discoloration on the front passenger airbag assembly and instrument panel.



2. Vehicle involved in collision and airbag is not deployed:

## INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

- (a) Do a diagnostic system check (See page DI-692).
- (b) Do a visual check which includes the following items with the front passenger airbag assembly removed from the vehicle.
  - Check cuts, minute cracks or marked discoloration on the front passenger airbag assembly.
  - Check cuts and cracks in wire harnesses, and for chipping in connectors.
  - Check the deformation or cracks on the instrument panel and instrument panel reinforcement.



### HINT:

If the instrument panel or instrument panel reinforcement is deformed or cracked, never repair it. Always replace it with a new one.

### CAUTION:

For removal and installation of the front passenger airbag assembly, see page RS-31 and RS-41 and be sure to follow the correct procedure.

2004 LAND CRUISER (RM1071U)

- 3. Vehicle involved in collision and airbag is deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM
- (a) Do a diagnostic system check (See page DI-692 ).
- (b) Do a visual check which includes the following items with the front passenger airbag assembly removed from the vehicle.
  - Check the deformation or cracks on the instrument panel and instrument panel reinforcement.
  - Check the damage on the connector and wire harness.

HINT:

If the instrument panel or instrument panel reinforcement is deformed or cracked, never repair it. Always replace it with a new one.

RS0BJ-05

## INSTALLATION

NOTICE:

Never use airbag parts from another vehicle. When replacing parts, replace them with new parts.

HINT:

For step 2 to 5, refer to page BO-91.

1. **INSTALL FRONT PASSENGER AIRBAG ASSEMBLY** Install the front passenger airbag assembly to the instrument panel with the 3 nuts.

Torque: 6.0 N·m (61 kgf·cm, 53 in.·lbf) CAUTION:

• Make sure that no foreign objects are trapped between the airbag bag and the module.

• Do not damage the strap when installing the module. NOTICE:

If the front passenger airbag assembly has been dropped, or there are cracks, dents or other defects in the case or connector, replace the front passenger airbag assembly with a new one.

- 2. INSTALL NO. 2 SIDE DEFROSTER NOZZLE DUCT
- 3. INSTALL NO. 5 HEATER TO REGISTER DUCT
- 4. INSTALL DEFROSTER NOZZLE ASSEMBLY
- 5. INSTALL CENTER BRACKET



### 6. INSTALL INSTRUMENT PANEL (See page BO-91)

Install the 2 bolts to instrument panel reinforcement.

Torque: 20 N·m (205 kgf·cm, 15 ft·lbf) NOTICE:

- Make sure the front passenger airbag assembly is installed with the specified torque.
- When installing the instrument panel, take care that the airbag wire harness does not interfere with other parts and is not pinched between other parts.
- When installing the instrument panel box, carefully pull out the airbag wire harness from the glove compartment upper hole.


### CONNECT AIRBAG CONNECTOR

- (a) Connect the airbag connector.
- (b) Set the connector on the No. 1 under cover.
- (c) Install the No. 1 under cover to the lower No. 2 finish panel.
- (d) Install the glove compartment door (See page BO-91).
- 8. INSPECT SRS WARNING LIGHT (See page DI-692)

RS0BF-06

### REMOVAL

NOTICE:

- If the wiring connector of the SRS is disconnected and the ignition switch is at ON position, DTCs will be recorded.
- Never use the airbag parts from another vehicle.
   When replacing parts, replace them with new parts.

### 1. DISCONNECT AIRBAG CONNECTOR

- (a) Remove the glove compartment door.
- (b) Remove the No. 1 under cover from the lower No. 2 finish panel.

### NOTICE:

H21418

# When handling the airbag connector, take care not to damage the airbag wire harness.

- (c) Pull up the connector.
- (d) Disconnect the front passenger airbag connector.
- 2. REMOVE INSTRUMENT PANEL (See page BO-84)
- 3. REMOVE CENTER BRACKET
- 4. REMOVE DEFROSTER NOZZLE ASSEMBLY
- 5. REMOVE NO. 5 HEATER TO REGISTER DUCT
- 6. REMOVE NO. 2 SIDE DEFROSTER NOZZLE DUCT



С

### 7. REMOVE FRONT PASSENGER AIRBAG ASSEMBLY Remove the 3 nuts, then remove the front passenger airbag assembly. CAUTION:

- Do not store the front passenger airbag assembly with the airbag deployment side facing downward.
- Never disassemble the front passenger airbag assembly.

### REPLACEMENT

### **REPLACEMENT REQUIREMENTS**

In the following cases, replace the front passenger airbag assembly, instrument panel or instrument panel reinforcement.

Case	Replacing part
If the airbag has been deployed.	Front passenger airbag assembly
If the front passenger airbag assembly has been found to be faulty in trouble- shooting.	Front passenger airbag assembly
If the front passenger airbag assembly has been found to be faulty during checking items (See page RS-32).	Front passenger airbag assembly
If the instrument panel has been found to be faulty during checking items (See page RS-32).	Instrument panel
If the instrument panel reinforcement has been found to be faulty during checking items (See page RS-32).	Instrument panel reinforcement
If the front passenger airbag assembly has been dropped.	Front passenger airbag assembly

### CAUTION:

For replacement of the front passenger airbag assembly, see page RS-31 and RS-41. Be sure to follow the correct procedure.

RS0BI-04

RS0XJ-01



# RSCA OFF SWITCH

### 1. INSPECT RSCA OFF INDICATOR LIGHT

- (a) Turn the ignition switch to ON.
- (b) Check that the RSCA OFF indicator light goes off after it comes on for 3 seconds.
- (c) Check that the RSCA OFF indicator light comes on after pressing the RSCA OFF switch approx. 2 seconds.
- 2. INSPECT RSCA OFF SWITCH CONTINUITY
- (a) Remove the LWR instrument panel finish panel (See page BO-84).
- (b) Remove the RSCA OFF switch from the LWR instrument panel finish panel.



### (c) Inspect the continuity between the each terminals.

Switch position	Tester connection	Specified condition
OFF	$SW\ (3) \leftrightarrow E\ (4)$	No continuity
Hold ON	$SW\ (3) \leftrightarrow E\ (4)$	Continuity
Illumination	$ILL$ + (1) $\leftrightarrow ILL$ - (2)	Continuity

If continuity is not as specified, replace the RSCA OFF switch or bulb.

## SIDE AIRBAG ASSEMBLY COMPONENTS



RS0T9-03

### DISPOSAL

### HINT:

When scrapping vehicles equipped with an SRS or disposing of the side airbag assembly always first deploy the airbag 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.

RS0VM-01

### CAUTION:

- Never dispose of a side airbag assembly of which airbag has not been deployed.
- The airbag produces a sizeable exploding sound when it deploys, so perform the operation out-ofdoors 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.
   SST 09082-00700
- When deploying an airbag, perform the operation at least 10 m (33 ft) away from the airbag assembly.
- The side airbag assembly is very hot when the airbag is deployed, so leave it alone for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling side airbag assembly with the deployed airbag.
- Always wash your hands with water after completing the operation.
- Do not apply water, etc. to a side airbag assembly with the deployed airbag.



### 1. AIRBAG DEPLOYMENT WHEN SCRAPPING VE-HICLE

### HINT:

Have a battery ready as the power source to deploy the airbag.

- (a) Check the function of the SST (See step 1-(a) on page RS-20).
  - SST 09082-00700



- with the deployed airbag.
  Always wash your hands with water after completing the operation.
- When scrapping a vehicle, deploy the airbag and scrap the vehicle with the side airbag assembly still installed.

