

Cruise Control Stalk Illumination Intermittent Operation

Service Category Vehicle Interior

Section Meter/Gauge/Display

Market USA

Toyota Supports
ASE Certification 

Applicability

| YEAR(S) | MODEL(S) | ADDITIONAL INFORMATION |
|-------------|---------------------------------|------------------------|
| 2014 - 2016 | Highlander, Highlander HV, RAV4 | |

Introduction

Some 2014 – 2016 model year Highlander, Highlander HV and RAV4 vehicles may exhibit an intermittent cruise control stalk illumination flicker condition. Please follow the Repair Procedure below to address this condition.

Warranty Information

| OP CODE | DESCRIPTION | TIME | MODEL | OFP | T1 | T2 |
|---------|---|------|---------------|-------------|----|----|
| EL1601 | Install cruise stalk illumination wire harness assembly | 0.7 | RAV4 | 4520A-42100 | 87 | 41 |
| | | | Highlander/HV | 4520A-0E020 | | |

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.

Parts Information

| PART NUMBER | | PART NAME | QTY |
|----------------------------|-------------|-------------------------|-----|
| PREVIOUS | NEW | | |
| 91551-80810 | 91551-80810 | Bolt, Flange | 1 |
| 94611-10800 | | Washer, Plate | 2 |
| 82998-0E010 82998-0E020 | | Terminal, Repair w/Wire | 1 |

Cruise Control Stalk Illumination Intermittent Operation

Required Tools & Equipment

| REQUIRED TOOLS & MATERIAL | QTY |
|---------------------------|-----|
| Cable Tie | 2 |

| REQUIRED EQUIPMENT | SUPPLIER | PART NUMBER | QTY |
|--------------------|----------|--------------|-----|
| Techstream 2.0* | ADE | TS2UNIT | 1 |
| Techstream Lite | | TSLITEPDLR01 | |

| SPECIAL SERVICE TOOLS (SST) | PART NUMBER | QTY |
|----------------------------------|--------------------------------|-----|
| Plastic Pry Tool Set* | 00002-06000-01 | 1 |
| Plastic Emblem Removal Tool* | 00002-06002-01 | 1 |
| Plastic Panel Clip Removal Tool* | 00002-06001-01 | 1 |

* Essential SST.

NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 11.00.017 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.

Precaution

Refer to the Technical Information System (TIS), applicable model and model year Repair Manual:

- [2014](#) / [2015](#) / [2016](#) Highlander/HV:
Steering – Steering Column – “Steering Column: Steering System: Precaution”
- [2014](#) / [2015](#) / [2016](#) RAV4:
Steering – Steering Column – “Steering Column: Steering System: Precaution”

NOTE

The precaution section provides details on procedures to ensure vehicle SRS System is safe to work on and should be read prior to repairs.

Cruise Control Stalk Illumination Intermittent Operation

Repair Procedure

1. Rotate steering wheel for clearance and remove 2 bolts out of lower steering column cover.

NOTE

The steering wheel should **NOT** be removed. Merely rotate it for appropriate clearance.

2. Disconnect the negative (–) battery cable.

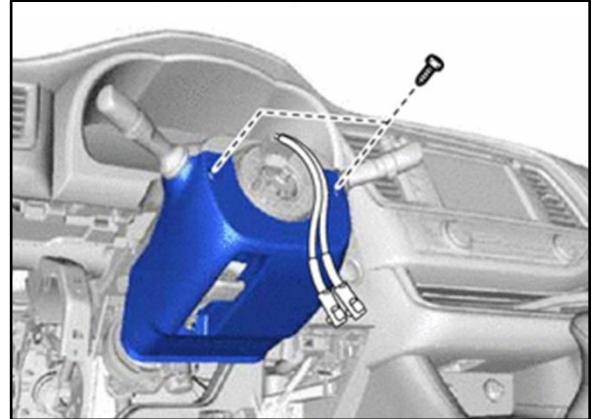
CAUTION

Wait at least 90 seconds after battery is disconnected to disable the SRS system.

NOTICE

Before disconnecting the battery, please refer to the initialization section below. You will need to follow the procedures necessary when battery terminal is disconnected/reconnected.

Figure 1.



