TECHNICAL INSTRUCTIONS

FOR

SAFETY RECALL E0L

DRIVER SIDE SEAT TRACKS REPLACEMENT

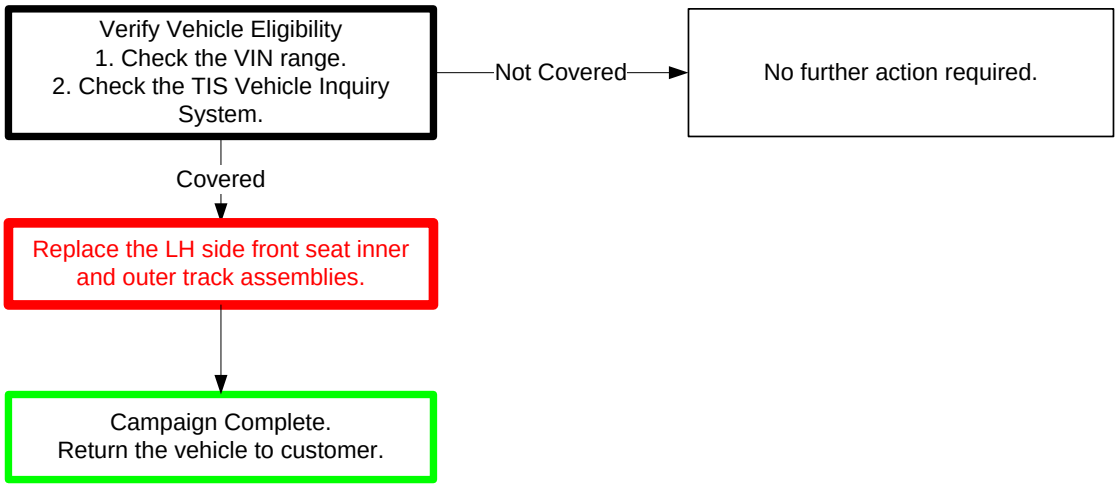
CERTAIN 2006-2010 YARIS SEDAN

All dealership associates involved in the recall 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 at least one of the following certifications levels:

- **Toyota Certified (any classification)**
- **Toyota Expert (any classifications)**
- **Master**
- **Master Diagnostic Technicians**

I. OPERATION FLOW CHART

The flow chart is for reference only. *DO NOT* use it in place of the full technical instructions. Follow *ALL* steps as outlined in the full technical instructions to confirm the campaign is completed correctly.



II. BACKGROUND

In the seat rail of the driver and front passenger seats of the subject vehicles, the springs used for the mechanism which locks the seat rail in its adjusting positions could break. This can happen if the seat is adjusted forward and/or rearward with high frequency. If a seat rail spring breaks, the seat may not lock into the adjusted position. If the vehicle is operated with a broken seat rail spring, the seat could move in the event of a crash, increasing the risk of injury to the occupant.

III. PREPARATION

A. PARTS

Part Number	Part Description	Quantity
04002-19452	Track Assy, FR Seat, LH	1

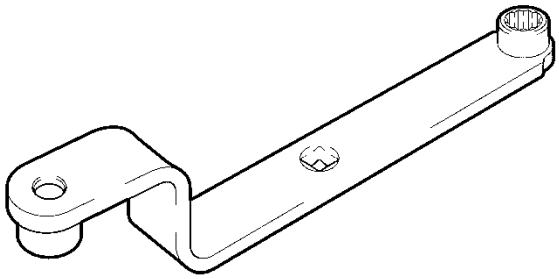
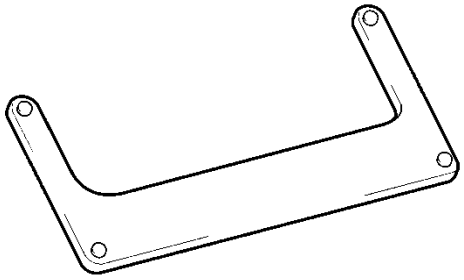
*The kit above contains the following parts

72120 - 52111	TRACK ASSY, FR SEAT, OUTER LH	1
72118 - 52030	RAIL, FR INNER SEAT TRACK, LWR LH	1
90178 - 08012	NUT	8

B. TOOLS & EQUIPMENT

- Techstream
- Protective gloves
- T40 “Torx” socket
- E10 “Torx” socket
- Standard hand tools
- Feeler gauge
- Torque wrench
- Round file
- Seat cover

CAMPAIGN TOOLS

Seat Track Wrench	Seat Track Adjusting Gauge
	

C. MATERIALS

- Protective Tape
- Protective Blanket
- Rope/Tie Down
- Packing Tape
- Zip Tie

IV. IDENTIFICATION OF AFFECTED VEHICLES

A. COVERED VIN RANGE

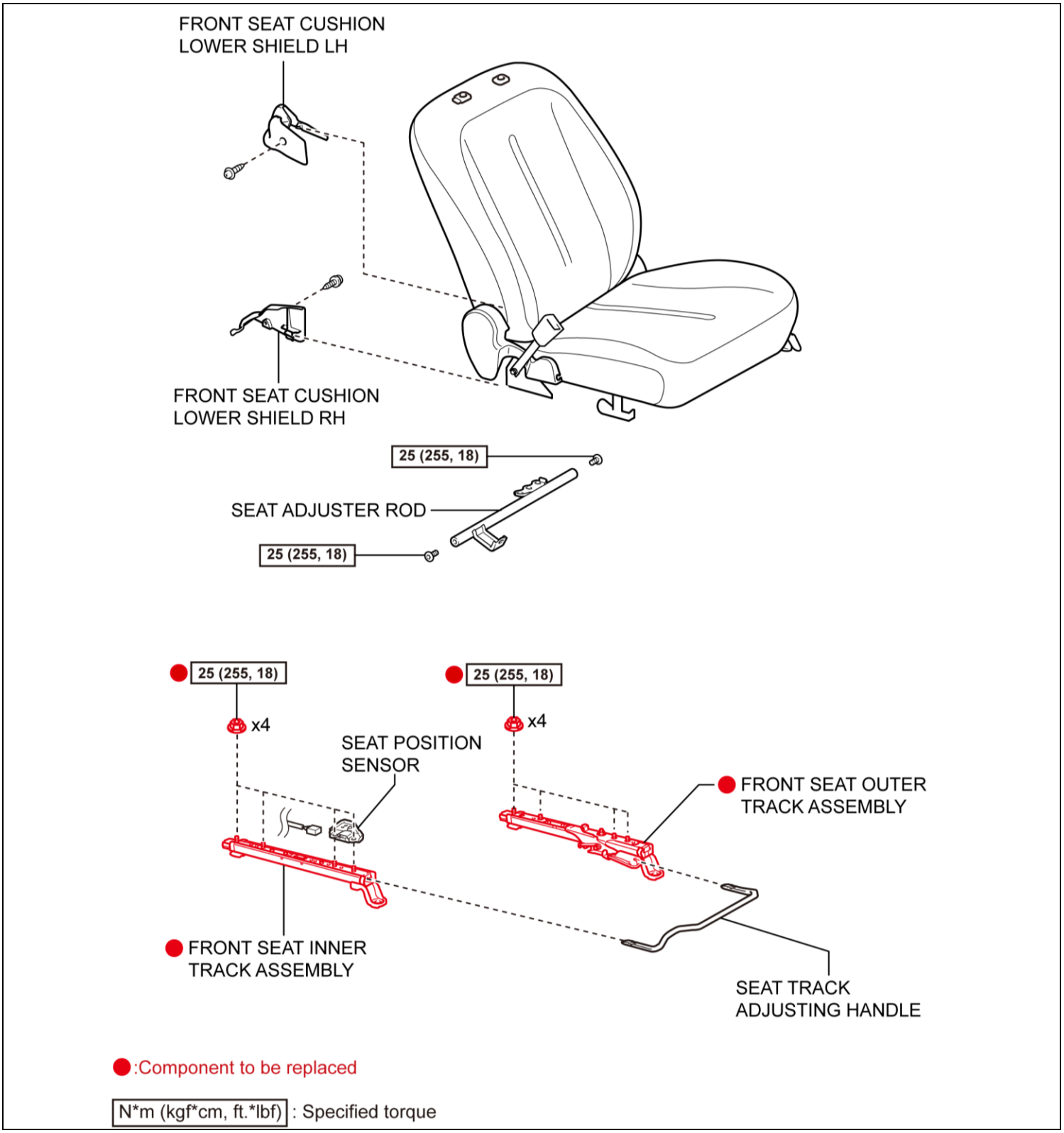
MODEL	WMI	VDS	YEAR	SERIAL MIN	SERIAL MAX
YARIS SEDAN	JTD	BT4K3	2010	1351444	1390775
				4062553	4076151
		BT903	2007	1000104	1187591
				4000006	4003638
			2008	1187667	1297180
				4003685	4041385
			2009	1272435	1352244
				4031587	4062544
		BT923	2007	1000117	1187660
				4000002	4003640
			2008	1186799	1297184
				4002904	4041400
			2009	1297185	1352230
				4039460	4062541
		BT933		1295920	1312126
				4041793	4049577
		BT9K3	2010	1352246	1390774
				4062552	4076150

NOTE:

- **Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this Safety Recall, 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.**

V. WORK PROCEDURE

A. COMPONENTS



B. SEAT ASSEMBLY REMOVAL

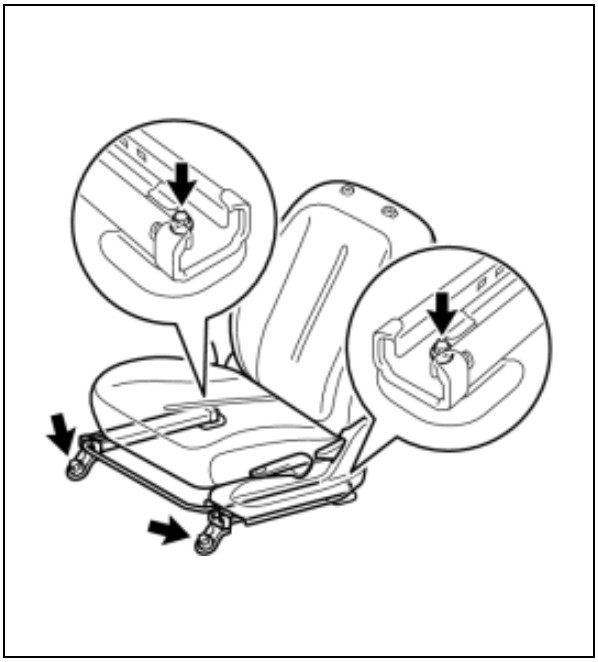
1. ADJUST THE POSITION OF THE SEAT

a) Move the seat to the center position.

b) Move the seatback to the upright position.