### HINT:

The airbag deploys as the LED of the SST activation switch comes on.

2. DEPLOYMENT WHEN DISPOSING OF SIDE AIRBAG ASSEMBLY

NOTICE:

- When disposing of the side airbag assembly only, never use the customer's vehicle to deploy the airbag.
- Be sure to follow the procedure given below when deploying the airbag.

HINT:

Have a battery ready as the power source to deploy the airbag.



(a) Remove the 2 nuts and side airbag assembly from the seatback assembly, then disengage the clamps.
 CAUTION:

When storing the side airbag assembly, keep the upper surface of the airbag deployment side facing upward.



(b) Using a service-purpose wire harness, tie down the side airbag assembly to the tire.

Wire harness: Stripped wire harness section 1.25 mm<sup>2</sup> or more (0.0019 in<sup>2</sup>. or more)

CAUTION: If a wire harness which is too thin or some other thing is used to tie down the side airbag assembly, it may be snapped by the shock when the airbag is deployed. This is highly dangerous. Always use a wire harness for vehicle use which is at least 1.25 mm<sup>2</sup> (0.0019 in<sup>2</sup>.).

HINT:

To calculate the square of the stripped wire harness section-Square =  $3.14 \times (Diameter)^2$  divided by 4







(1) Install the 2 nuts to the side airbag assembly.

(2) Wind the wire harness around the stud bolts of the side airbag assembly as shown in the illustration.

(3) Position the side airbag assembly inside the tire with the airbag deployment direction facing inside. Tire size: Must exceed the following dimensions-Width: 185 mm (7.28 in.) Inner diameter: 360 mm (14.17 in.)

CAUTION:

- Make sure that the wire harness is tight. It is very dangerous when a loose wire harness results in the side airbag assembly coming free due to the shock from the airbag deploying.
- Always tie down the side airbag assembly with the airbag deployment side facing inside.

### NOTICE:

The tire will be marked by the airbag deployment, so when disposing of the airbag, use a redundant tire.



(c) Check the function of the SST (See step 1-(a) on page RS-20).

SST 09082-00700



(d) Place the tires.

- (1) Place at least 2 tires under the tire to which the side airbag assembly is tied.
- (2) Place at least 2 tires over the tire to which the side airbag assembly is tied. The top tire should have the wheel installed.

R05403



(3) Tie the tires together with 2 wire harnesses. **CAUTION:** 

Make sure that the wire harnesses are tight. It is very dangerous when loose wire harness results in the tires coming free due to the shock from the airbag deployment. HINT:

Place the SST connector and wire harness inside tires. Secure at least 1 m (3 ft) of slack for the wire harness.

(e) Install the SST.

Connect the connectors of the SST to the side airbag assembly connector.

SST 09082-00700, 09082-00750

### 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.

- (f) Deploy the airbag.
  - (1) Connect the SST red clip to the battery positive (+) terminal and the black clip to the battery negative (-) terminal.
  - (2) Check that no one is within 10 m (33 ft) area around the tire which the side airbag assembly is tied to.
  - (3) Press the SST activation switch and deploy the airbag.

HINT:

The airbag deploys as the LED of the SST activation switch comes on.



(g) Dispose of the side airbag assembly. **CAUTION:** 

- The side airbag assembly is very hot when the airbag is deployed, so leave it alone for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a side airbag assembly with the deployed airbag.
- Do not apply water etc. to a side airbag assembly with the deployed airbag.
- Always wash your hands with water after completing the operation.
  - (1) Remove the side airbag assembly from the tire.
  - (2) Place the side airbag assembly in a plastic bag, tie the end tightly and dispose of it as the other general parts disposal.



3. DEPLOYMENT WHEN DISPOSING OF SIDE AIRBAG ASSEMBLY WITH AIRBAG DEPLOYED IN COLLISION Dispose of the side airbag assembly.

CAUTION:

- The side airbag assembly is very hot when the airbag is deployed, so leave it alone for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a side airbag assembly with the deployed airbag.
- Do not apply water etc. to a side airbag assembly with the deployed airbag.
- Always wash your hands with water after completing the operation.
  - Remove the side airbag assembly from the seat (See page BO-105 and see step 2. on page RS-48).
  - (2) Place the side airbag assembly in a plastic bag, tie the end tightly and dispose of it as the other general parts disposal.

H16230

RS0LB-04



### **INSPECTION**

- Vehicle not involved in collision: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM
- a) Do a diagnostic system check (See page DI-692).
- (b) Do a visual check which includes the following item with the seatback assembly installed in the vehicle. Check that there are no cuts or frayed in seams and outside of seatback cover.
- 2. Vehicle involved in a collision and airbag is not deployed:

### INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

(a) Do a diagnostic system check (See page DI-692).



- (b) Do a visual check which includes the following items with the seatback assembly removed from the vehicle.
  - Check cuts, tears and cracks of the side airbag assembly.
  - Check cuts and cracks in wire harness, and chipping in connectors.
- Check cuts and cracks of the side airbag bracket. **CAUTION:**

For removal and installation of the seatback assembly, see page **BO-105** and **BO-117**. Be sure to follow the correct procedure.

- 3. Vehicle involved in a collision and airbag is deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM
- (a) Do a diagnostic system check (See page DI-692).
- (b) Do a visual check which includes the following items with the seatback assembly removed from the vehicle.
  - Check the seatback installation part of the seat adjuster.
  - Check the damage to the connector and wire harness.

### CAUTION:

For removal and installation of the seatback assembly, see page BO-105 and BO-117. Be sure to follow the correct procedure.

HINT:

If the seat adjuster is deformed, never repair it. Always replace it with a new one. NOTICE:

Never use airbag parts from another vehicle. When replacing parts, replace them with new parts.



### 1. INSTALL LUMBER SUPPORT

Install the lumber support with the 2 bolts.

- 2. INSTALL SEATBACK FRAME
- (a) Install the seatback cover with pad to the seatback frame.

- C H20961
- (b) Install new hog rings, clamps and the 2 bolts. Torque: 4.7 N·m (48 kgf·cm, 42 in.-lbf)
- (c) Install the 2 headrest supports.



### INSTALL SEATBACK ASSEMBLY

 Place the airbag connector along the inner seat adjuster, and then install the RH reclining adjuster inside shield so that the connector is placed in between.

RS0VN-01



(b) Install the seatback assembly with the 4 bolts. Torque: 43 N-m (440 kgf-cm, 32 ft-lbf)

NOTICE:

- Make sure that the seatback assembly is installed to the specified torque.
- If the seatback assembly has been dropped, or there are cracks, dents or other defects in the case or connector, replace the seatback assembly with a new one.
- When installing the seatback assembly, take care it is not to be pinched between other parts.
- (c) Install new hog rings.



- (d) Hang the hook.
- (e) Connect the connectors.
- INSTALL ARMREST Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)
   INSTALL HEADREST



- 6. INSTALL SEAT CUSHION ASSEMBLY(a) Install the seat cushion assembly with the 4 bolts.
- Torque: 21 N·m (210 kgf·cm, 15 ft·lbf)
- (b) Engage the wire harness clamp.

7. INSTALL FRONT SEAT CUSHION SHIELD

Install the seat cushion shield with the screw.

H04738



8. **INSTALL LOWER SEAT CUSHION SHIELD** Install the lower seat cushion shield with the screws.



