TOYOTA
Technical Service Bulletin

# Ignition Switch Difficult to Turn

**Service Category** Engine/Hybrid System

**Section** Starting **Market** USA

Toyota Supports ASE Certification

## Applicability

| YEAR(S) | MODEL(S) | ADDITIONAL INFORMATION |
|---|---|---|
| 2016 - 2017 | Camry | VDS(s): BF1FK<br>Engine(s): 2AR |

## Introduction

Some 2016 – 2017 model year Camry vehicles may exhibit a condition where the ignition switch sticks or takes more force than expected to turn from the Lock to the Accessory position. Follow the Repair Procedure in this bulletin to address this condition.

## Production Change Information

This bulletin applies to vehicles produced **AFTER** the Production Change Effective VINs shown below through the end of model year 2017.

| MODEL | PLANT | DRIVETRAIN | PRODUCTION CHANGE EFFECTIVE VIN |
|---|---|---|---|
| Camry | TMMK (Line 1) | 2AR | 4T1BF1FK#GU172864 |
| | TMMK (Line 2) | | 4T1BF1FK#GU552558 |
| | SIA | | 4T4BF1FK#GR542774 |

## Warranty Information

| OP CODE | DESCRIPTION | TIME | OFP | T1 | T2 |
|---|---|---|---|---|---|
| 441171 | Replace Upper Column Bracket | 1.6 | 45020-06140 | 97 | 19 |

**APPLICABLE WARRANTY**

- **This repair is covered under the Toyota Basic Warranty. This warranty is in effect for 36 months or 36,000 miles, whichever occurs first, from the vehicle's in-service date.**
- **Warranty application is limited to occurrence of the specified condition described in this bulletin.**

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# Ignition Switch Difficult to Turn

## Parts Information

| PART NUMBER | | PART NAME | QTY |
|---|---|---|---|
| PREVIOUS | NEW | | |
| 45020-06140 | | Bracket Assy, Strg Column Upr W/Switch | 1 |
| 45897-08010 | | Bolt, Steering Lock Set | 1 |

## Required Tools & Equipment

| SPECIAL SERVICE TOOLS (SST) | PART NUMBER | QTY |
|---|---|---|
| Universal Puller Set "C"* | 09950-50013-01 | 1 |

* Essential SST.

NOTE

Additional SSTs may be ordered by calling 1-800-933-8335.

| REQUIRED TOOLS & MATERIAL | QUANTITY |
|---|---|
| 3 – 4 mm Drill Bit | 1 |
| Center Punch | 1 |
| Screw Extractor | 1 |

| REQUIRED EQUIPMENT | SUPPLIER | PART NUMBER | QTY |
|---|---|---|---|
| Techstream 2.0* | ADE | TS2UNIT | 1 |
| Techstream Lite | | TSLITEPDLR01 | |
| Techstream Lite (Green Cable) | | TSLP2DLR01 | |

* Essential SST.

NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 13.00.022 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.

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# Ignition Switch Difficult to Turn

**Repair Procedure**

1. Confirm the condition exists.
   A. Confirm the ignition switch sticks or takes more force than expected to turn from the Lock to the Accessory position.

      Does the ignition switch stick or take more force than expected to turn from the Lock to the Accessory position?

      - **YES —** Continue to substep B.
      - **NO —** This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

   B. Is the key hard to turn **and** the steering wheel in the Lock position?

      If so, attempt to start the vehicle while turning the steering wheel to the left and right as far as possible.

      Is the steering wheel lock causing the key cylinder difficult-to-turn condition?

      - **YES —** This bulletin does NOT apply. Educate the customer on how steering wheel lock can cause the key cylinder to bind.
      - **NO —** Continue step 2.

2. Remove the steering column.
   Refer to TIS, applicable model and model year Repair Manual:
   - 2016 / 2017 Camry:
     *Steering – Steering Column – "Steering Column: Steering Column Assembly: Removal"*

3. Remove the steering column upper bracket and ignition switch lock cylinder assembly.

   **NOTICE**
   - **Do NOT drop the power steering motor assembly, strike it with tools, or subject it to impacts.**
   - **If the power steering motor assembly is subjected to an impact, replace it with a NEW one.**
   - **Do NOT pull the wire harness of the electric power steering column sub-assembly.**
   - **Do NOT allow ANY moisture to come into contact with the power steering motor assembly.**
   - **Do NOT loosen ANY bolts NOT mentioned in the procedure.**

   A. Secure the steering column assembly in a vise.

      **NOTICE**
      **Do NOT overtighten the vise.**

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# Ignition Switch Difficult to Turn