2. **RECORD SYSTEM SETTINGS (RADIO PRESETS, A/C SETTINGS, ETC)**
3. **DISCONNECT THE NEGATIVE BATTERY TERMINAL (FOR VEHICLES EQUIPPED WITH SIDE AIRBAGS)**

- **Wait at least 90 seconds after disconnecting the cable from the negative battery terminal to prevent airbag and seat belt pretensioner deployment.**
- **Follow all precautions as outlined on TIS before servicing the SRS system.**

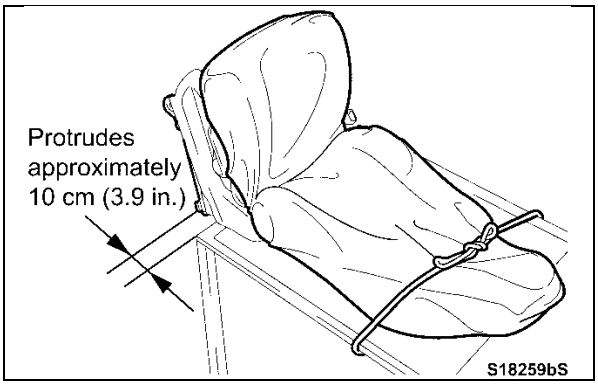


4. **REMOVE THE HEADREST ASSEMBLY**
5. **REMOVE THE SEAT ASSEMBLY BOLTS**
   a) Cover expose areas of interior trim with protective tape and place a soft blanket over the door panel to protect it while removing the seat.
   b) Remove the 4 bolts.
6. **REMOVE THE SEAT ASSEMBLY**
   a) Tip the seat back and disconnect the connectors on the bottom of the seat.
   b) Using 2 people, carefully remove the seat from the vehicle and place it on a clean bench.

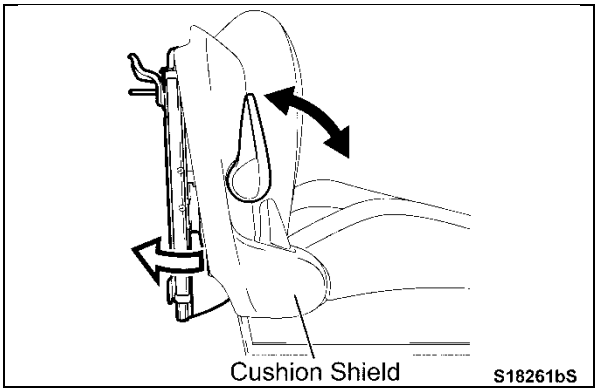
- **Use care when removing the seat, if the vehicle is experiencing the recall condition the seat track rail may suddenly move while removing the seat.**
- **To prevent damaging and/or soiling of the seat, place the seat on a clean bench that has been covered with a clean blanket.**

C. FRONT SEAT TRACK ASSEMBLY REMOVAL

- **DO NOT remove the outer seat cushion shield because the shield locking claw will be damaged.**



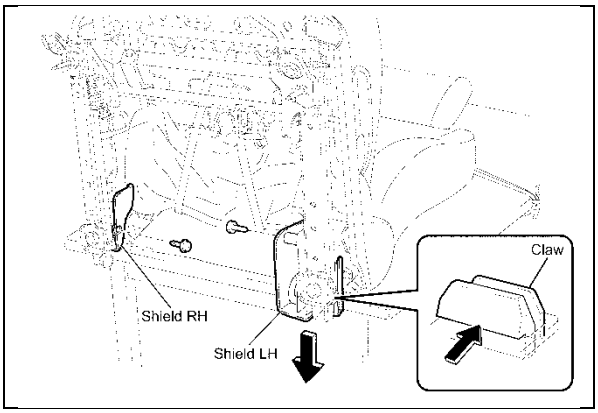
5. **SECURE THE SEAT TO THE WORK BENCH**
   a) Install the head rest and put a seat cover over the seat.
   b) Place the seat on its back and position the seat so that approximately 10 cm (4 in.) protrudes over the edge of the workbench.
   c) Secure the seat to the work bench with a rope or tie down.



6. ADJUST THE SEAT TRACK POSITION

a) Operate the seat lift lever to adjust the seat tracks away from the seat cushion as shown.

Note: adjusting the seat tacks away from the cushion will give you greater access to the seat track nuts.

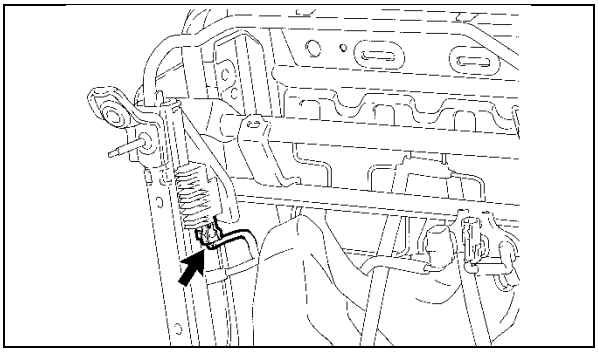


7. REMOVE THE SEAT CUSHION LOWER INNER SHIELD

a) LH shield: remove the screw, disengage the claw, and then pull out the shield.

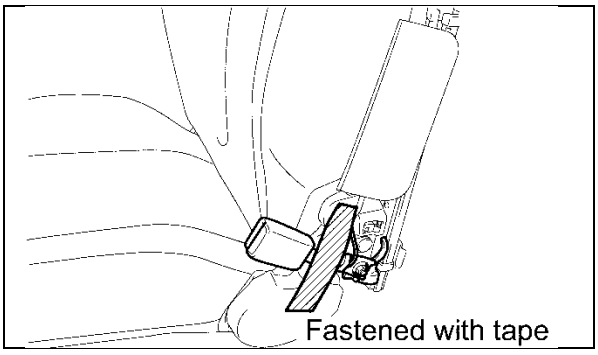
b) RH shield: Remove the screw and detach the shield.

Do not press the claw with excessive force.



8. REMOVE THE FRONT SEAT INNER AND OUTER TRACKS

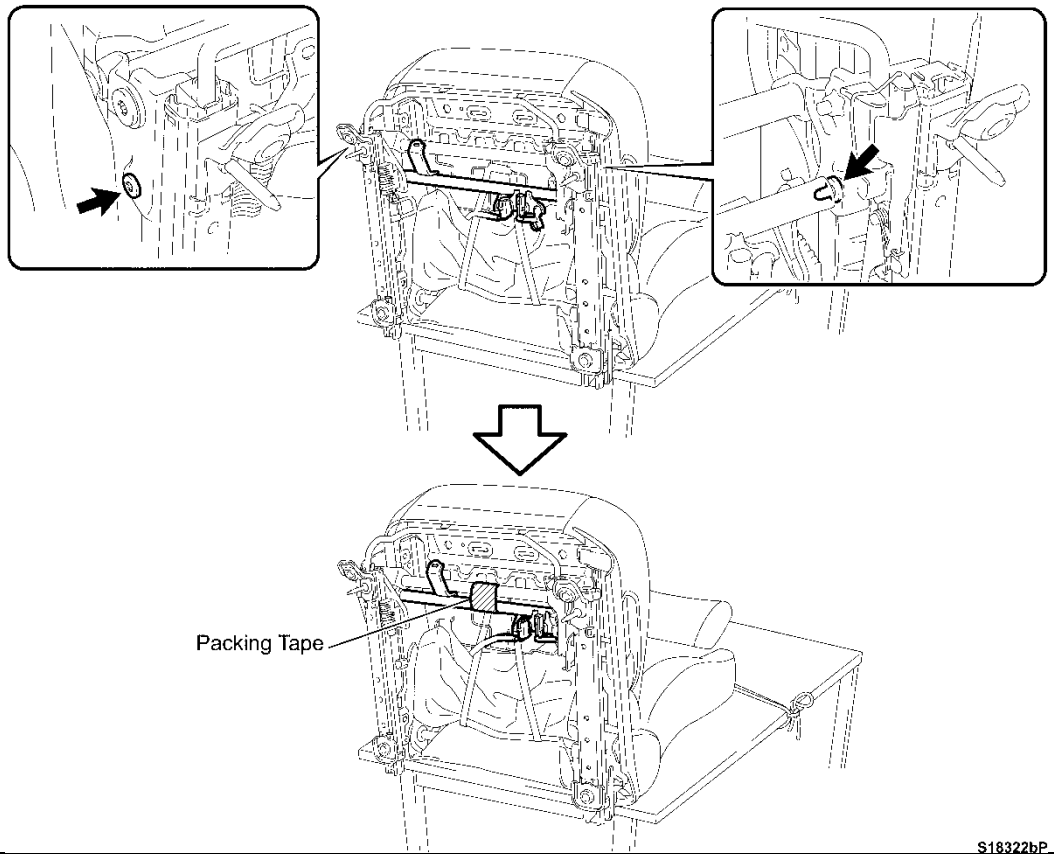
a) Disconnect the seat position sensor connector.

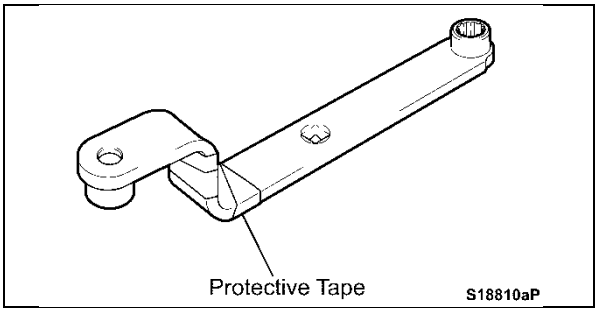


b) Fasten the inner belt to the seat with tape to prevent it from falling off and being damaged.

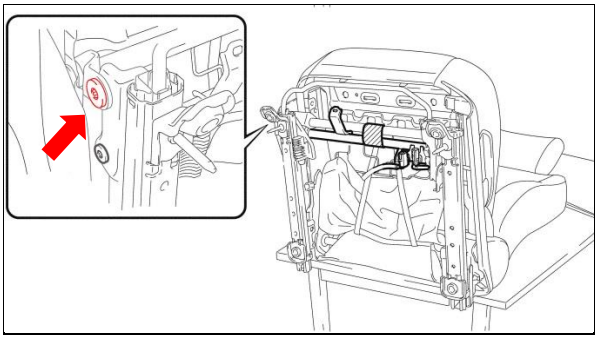
After the seat track is removed, the inner belt bracket could become loose. If this happens the inner belt will fall off and could be damaged.

c) Remove the 2 bolts, using a T40 Torx socket, to detach the adjusting rod.
d) Using tape or zip ties, secure the adjusting rod to the seat frame as sown below.