Refer to TIS and the applicable model and model year Repair Manual:

- [2014](#) / [2015](#) / [2016](#) Highlander/HV:
General – Introduction – “Introduction: Repair Instruction: Initialization”
- [2014](#) / [2015](#) / [2016](#) RAV4:
General – Introduction – “Introduction: Repair Instruction: Initialization”

3. Align front wheels facing straight ahead.
4. Remove horn button assembly.

Refer to TIS and the applicable model and model year Repair Manual:

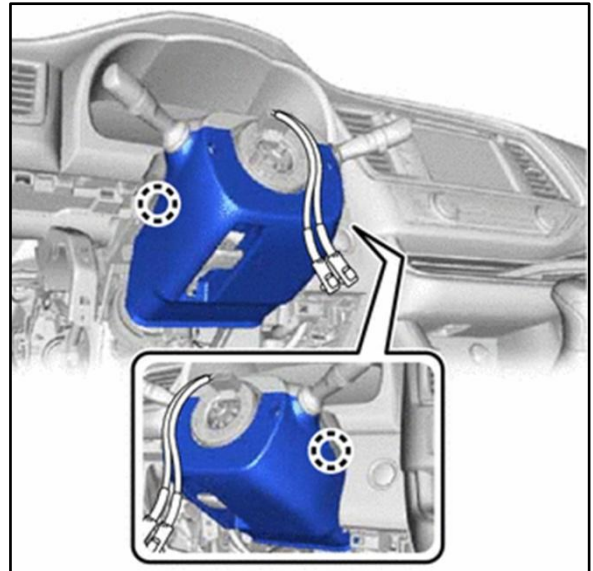
- [2014](#) / [2015](#) / [2016](#) Highlander/HV:
Vehicle Interior – Supplemental Restraint Systems – “Supplemental Restraint Systems: Steering Pad: Removal”
- [2014](#) / [2015](#) / [2016](#) RAV4:
Vehicle Interior – Supplemental Restraint Systems – “Supplemental Restraint Systems: Steering Pad: Removal”

Cruise Control Stalk Illumination Intermittent Operation

Repair Procedure (Continued)

5. Disengage the 2 claws.

Figure 2.



6. Disengage the claw and remove the lower steering column cover.

Figure 3.

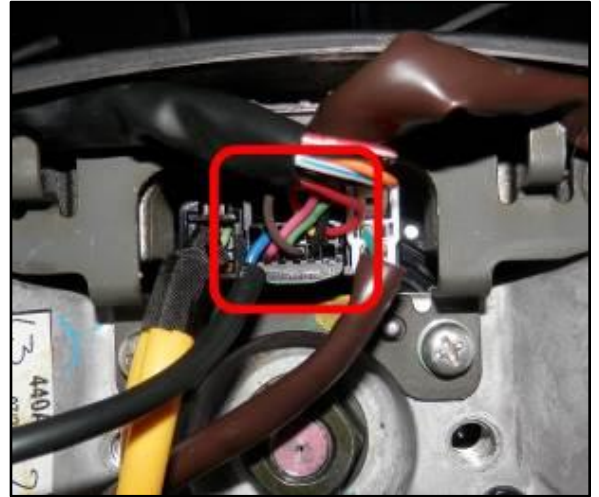


Cruise Control Stalk Illumination Intermittent Operation

Repair Procedure (Continued)

7. Disconnect switch harness connector z4 for Highlander/HV (connector z1 for RAV4) from the spiral cable at the steering wheel near the steering column shaft nut and cruise control stalk.

Figure 4. z4/z1



8. Carefully lift connector lock tab and gently pry on indentations on top of locking tab.

NOTE

The tab does NOT come out of the connector.

Figure 5.



Cruise Control Stalk Illumination Intermittent Operation

Repair Procedure (Continued)

9. Insert part number 82998-0E010 pin terminal into cavity 12 of connector z4 for Highlander/HV (or connector z1 for RAV4).

