The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this repair are required to successfully complete the most current version of the E-Learning course “Safety Recall and Service Campaign Essentials”. To ensure that all vehicles have the repair performed correctly; technicians performing this repair are required to currently hold at least one of the following certification levels:

- Toyota Certified (all classifications)
- Toyota Expert (all 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.

Verify Vehicle Eligibility
1. Check the VIN range.
2. Check the TIS Vehicle Inquiry System.

Covered

Replace the shift lock solenoid assembly.

Not Covered

No further action required.

Campaign complete, return the vehicle to the customer.

II. BACKGROUND

In the involved vehicles, grease inside the shift lever assembly could transfer to other internal components, causing them to function improperly. This could allow the shift lever to be moved out of the “Park” position without depressing the brake pedal. If this occurs when the parking brake is not engaged, it could lead to a vehicle rollaway and increase the risk of a crash.
III. PREPARATION

A. PARTS

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Part Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>04003-48145</td>
<td>Solenoid Assembly kit</td>
<td>1</td>
</tr>
<tr>
<td>33525-42010</td>
<td>Push Nut</td>
<td>2</td>
</tr>
<tr>
<td>85431-45010</td>
<td>Shift Lock Solenoid Assembly</td>
<td>1</td>
</tr>
</tbody>
</table>

The kit above includes the following parts

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Part Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>04003-55145</td>
<td>Grease Kit</td>
<td>1</td>
</tr>
<tr>
<td>-</td>
<td>Grease Packet</td>
<td>10</td>
</tr>
</tbody>
</table>

This kit includes 10 grease packets, each vehicle only requires one packet.

B. TOOLS & EQUIPMENT

- Standard hand tools
- Torque wrench
- Protective tape
- Shop cloth
- Molding remover set
- Techstream
- Duct tape or similar

IV. IDENTIFICATION OF AFFECTED VEHICLES

A. COVERED VIN RANGE

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.
COMPONENTS CONTINUED…

- Shift Lever Slide Cover Guide
- Position Indicator Slide Cover
- Shift Lever Housing Guide
- Shift Lock Release Link
- Pin Detent
- Compression Spring
- Shift Lock Solenoid Assembly
- Indicator Light Wire Sub-Assembly
- Shift Lever Housing Guide Pin
- Push Nut
- Shift Lever Base
- Replacement part
VI. SHIFT LOCK SOLENOID ASSEMBLY REMOVAL

- ALWAYS wear appropriate protective equipment.
- Keep the work area clean to prevent foreign materials from entering the shift lever assembly.
- DO NOT use any chemicals other than specified in these instructions.

1. CHECK AND RECORD DTCs
   a) Check and record any DTCs.

2. REMOVE THE SHIFT LEVER ASSEMBLY
   a) Refer to TIS for removal instructions.

   SHIFTER REPAIR OVERVIEW VIDEO

3. REMOVE THE INDICATOR LIGHT WIRE SUB-ASSEMBLY
   a) Remove the wire sub-assembly from the shift lever.

4. REMOVE THE SHIFT LEVER SLIDE COVER GUIDE
   a) Disengage the 4 tabs and remove the cover.

5. REMOVE THE POSITION INDICATOR SLIDE COVER

6. REMOVE THE PUSH NUTS
   a) Depress the shift lock release button and move the shift lever to the N position.

   b) Remove the 2 push nuts by cutting them off.
7. **REMOVE THE SHIFT LEVER HOUSING GUIDE**
   a) Remove the 2 shift lever housing guide pins.

   - **ALWAYS** perform step b) below with the shift lever in the N position because the spring tension is the least in this position.
   - Remove the housing guide carefully as pin detent could fly off due to the compression spring.

   b) Confirm the shift lever in in the N position, then carefully remove the housing from the base.

8. **REMOVE THE PIN DETENT AND COMPRESSION SPRING**
   a) Remove the pin detent and compression spring from the shift lever sub-assembly.

9. **REMOVE THE SHIFT LOCK RELEASE LINK**
   a) Disengage the 2 claws on the shift lock release link.
   b) Slide the link upward and toward the center of the shift lever base to remove.
10. REMOVE THE SHIFT LOCK SOLENOID ASSEMBLY
   a) Cut the 4 wires for the solenoid harness.

   b) Pull the 4 wires from the harness clamp.
   c) Disconnect the connector.

   d) Remove the screw at the top of the solenoid.

   e) Lift up on the solenoid to disengage it from the 2 guides, then completely remove the solenoid.
VII. SHIFT LOCK SOLENOID ASSEMBLY INSTALLATION

- Keep the work area clean to prevent foreign materials from entering the shift lever assembly.
- DO NOT use any chemicals other than specified in these instructions.