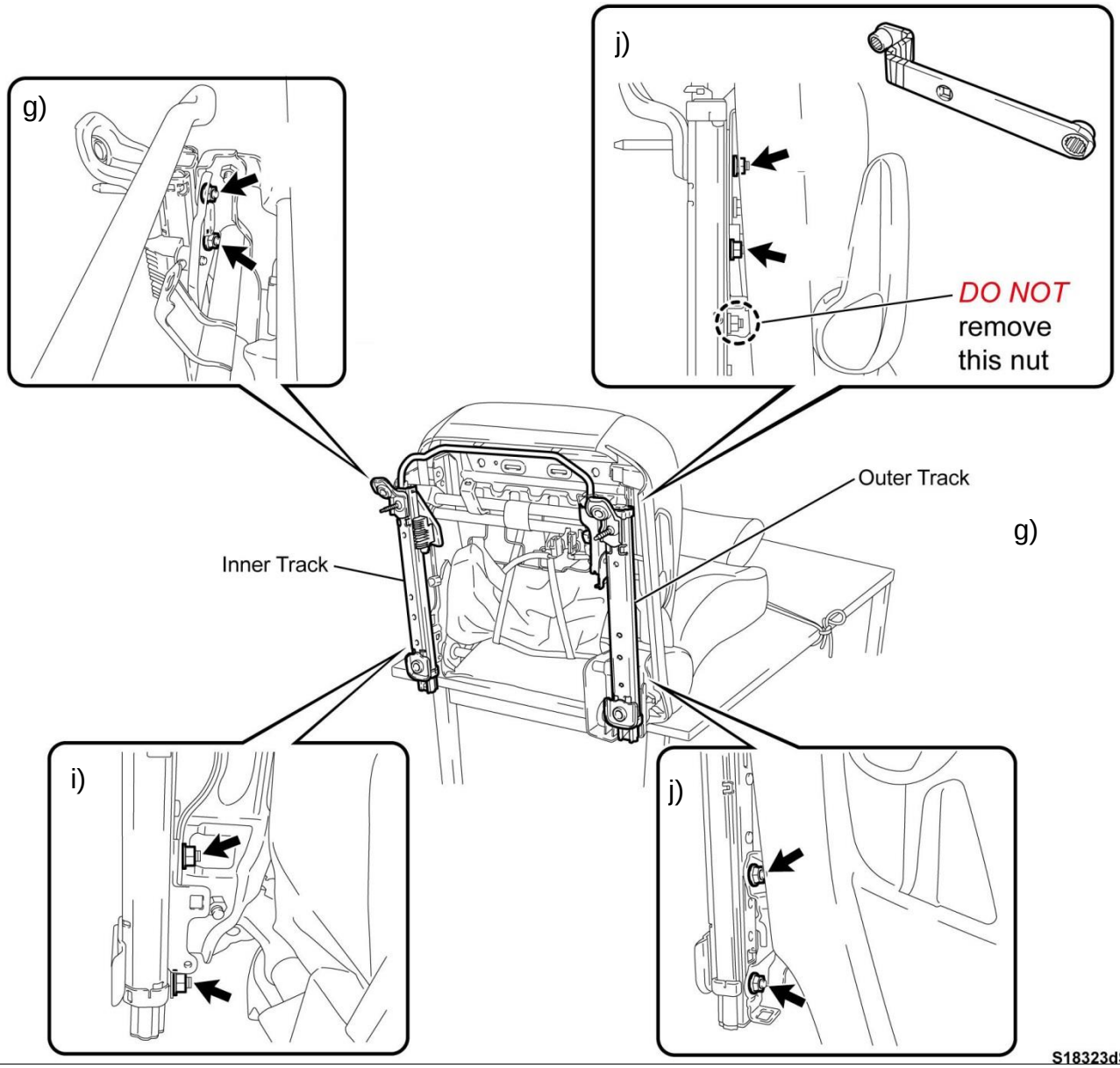
e) Attach protective tape to the seat track wrench as shown.



f) Back out the seat frame bolt shown far enough to allow access to the seat track position sensor nuts.

g) Remove the 2 nuts securing the seat position sensor and front part of the seat track assembly.
h) Place the seat position sensor in a safe location where it cannot be damaged.
i) Remove the 2 remaining nuts securing the inner seat track.
j) Using the seat track wrench, remove the 4 nuts from the outer track.
k) Carefully remove both seat tracks from the seat assembly.

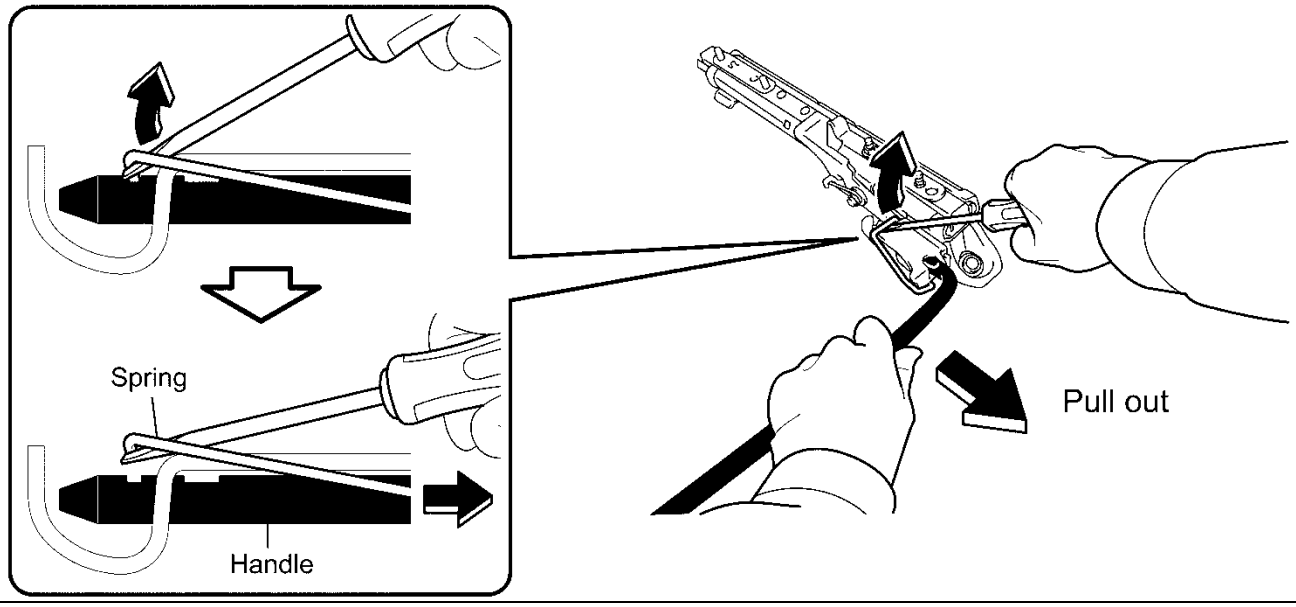
- **Remove the seat position sensor nuts and seat sensor first to ensure it is not dropped or damaged.**
- ***DO NOT* remove the nut identified below.**



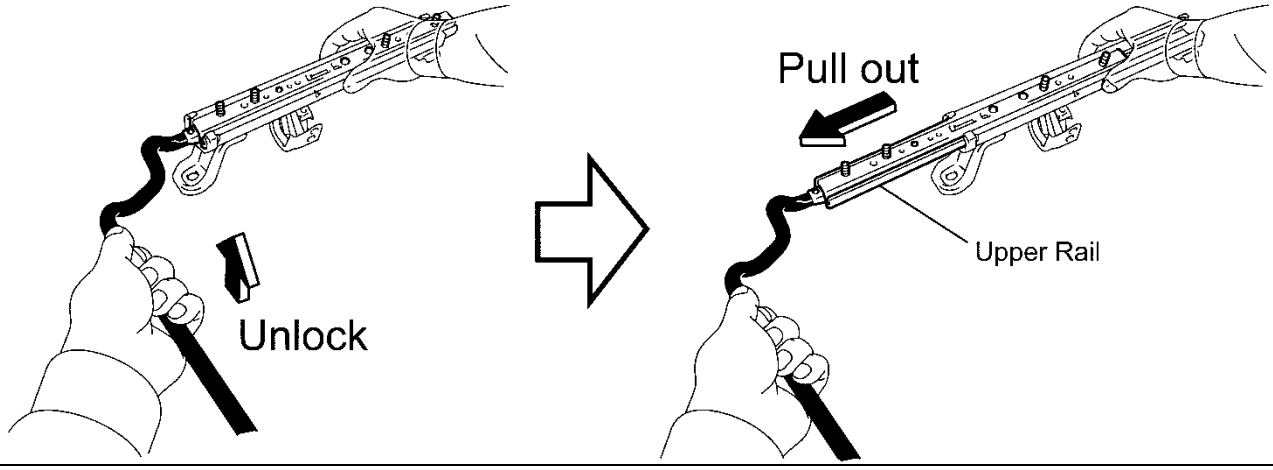
l) Discard the old nuts to ensure that they are not reused.

