# **THIS LSC EXPIRES DECEMBER 31, 2017**

### **TECHNICAL INSTRUCTIONS**

## FOR

## LIMITED SERVICE CAMPAIGN

## F0B

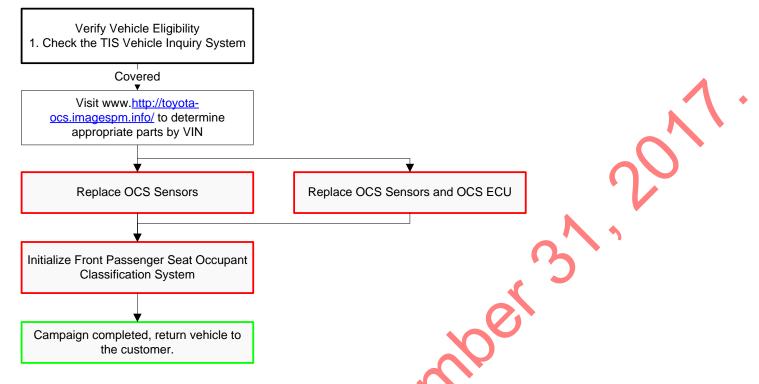
**OCCUPANT CLASSIFICATION SYSTEM (OCS) SENSOR** 

CERTAIN 2012 – 2013 MODEL YEAR TMMK CAMRY & CAMRY HV

All dealership associates involved in the campaign process are required to successfully complete E-Learning course SC13A. To ensure that all vehicles have the repair performed correctly; technicians performing this recall repair are required to currently hold <u>at least one</u> of the following certifications levels:

- Toyota Expert (Electrical)
- Master
- Master Diagnostic Technicians

### I. OPERATION FLOW CHART



### **II. IDENTIFICATION OF AFFECTED VEHICLES**

#### NOTE:

- Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this LSC, and that the campaign has not already been completed prior to dealer shipment or by another dealer.
- TMS warranty will not reimburse dealers for repairs conducted on vehicles that are not affected or were completed by another dealer.

#### **III. PREPARATION**

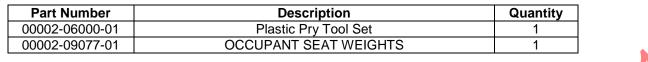
A. PARTS

Part Number	Part Description		Quantity	
04004-73106	SENSOR KIT, WEIGHT DETECTOR	*	1	
	The kit above includes the following parts	3.		
89105-07010 🔶	SENSOR SUB-ASSY, WEIGHT DETECTOR F	R INN	1	
89106-07010	SENSOR SUB-ASSY, WEIGHT DETECTOR F	R OUT	1	
	or			
89105-06050	SENSOR SUB-ASSY, WEIGHT DETECTOR F	R INN	1	
89106-06050	SENSOR SUB-ASSY, WEIGHT DETECTOR F	R OUT	1	
Note: Either sensor set will work in any Camry covered by this LSC. The difference in the part numbers is the supplier.				
	••			
numbers is th Part Number	Part Description		Quantity	
	••	/K		

#### **B. TOOLS & EQUIPMENT**

Standard Hand Tools
Techstream
Torque Wrench

**SST-** These are essential special service tools that the dealership should have.

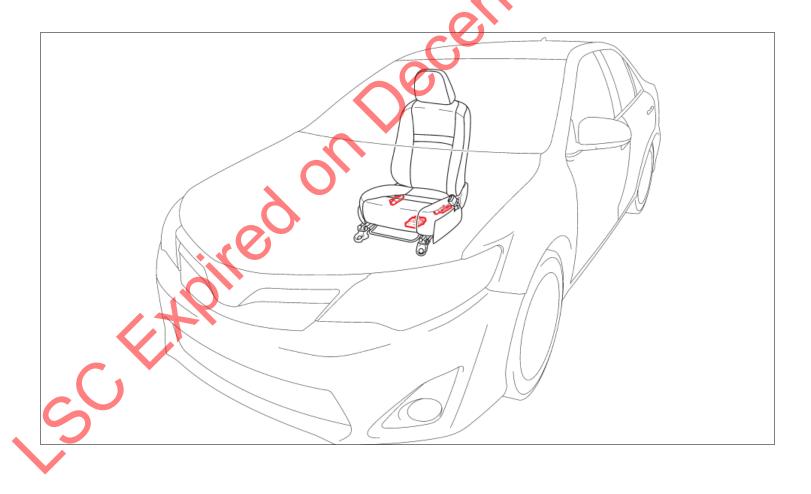


#### **IV. WORK PROCEDURE TABLE OF CONTENTS**

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#### V. BACKGROUND

The front passenger seat assembly is equipped with sensors for the occupant classification system which are used to control the operation of supplemental restraint systems (SRS), including the front passenger airbag. The sensors classify the weight of the occupant and activate or deactivate the front passenger airbag accordingly. Additionally, the sensors are used to detect certain vehicle collisions. Due to the current collision detection thresholds, the system may interpret certain occupant seating usages or road conditions as a rear collision and illuminate the Airbag Warning Light and "AIR BAG OFF" indicator, disabling the front passenger airbag.



#### VI. PRE-WORK

#### 1. CHECK FOR DTCs



This campaign only covers the replacement of the OCS sensors and on a small number of vehicles the OCS ECU.

- No other components in the SRS system are covered by this campaign.
- a) Using Techstream, perform a health check to confirm if there are any SRS system related DTCs present in the system (<u>current, history or pending</u>).

#### **NOTES:**

- Ensure that the Techstream software is 9.2 or higher.
- On the "connect to vehicle" screen, enter the VIN number to ensure that the vehicle information is uploaded to TIS.
- Record any SRS system DTCs to aid in any additional dicussions needed with the customer.

#### 2. RECORD SYSTEM SETTINGS

a) Record any audio and climate control settings prior to disconnecting the negative battery terminal.

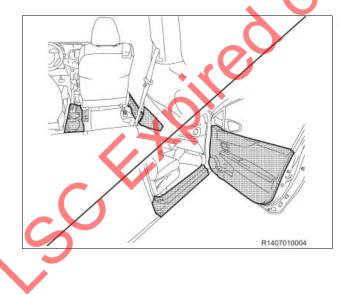
#### 3. INSPECT THE OPERATION OF THE RIGHT FRONT SEAT SLIDING & RECLINING FUNCTIONS

- a) Slide (manual) the right front seat fully forward.
- b) Slide (manual) the seat back slowly ensuring that the seat fully locks into each position.
- c) Check that the backrest operates smoothly and fully locks in each position.
- d) For power seat check that the seat moves smoothly through all fore/aft and reclining operations.



In case of locking failure, replace the lower seat frame.
Confirm the proper seat operation to compare with step 34 (manual seat).

