

HANDLING PRECAUTIONS ON RELATED COMPONENTS

1. FOR VEHICLES EQUIPPED WITH SRS AIRBAG AND SEAT BELT PRETENSIONER

The TOYOTA LAND CRUISER is equipped with an SRS (Supplemental Restraint System), such as the driver airbag and front passenger airbag and seat belt pretensioners.

Failure to carry out service operations in the correct sequence could cause the supplemental restraint system to unexpectedly deploy during servicing, possibly leading to a serious accident.

Further, if a mistake is made in servicing the supplemental restraint system, it is possible the SRS may fail to operate when required. Before servicing (including removal or installation of parts, inspection or replacement), be sure to read the following items carefully, then follow the correct procedure described in this manual.

- Malfunction symptoms of the supplemental restraint system are difficult to confirm, so the diagnostic trouble codes become the most important source of information when troubleshooting. When troubleshooting the supplemental restraint system, always inspect the diagnostic trouble codes before disconnecting the battery.
- Work must be started after 90 seconds from the time the ignition switch is turned to the "LOCK" position and the negative (–) terminal cable is disconnected from the battery.
(The supplemental restraint system is equipped with a back-up power source so that if work is started within 90 seconds of disconnecting the negative (–) terminal cable from the battery, the SRS may deploy.)
When the negative (–) terminal cable is disconnected from the battery, memory of the clock and audio systems will be cancelled. So before starting work, make a record of the contents memorized by the audio memory system.
Then when work is finished, reset the clock and audio systems as before.
To avoid erasing the memory of each memory system, never use a back-up power supply from outside the vehicle.
- Even in cases of a minor collision where the SRS does not deploy, the passenger's airbag assembly, the steering wheel pad and seat belt pretensioners should be inspected.
- Never use SRS parts from another vehicle. When replacing parts, replace them with new parts.
- Before repairs, remove the airbag sensor if shocks are likely to be applied to the sensor during repairs.
- Never disassemble and repair the airbag sensor assembly, steering wheel pad in order to reuse it.
- If the airbag sensor assembly, steering wheel pad have been dropped, or if there are cracks, dents or other defects in the case, bracket or connector, replace them with new ones.
- Do not expose the airbag sensor assembly, steering wheel pad directly to hot air or flames.
- Use a volt/ohmmeter with high impedance (10 k Ω /V minimum) for troubleshooting of the electrical circuit.
- Information labels are attached to the periphery of the SRS components. Follow the instructions on the notices.
- After work on the supplemental restraint system is completed, check the SRS warning light.
- Before repairing the body, remove the SRS parts if, during repair, shocks are likely to be applied to the sensors due to vibrations of the body or direct tapping with tools or other parts.
- Do not expose the SRS parts directly to hot air or flames.

NOTICE:

- 1) *The maximum ambient temperature tolerance is 120°C (248°F) for the front airbag sensor, 105°C (221°F) for the center airbag sensor assembly and 93°C (200°F) for the steering wheel pad, and front passenger airbag assembly. If it is possible that the ambient temperature may reach or exceed the temperature limit, remove the sensors and the steering wheel pad from the vehicle or protect them with a hot insulation material before starting work.*
 - 2) *Prior to welding, remove adjacent SRS parts from the vehicle or protect them with fire-proof covers.*
- If the vehicle is damaged, visually inspect for damage to the steering wheel pad using the inspection procedures described in section RS of the repair manual for the relevant model year.

STEERING WHEEL PAD (with Airbag)

- When removing the steering wheel pad or handling a new steering wheel pad, it should be placed with the pad top surface facing up.
In this case, the twin-lock type connector lock lever should be in the locked state and care should be taken to place it so the connector will not be damaged. In addition do not store a steering wheel pad on top of another one. Storing the pad with its metallic surface up may lead to a serious accident if the airbag inflates for some reason.
- Never measure the resistance of the airbag squib. (This may cause the airbag to deploy, which is very dangerous.)
- Grease should not be applied to the steering wheel pad and the pad should not be cleaned with detergents of any kind.
- Store the steering wheel pad where the ambient temperature remains below 93°C (200°F), without high humidity and away from electrical noise.
- When using electric welding, first disconnect the airbag connector (yellow color and 2 pins) under the steering column near the combination switch connector before starting work.
- When disposing of a vehicle or the steering wheel pad alone, the airbag should be deployed using an SST before disposal.
Carry out the operation in a safe place away from electrical noise.