9. REMOVE THE SEAT TRACK ADJUSTMENT HANDLE

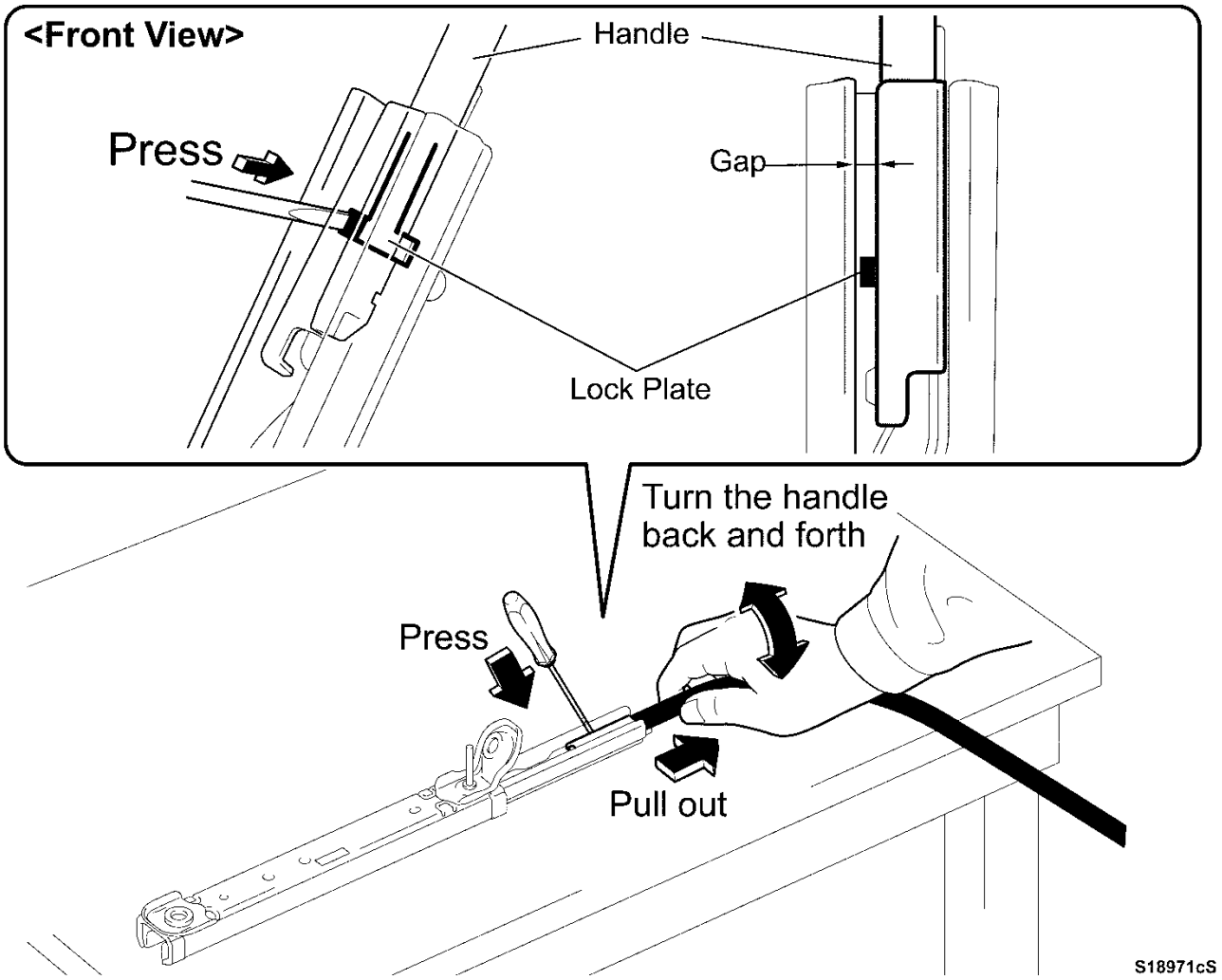
a) Using a flat tip screw driver, disengage the spring by lifting the spring upward and pull out the adjusting handle from the seat track assembly.



b) Lift the seat adjustment handle to release the lock and pull out the upper rail to access the adjustment handle lock plate.

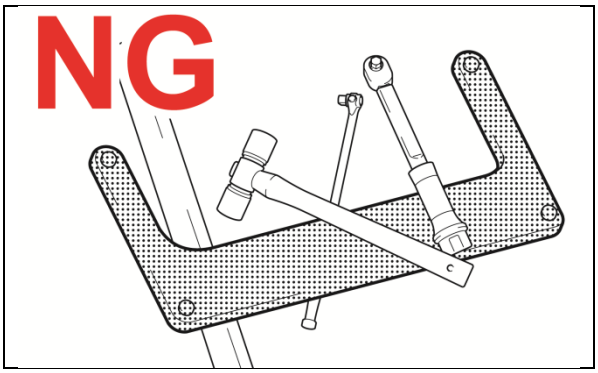


c) Using a flat tip screw driver, press the lock plate down and lightly turn the adjustment handle back and forth to remove it from the seat track.



d) Mark the original seat tracks and place them in a location to prevent them from being reused.

D. *NEW* SEAT TRACK INSTALLATION

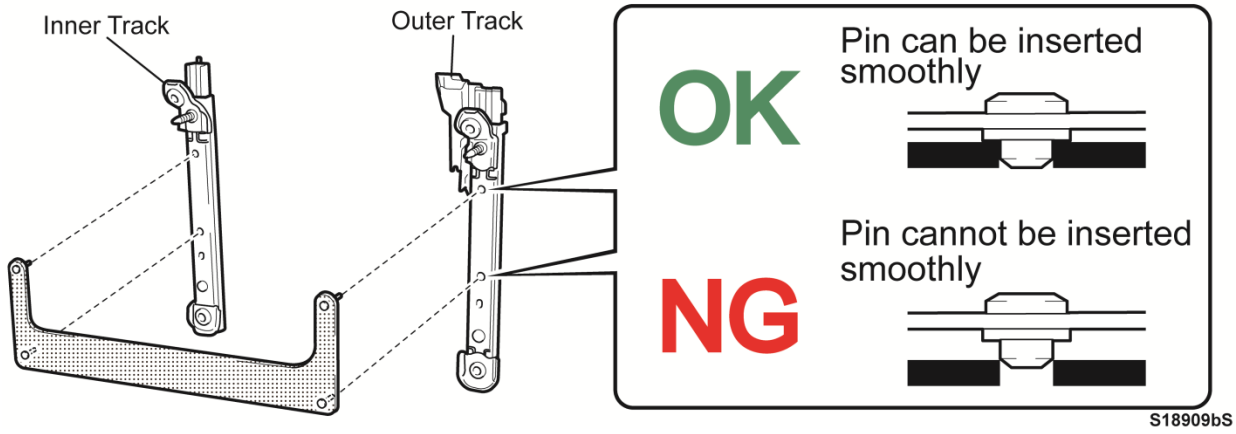


STOP **Be careful not to deform the seat track adjusting gauge while it is being stored.**

1. CHECK ADJUSTING GAUGE PIN HOLES IN THE NEW SEAT TRACKS

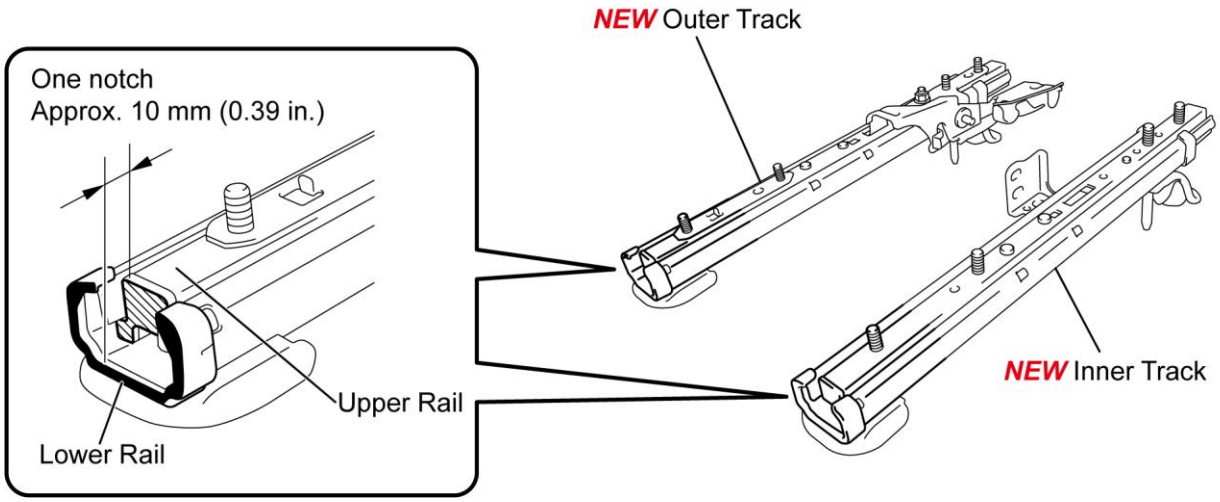
a) Check that the pins of the adjusting gauge can be smoothly inserted into the holes of the NEW seat tracks.

STOP **In extremely rare cases the gauge pins may not be able to be inserted due to the thickness of the seat track coating. If the gauge pins cannot be inserted refer to the appendix (Section VI) for repair instructions.**

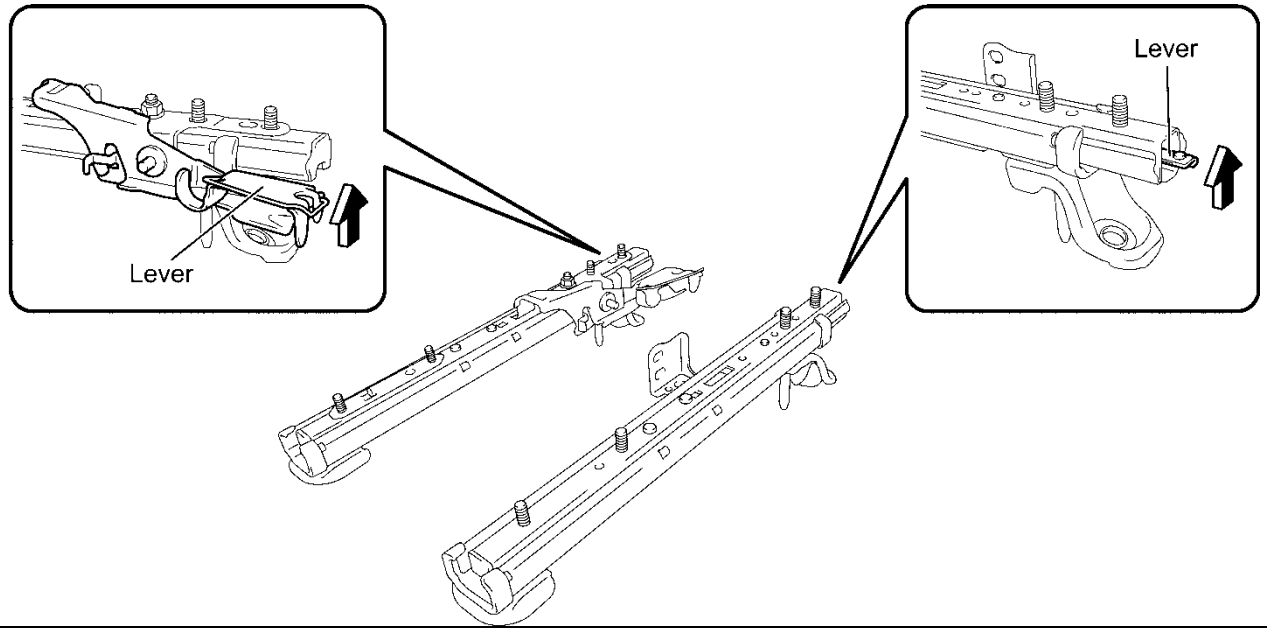


2. CONFIRM THE INNER AND OUTER SEAT TRACK POSITIONS

a) Confirm that the upper rail is positioned one notch (approx. 10mm, 0.39 in.) from the rear of the lower rail for both tracks.



b) If the upper rails are not in the correct position, pull the seat levers to adjust the upper rail position.