4. RECORD THE POSITION OF THE RIGHT FRONT SEAT



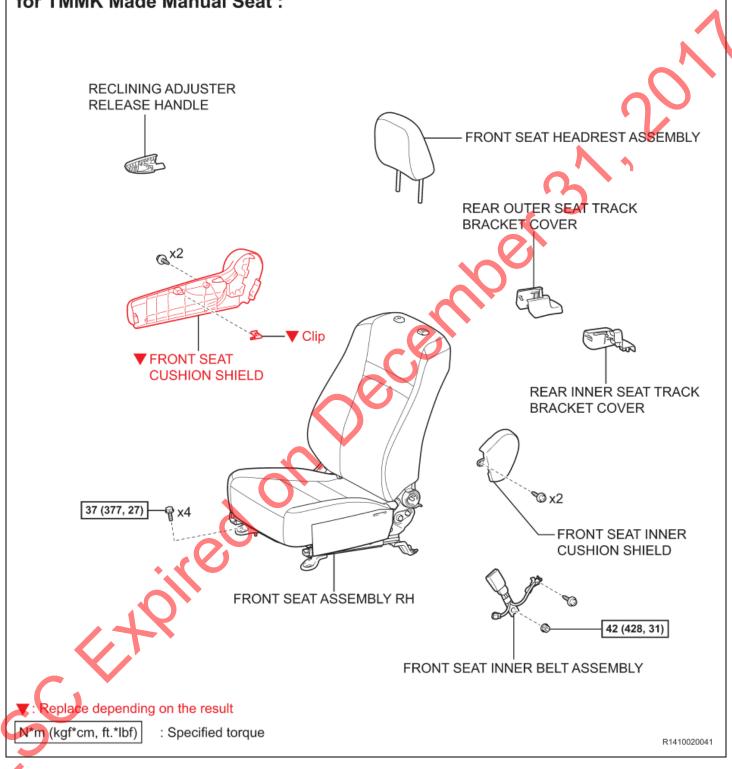
#### 5. INSTALL PROTECTIVE COVERS

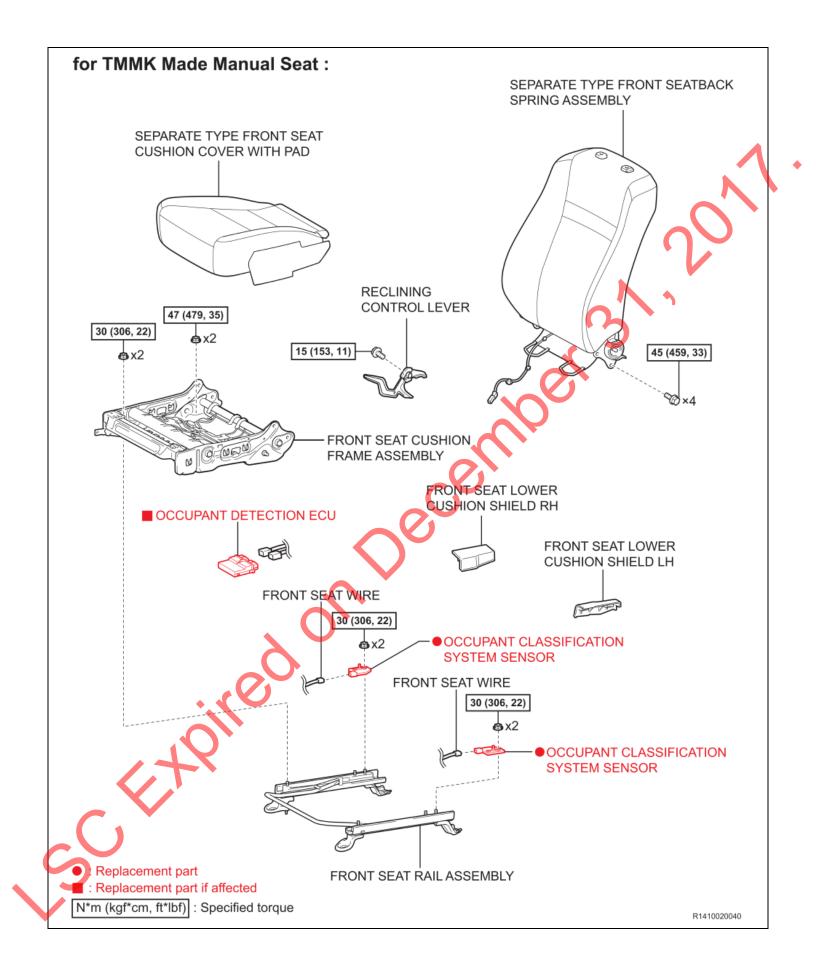
a) Apply protective covers to the following areas to prevent interior parts and the vehicle body from being damaged during R&R of the right front seat.

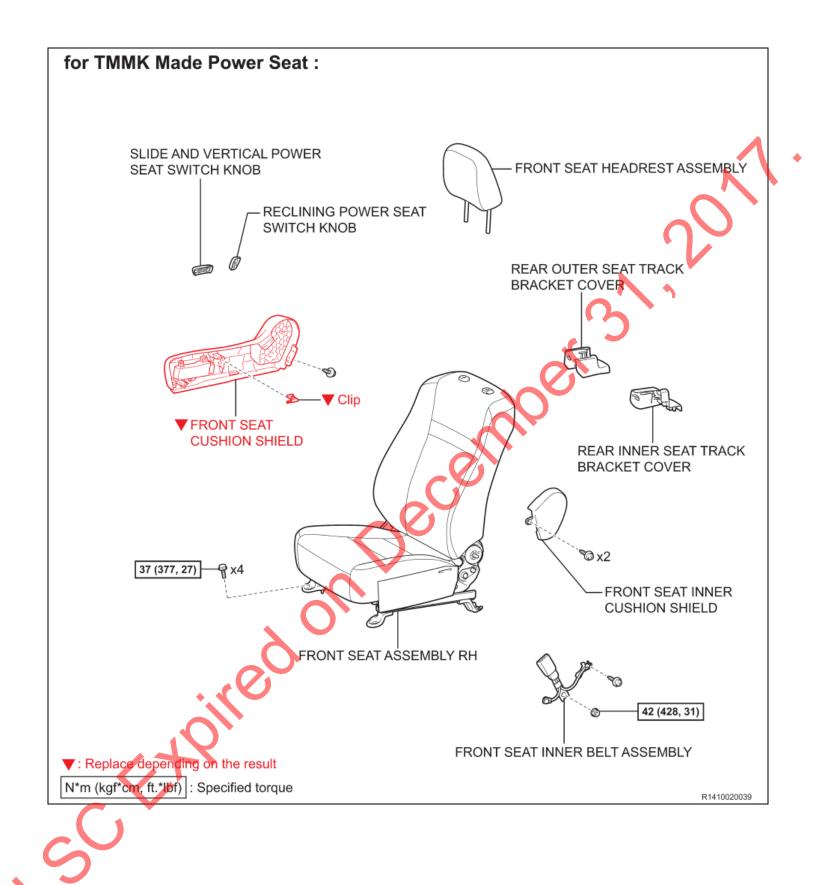


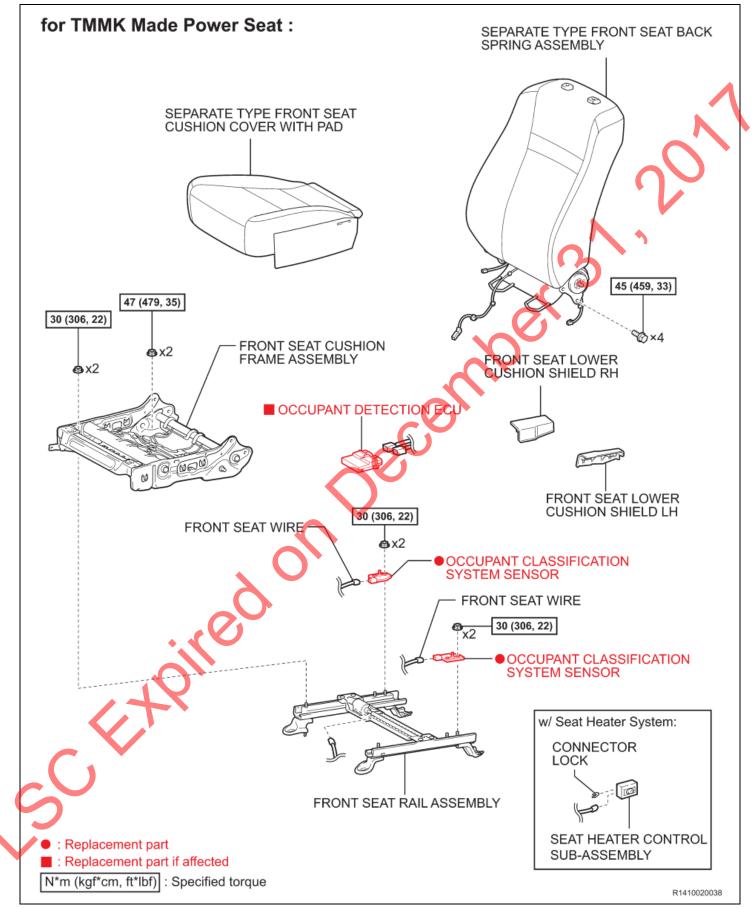
#### **VII. WORK PROCEDURE**





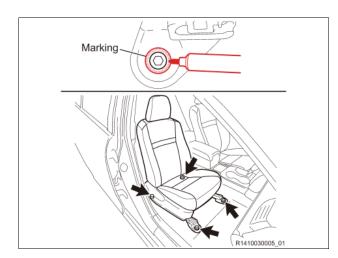






#### 1. REMOVE THE RIGHT FRONT SEAT

- When replacing the OCS sensor, it is necessary to mark the position of certain parts prior to removal in order to assure proper alignment during reassembly.
- DO NOT operate any lever during seat transportation.
- DO NOT damage interior components during R&R of the right front seat.
- 2 people may be required when removing the front seat from the vehicle.



- a) Remove the headrest.
- b) Remove any seat track covers (if equipped).
- c) Mark the 4 seat mounting bolts as shown.
- d) Remove the 4 seat mounting bolts.