Figure 6. Connector z1

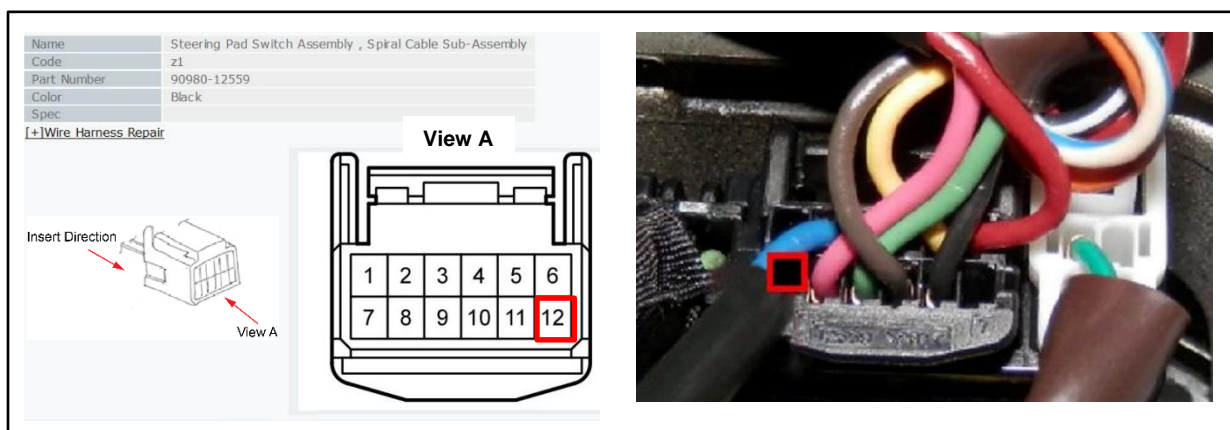
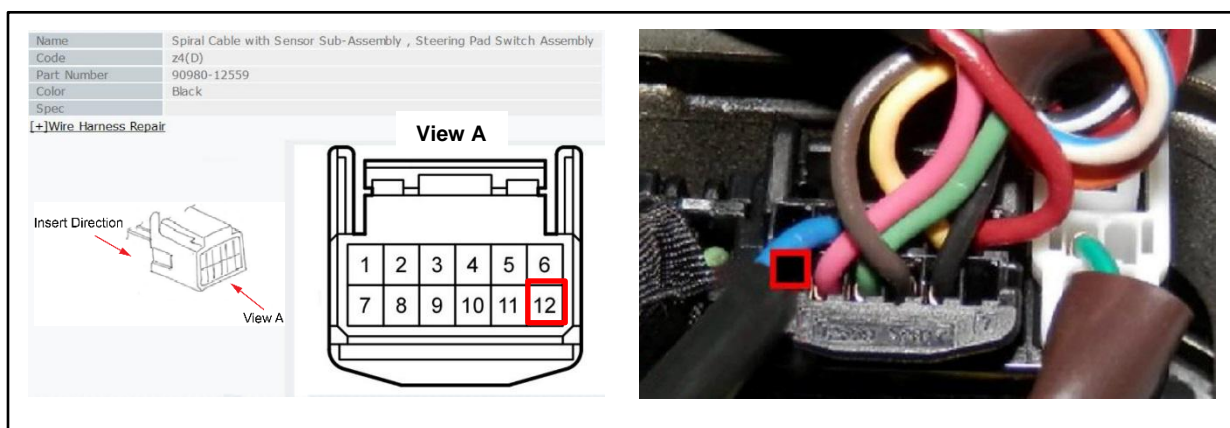


Figure 7. Connector z4

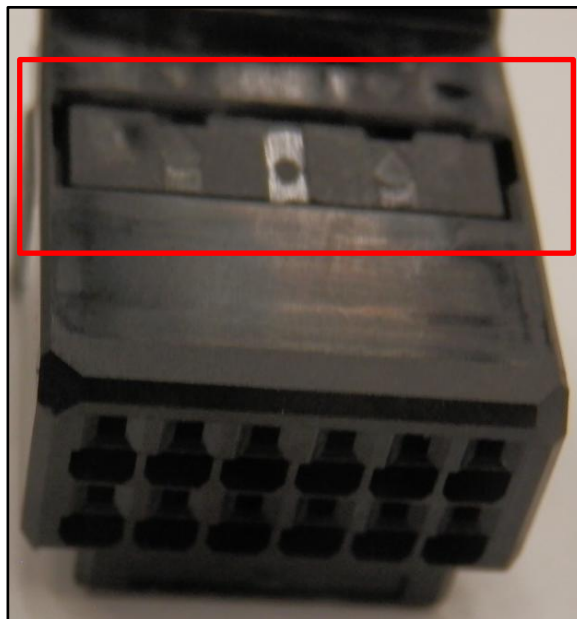


Cruise Control Stalk Illumination Intermittent Operation

Repair Procedure (Continued)

10. Press lock tab down.

Figure 8.