### INSTALL FRONT SEAT INNER BELT

- (a) Engage the clamp, then connect the connector.
- (b) Install the inner belt with the bolt. Torque: 42 N·m (430 kgf·cm, 31 ft·lbf)

### 10. INSTALL SEAT CUSHION OUTER SHIELD

(a) Connect the connectors as shown in the illustration.



(b) Install the seat cushion outer shield with the 4 screws.11. INSTALL SEATBACK BOARD



- 12. INSTALL FRONT SEAT
- (a) Install the front seat.

NOTICE:

H03733

### Be careful not to damage body.

- (b) Connect the connectors.
- (c) Install the 4 bolts.

Torque: 42 N·m (430 kgf·cm, 31 ft·lbf)

(d) Install the 4 track covers.

### REMOVAL

NOTICE:

- If the wiring connector of the SRS is disconnected and the ignition switch is at ON position, DTCs will be recorded.
- Never use the airbag parts from another vehicle. When replacing parts, replace them with new parts.
- 1. REMOVE FRONT SEAT
- (a) Remove the 4 seat track covers and 4 bolts.
- (b) Disconnect the power seat and side airbag connector. **NOTICE:**

# When handling the airbag connector, take care not to damage the airbag wire harness.

(c) Remove the front seat.

### NOTICE:

Be careful not to damage the body.

- 2. **REMOVE HEADREST**
- 3. REMOVE SEATBACK BOARD

Remove the seatback board as shown in the illustration. HINT:

Remove the seatback board in order "A" and "B" as shown in the illustration.

4. REMOVE SEAT CUSHION OUTER SHIELD



(a) Remove the 4 screws.



H03732

(b) Disconnect the connectors as shown in the illustration.(c) Remove the seat cushion outer shield.





2004 LAND CRUISER (RM1071U)



- REMOVE FRONT SEAT INNER BELT
- Remove the clump, then disconnect the connector.
- (b) Remove the bolt and inner belt.



6. **REMOVE SEAT CUSHION INNER SHIELD** Remove the 3 screws and seat cushion inner shield.



7. **REMOVE LOWER SEAT CUSHION SHIELD** Remove the screw and lower seat cushion shield as shown in the illustration.



8. **REMOVE FRONT SEAT CUSHION SHIELD** 

Remove the screw and front seat cushion shield.



### 9. REMOVE SEAT CUSHION ASSEMBLY

- (a) Remove the 4 bolts.
- (b) Remove the clamps from the seat cushion assembly.

### SUPPLEMENTAL RESTRAINT SYSTEM - SIDE AIRBAG ASSEMBLY



### 10. REMOVE SEATBACK ASSEMBLY

- (a) Remove the hog rings.
- (b) Disengage the hook as shown in the illustration.
- (c) Disconnect the connectors.



(d) Remove the 4 bolts and seatback assembly. **NOTICE:** 

When handling the airbag connector take care not to damage the airbag wire harness.

- С н21294
- (e) Remove the 2 screws and RH reclining adjuster inside shield, then disconnect the side airbag connector.
   NOTICE:

When handling the airbag connector take care not to damage the airbag wire harness.

11. REMOVE ARMREST



### 12. REMOVE SEATBACK FRAME

- (a) Remove the hog rings, clamps and the 2 bolts.
- (b) Remove the 2 headrest supports.
- (c) Remove the seatback frame from the seatback cover with pad.

# H04468

### 13. REMOVE LUMBER SUPPORT

Remove the 2 bolts and lumber support.

### REPLACEMENT

### **REPLACEMENT REQUIREMENTS**

In the following cases, replace the seatback assembly or seatback cover.

Case	Replacing part
If the side airbag has been deployed.	Seatback assembly
If the side airbag assembly has been found to be faulty in troubleshooting.	Seatback assembly
If the side airbag assembly has cuts during checking items (See page RS-47).	Seatback assembly
If the seatback cover has cuts and frayed seams during checking items (See page RS-47).	Seatback cover
If the side airbag assembly has been found to be faulty during checking items (See page RS-47).	Seatback assembly
If the seatback cover has been found to be faulty during checking items (See page RS-47).	Seatback cover
If the seatback assembly has been dropped.	Seatback assembly

### CAUTION:

For removal and installation of the seatback assembly, see page RS-44 and RS-55. Be sure to follow the correct procedure.

RS0LD-03

# SIDE AND CURTAIN SHIELD AIRBAG SENSOR ASSEMBLY COMPONENTS



### INSPECTION

1. Vehicle not involved in collision: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

Do a diagnostic system check (See page DI-692).

2. Vehicle involved in collision and airbag is not deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

Do a diagnostic system check (See page DI-692).

3. Vehicle involved in collision and airbag is deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

Replace the side and curtain shield airbag sensor assembly (See page RS-79).

RS0NK-06

RS0NM-08

### INSTALLATION

NOTICE:

- Never use SRS parts from another vehicle. When replacing parts, replace them with new ones.
- Never reuse the side and curtain shield airbag sensor assembly involved in a collision when the airbag has deployed.
- Never repair a sensor in order to reuse it. HINT:

For step 2 to 9, refer to page BO-101.



- 1. INSTALL SIDE AND CURTAIN SHIELD AIRBAG SEN-SOR
- (a) Install the side and curtain shield airbag sensor assembly with the 2 bolts.

Torque: 20 N·m (205 kgf·cm, 15 ft·lbf)

(b) Connect the connector of the side and curtain shield airbag sensor assembly.

NOTICE:

- Connection of the connector is done after the sensor assembly has been installed.
- Make sure that the sensor assembly is installed with the specified torque.
- If the sensor assembly has been dropped, or there are cracks, dents or other defects in the case, bracket or connector, replace the sensor assembly with a new one.
- When installing the sensor assembly, take care that the SRS wiring does not interfere with other parts and is not pinched between other parts.
- After installation, shake the sensor assembly to check that there is no looseness.
- 2. INSTALL FRONT SEAT OUTER BELT Torque:

Upper bolt: 8.0 N·m (81 kgf·cm, 71 in.·lbf)

- 3. INSTALL CENTER PILLAR LOWER GARNISH
- 4. INSTALL REAR DOOR OPENING TRIM WEATH-ERSTRIP
- 5. INSTALL FRONT DOOR OPENING TRIM WEATH-ERSTRIP

6. INSTALL FRONT SEAT OUTER BELT FLOOR AN-CHOR

Torque: 42 N·m (428 kgf·cm, 31 ft·lbf)

- 7. INSTALL LAP BELT OUTER ANCHOR COVER
- 8. INSTALL FRONT DOOR SCUFF PLATE
- 9. INSTALL REAR DOOR SCUFF PLATE
- 10. INSPECT SRS WARNING LIGHT (See page DI-692)

RS0NJ-08

### REMOVAL

NOTICE:

- If the wiring connector of the SRS is disconnected and the ignition switch is at ON position, DTCs will be recorded.
- Do not open the cover or the case of the ECU and various electrical devices unless absolutely necessary (If the IC terminals are touched, the IC may be destroyed by static electricity.).

### HINT:

For step 1 to 8, refer to page BO-97.