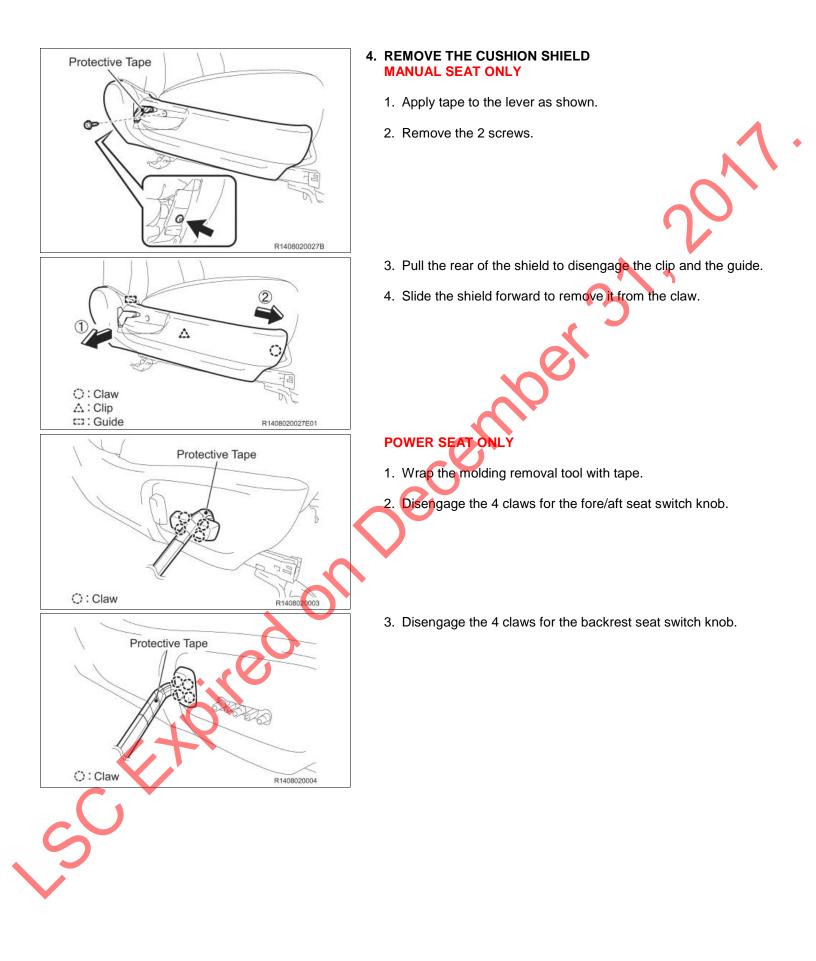
#### 2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

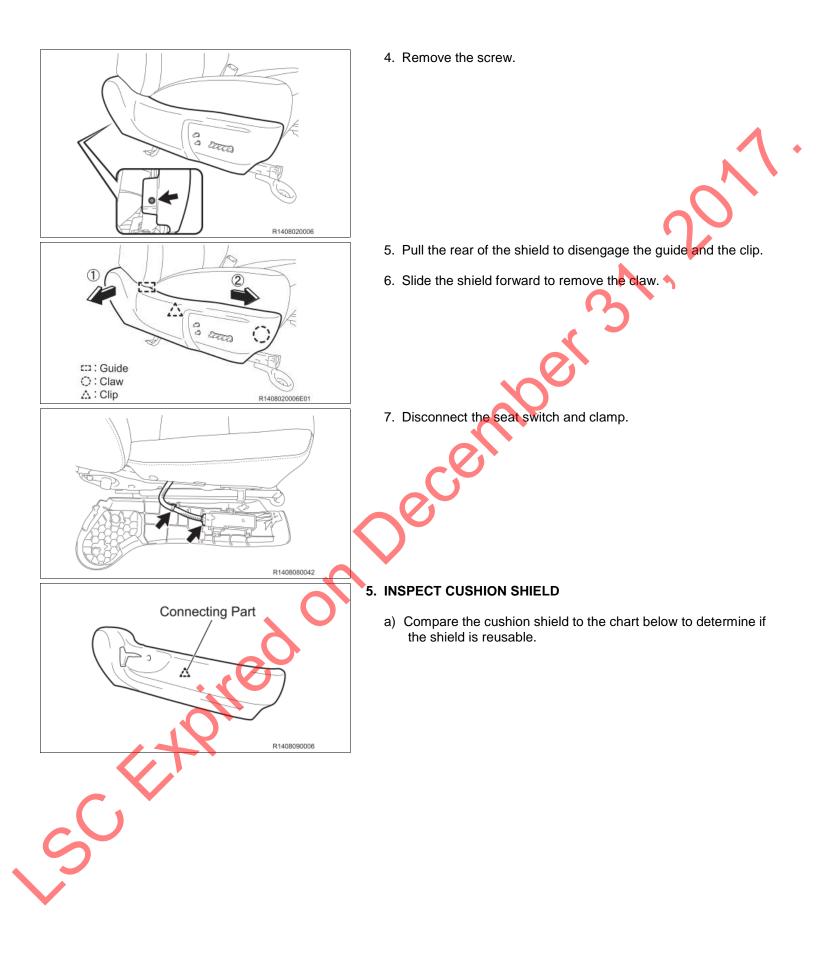
- a) Always disconnect the negative terminal before working with any SRS components in order to prevent unintentional deployment.
- b) Wait 90 seconds or more after disconnecting the negative terminal before performing any work due to the backup power supply equipped to the airbag system.
- c) Disconnect each connector and clamp under the seat.
- d) Remove the seat.
- e) Place the seat on a clean workbench