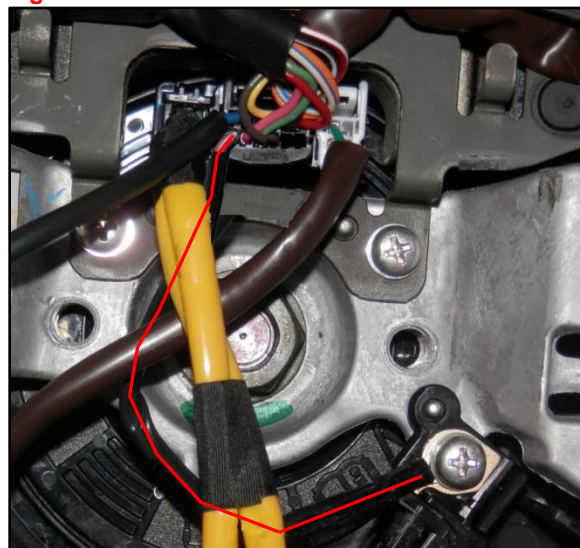


11. Connect Highlander/HV connector z4 (connector z1 for RAV4) to spiral cable.
12. Route repair wire part number 82998-0E010 under existing harnesses as shown.

NOTE

Do NOT attach ring terminal at this time.
(Ring terminal is attached in picture to show routing.)

Figure 9.



Cruise Control Stalk Illumination Intermittent Operation

Repair Procedure (Continued)

13. Disconnect IP connector F61 on Highlander/HV (G8 on RAV4) from spiral cable rear of steering wheel.

Figure 10.

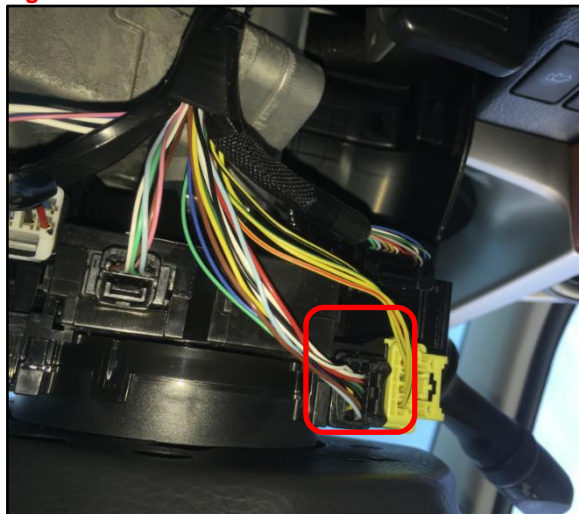
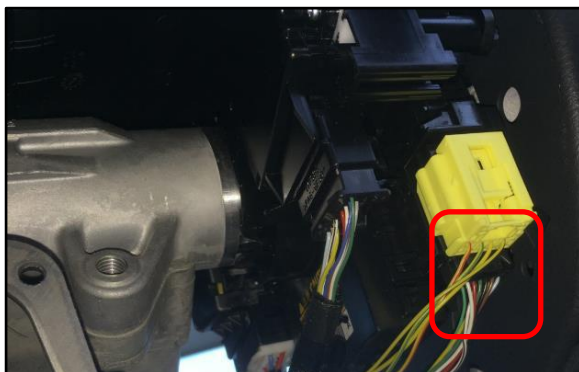
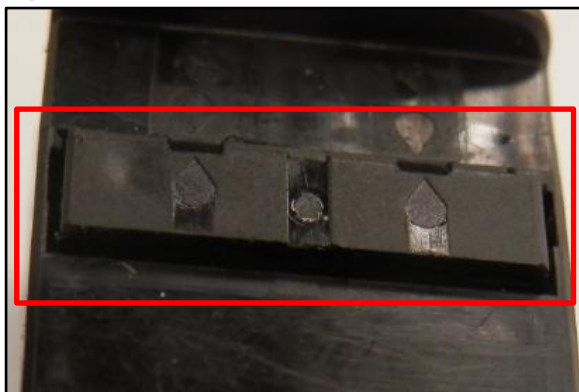


Figure 11.