- 1. REMOVE REAR DOOR SCUFF PLATE
- 2. REMOVE FRONT DOOR SCUFF PLATE
- 3. REMOVE LAP BELT OUTER ANCHOR COVER
- 4. REMOVE FRONT SEAT OUTER BELT FLOOR AN-CHOR
- 5. REMOVE FRONT DOOR OPENING TRIM WEATH-ERSTRIP
- 6. REMOVE REAR DOOR OPENING TRIM WEATH-ERSTRIP
- 7. REMOVE CENTER PILLAR LOWER GARNISH
- 8. REMOVE FRONT SEAT OUTER BELT



- 9. REMOVE SIDE AND CURTAIN SHIELD AIRBAG SEN-SOR ASSEMBLY
- (a) Disconnect the connector.

### NOTICE:

# Disconnect the connector with the sensor assembly installed.

(b) Remove the 2 bolts and side and curtain shield airbag sensor assembly.

### RS0NL-02

### REPLACEMENT

### **REPLACEMENT REQUIREMENTS**

In the following cases, replace the side and curtain shield airbag sensor assembly.

- If the side and curtain shield airbag assembly has been deployed in a collision.
- If the side and curtain shield airbag sensor assembly has been found to be faulty in troubleshooting.
- If the side and curtain shield airbag sensor assembly has been dropped.

### CAUTION:

**RS-82** 

For removal and installation of the side and curtain shield airbag sensor assembly, see page RS-80 and RS-83. Be sure to follow the correct procedure.

2004 LAND CRUISER (RM1071U)

# SEAT POSITION SENSOR ASSEMBLY COMPONENTS



### INSPECTION

- 1. Vehicle not involved in collision: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM
- Do a diagnostic system check (See page DI-692).
- 2. Vehicle involved in collision and airbag is not deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM
- Do a diagnostic system check (See page DI-692).
- 3. Vehicle involved in collision and airbag is deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

Replace the seat position sensor assembly (See page RS-90).

### INSTALLATION

NOTICE:

- Never use SRS parts from another vehicle. When replacing parts, replace them with new ones.
- Never reuse the seat position sensor assembly involved in a collision when the airbag has deployed.
- Never repair a sensor in order to reuse it.

### 1. INSTALL SEAT POSITION SENSOR ASSEMBLY

- (a) Connect the connector.
- (b) Install the seat position sensor assembly with a new bolt. **Part No.:**

Bolt: 90119-06871

Torque: 8.0 N·m (82 kgf·cm, 71 in.-lbf)

NOTICE:

- Connection of the connector is done after the sensor assembly has been installed.
- Make sure that the sensor assembly is installed with the specified torque.
- If the sensor assembly has been dropped, or there are cracks, dents or other defects in the case, bracket or connector, replace the sensor assembly with a new one.
- When installing the sensor assembly, take care that the SRS wiring does not interfere with other parts and is not pinched between other parts.
- After installation, shake the sensor assembly to check that there is no looseness.
- 2. INSTALL FRONT SEAT ASSEMBLY (DRIVER SIDE) (See page BO-1 17)
- 3. INSPECT SRS WARNING LIGHT (See page DI-692)



RS0VP-01

### REMOVAL

NOTICE:

- Do not open the cover or the case of the ECU and various electrical devices unless absolutely necessary. (If the IC terminals are touched, the IC may be destroyed by static electricity.)
- If the wiring connector of the SRS is disconnected and the ignition switch is at ON position, DTCs will be recorded.
- 1. REMOVE FRONT SEAT ASSEMBLY (DRIVER SIDE) (See page BO-105)



### REMOVE SEAT POSITION SENSOR ASSEMBLY

- (a) Remove the bolt and seat position sensor assembly.
- (b) Disconnect the connector.

### REPLACEMENT

### **REPLACEMENT REQUIREMENTS**

In the following cases, replace the seat position sensor assembly.

- If the seat position sensor assembly has been found to be faulty in troubleshooting.
  - If the seat position sensor assembly has been dropped.

### CAUTION:

For removal and installation of the seat position sensor assembly, see page RS-91 and RS-94. Be sure to follow the correct procedure.

**RS-93** 

RS0UQ-01

# SIDE AND CURTAIN SHIELD AIRBAG SENSOR ASSEMBLY COMPONENTS



### INSPECTION

1. Vehicle not involved in collision: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

Do a diagnostic system check (See page DI-692).

2. Vehicle involved in collision and airbag is not deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

Do a diagnostic system check (See page DI-692).

3. Vehicle involved in collision and airbag is deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

Replace the side and curtain shield airbag sensor assembly (See page RS-79).

RS0NK-06

RS0NM-08

### INSTALLATION

NOTICE:

- Never use SRS parts from another vehicle. When replacing parts, replace them with new ones.
- Never reuse the side and curtain shield airbag sensor assembly involved in a collision when the airbag has deployed.
- Never repair a sensor in order to reuse it. HINT:

For step 2 to 9, refer to page BO-101.



- 1. INSTALL SIDE AND CURTAIN SHIELD AIRBAG SEN-SOR
- (a) Install the side and curtain shield airbag sensor assembly with the 2 bolts.

Torque: 20 N·m (205 kgf·cm, 15 ft·lbf)

(b) Connect the connector of the side and curtain shield airbag sensor assembly.

NOTICE:

- Connection of the connector is done after the sensor assembly has been installed.
- Make sure that the sensor assembly is installed with the specified torque.
- If the sensor assembly has been dropped, or there are cracks, dents or other defects in the case, bracket or connector, replace the sensor assembly with a new one.
- When installing the sensor assembly, take care that the SRS wiring does not interfere with other parts and is not pinched between other parts.
- After installation, shake the sensor assembly to check that there is no looseness.
- 2. INSTALL FRONT SEAT OUTER BELT Torque:

Upper bolt: 8.0 N·m (81 kgf·cm, 71 in.·lbf)

- 3. INSTALL CENTER PILLAR LOWER GARNISH
- 4. INSTALL REAR DOOR OPENING TRIM WEATH-ERSTRIP
- 5. INSTALL FRONT DOOR OPENING TRIM WEATH-ERSTRIP

6. INSTALL FRONT SEAT OUTER BELT FLOOR AN-CHOR

Torque: 42 N·m (428 kgf·cm, 31 ft·lbf)

- 7. INSTALL LAP BELT OUTER ANCHOR COVER
- 8. INSTALL FRONT DOOR SCUFF PLATE
- 9. INSTALL REAR DOOR SCUFF PLATE
- 10. INSPECT SRS WARNING LIGHT (See page DI-692)

RS0NJ-08

### REMOVAL

NOTICE:

- If the wiring connector of the SRS is disconnected and the ignition switch is at ON position, DTCs will be recorded.
- Do not open the cover or the case of the ECU and various electrical devices unless absolutely necessary (If the IC terminals are touched, the IC may be destroyed by static electricity.).

### HINT:

For step 1 to 8, refer to page BO-97.

- 1. REMOVE REAR DOOR SCUFF PLATE
- 2. REMOVE FRONT DOOR SCUFF PLATE
- 3. REMOVE LAP BELT OUTER ANCHOR COVER
- 4. REMOVE FRONT SEAT OUTER BELT FLOOR AN-CHOR
- 5. REMOVE FRONT DOOR OPENING TRIM WEATH-ERSTRIP
- 6. REMOVE REAR DOOR OPENING TRIM WEATH-ERSTRIP
- 7. REMOVE CENTER PILLAR LOWER GARNISH
- 8. REMOVE FRONT SEAT OUTER BELT



- 9. REMOVE SIDE AND CURTAIN SHIELD AIRBAG SEN-SOR ASSEMBLY
- (a) Disconnect the connector.

### NOTICE:

# Disconnect the connector with the sensor assembly installed.

(b) Remove the 2 bolts and side and curtain shield airbag sensor assembly.