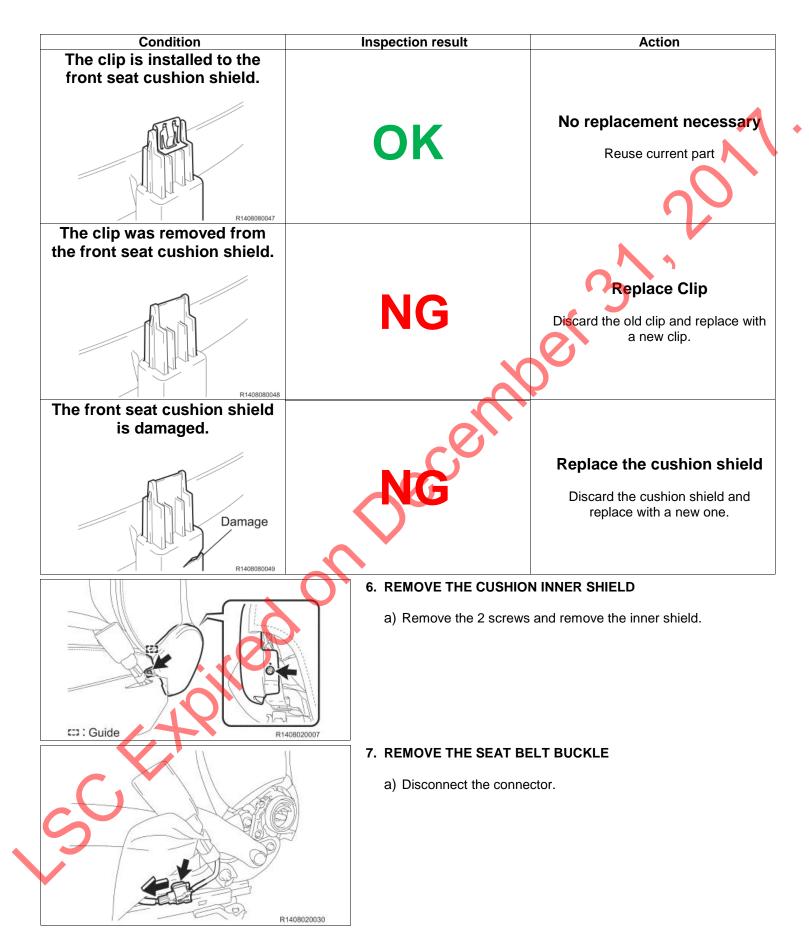


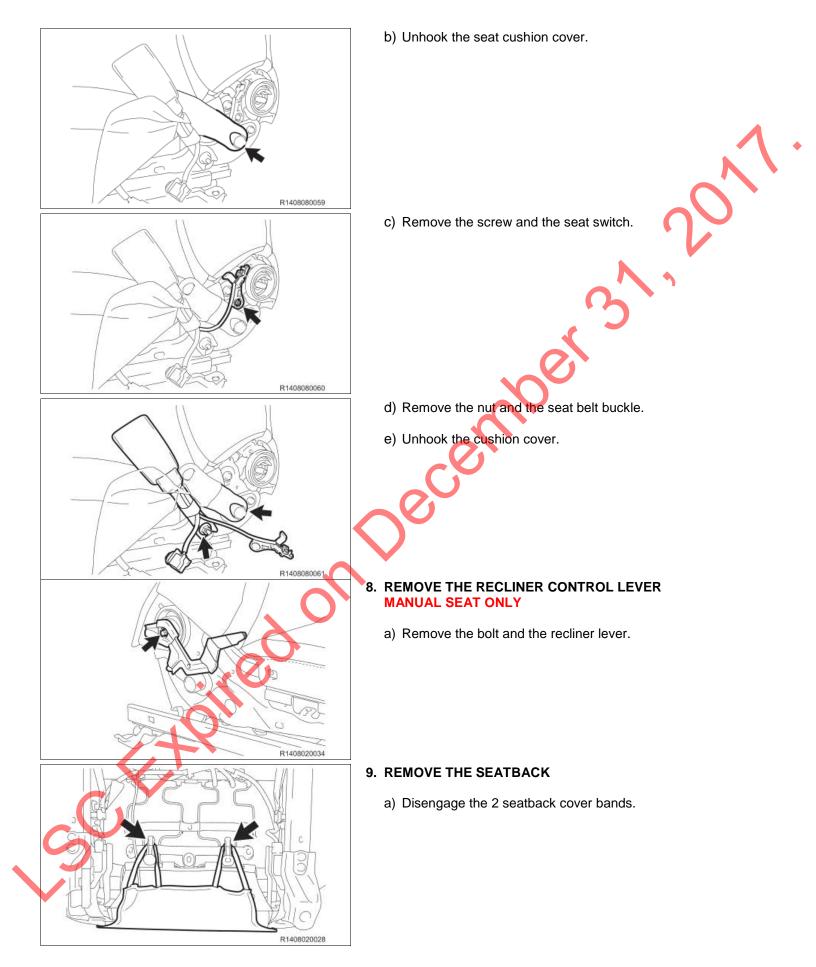
## 3. REMOVE THE RECLINE RELEASE HANDLE MANUAL SEAT ONLY

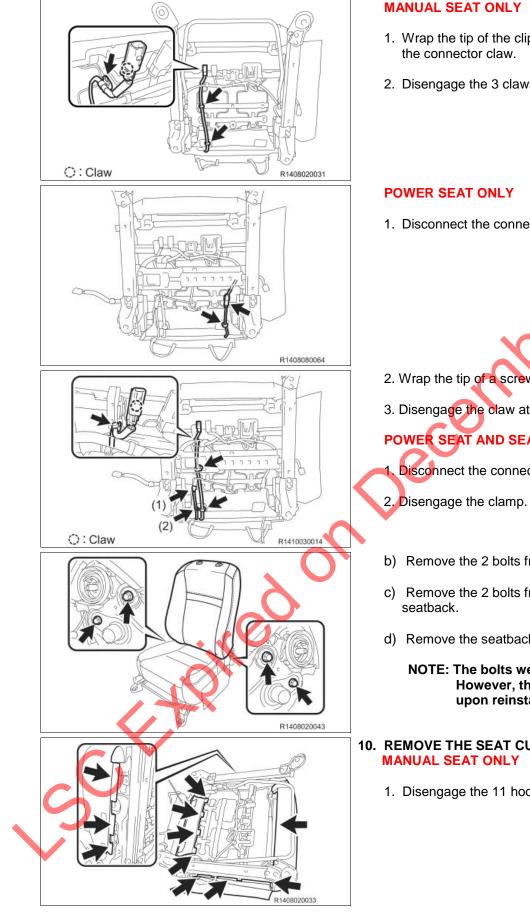
- a) Apply protective tape to the cushion as shown.
- b) Wrap the tip of a screwdriver with tape.
- c) Raise the lever, disengage the claw.
- d) Remove the recliner release handle.











#### MANUAL SEAT ONLY

- 1. Wrap the tip of the clip removal tool with tape and disengage
- 2. Disengage the 3 claws.

1. Disconnect the connector and the clamp.

- 2. Wrap the tip of a screwdriver with tape.
- 3. Disengage the claw at the back of the connector.

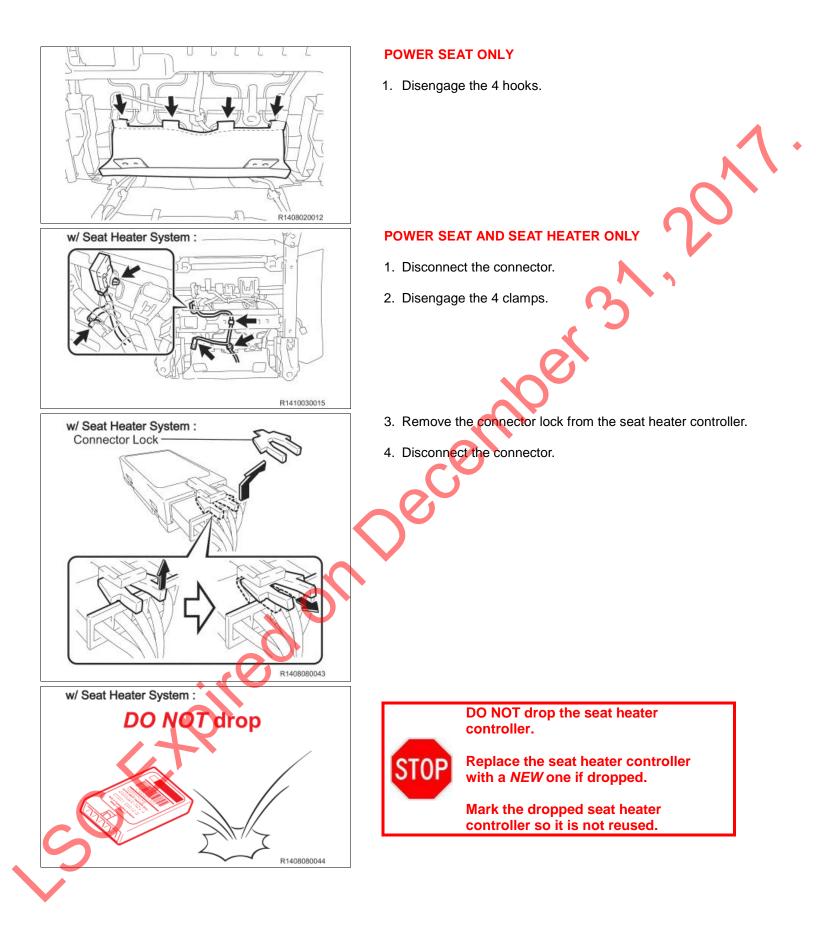
#### POWER SEAT AND SEAT HEATER ONLY

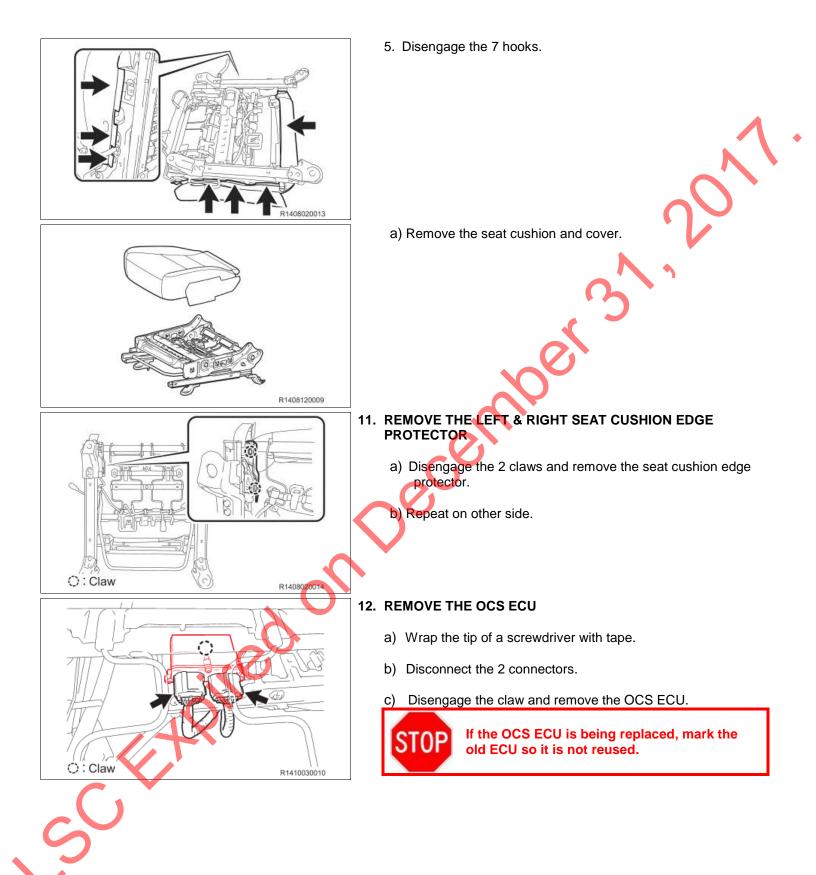
- 1. Disconnect the connector.
- b) Remove the 2 bolts from the left side.
- c) Remove the 2 bolts from the right side while holding the
- d) Remove the seatback from the lower seat frame.