**Repair Procedure (continued)**

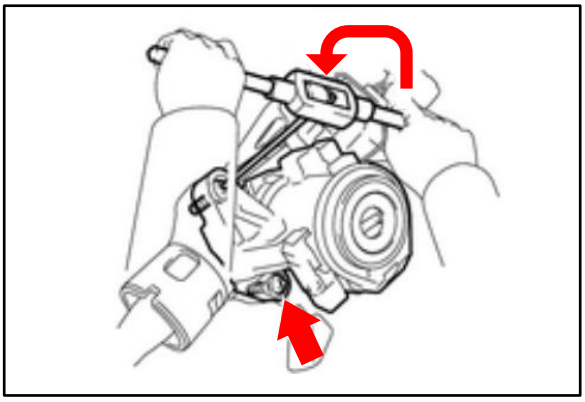
B. Using a center punch, mark the center of the two tapered-head bolts.

C. Using a 3 – 4 mm (0.118 – 0.157 in.) diameter drill bit, drill a hole in each tapered-head bolt.

D. Using a screw extractor, remove each tapered-head bolt.

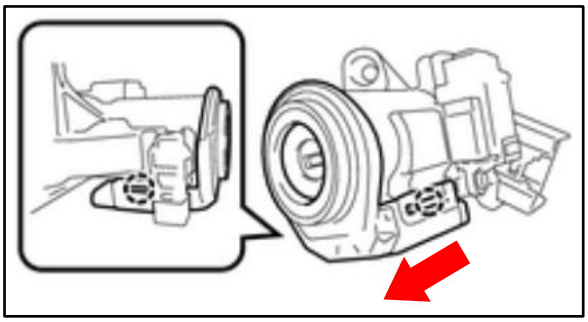
E. Remove the steering column upper with switch bracket assembly from the steering column assembly.

Figure 1.



F. Slide the transponder key coil, disengage the two claws, and remove the transponder key coil as shown.

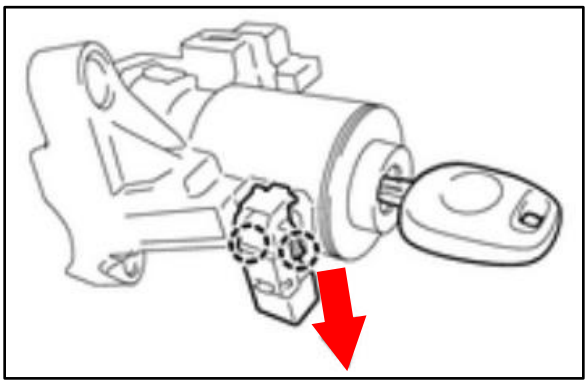
Figure 2.



G. Insert the key.

H. Disegnage the two claws and slide the unlock warning switch assembly to remove it as shown.

Figure 3.



I. Remove the screw.

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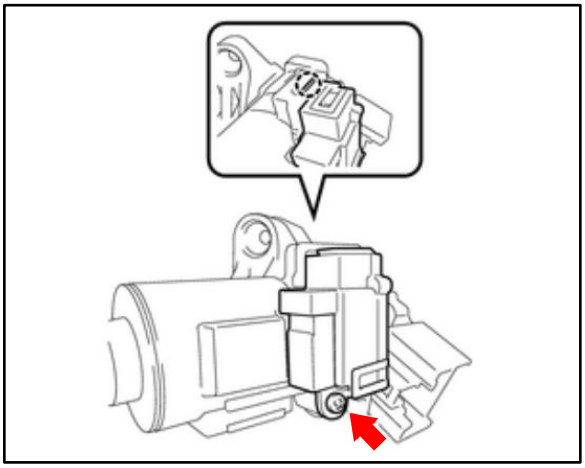
# Ignition Switch Difficult to Turn

**Repair Procedure (continued)**

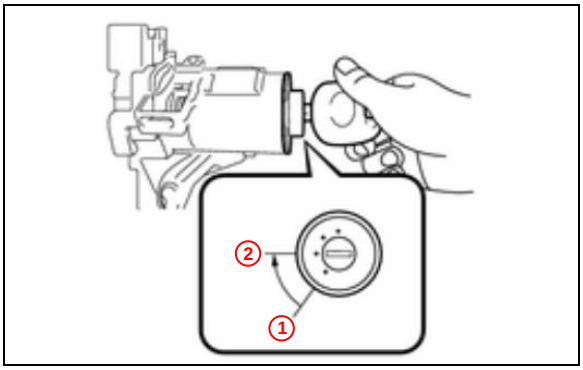
J. Disengage the claw to remove the key interlock solenoid from the steering column upper bracket assembly.

Figure 4.