### RS0NL-02

### REPLACEMENT

### **REPLACEMENT REQUIREMENTS**

In the following cases, replace the side and curtain shield airbag sensor assembly.

- If the side and curtain shield airbag assembly has been deployed in a collision.
- If the side and curtain shield airbag sensor assembly has been found to be faulty in troubleshooting.
- If the side and curtain shield airbag sensor assembly has been dropped.

### CAUTION:

**RS-82** 

For removal and installation of the side and curtain shield airbag sensor assembly, see page RS-80 and RS-83. Be sure to follow the correct procedure.

2004 LAND CRUISER (RM1071U)
# SEAT POSITION SENSOR ASSEMBLY COMPONENTS



# INSPECTION

- 1. Vehicle not involved in collision: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM
- Do a diagnostic system check (See page DI-692).
- 2. Vehicle involved in collision and airbag is not deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM
- Do a diagnostic system check (See page DI-692).
- 3. Vehicle involved in collision and airbag is deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

Replace the seat position sensor assembly (See page RS-90).

#### INSTALLATION

NOTICE:

- Never use SRS parts from another vehicle. When replacing parts, replace them with new ones.
- Never reuse the seat position sensor assembly involved in a collision when the airbag has deployed.
- Never repair a sensor in order to reuse it.

#### 1. INSTALL SEAT POSITION SENSOR ASSEMBLY

- (a) Connect the connector.
- (b) Install the seat position sensor assembly with a new bolt. **Part No.:**

Bolt: 90119-06871

Torque: 8.0 N·m (82 kgf·cm, 71 in.-lbf)

NOTICE:

- Connection of the connector is done after the sensor assembly has been installed.
- Make sure that the sensor assembly is installed with the specified torque.
- If the sensor assembly has been dropped, or there are cracks, dents or other defects in the case, bracket or connector, replace the sensor assembly with a new one.
- When installing the sensor assembly, take care that the SRS wiring does not interfere with other parts and is not pinched between other parts.
- After installation, shake the sensor assembly to check that there is no looseness.
- 2. INSTALL FRONT SEAT ASSEMBLY (DRIVER SIDE) (See page BO-1 17)
- 3. INSPECT SRS WARNING LIGHT (See page DI-692)



RS0VP-01

# REMOVAL

NOTICE:

- Do not open the cover or the case of the ECU and various electrical devices unless absolutely necessary. (If the IC terminals are touched, the IC may be destroyed by static electricity.)
- If the wiring connector of the SRS is disconnected and the ignition switch is at ON position, DTCs will be recorded.
- 1. REMOVE FRONT SEAT ASSEMBLY (DRIVER SIDE) (See page BO-105)



#### REMOVE SEAT POSITION SENSOR ASSEMBLY

- (a) Remove the bolt and seat position sensor assembly.
- (b) Disconnect the connector.

# REPLACEMENT

#### **REPLACEMENT REQUIREMENTS**

In the following cases, replace the seat position sensor assembly.

- If the seat position sensor assembly has been found to be faulty in troubleshooting.
  - If the seat position sensor assembly has been dropped.

#### CAUTION:

For removal and installation of the seat position sensor assembly, see page RS-91 and RS-94. Be sure to follow the correct procedure.

**RS-93** 

RS0UQ-01



# OPERATION

#### 1. STEERING WHEEL PAD (with AIRBAG)

The inflater and bag of the SRS are stored in the steering wheel pad and cannot be disassembled. The inflater contains a squib, igniter charge, gas generator, etc., and inflates the bag when instructed by the airbag sensor assembly.



#### 2. SPIRAL CABLE (in COMBINATION SWITCH)

A spiral cable is used as an electrical joint from the vehicle body side to the steering wheel.



#### 3. FRONT PASSENGER AIRBAG ASSEMBLY

The inflater and bag of the SRS are stored in the front passenger airbag assembly and cannot be disassembled. The inflater contains a squib, igniter charge, gas generator, etc., and inflates the bag when instructed by the airbag sensor assembly.



#### 4. SIDE AIRBAG ASSEMBLY

The inflater and bag of the SRS side airbag are stored in the side airbag assembly and cannot be disassembled. The inflater contains a squib, igniter charge, gas generator, etc., and inflates the bag when instructed by the side airbag sensor assembly.



#### 5. CURTAIN SHIELD AIRBAG ASSEMBLY

The inflater and bag of the SRS are stored in the curtain shield airbag assembly and cannot be disassembled. The inflater contains a squib, igniter charge, gas generator, etc., and inflates the bag when instructed by the side airbag sensor assembly.

2004 LAND CRUISER (RM1071U)

RS0VH-01



#### 6. SEAT BELT PRETENSIONER

The seat belt pretensioner system is a component of the front seat outer belt. The seat belt pretensioner cannot be disassembled.



#### 7. SRS WARNING LIGHT

The SRS warning light is located on the combination meter. It goes on to alert the driver of trouble in the system when a malfunction is detected in the airbag sensor assembly self-diagnosis. In normal operating conditions when the ignition switch is turned to the ON position, the light comes on for about 3 seconds and then goes off.



#### 8. AIRBAG SENSOR ASSEMBLY

The airbag sensor assembly is mounted on the floor inside the front console box. The airbag sensor assembly consists of an airbag sensor, safing sensor, diagnosis circuit, ignition control, drive circuit, etc. It receives signals from the airbag sensor, front airbag sensor, side and curtain shield airbag sensor assembly, curtain shield airbag sensor assembly and judges whether the SRS must be activated or not. The airbag sensor assembly cannot be disassembled.



#### 9. FRONT AIRBAG SENSOR

The front airbag sensor is mounted on each of the radiator side supports. The front airbag sensor consists of a frontal deceleration sensor, diagnosis circuit, etc. These send signals to the airbag sensor assembly. The front airbag sensor cannot be disassembled.



#### 10. SIDE AND CURTAIN SHIELD AIRBAG SENSOR AS-SEMBLY

The side and curtain shield airbag sensor assembly is mounted in the LH and RH center pillars. The side and curtain shield airbag sensor assembly consist of a lateral deceleration sensor, safing sensor, diagnosis circuit, etc. These send signals to the airbag sensor assembly to judge whether the SRS side airbag and curtain shield airbag must be activated or not. The side and curtain shield airbag sensor assembly cannot be disassembled.

2004 LAND CRUISER (RM1071U)



#### 11. CURTAIN SHIELD AIRBAG SENSOR ASSEMBLY

The curtain shield airbag sensor assembly is mounted in the LH and RH rear pillars. The curtain shield airbag sensor assembly consists of a lateral deceleration sensor, safing sensor, diagnosis circuit, etc. These sensors send signals to the airbag sensor assembly to judge whether the SRS curtain shield airbag must be activated or not. The curtain shield airbag sensor assembly cannot be disassembled.



#### 12. SEAT POSITION SENSOR ASSEMBLY

The seat position sensor assembly is mounted on the seat rail of the driver's seat. The sensor unit consists of a magnet sensor, diagnosis circuit, etc. It judges the seat sliding position and sends the signal to the airbag sensor assembly. The seat position sensor assembly cannot be disassembled.

#### 13. SRS CONNECTORS



SRS connectors are located as shown in the following illustration.