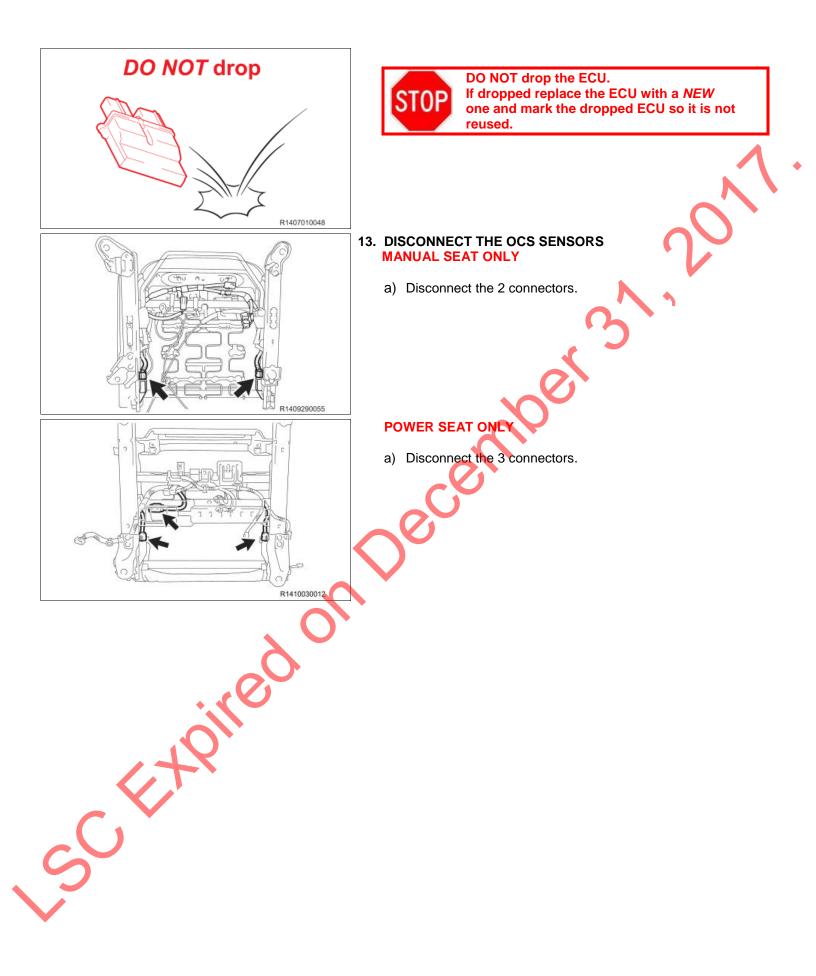
#### NOTE: The bolts were pre-coated with thread locker. However, there is no need to apply thread locker upon reinstallation.

## **10. REMOVE THE SEAT CUSHION AND COVER**

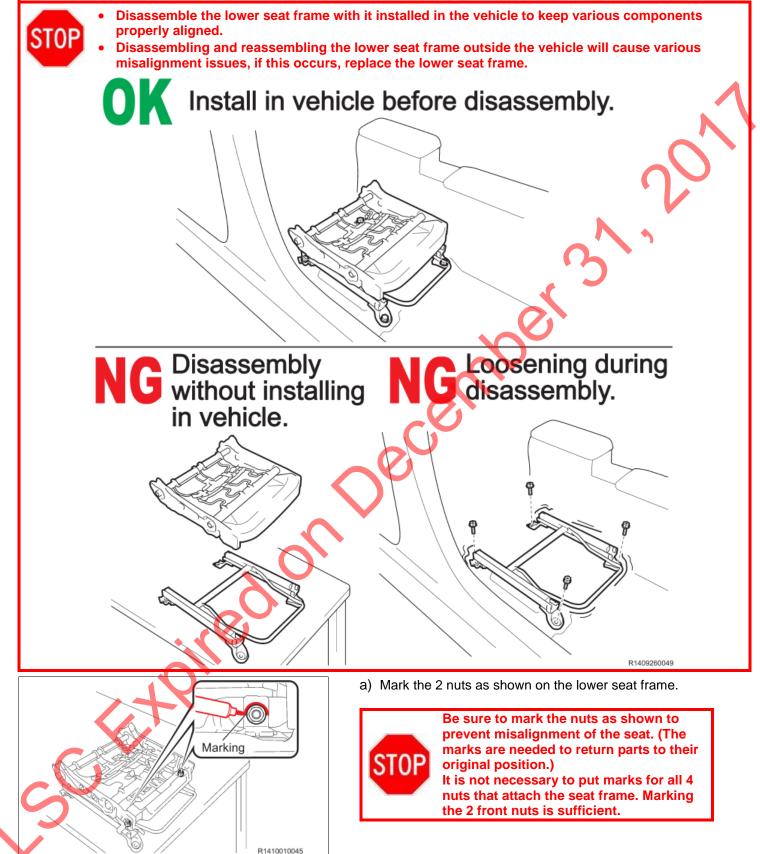
1. Disengage the 11 hooks.