FRONT PASSENGER AIRBAG ASSEMBLY

- Always store a removed or new front passenger airbag assembly with the airbag deployment direction facing up. Storing the airbag assembly with the airbag deployment direction facing down could cause a serious accident if the airbag inflates.
- Never measure the resistance of the airbag squib.
(This may cause the airbag deploy, which is very dangerous.)
- Grease should not be applied to the front passenger airbag assembly and the airbag door should not be cleaned with detergents of any kind.
- Store the airbag assembly where the ambient temperature remains below 93°C (200°F), without high humidity and away from electrical noise.
- When using electric welding, first disconnect the airbag connector (yellow color and 2 pins) installed on the glove compartment finish plate at the left side of the glove compartment before starting work.
- When disposing of a vehicle or the airbag assembly alone, the airbag should be deployed using an SST before disposal.
Perform the operation in a safe place away from electrical noise.

SEAT BELT PRETENSIONER

- Before doing any operation which will apply a strong shock to the vehicle, or before removing the seat belt pretensioner, be sure to apply the sensor shock.
- Never disassemble the seat belt pretensioner.
- Do not subject the seat belt pretensioner to shocks or bring magnets close to it.
- Do not expose the seat belt pretensioner to high temperature or fire.
- Do not drop the seat belt pretensioner. Never use a seat belt pretensioner which has been dropped.
- Never install the seat belt pretensioner in another vehicle.
- Store removed seat belt pretensioners on a flat, stable surface.
- After frontal collision, always check whether the seat belt pretensioners have been activated.
- When disposing of a vehicle or the pretensioner by itself, always activate the pretensioner before disposal.
- The seat belt pretensioner is hot when activated, so let it cool down fully before you dispose of it. Never apply water to the seat belt pretensioner.

AIRBAG SENSOR ASSEMBLY

- Never reuse the airbag sensor assembly involved in a collision when the SRS has deployed.
- The connectors to the airbag sensor assembly should be connected or disconnected with the sensor mounted on the floor. If the connectors are connected or disconnected while the airbag sensor assembly is not mounted to the floor, it could cause undesired ignition of the supplemental restraint system.
- Work must be started after 90 seconds from the time the ignition switch is turned to the "LOCK" position and the negative (–) terminal cable is disconnected from the battery, even if only loosening the set bolts of the airbag sensor assembly.

WIRE HARNESS AND CONNECTOR

- The SRS wire harness is integrated with the cowl wire harness assembly and floor wire harness assembly. The wires for the SRS wire harness are encased in a yellow corrugated tube. All the connectors for the system are also a standard yellow color. If the SRS wire harness becomes disconnected or the connector becomes broken due to an accident, etc., repair or replace it as shown on page.

2. BRAKE SYSTEM

The brake system is one of the most important safety components. Always follow the directions and notes given in section BR of the repair manual for the relevant model year when handling brake system parts.

NOTICE: When repairing the brake master cylinder or TRAC system, bleed the air out of the TRAC system.

3. DRIVE TRAIN AND CHASSIS

The drive train and chassis are components that can have great effects on the running performance and vibration resistance of the vehicle. After installing components in the sections listed in the table below, perform alignments to ensure correct mounting angles and dimensions. Particularly accurate repair of the body must also be done to ensure correct alignment.

HINT: Correct procedures and special tools are required for alignment. Always follow the directions given in the repair manual for the relevant model during alignment and section DI of this manual.

Component to be aligned	Section of repair manual for relevant model
Front Wheels	Suspension and Axle (SA) section
Rear Wheels	Suspension and Axle (SA) section
Propeller Shaft	Propeller Shaft (PR) section

4. COMPONENTS ADJACENT TO THE BODY PANELS

Various types of component parts are mounted directly on or adjacently to the body panels. Strictly observe the following precautions to prevent damaging these components and the body panels during handling.

- Before repairing the body panels, remove their components or apply protective covers over the components.
- Before prying components off using a screwdriver or a scraper, etc., attach protective tape to the tool tip or blade to prevent damaging the components and the body paint.
- Before removing components from the outer surface of the body, attach protective tape to the body to ensure no damage to painted areas.

HINT: Apply touch-up paint to any damaged paint surfaces.

- Before drilling or cutting sections, make sure that there are no wires, etc. on the reverse side.