#### SUPPLEMENTAL RESTRAINT SYSTEM - SRS AIRBAG

No.	Item	Application
(1)	Terminal Twin-Lock Mechanism	Connectors 1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14
(2)	Activation Prevention Mechanism	Connectors 1, 2, 3, 4, 5, 6, 7, 8, 15
(3)	Electrical Connection Check Mechanism	Connectors 1, 2, 3
(4)	Half Connection Prevention Mechanism	Connectors 4, 5, 7, 9, 10, 11, 12, 13, 14
(5)	Connector Lock Mechanism	Connectors 6



No.	Item	Application
(1)	Terminal Twin-Lock Mechanism	Connectors 1, 2, 3, 4, 5, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24
(2)	Activation Prevention Mechanism	Connectors 1, 2, 3, 4, 5, 6, 10, 13, 14, 21, 22, 25
(3)	Electrical Connection Check Mechanism	Connectors 1, 2, 3
(4)	Half Connection Prevention Mechanism	Connectors 4, 5, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24
(5)	Connector Lock Mechanism	Connectors 6

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

(1) Terminal Twin-Lock Mechanism

Each connector has a two-piece component consisting of a housing and a spacer. This design allows 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

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



2004 LAND CRUISER (RM1071U)

Spacer

Housing

Male

Z05953

Female

2284

HINT:

The type of connector is shown in the diagram on the previous page.



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



HINT:

The illustration shows connectors "1", "2" and "3" in step 13. Connectors 2 and 3 also have similar mechanism.

Half connection prevention mechanism: If the connector is not completely connected, the connector is disconnected due to the spring opera-

tion to the extent that no continuity exists.

RS-11

Stopper Slider Locking Part Locking Arm C51019 (5) Connector lock mechanism: Locking the connector lock button securely con-

(4)





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

Bag inflation then ends, and the bags deflate as the gas is discharged through discharge holes at the bag's rear or side.



- 14. DISCONNECTION OF CONNECTORS FOR FRONT AIRBAG SENSOR, SIDE AND CURTAIN SHIELD AIR-BAG SENSOR AND CURTAIN SHIELD AIRBAG SEN-SOR
- (a) While holding both flank sides of the outer, slide the outer in the direction shown by an arrow.
- (b) Lock of the connectors is released, and then disconnect the connectors.

₃ HINT:

Be sure to hold both flank sides of the outer. If holding the top and bottom sides, it will obstruct disconnection.



#### 15. CONNECTION OF CONNECTORS FOR FRONT AIR-BAG SENSOR, SIDE AND CURTAIN SHIELD AIRBAG SENSOR AND CURTAIN SHIELD AIRBAG SENSOR



- (a) Align the male connector (of the side of sensor) and female connector in the same direction as shown in the illustration and fit them in without rubbing.
- (b) As they are fitted in, the outer slides rearward. Press it until the outer returns to its original position again.

If fitting stops half way, connectors will separate.

(c) Be sure to insert until they are locked. After fitting in, pull them slightly to check that they are locked. (When locked, make sure that the outer returns to its original position and sound to be fit in can be heard.) HINT:

Do not fit in while holding the outer.

When fitting in, the outer slides. Do not touch it.

- 16. DISCONNECTION OF SIDE AIRBAG CONNECTOR
- (a) Place a finger on the slider.
- (b) Slide the slider to release lock.
- (c) Disconnect the connector.



#### 17. CONNECTION OF SIDE AIRBAG CONNECTOR



- (a) Align a lock part of male connector and a slider of female connector in the same direction as shown in the illustration, fit them in without rubbing.
- (b) Be sure to insert until they are locked. After fitting in pull them slightly to check that they are locked. (When locked, make sure that the outer returns to its original position and sound to be fit in can be heard.)

#### HINT:

As the slider slides, do not touch it.

Be careful not to deform the release board. If the release board is deformed, replace it with a new one.

- 18. DISCONNECTION OF CONNECTORS FOR CURTAIN SHIELD AIRBAG ASSEMBLY AND FRONT PAS-SENGER AIRBAG ASSEMBLY
- (a) Place a finger on the slider.
- (b) Slide the slider to release lock.
- (c) Disconnect the connector.



- 19. CONNECTION OF CONNECTORS FOR CURTAIN SHIELD AIRBAG ASSEMBLY AND FRONT PAS-SENGER AIRBAG ASSEMBLY
- (a) Align a lock part of male connector and a slider of female connector in the same direction as shown in the illustration, fit them in without rubbing.
- (b) Be sure to insert until they are locked. After fitting in pull them slightly to check that they are locked. (When locked, make sure that the outer returns to its original position and sound to be fit in can be heard.)

HINT:

As the slider slides, do not touch it.

Be careful not to deform the release board. If the release board is deformed, replace it with a new one.



# **SRS AIRBAG**

# PRECAUTION

#### CAUTION:

- The LAND CRUISER is equipped with SRS, which comprises a driver airbag, front passenger airbag, side airbag and curtain shield airbag. Failure to carry out service operations in the correct sequence could cause the SRS to unexpectedly deploy during servicing, possibly leading to a serious accident. Further, if a mistake is made in servicing the SRS, it is possible that the SRS may fail to operate when required. Before performing servicing (including removal or installation of parts, inspection or replacement), be sure to read the following items carefully, then follow the correct procedures described in the repair manual.
- Work must be started 90 seconds after the ignition switch is turned to the "LOCK" position and the negative (-) terminal cable is disconnected from the battery. (The SRS is equipped with a back-up power source so that if work is started within 90 seconds from disconnecting the negative (-) terminal cable of the battery, the SRS may be deployed.)
- Do not expose the steering wheel pad, front passenger airbag assembly, side airbag assembly, curtain shield airbag assembly, airbag sensor assembly, front airbag sensor, side and curtain shield airbag sensor assembly, curtain shield airbag sensor assembly or seat position sensor assembly directly to hot air or flames.

NOTICE:

- Malfunction symptoms of the SRS are difficult to confirm, so the DTCs become the most important source of information when troubleshooting. When troubleshooting the SRS, always inspect the DTCs before disconnecting the battery.
- Even in the case of a minor collision where the SRS does not deploy, the steering wheel pad, front passenger airbag assembly, side airbag assembly, curtain shield airbag assembly, airbag sensor assembly, front airbag sensor, side and curtain shield airbag sensor assembly, curtain shield airbag sensor assembly and seat position sensor assembly should be inspected (See page RS-18, RS-32, RS-47, RS-60, RS-71, RS-76, RS-81, RS-87 and RS-92).
- Before repairs, remove the airbag sensor if shocks are likely to be applied to the sensor during repairs.
- Never use SRS parts from another vehicle. When replacing parts, replace them with new parts.
- Never disassemble and repair the steering wheel pad, front passenger airbag assembly, side airbag assembly, curtain shield airbag assembly, airbag sensor assembly, front airbag sensor, side and curtain shield airbag sensor assembly, curtain shield airbag sensor assembly or seat position sensor assembly in order to reuse it.
- If the steering wheel pad, front passenger airbag assembly, side airbag assembly, curtain shield airbag assembly, airbag sensor assembly, front airbag sensor, side and curtain shield airbag sensor assembly, curtain shield airbag sensor assembly or seat position sensor assembly has been dropped, or if there are cracks, dents or other defects in the case, bracket or connector, replace it with new one.
- Use a volt/ohmmeter with high impedance (10 kΩ/V minimum) for troubleshooting the system's electrical circuits.
- Information labels are attached to the periphery of the SRS components. Follow the instructions on the notice.
- After work on the SRS is completed, perform the SRS warning light check (See page DI-692).