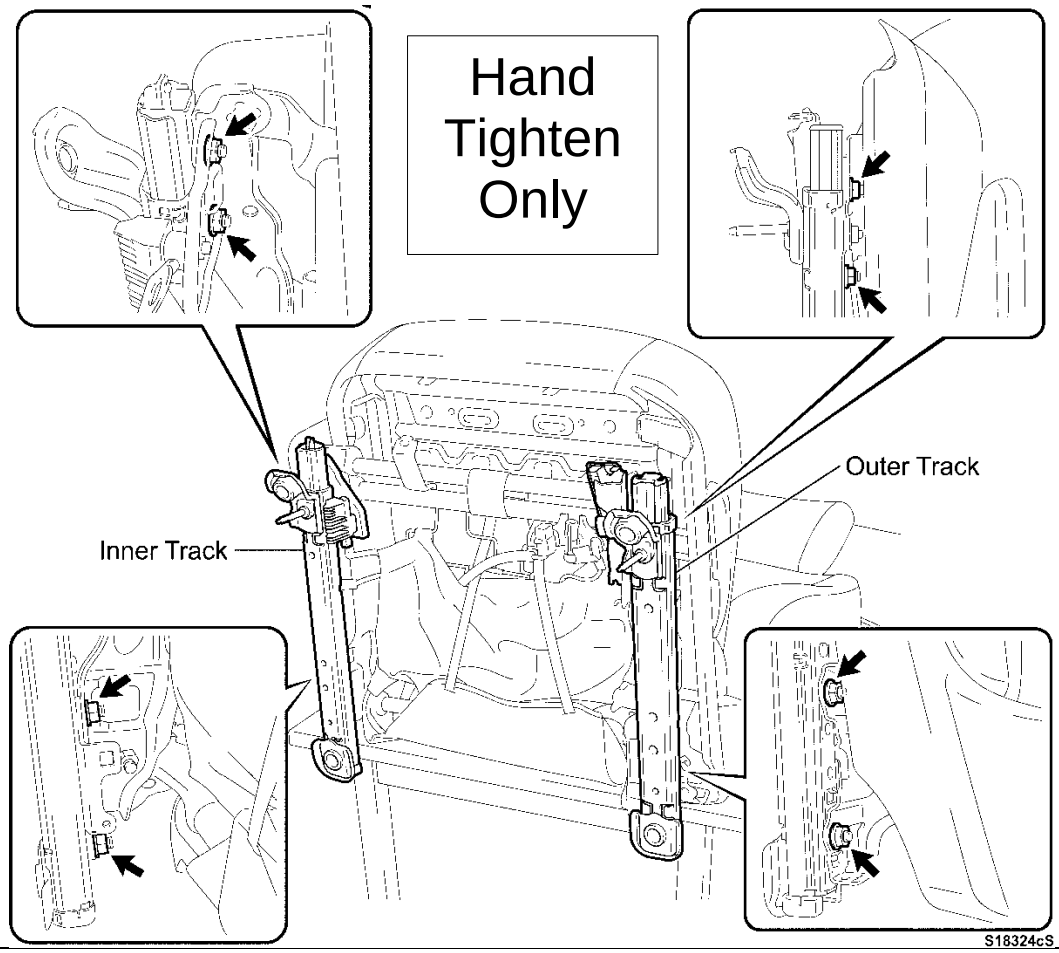
3. INSTALL *NEW* INNER AND OUTER SEAT TRACKS TO DRIVER SEAT

a) Attach the new inner track and seat position sensor with the 4 NEW nuts, by hand tightening the nuts.

b) Attach the outer track with the 4 NEW nuts, by hand tightening the nuts.

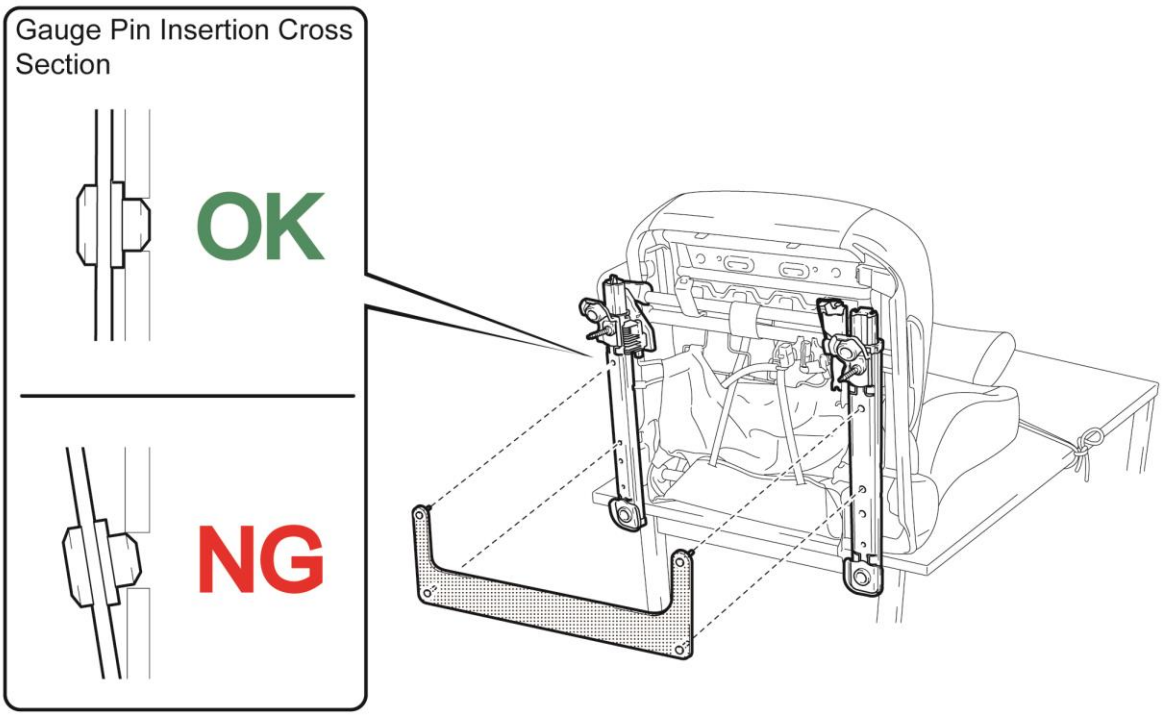
STOP

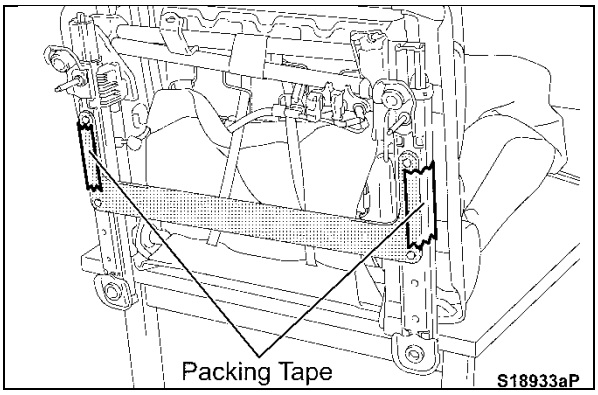
- **NEW nuts must be used.**
- **The nuts for the seat tracks are not interchangeable; attach the seat tracks with the correct nuts.**



c) Install the seat track adjustment gauge to the seat track holes and ensure that all 4 pins are properly installed and flush.

- **Always use the gauge when installing the seat tracks to prevent the tracks from being misaligned.**
- **Do not press hard on the gauge; otherwise the gauge may become deformed.**
- **Ensure all 4 pins are properly installed.**





d) Check that gauge pins are properly seated and secure the gauge to the seat assembly using packing tape.

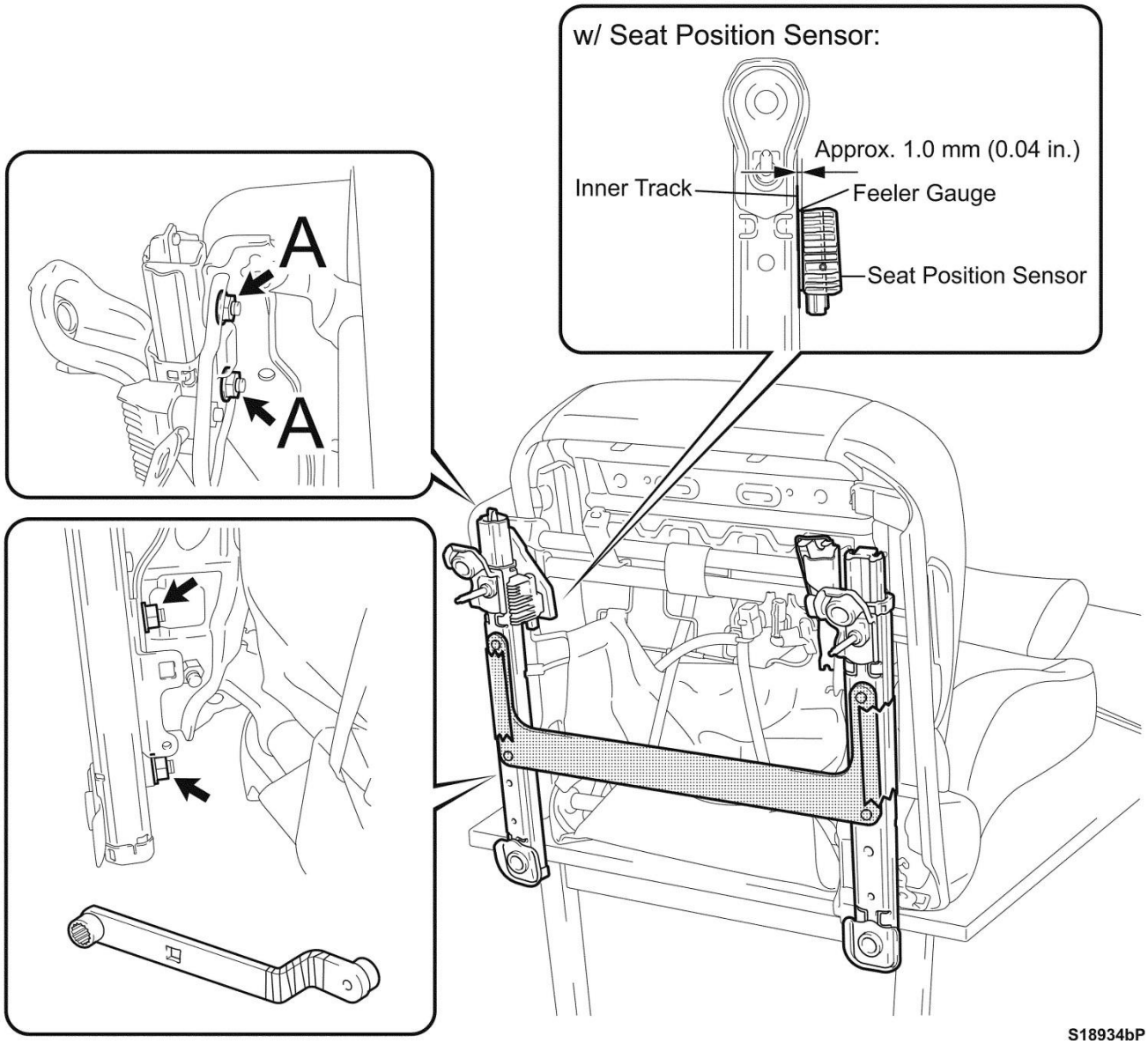
e) Using a feeler gauge, adjust the clearance between the inner track and seat position sensor so that it is approximately 1.0 mm (0.04 in)
f) Using the seat track wrench, tighten the 2 nuts (A) to spec.