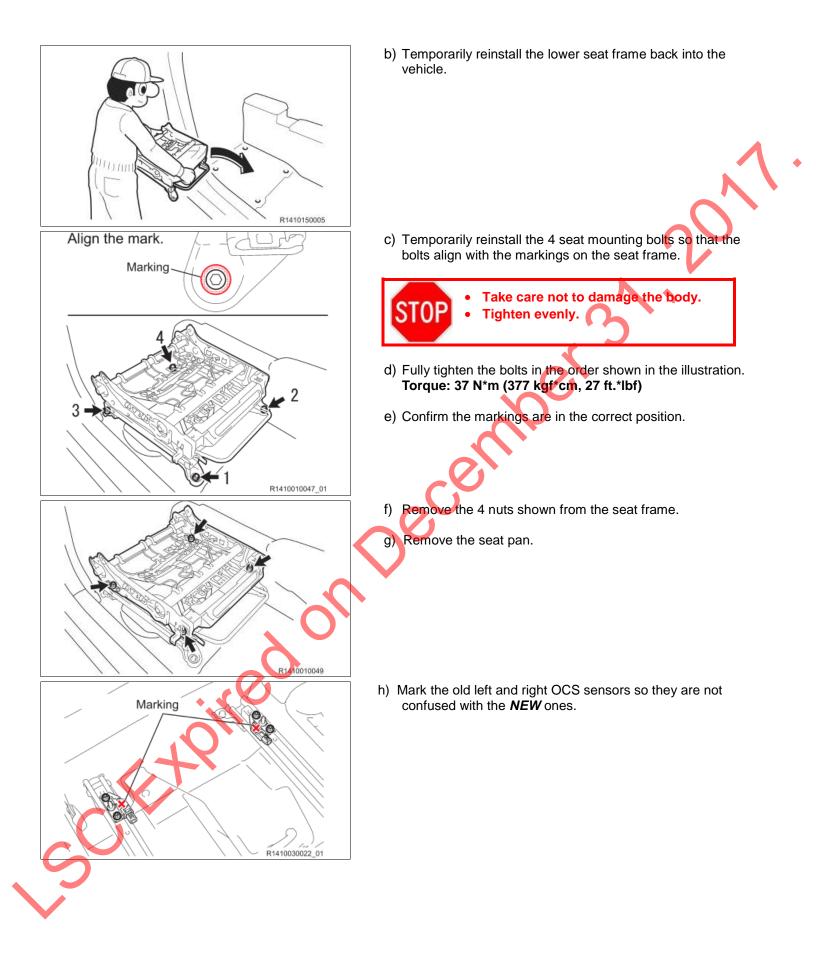


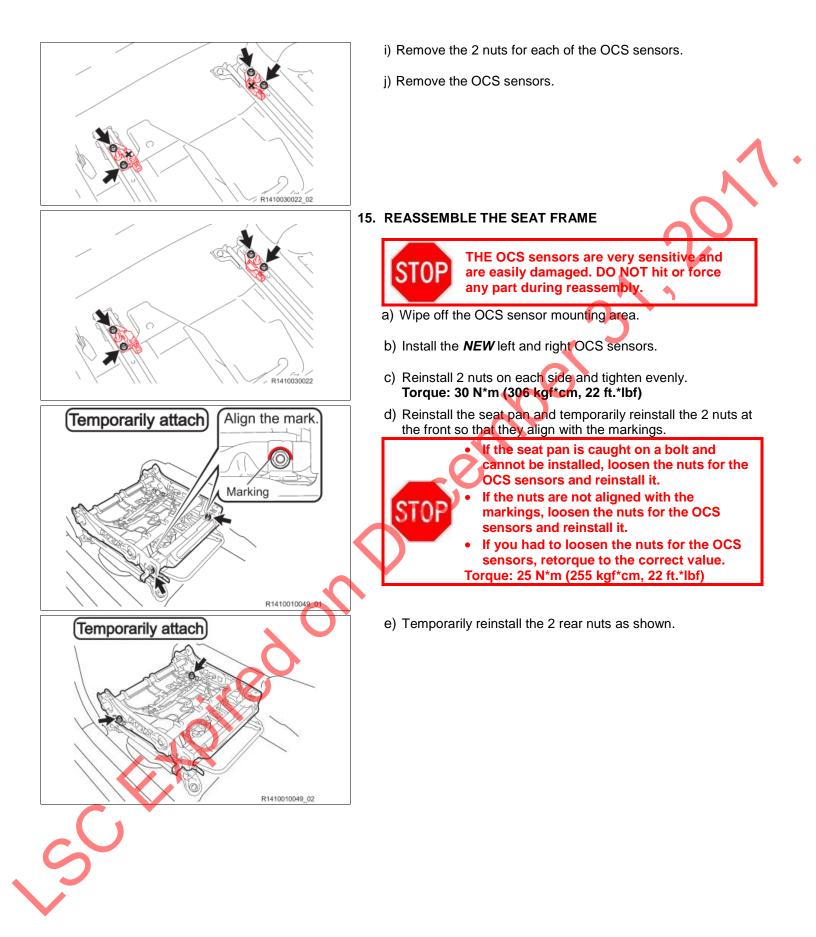


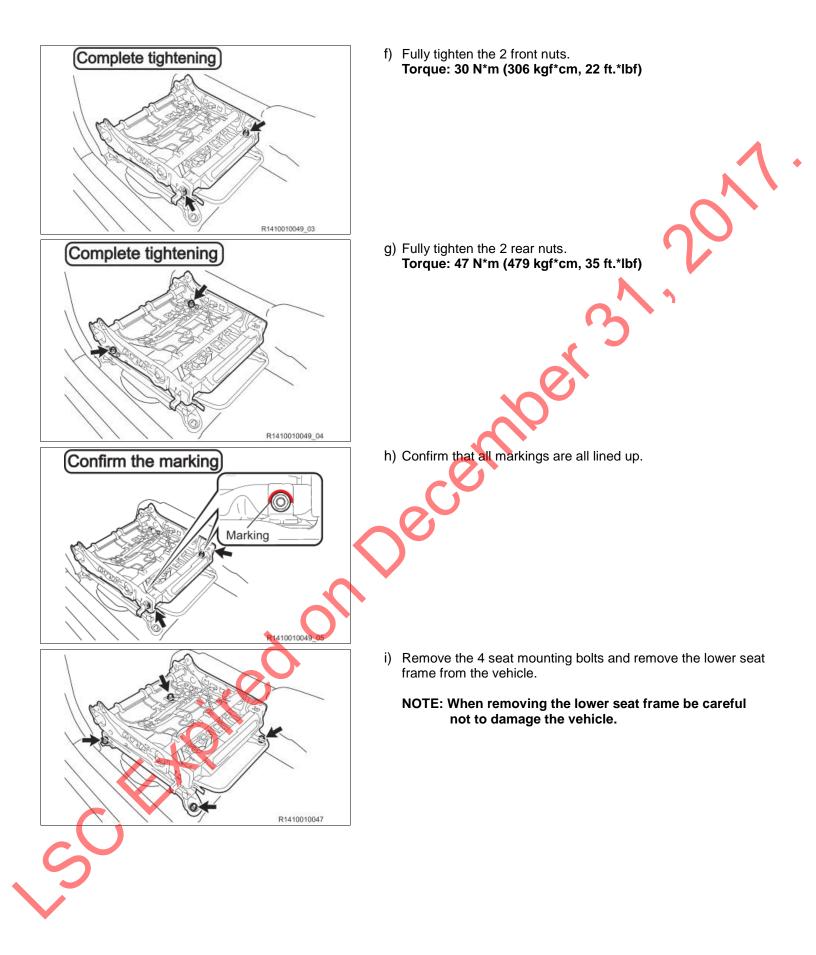


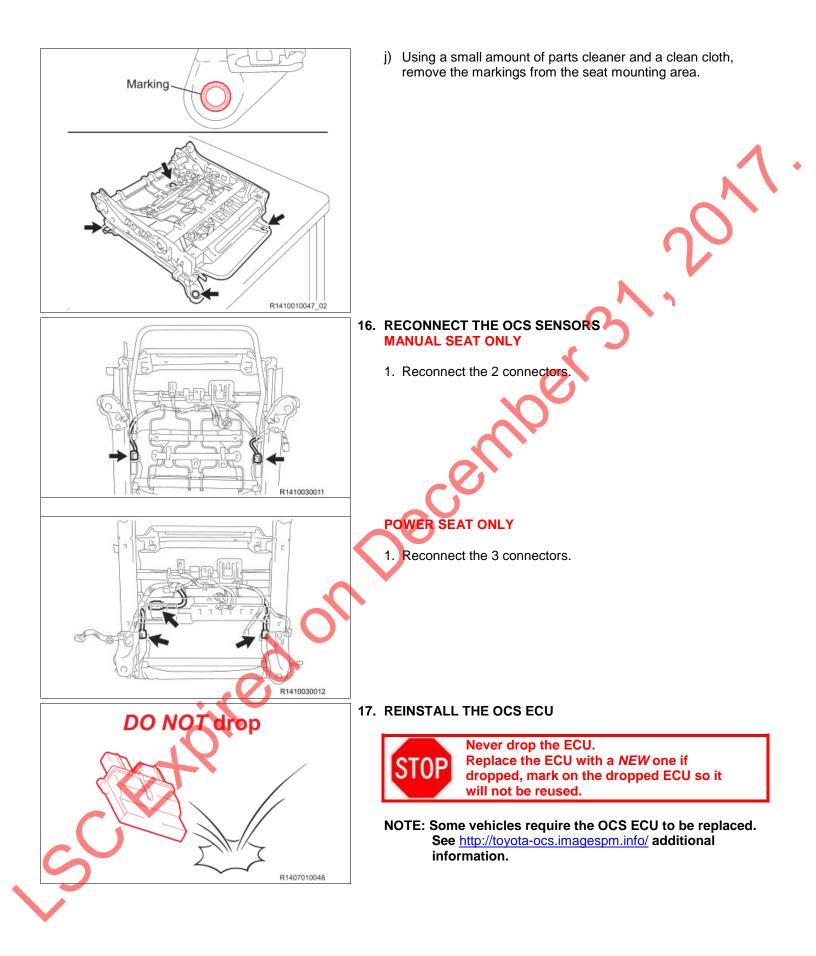
#### 14. DISASSEMBLE THE LOWER SEAT FRAME