RS0B6-06

- When the negative (-) terminal cable is disconnected from the battery, the memory of the clock and audio system will be canceled. So before starting work, make a record of the contents memorized in the audio memory system. When work is finished, reset the audio systems as they were before and adjust the clock. To avoid erasing the memory in each memory system, never use a back- up power supply from outside the vehicle.
- If the vehicle is equipped with a mobile communication system, refer to the precaution in the IN section.

# STEERING WHEEL PAD AND SPIRAL CABLE COMPONENTS



RS0B8-10

# DISPOSAL

#### HINT:

When scrapping vehicle equipped with an SRS or disposing of a steering wheel pad (with airbag), always first deploy the airbag 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:** 

RS0VJ-01

- Never dispose of a steering wheel pad of which airbag has not been deployed.
- The airbag produces a sizeable exploding sound when it deploys, so perform the operation out-ofdoors 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.
   SST 09082-00700
- When deploying an airbag, perform the operation at least 10 m (33 ft) away from the steering wheel pad.
- The steering wheel pad is very hot when the airbag is deployed, so leave it alone for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a steering wheel pad with the deployed airbag.
- Always wash your hands with water after completing the operation.
- Do not apply water, etc. to a steering wheel pad with the deployed airbag.



#### 1. AIRBAG DEPLOYMENT WHEN SCRAPPING VE-HICLE

HINT:

Have a battery ready as the power source to deploy the airbag.

Battery SST AB0158

SST

Connect the red clip of the SST to the battery posi-(1) tive (+) terminal and the black clip to the battery negative (-) terminal.

HINT:

AB0152

Do not connect the yellow connector of the SST which will be connected with the supplemental restraint system.

(2) Press the SST activation switch, and check that the LED of the SST activation switch comes on.

CAUTION:

If the LED lights up while the activation switch is not being pressed, a malfunction on SST is probable, so never use the SST.

- (3) Disconnect the SST from the battery.
- Install the SST. (b)

#### CAUTION:

#### Check that there is no looseness in the steering wheel and steering wheel pad.

- Remove the front door scuff plate LH. (1)
- (2) Remove the cowl side trim LH.
  - (3) Remove the front door opening trim LH.
- (4) Remove the lower No. 1 panel.
- While turning the steering wheel right or left, remove (5) the 3 screws and column lower cover.
- (6) Disconnect the airbag connector of the spiral cable.













(7) Connect the connector of SST to the airbag connector of the spiral cable.

SST 09082-00700, 09082-00780

NOTICE:

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

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

#### NOTICE:

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

- (10) Connect the SST red clip to the battery positive (+) terminal and the black clip to the negative (-) terminal.
- (c) Deploy the airbag.
  - (1) Confirm that no one is inside the vehicle nor within 10 m (33 ft) area around the vehicle.
  - (2) Press the SST activation switch and deploy the airbag.

#### CAUTION:

- The steering wheel pad is very hot when the airbag is deployed, so leave it alone for at least 30 minutes after deployment.
- When moving a vehicle for scrapping which has a steering wheel pad with deployed airbag, use gloves and safety glasses.
- Use gloves and safety glasses when handling a steering wheel pad with the deployed airbag.
- Always wash your hands with water after completing the operation.
- Do not apply water, etc. to a steering wheel pad with the deployed airbag.

HINT:

The airbag deploys as the LED of the SST activation switch comes on.

2. DEPLOYMENT WHEN DISPOSING OF STEERING WHEEL PAD ONLY

NOTICE:

- When disposing of the steering wheel pad (with airbag) only, never use the customer's vehicle to deploy the airbag.
- Be sure to follow the procedure given below when deploying the airbag.

HINT:

Have a battery ready as the power source to deploy the airbag.(a) Remove the steering wheel pad (See page SR-14).CAUTION:

- When storing the steering wheel pad, keep the upper surface of the pad facing upward.
- When removing the steering wheel pad, work must be started 90 seconds after the ignition switch is turned to the "LOCK" position and the negative (-) terminal cable is disconnected from the battery.
- (b) Using a service-purpose wire harness for the vehicle, tie down the steering wheel pad to the disc wheel.
  Wire harness: Stripped wire harness section

1.25 mm<sup>2</sup> or more (0.0019 in<sup>2</sup>. or more).

#### **CAUTION:**

If a wire harness which is too thin or some other thing is used to tie down the steering wheel pad, it may be snapped by the shock when the airbag is deployed. This is highly dangerous. Always use a wire harness for vehicle use which is at least 1.25 mm<sup>2</sup> (0.0019 in<sup>2</sup>). HINT:

To calculate the square of the stripped wire harness section: **Square = 3.14 x (Diameter)<sup>2</sup> divided by 4** 



 Install the 2 bolts with washers in the 2 bolt holes in the steering wheel pad.

#### Bolt:

L: 35.0 mm (1.387 in.)

M: 6.0 mm (0.236 in.)

Pitch: 1.0 mm (0.039 in.)

NOTICE:

- Tighten the bolts by hand until the bolts become difficult to turn.
- Do not tighten the bolts excessively.
  - (2) Connect the connectors of the SST to the steering wheel pad connectors.
  - SST 09082-00802 (09082-10801, 09082-30801)





(3) Using 3 wire harness, wind the wire harness at least2 times each around the bolts installed on the leftand right sides of the steering wheel pad.

**CAUTION:** 

- Tightly wind the wire harness around the bolts so that there is no slack.
- If there is slackness in the wire harness, the steering wheel pad may come loose due to the shock when the airbag is deployed. This is highly dangerous.

- H20058
- (4) Face the upper surface of the steering wheel pad upward. Separately tie the left and right sides of the steering wheel pad to the disc wheel through the hub nut holes. Position the steering wheel pad connector so that it hangs downward through a hub hole in the disc wheel.

#### CAUTION:

- Make sure that the wire harness is tight. It is very dangerous when looseness in the wire harness results in the steering wheel pad coming free through the shock from the airbag deploying.
- Always tie down the steering wheel pad with the pad side facing upward. It is very dangerous if the steering wheel pad is tied down with the metal surface facing upward as the wire harness will be cut by the shock caused by the airbag is deployment and the steering wheel pad will be thrown into the air.

#### NOTICE:

The disc wheel will be marked by airbag deployment, so when disposing of the airbag, use a redundant disc wheel.

(c) Check the function of the SST (See step 1-(a)). SST 09082-00700



<sup>2004</sup> LAND CRUISER (RM1071U)



(d) Install the SST.

CAUTION:

Place the disc wheel on the level ground.

- (1) Connect the connector of the SST.
- SST 09082-00700

NOTICE:

To avoid damaging the SST connector and wire harness, do not lock the secondary lock of the twin lock. Also, secure some slack for the SST wire harness inside the disc wheel.

(2) Move the SST at least 10 m (33 ft) away from the steering wheel pad tied down on the disc wheel.





- (e) Cover the steering wheel pad with a cardboard box or tires.
  - Covering method using a cardboard box: Cover the steering wheel pad with the cardboard box and weight the cardboard box down in 4 places with at least 190 N (20 kg, 44 lb).

Size of cardboard box:

Must exceed the following dimensions:

X = 460 mm (18.11 in.)

Y = 650 mm (25.59 in.)

NOTICE:

- When dimension Y of the cardboard box exceeds the diameter of the disc wheel with tire to which the steering wheel pad is tied, X should be the following size.
  X = 460 mm (18.11 in.) + width of tire
- If a cardboard box smaller than the specified size is used, the cardboard box will be broken by the shock from the airbag deployment.