14. Lift connector lock tab using same guidelines in step 8.

Figure 12.



Cruise Control Stalk Illumination Intermittent Operation

Repair Procedure (Continued)

15. Insert repair wire part number 82998-0E020 pin terminal into cavity 7 of Instrument Panel Connector F61 for Highlander/HV (or connector G8 on RAV4).

Figure 13. Connector F61

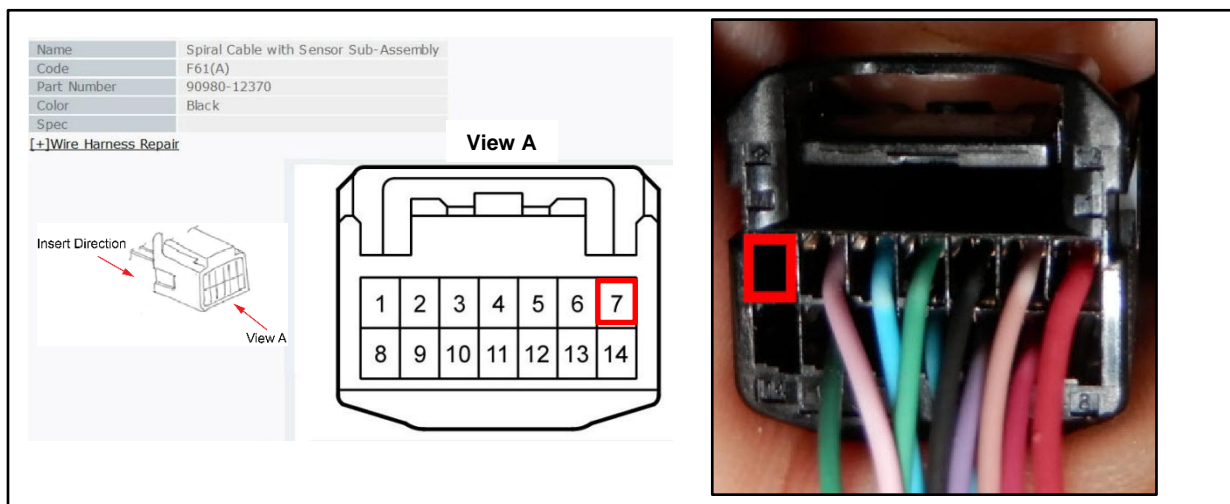
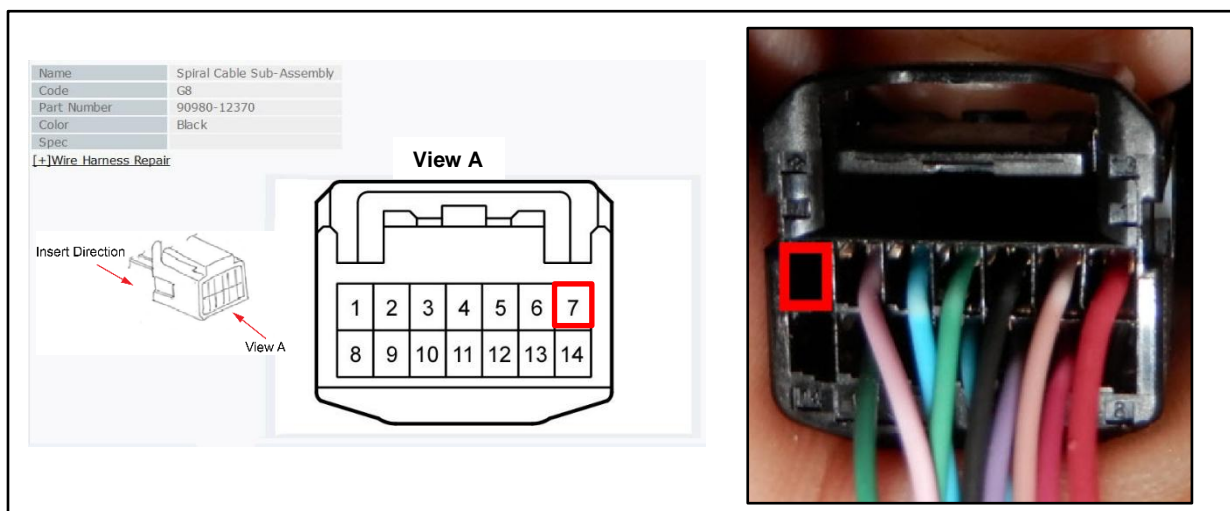