Standard Torque: **25 Nm (255 kgf cm**, **18 ft lbf)**

Torque table is used when using seat track wrench.

Torque Wrench Length (in.)	Calculated Torque (ft·lbf)
10 ” to 11”	13
12” to 15”	14
16” to 20”	15

g) Tighten the two remaining nuts to spec
h) Remove the feeler gauge.



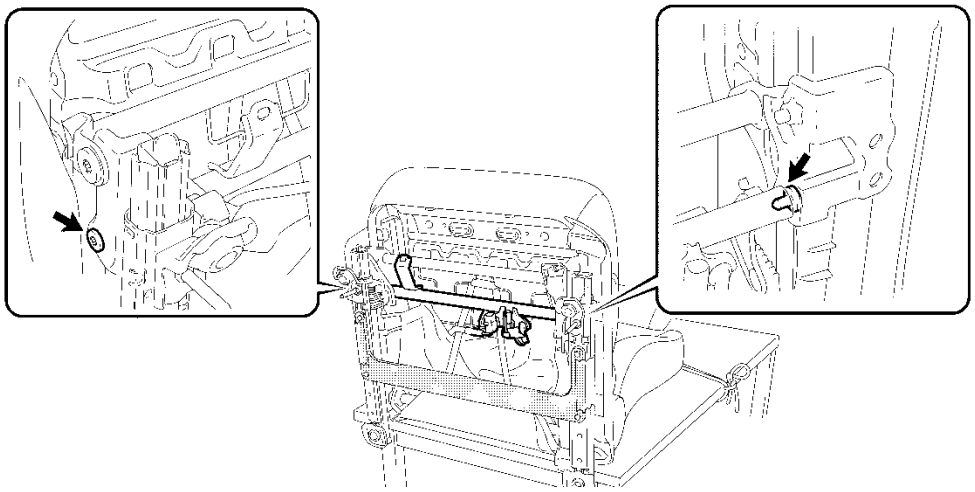
- **Always use the gauge when installing the seat tracks to prevent the tracks from being misaligned.**
- **Do not press hard on the gauge; otherwise the gauge may become deformed.**
- **Ensure all 4 pins are properly installed before and after torqueing the nuts.**

4. REINSTALL SEAT ADJUSTING ROD

a) Remove the tape/zip ties securing the adjusting rod.

b) Using a T40 “Torx” socket, install the 2 bolts and torque to spec.

Torque: **25 Nm (255 kgf cm**, **18 ft lbf)**



5. TORQUE OUTER TRACK NUTS TO SPEC

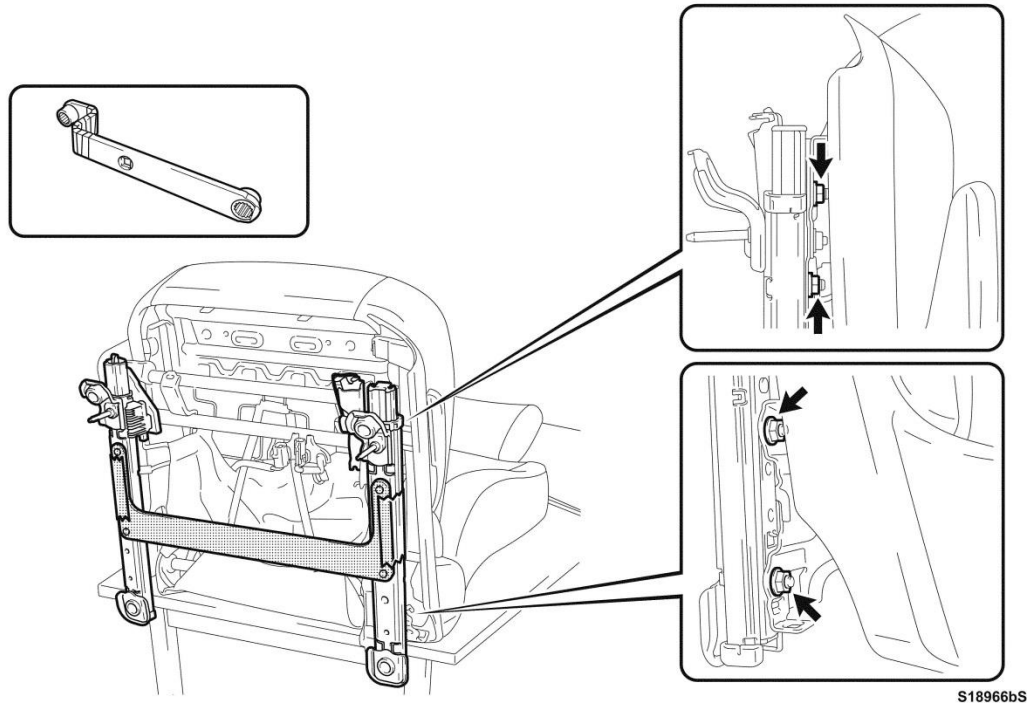
a) Tighten the outer track nuts to spec.

b) Ensure that the track adjustment gauge pins are still flush with the seat track and that the track orientation did not move while torqueing the nuts.

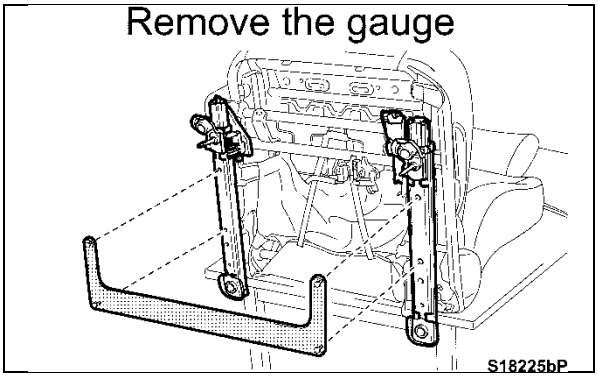
Standard Torque: **25 Nm (255 kgf cm**, **18 ft lbf)**

Torque table is used when using seat track wrench.

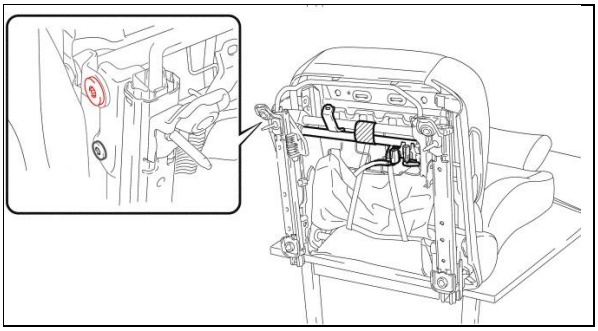
Torque Wrench Length (in.)	Calculated Torque (ft·lbf)
10 ” to 11”	13
12” to 15”	14
16” to 20”	15



- **Always use the gauge when installing the seat tracks to prevent the tracks from being misaligned.**
- **Do not press hard on the gauge; otherwise the gauge may become deformed.**
- **Ensure all 4 pins are properly installed before and after torqueing the nuts.**

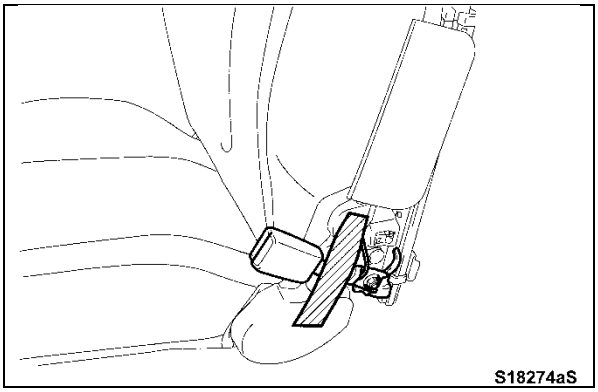


a) Remove the adjustment gauge.



b) Torque the seat frame bolt to spec.

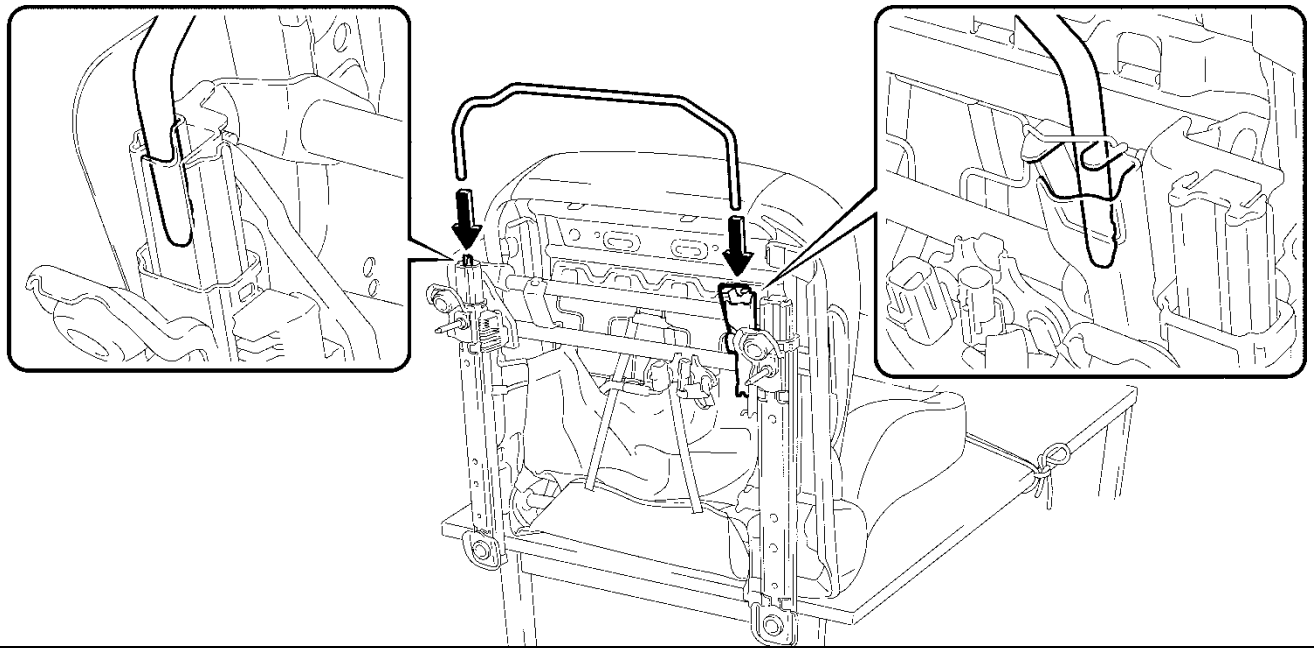
Torque: **25 Nm (255 kgf cm**, **18 ft lbf)**