#### SUPPLEMENTAL RESTRAINT SYSTEM - STEERING WHEEL PAD AND SPIRAL CABLE



• Covering method using tires:

Place at least 3 tires with no disc wheels on top of the tire with disc wheel to which the steering wheel pad is tied.

Tire size: Must exceed the following dimensions-Width: 185 mm (7.28 in.) Inner diameter: 360 mm (14.17 in.)

#### CAUTION:

Do not use tires with disc wheels.

#### NOTICE:

# The tires may be marked by the airbag deployment, so use the redundant tires.

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





(3) Press the SST activation switch and deploy the airbag.

#### HINT:

The airbag deploys as the LED of the SST activation switch comes on.



(g) Dispose of the steering wheel pad (with airbag). **CAUTION:** 

- The steering wheel pad is very hot when the airbag is deployed, so leave it alone for at least 30 minutes after deployment.
- Use gloves and safety glasses when handling a steering wheel pad with deployed airbag.
- Always wash your hands with water after completing the operation.
- Do not apply water, etc. to a steering wheel pad with deployed airbag.
  - (1) Remove the steering wheel pad from the disc wheel.
  - (2) Place the steering wheel pad in a plastic bag, tie the end tightly and dispose of it as the other general parts disposal.



3. DEPLOYMENT WHEN DISPOSING OF STEERING WHEEL PAD WITH AN AIRBAG DEPLOYED IN A COL-LISION

Dispose of the steering wheel pad (with airbag).

CAUTION:

- The steering wheel pad is very hot when the airbag is deployed, so leave it alone for at least 30 minutes after deployment.
- When moving a vehicle for scrapping which has a steering wheel pad with the deployed airbag, use gloves and safety glasses.
- Use gloves and safety glasses when handling a steering wheel pad with the deployed airbag.
- Always wash your hands with water after completing the operation.
- Do not apply water, etc. to a steering wheel pad with the deployed airbag.
  - Remove the steering wheel pad from the steering wheel (See page SR-14).
  - (2) Place the steering wheel pad in a plastic bag, tie the end tightly and dispose of it as the other general parts disposal.



# INSPECTION

1. Vehicle not involved in collision: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

RS0VI-01

- (a) Do a diagnostic system check (See page DI-692).
- (b) Do a visual check which includes the following item with the steering wheel pad (with airbag) installed in the vehicle.

Check cuts, minute cracks or marked discoloration on the steering wheel pad top surface and in the grooved portion.

2. Vehicle involved in collision and airbag is not deployed:

#### INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

(a) Do a diagnostic system check (See page DI-692).







(b) Do a visual check which includes the following items with the steering wheel pad (with airbag) removed from the vehicle.

- Check cuts, minute cracks or marked discoloration on the steering wheel pad top surface and in the grooved portion.
- Check cuts and cracks in wire harness, and chipping in connectors.
- Check the deformation of the horn button contact plate on the steering wheel pad (with airbag).

#### CAUTION:

For removal and installation of the steering wheel pad, see page SR-14 and SR-24, and be sure to follow the correct procedure.

HINT:

- If the horn button contact plate of the steering wheel pad (with airbag) is deformed, never repair it. Always replace the steering wheel assembly with a new one.
- There should be no interference between the steering wheel pad and steering wheel, and the clearance should be uniform all the way around when the new steering wheel pad is installed on the steering wheel.

- 3. Vehicle involved in collision and airbag is deployed: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM
- (a) Do a diagnostic system check (See page DI-692).
- (b) Do a visual check which includes the following items with the steering wheel pad (with airbag) removed from the vehicle.
  - Check that the metal part where the steering wheel pad is to be installed is not deformed.
  - Check the damage on the spiral cable connector and wire harness.

HINT:

• Do not repair the metal part where the steering wheel pad is to be installed even if any deformation is found. Always replace the steering wheel assembly with a new one.



There should be no interference between the steering wheel pad and steering wheel, and the clearance should be uniform all the way around when the new steering wheel pad is installed on the steering wheel.

# INSTALLATION

HINT:

For step 1 to 9, refer to page SR-24.

- 1. INSTALL SPIRAL CABLE
- 2. INSTALL COLUMN UPPER AND LOWER COVERS
- 3. INSTALL LOWER NO. 1 PANEL
- 4. INSTALL INSTRUMENT CLUSTER FINISH PANEL
- 5. INSTALL FRONT DOOR OPENING TRIM LH
- 6. INSTALL COWL SIDE TRIM LH
- 7. INSTALL FRONT DOOR SCUFF PLATE LH
- 8. INSTALL STEERING WHEEL
- 9. INSTALL STEERING WHEEL PAD
- 10. INSPECT SRS WARNING LIGHT (See page DI-692)

RS0BD-08

# REMOVAL

HINT:

For step 1 to 9, refer to page SR-14.

- 1. REMOVE STEERING WHEEL PAD
- 2. REMOVE STEERING WHEEL
- 3. REMOVE FRONT DOOR SCUFF PLATE LH
- 4. REMOVE COWL SIDE TRIM LH
- 5. REMOVE FRONT DOOR OPENING TRIM LH
- 6. REMOVE INSTRUMENT CLUSTER FINISH PANEL
- 7. REMOVE LOWER NO. 1 PANEL
- 8. REMOVE COLUMN UPPER AND LOWER COVERS
- 9. REMOVE SPIRAL CABLE

RS0B9-10

# REPLACEMENT

#### **REPLACEMENT REQUIREMENTS**

In the following cases, replace the steering wheel pad, steering wheel or spiral cable.

Case	Replacing part
If the airbag has been deployed.	Steering wheel pad
If the steering wheel pad has been found to be faulty in troubleshooting.	Steering wheel pad
If the spiral cable has been found to be faulty in troubleshooting.	Spiral cable
If the steering wheel pad has been found to be faulty during checking items (See page RS-18).	Steering wheel pad
If the steering wheel has been found to be faulty during checking items (See page RS-18).	Steering wheel
If the spiral cable has been found to be faulty during checking items (See page RS-18).	Spiral cable
If the steering wheel pad has been dropped.	Steering wheel pad

#### CAUTION:

For removal and installation of the steering wheel pad, see page SR-14 and SR-24, and be sure to follow the correct procedure.

RS0SM-01

# INSPECTION

HINT:

The SRS wire harness is integrated with the cowl wire harness assembly. The wires for the SRS wire harness are encased in a yellow corrugated tube and all the connectors in the system are a standard yellow color.

1. Vehicle not involved in collision: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM

Do a diagnostic system check (See page DI-692).

- 2. Vehicle involved in collision: INSPECT SUPPLEMENTAL RESTRAINT SYSTEM
- (a) Do a diagnostic system check (See page DI-692).
- (b) Check for breaks in all wires of the SRS wire harness, and for exposed conductors.
- (c) Check to see if the SRS wire harness connectors are cracked or chipped.

RS0BV-05

# WIRE HARNESS AND CONNECTOR LOCATION



RS0BU-07

### REPLACEMENT

#### **REPLACEMENT REQUIREMENTS**

In the following cases, replace the wire harness or connector.

- If any part of the SRS wire harness or any connector has been found to be faulty in troubleshooting.
- If any part of the SRS wire harness or any connector has been found to be faulty during checking items 2-(b) or (c) (See page RS-97).

#### NOTICE:

If the wire harness used in the SRS is damaged, replace the whole wire harness assembly.

RS0BW-04