1. INSTALL THE NEW SHIFT LOCK SOLENOID ASSEMBLY

**STOP**

**DO NOT** deform the switch on the new solenoid during installation.

a) Slide the solenoid into place and engage the 2 guides of the solenoid.

b) Install the screw.

c) Connect the connector.

d) Fit the 4 wires into the clamp **ONE AT A TIME** in color order: White, White, Black, Orange.

e) To prevent wires rubbing, confirm the wires are not contacting the shift lever base.

**STOP**

- It is **CRITICAL** to install the wires in the clamp one at a time to prevent the clip from breaking.
- If the clamp breaks, remove the **ENTIRE** clamp, then secure the wires with a strong tape.
- Failure to secure the wires correctly could cause abnormal noise or wire damage.
2. **INSTALL THE SHIFT LOCK RELEASE LINK**
   
a) Insert the shift lock release link into the center of the base, then slide it over and down.

b) Engage the 2 claws to secure the shift lock release link into place.
3. **CLEAN OFF THE GREASE**

   a) Use a shop cloth to wipe the grease off of the highlighted areas on the back side of the shift lever housing guide.

   **STOP** brake cleaner or any other chemicals, this may damage the plastic

   b) Wipe the grease from the pin detent and compression spring.

   c) Wipe the grease from the highlighted area at the base of the shift lever.

   **STOP** apply grease to this area during reinstallation, the grease packet contains an exact amount of grease and must only be applied to specified areas.

4. **APPLY NEW GREASE**

   a) Apply the grease evenly using the grease packet or a clean finger to the pin detent and the highlighted area on the back side of the shift lever housing guide. **USE ALL OF THE GREASE.**

   - ALL of the grease in the packet **MUST** be used on the shift lever assembly.
   - **DO NOT** apply grease to the base of the shift lever highlighted in STEP 3 c).
   - **DO NOT** apply grease to any areas that are not specified in this step.
5. INSTALL THE PIN DETENT
   a) Reinstall the compression spring and pin detent to the shift lever sub-assembly.
   
   **STOP**
   - The detent **MUST** be installed with the rounded end facing upwards.
   - The spring can be installed in either direction.

6. INSTALL THE SHIFT LEVER HOUSING GUIDE
   a) Move the shift lever to near the N position and reinstall the shift lever housing guide in the shift lever base.

   **NOTE:** Perform this step with the shift lever in the N position because the spring tension is the least in this position.

   b) Install the 2 shift lever housing guide pins.

   **STOP** Confirm the shafts are installed in the correct direction.

7. INSTALL THE NEW PUSH NUTS
   a) Install the 2 NEW push nuts and secure them by pushing them into place using an 8mm socket.

8. INSTALL THE POSITION INDICATOR SLIDE COVER
   a) Confirm the indicator slide is installed in the correct orientation using the illustration shown.

9. INSTALL THE SHIFT LEVER SLIDE COVER GUIDE
10. INSTALL THE INDICATOR LIGHT WIRE SUB-ASSEMBLY

11. INSTALL THE SHIFT LEVER ASSEMBLY
   a) Refer to TIS for installation instructions.

12. CONFIRM THE OPERATION OF THE SHIFT LEVER

VERIFY REPAIR QUALITY

- Confirm ALL interior panel are protected adequately to prevent scratches/damage
- Use EXTRA CAUTION when disassembling and reassembling the shift lever assembly as most sub-components are not available separately
- Confirm the solenoid harness wires are secured correctly
- Confirm the old grease is removed and new grease is applied

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

VIII. APPENDIX

A. CAMPAIGN DESIGNATION DECODER

<table>
<thead>
<tr>
<th>Year Campaign is Launched</th>
<th>Repair Phase</th>
<th>Current Campaign Letter for this year</th>
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</thead>
<tbody>
<tr>
<td>8 = 2008</td>
<td>0 = Remedy</td>
<td>1st Campaign = A</td>
</tr>
<tr>
<td>9 = 2009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A = 2010</td>
<td>1 = Prelim/Interim</td>
<td>2nd Campaign = B</td>
</tr>
<tr>
<td>B = 2011</td>
<td>2 = Prelim/Interim for Phase 2 Vehicles (Remedy not yet available) “1 or 2” will change to “0” when the Remedy is available</td>
<td>Etc...</td>
</tr>
<tr>
<td>C = 2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D = 2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E = 2014</td>
<td></td>
<td></td>
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<tr>
<td>F = 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etc...</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.