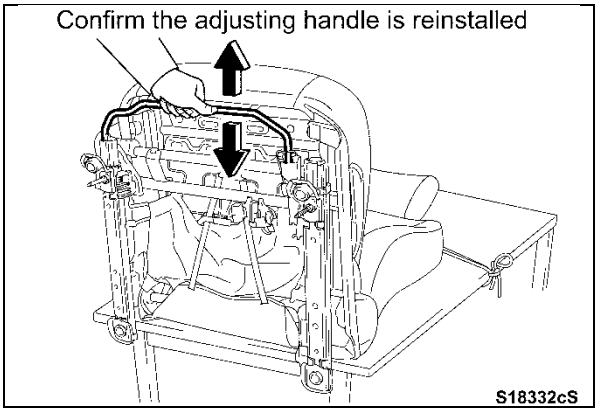


c) Remove the tape from the inner seat belt.

6. REINSTALL SEAT TRACK ADJUSTMENT BAR

a) Insert the both sides of the adjustment bar at the same time into the seat tracks and engage the locking plate and spring.

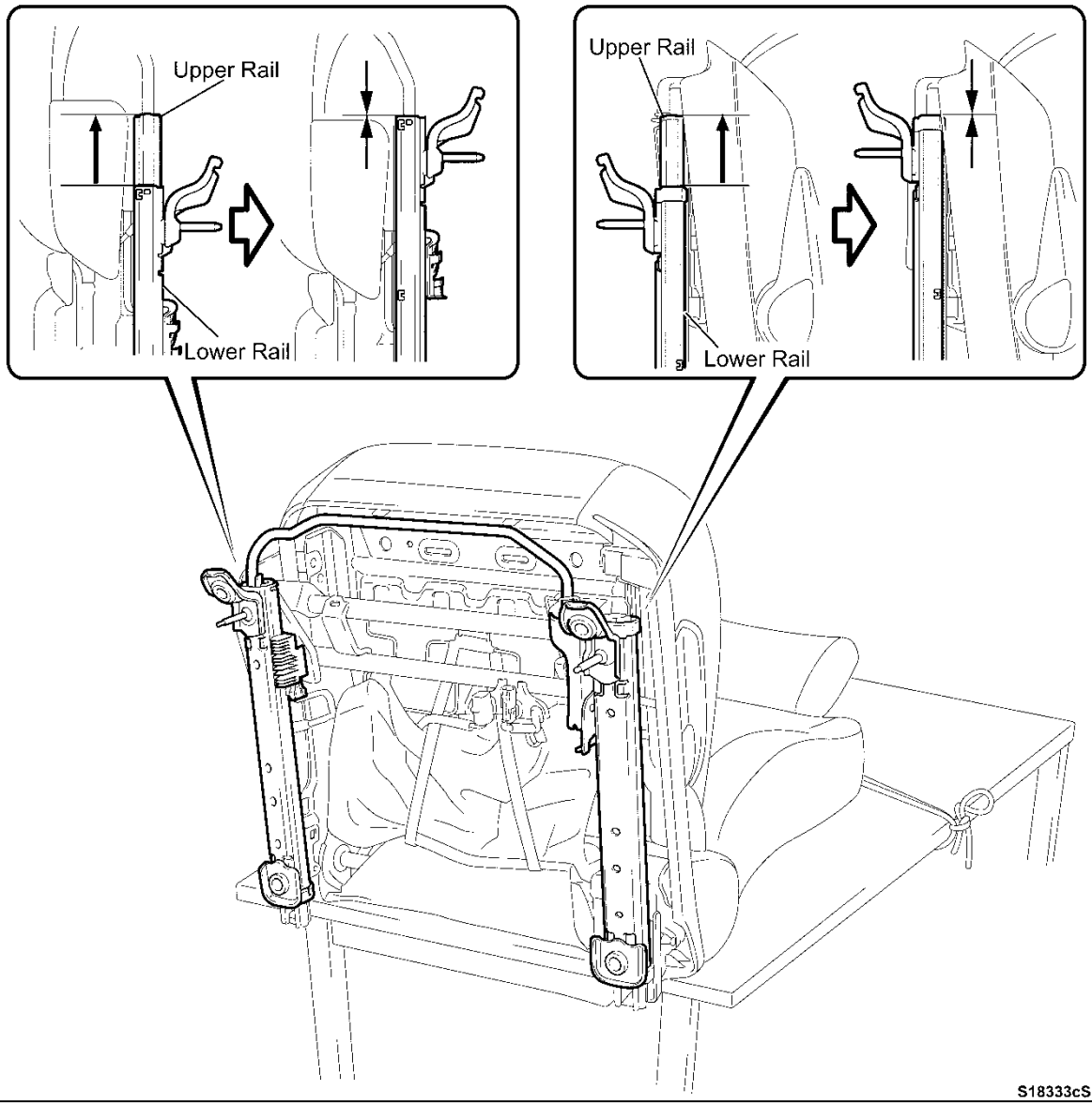




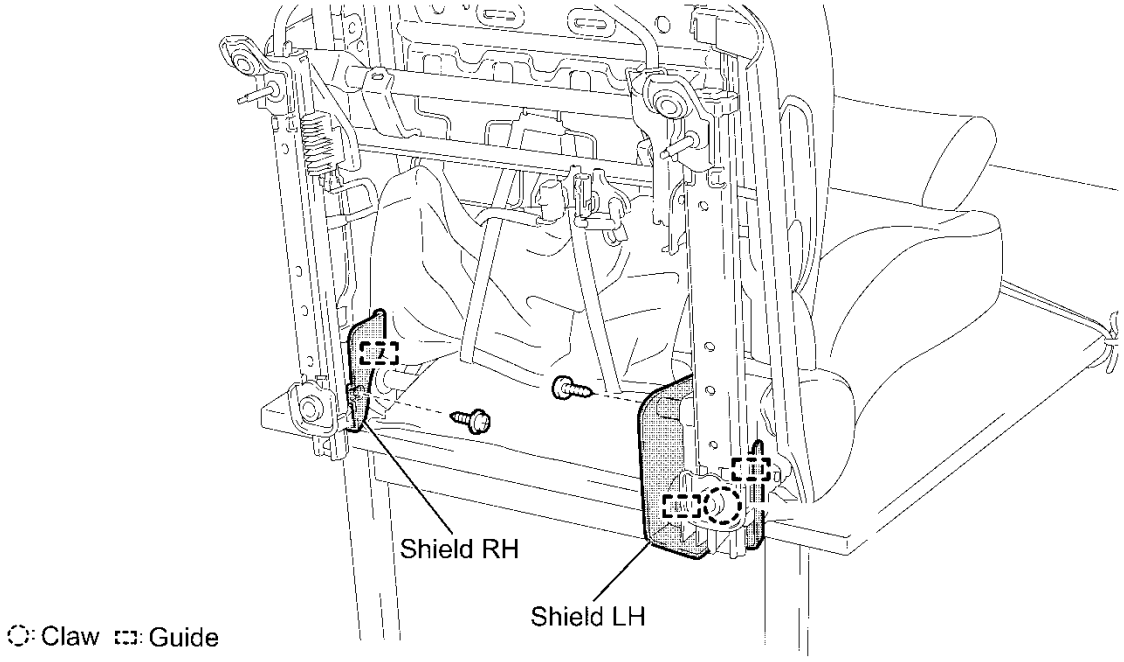
b) Confirm that the seat adjustment handle is fully seated and secured by the locking plate and spring.

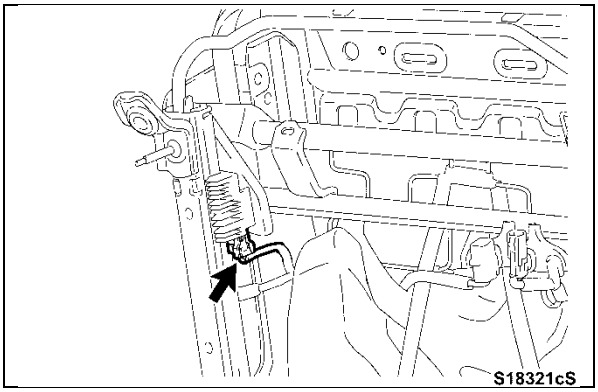
7. ADJUST SEAT RAIL POSITION

a) Adjust the seat rail position so that the upper and lower seat rail are flush in the front: this will make it easier to install the seat in the car.

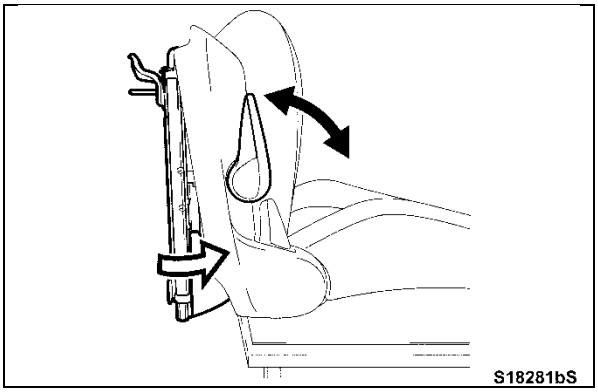


8. REINSTALL FRONT SEAT CUSHION LOWER SHIELD LH AND RH





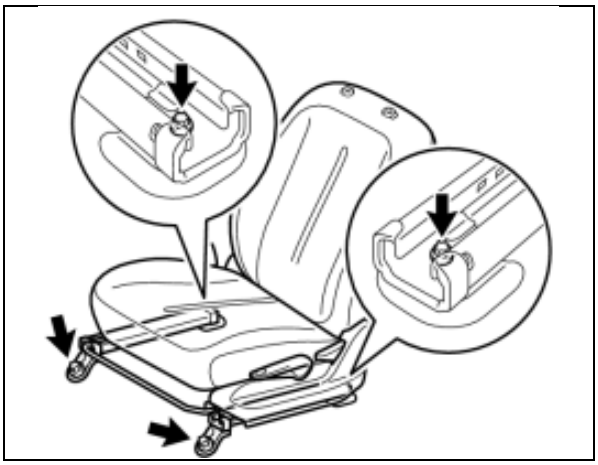
9. RECONNECT THE SEAT POSITION SENSOR CONNECTOR



10. ADJUST THE SEAT TRACK POSITION

a) Operate the seat lift lever to retract the seat track toward the seat. This will make the seat easier to install in the car.
b) Remove the rope/tie down.
c) Remove seat cover.