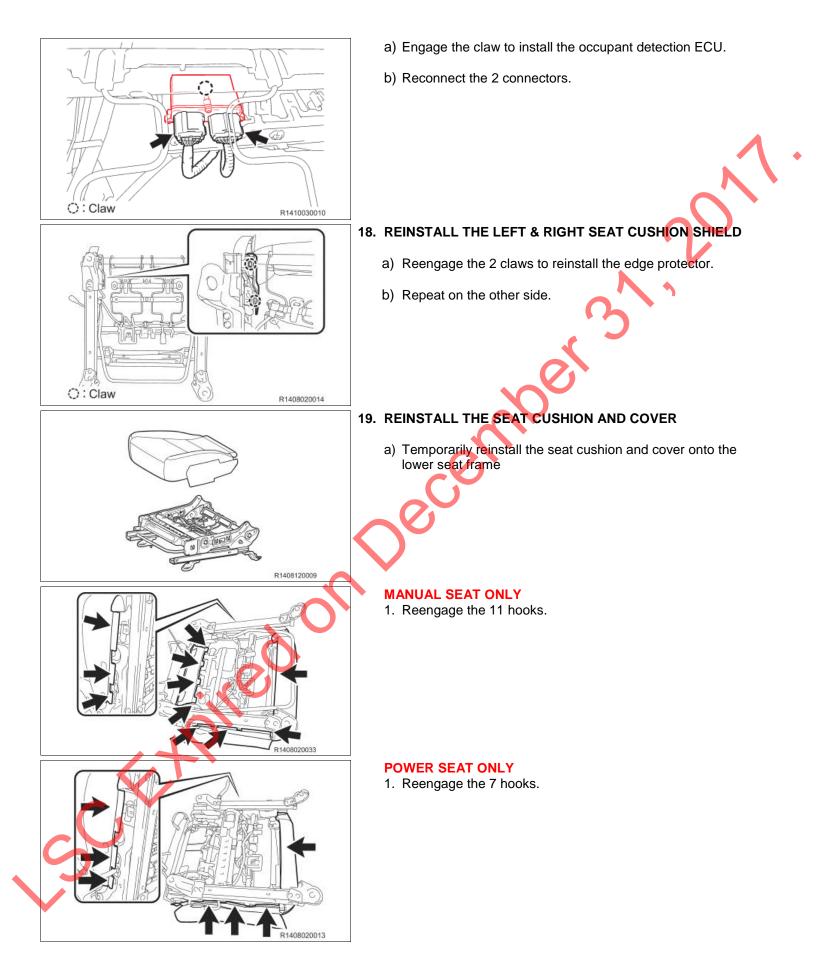




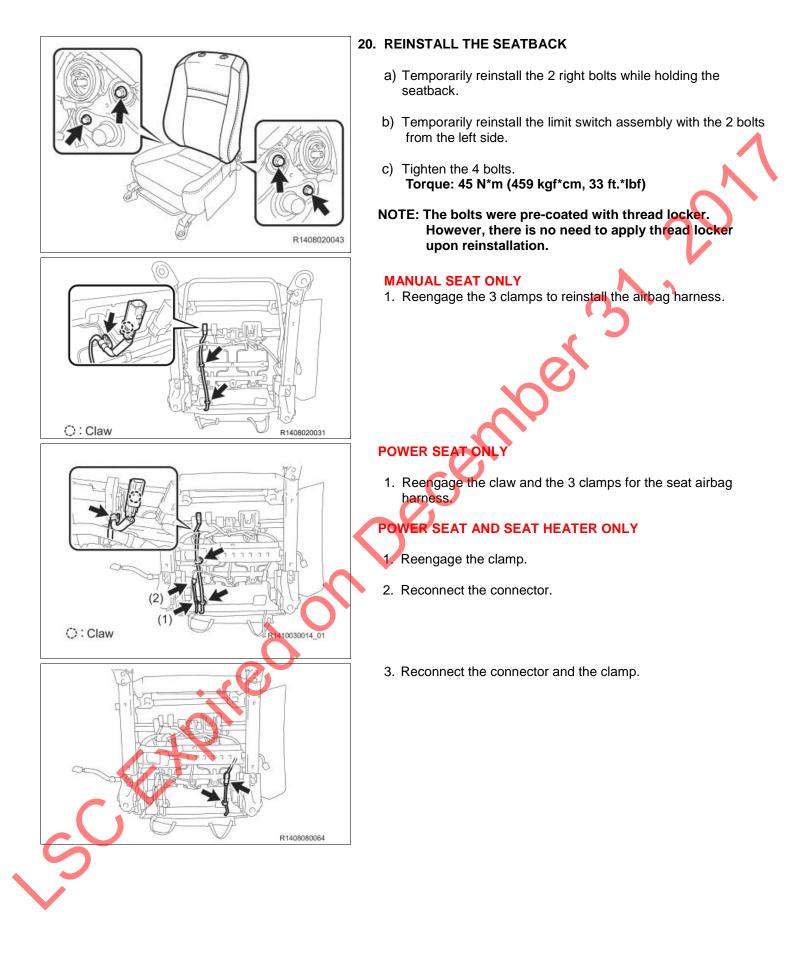


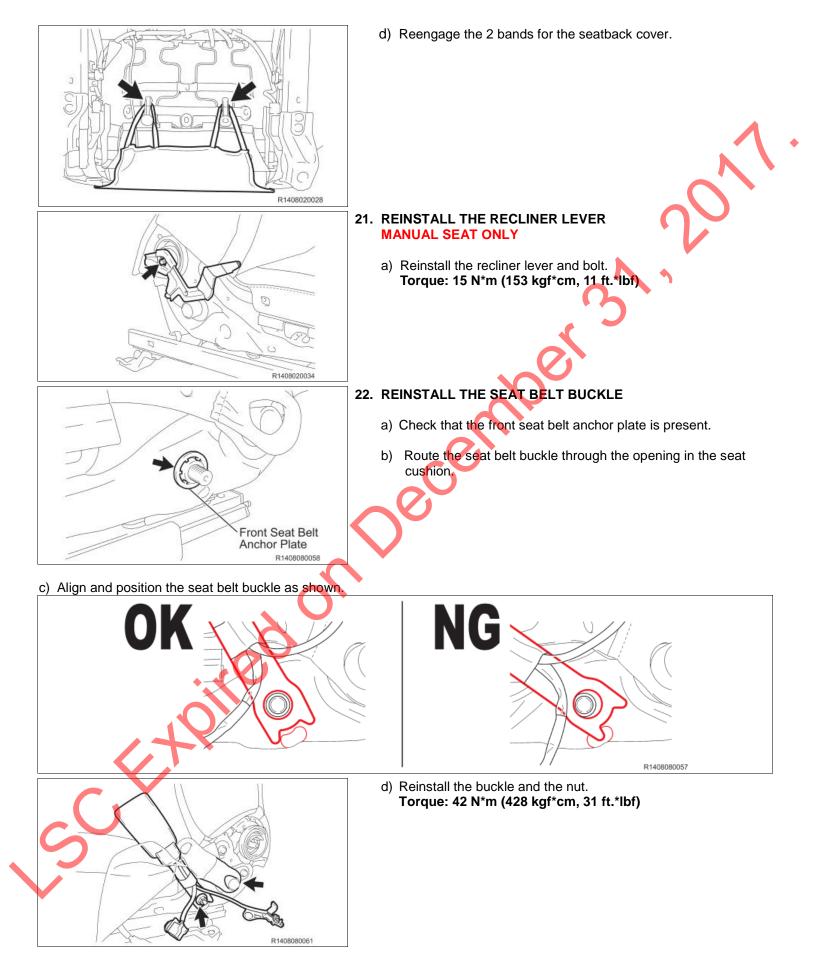


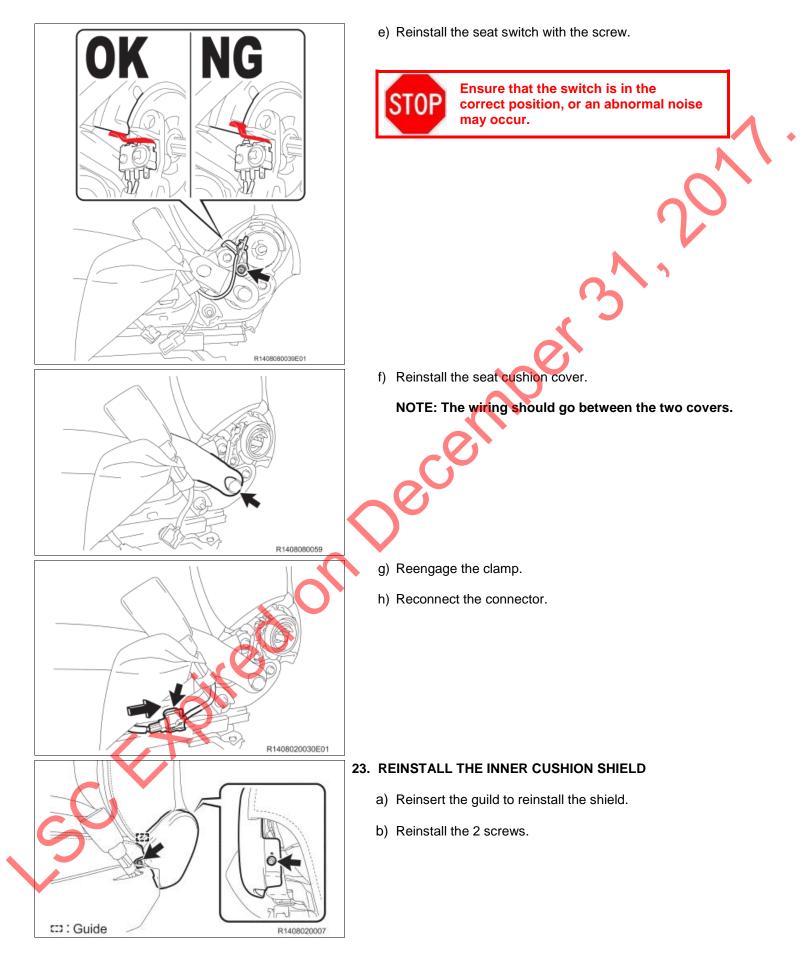


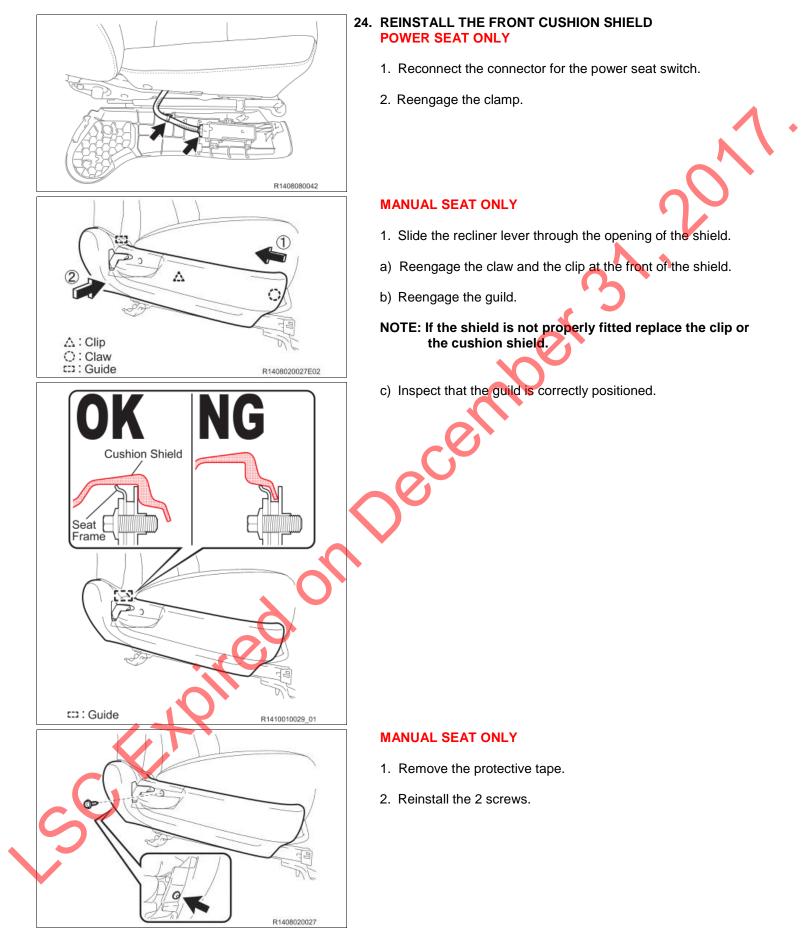


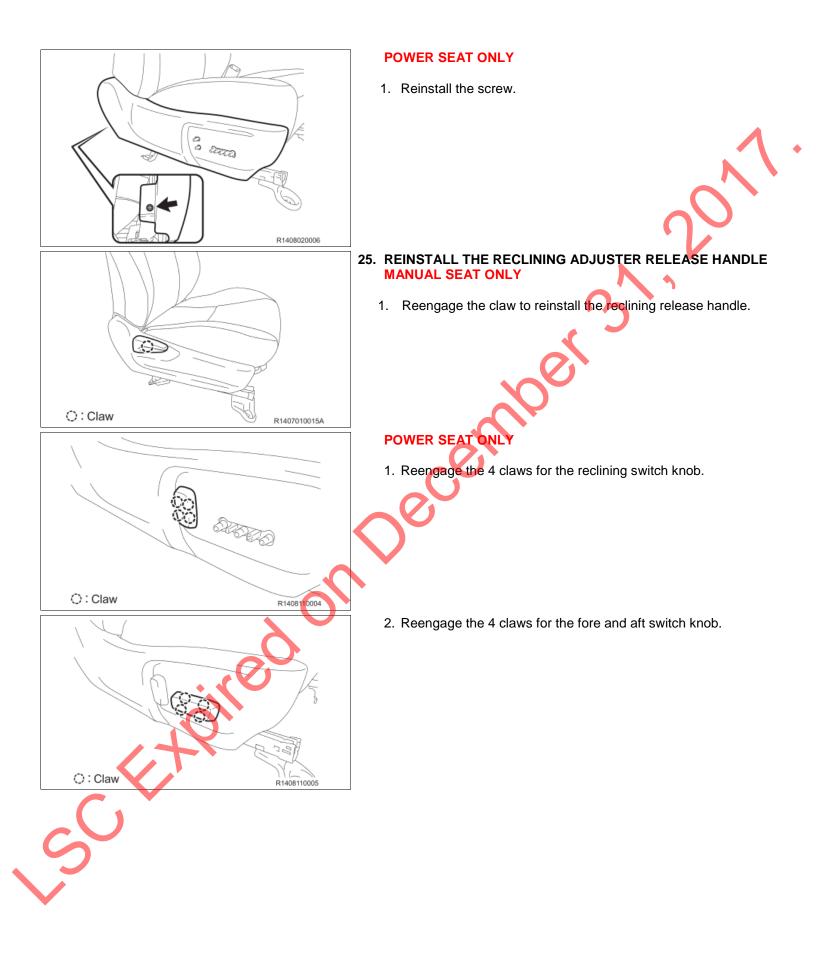






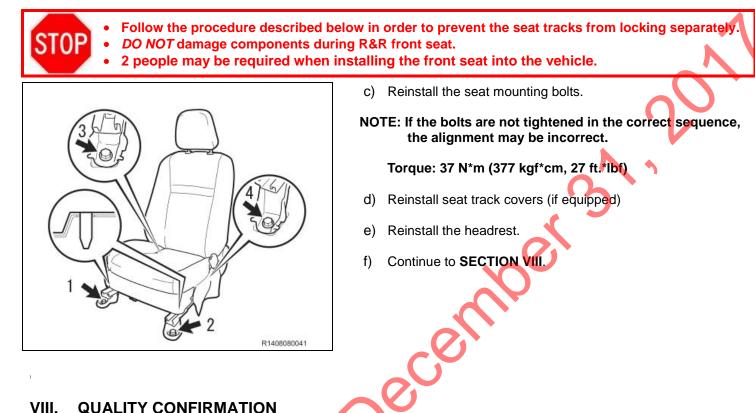






#### 26. REINSTALL THE RIGHT FRONT SEAT

- a) Reinstall the right front seat.
- b) Reconnect any connectors for the seat.



#### VIII. QUALITY CONFIRMATION

- **1. RECONNECT THE NEGATIVE BATTERY TERMINAL**
- 2. REMOVE ANY PROTECTIVE COVERS
- 3. CHECK THE OPERATION OF THE PASSENGER AIRBAG ON/OFF INDICATOR
- 4. CHECK SEAT HEATER OPERATION (if equipped)
- 5. INSPECT THE SEAT OPERATION OF SEAT SLIDING & RECLINING

R1408080041

Always perform inspection.

In case of heavy sliding, abnormal noise, or locking failure of sliding/reclining, compared to before replacement, replace the separate type front seat cushion spring assembly with a NEW one.

#### 6. CHECK FOR DTCs

#### 7 PERFORM OCS ECU INITIALIZATION

a) Perform zero point calibration and sensitivity check.