K. Turn the ignition switch lock cylinder assembly to the Accessory position.

Figure 5.




| | |
|---|---|
| 1 | Lock |
| 2 | Accessory |

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# Ignition Switch Difficult to Turn

**Repair Procedure (continued)**

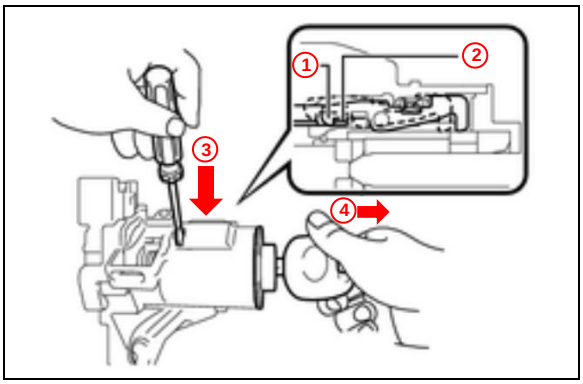
L. Insert a screwdriver into the hole of the steering column upper bracket assembly as shown.

M. Pull the ignition switch lock cylinder assembly until its claw contacts the stopper of the steering column upper bracket assembly.

**NOTICE**

**Failure to complete substep L will affect later work operations.**

Figure 6.

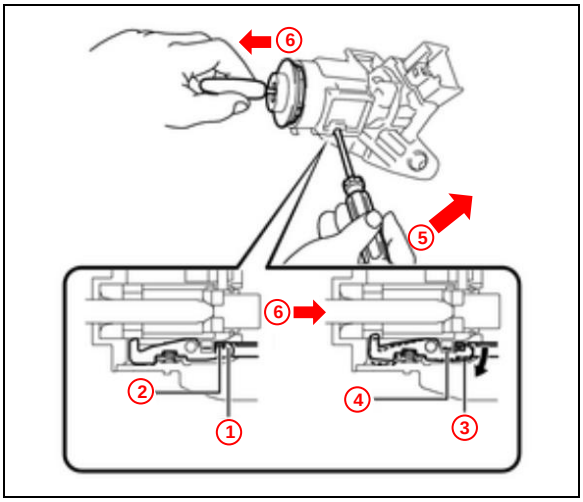



| | |
|---|---|
| 1 | Claw |
| 2 | Stopper |
| 3 | Push |
| 4 | Pull |

N. Insert a screwdriver into the hole of the steering column upper bracket assembly.

O. Tilt the screwdriver as shown to disengage the claw of the ignition switch lock cylinder assembly, and pull out the ignition switch lock cylinder assembly from the steering column upper bracket assembly.

Figure 7.




| | |
|---|---|
| 1 | Claw |
| 2 | Stopper |
| 3 | Claw Disengaged |
| 4 | Driver Insertion Hole |
| 5 | Tilt |
| 6 | Pull Out |

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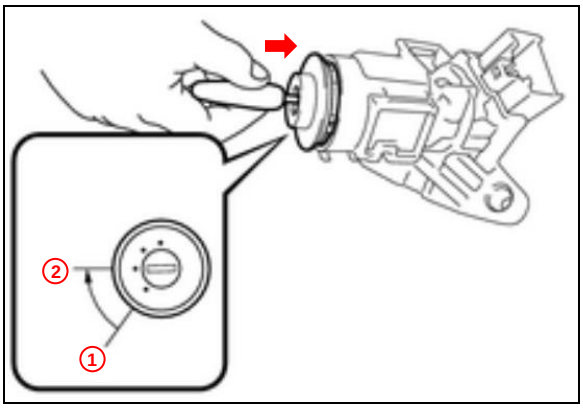
# Ignition Switch Difficult to Turn

**Repair Procedure (continued)**

4. Reinstall the ignition switch lock cylinder assembly into the NEW steering column upper bracket assembly.
   A. Make sure that the ignition switch lock cylinder assembly is in the Accessory position.

**Figure 8.**



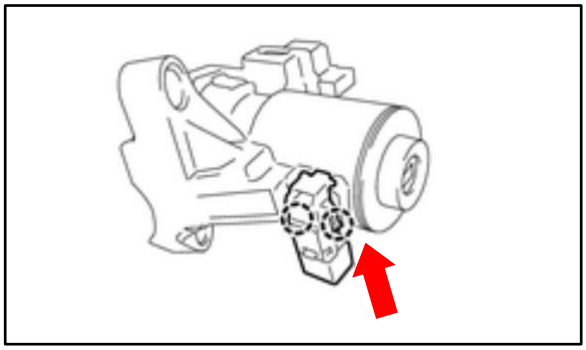

| | |
|---|---|
| 1 | Lock |
| 2 | Accessory |

   B. Install the ignition switch lock cylinder assembly into the NEW steering column upper bracket assembly.
   C. Make sure that the ignition switch lock cylinder assembly is securely installed.

5. Install the key interlock solenoid.
   A. Engage the claw to install the key interlock solenoid to the steering column upper bracket assembly.
   B. Install the screw.