E. FRONT SEAT REINSTALLATION



1. REINSTALL THE SEAT INTO THE VEHICLE

a) Using 2 people carefully place the seat into the vehicle.
b) Align the alignment pins on the front of the seat tracks with alignment holes in the floor pan.
c) Tilt the seat back and reconnect the connectors.
d) Reinstall the 4 seat bolts and torque to spec.

Torque: 37 Nm (375 kgf cm, 27ft lbf)

e) Reinstall headrest.
f) Remove protective tape and protective blanket.

2. RECONNECT BATTERY (FOR VEHICLES EQUIPPED WITH SIDE AIRBAGS)

a) Reconnect battery ground cable.
b) Reset radio and car presets.

◄ VERIFY REPAIR QUALITY ►

- **Confirm that the correct nuts are used for each seat track**
- **Confirm that the seat tracks are aligned properly both before and after torqueing the seat track nuts**
- **Confirm that the seat track nuts are torque to spec**
- **Confirm that the seat position sensor gap is correctly set**
- **Confirm that the seat is clean and free of dirt and grease.**

If you have any questions regarding this recall, please contact your regional representative.

VI. APPENDIX

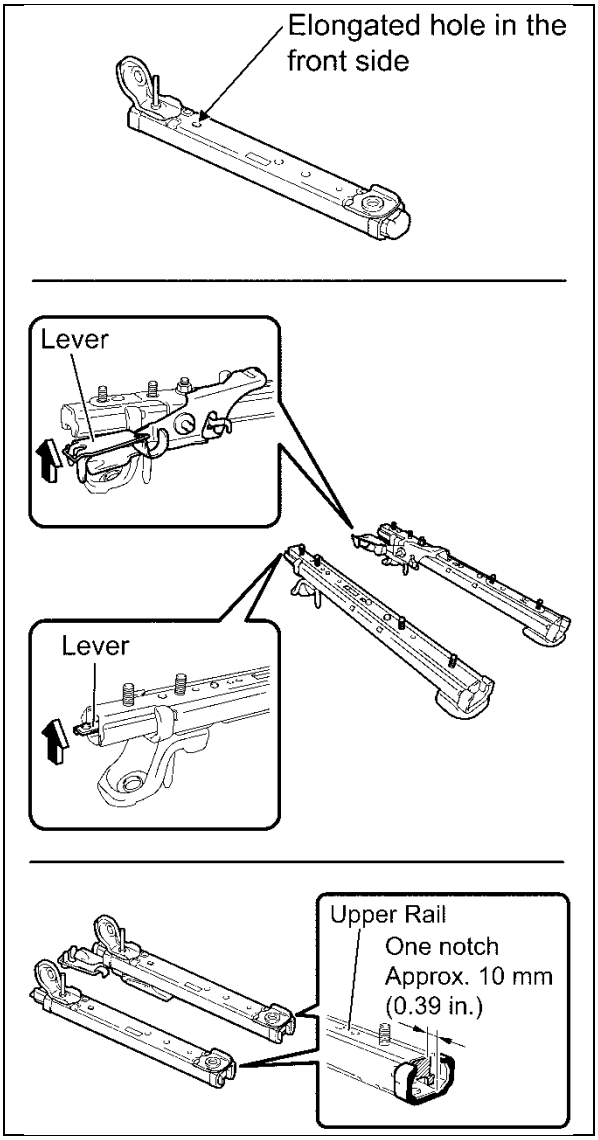
A. SEAT TRACK ALIGNMENT HOLE COATING REMOVAL

STOP

- **Only remove coating from the holes that do not allow the gauge pins to seat flush.**
- **DO NOT file the coating too much, only remove the coating as necessary.**

1. DETERMINE WHICH HOLES PREVENT THE TOOL FROM SITTING FLUSH

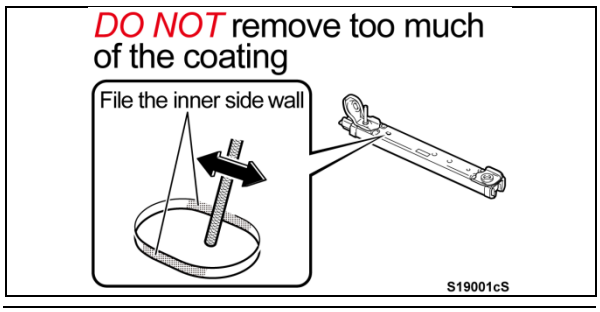
2. ELONGATED ALIGNMENT PIN HOLE COATING REMOVAL



a) Confirm that the upper rail is positioned one notch (approx. 10mm, 0.39 in.) from the rear of the lower rail for both tracks.
b) If the upper rail is not in the correct position, pull the seat levers to adjust the upper rail positions.

STOP

If the upper rail is not in the specified position, damage to the seat track can occur from the filings.

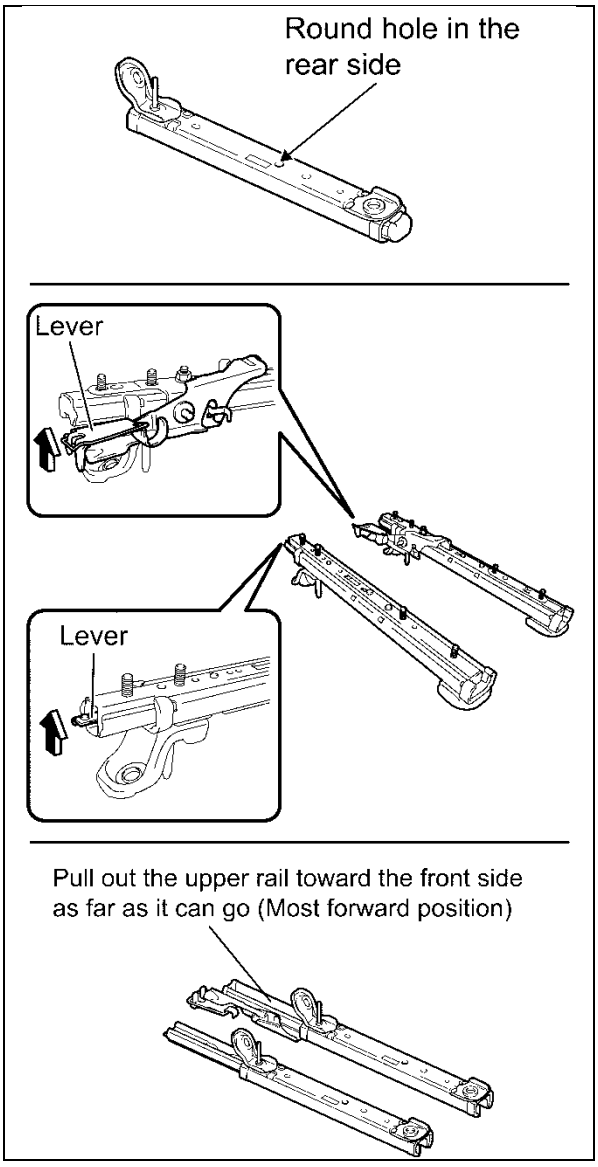


c) Using a round file, remove a little bit of the coating on the inner side wall.
d) Check to see if the gauge alignment pin will fit properly.
e) If not repeat steps c) and d) until it fits properly.

STOP

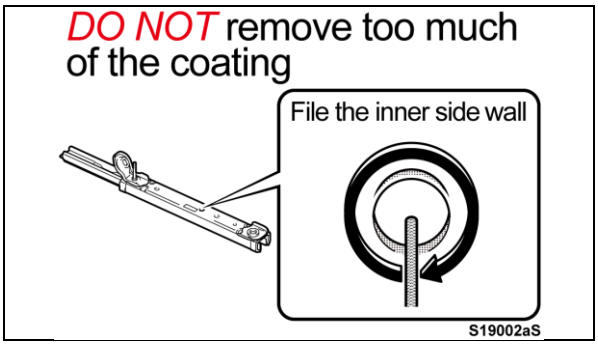
DO NOT remove too much of the coating. Otherwise the alignment gauge pin can easily move or come out during seat track installation.

3. ROUND ALIGNMENT PIN HOLE COATING REMOVAL



a) Pull the seat adjustment lever and adjust the upper rail so that it is in the forward most position.

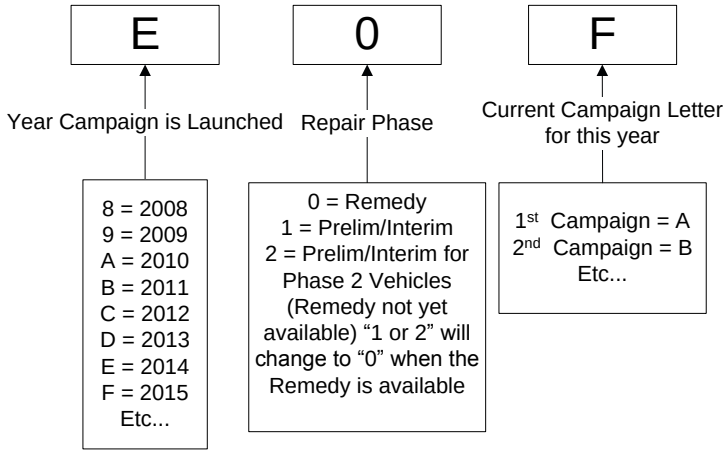
If the upper rail is not in the specified position, damage to the seat track can occur from the filings.



b) Using a round file, remove a little bit of the coating on the inner side wall.
c) Check to see if the gauge alignment pin will fit properly.
d) If not repeat steps c) and d) until it fits properly.

DO NOT remove too much of the coating. Otherwise the alignment gauge pin can easily move or come out during seat track installation.

A. CAMPAIGN DESIGNATION DECODER



B. CAMPAIGN PARTS DISPOSAL

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.***