Refer to the Technical Information System (TIS), using the applicable vehicle and model year.

2012 2013

NOTE: If the standard value cannot be satisfied, change the weight position and perform check again.

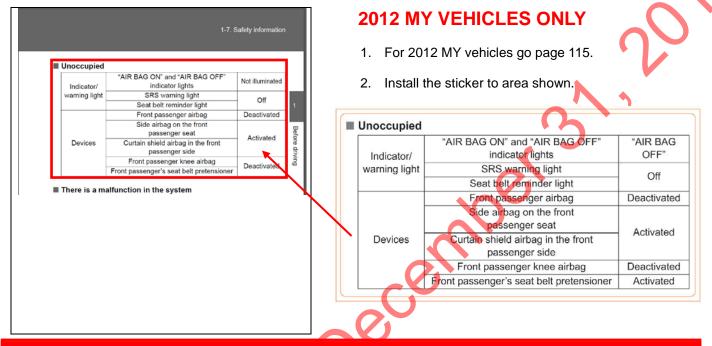
#### 8. REINITIALIZE SYSTEMS

a) Restore any memory settings and initialize any system needed (i.e. power windows, moonroof, etc.)

#### 9. RETURN THE SEAT TO THE ORIGINAL POSITION

#### 10. UPDATE OWNER'S MANUAL (ONLY IF OCS ECU IS REPLACED)

a) Locate owner's manual.



◄ VERIFY REPAIR QUALITY►

- Proper seat operation
- Proper passenger side airbag light operation

-If you have any questions regarding this OCS sensor replacement, please contact your regional representative.

#### **IX. APPENDIX**

#### A. PARTS DISPOSAL

As required by Federal Regulations, please make sure all campaign parts (original parts) removed from the vehicle are disposed of in a manner in which they will not be reused, **unless requested for parts recovery return.** 

#### **B. CAMPAIGN DESIGNATION DECODER**