6. Slide the unlock warning switch assembly and engage the two claws to install the unlock warning switch assembly to the steering column upper bracket assembly as shown.

**Figure 9.**



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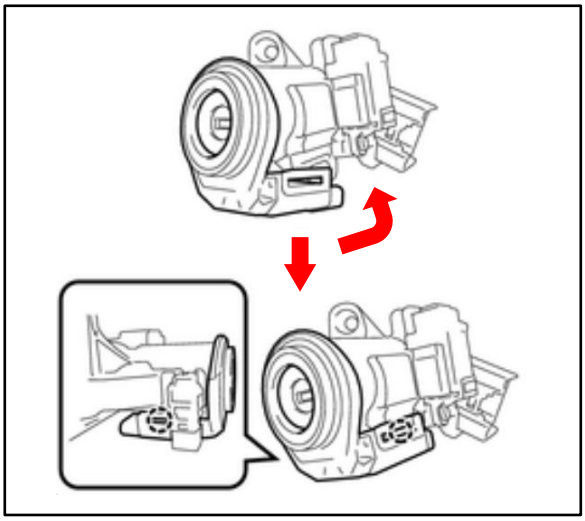
# Ignition Switch Difficult to Turn

**Repair Procedure (continued)**

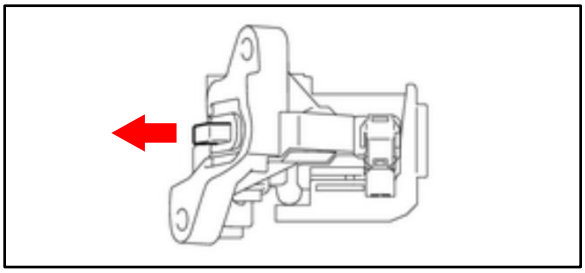
7. Install the transponder key coil.
   A. Align the transponder key coil with the steering column upper bracket assembly.
   B. Tilt the transponder key coil slightly and slide it into position.
   C. Push the transponder key coil and engage the two claws to install the transponder key coil to the steering column upper bracket assembly.

Figure 10.



8. Inspect the steering lock operation.
   A. Check that the steering lock mechanism activates when the key is removed.

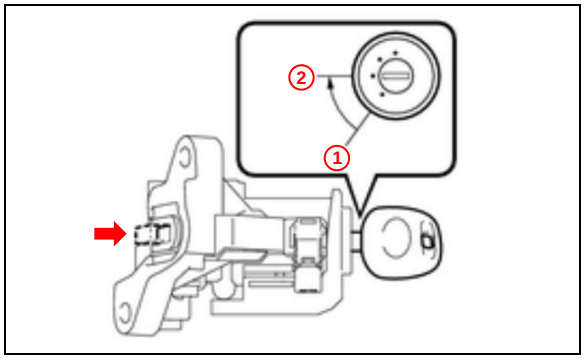
Figure 11.



   B. Check that the steering lock mechanism deactivates when the key is inserted and turned to the Accessory position.

> HINT
>
> If there is ANY abnormality, replace the ignition switch lock cylinder assembly or steering column upper bracket assembly.

Figure 12.




| | |
|---|---|
| 1 | Lock |
| 2 | Accessory |

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# Ignition Switch Difficult to Turn

**Repair Procedure (continued)**

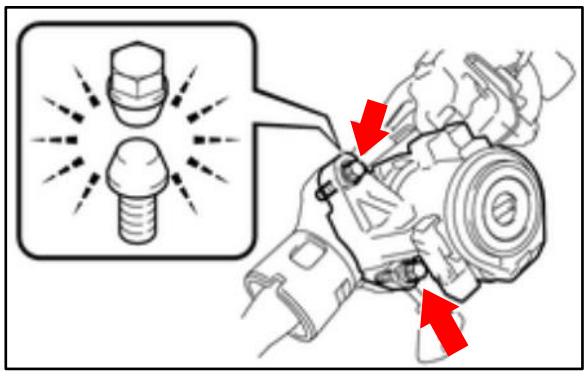
9. Install the steering column upper with switch bracket assembly.
   A. Secure the steering column assembly in a vise.

   **NOTICE**
   **Do NOT overtighten the vise.**

   B. Temporarily install the steering column upper with switch bracket assembly to the steering column assembly with two NEW tapered-head bolts.

   C. Tighten the two tapered-head bolts until the bolt heads break off.

**Figure 13.**



10. Install the steering column.
    Refer to TIS, applicable model and model year Repair Manual:
    - 2016 / 2017 Camry:
      *Steering – Steering Column – "Steering Column: Steering Column Assembly: Installation"*

11. Confirm the key is no longer difficult to turn.

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