Figure 14. Connector G8

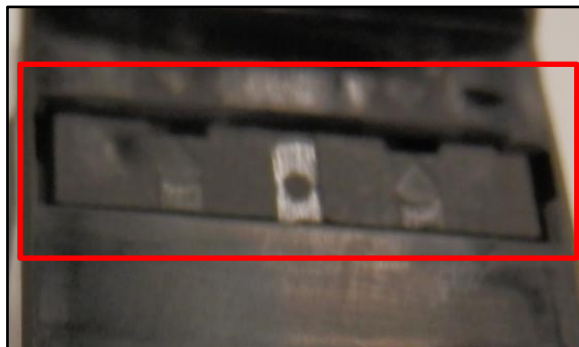


Cruise Control Stalk Illumination Intermittent Operation

Repair Procedure (Continued)

16. Press lock tab down.

Figure 15.



17. Connect IP Highlander/HV harness connector F61 (connector G8 on RAV4) to spiral cable.
18. Check resistance between the ring terminals of both harnesses.

Figure 16.

NOTE

Both harness ring terminals should NOT be attached to the vehicle.

The standard resistance should be less than 1 ohm. If resistance is not as specified, check installation of both harnesses.



Cruise Control Stalk Illumination Intermittent Operation

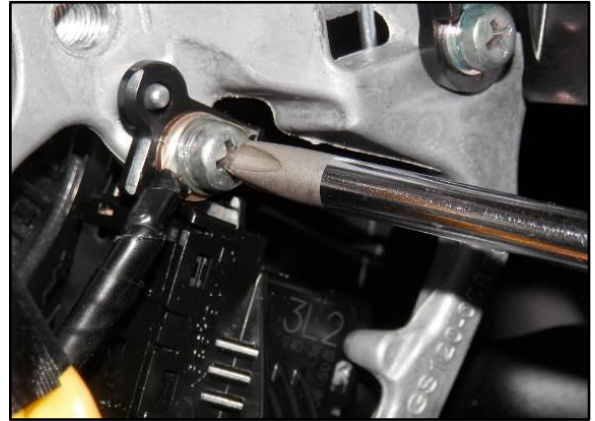
Repair Procedure (Continued)

19. Secure repair wire part number 82998-0E010 ring terminal to cruise control switch ground.

- A. Remove screw from cruise control switch.
- B. Place repair wire ring terminal over screw.
- C. Install screw.

Torque: 2.4 N*m (24 kgf*cm, 21 in*lb)

Figure 17.

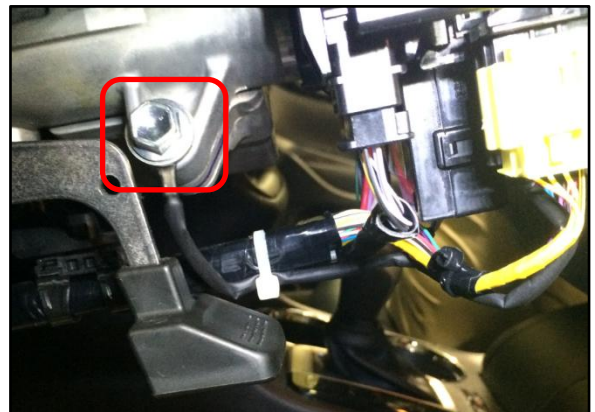


20. Route repair wire part number 82998-0E020 to steering column.

- A. Insert bolt part number 91551-80801 and 2 washers onto ring terminal.
- B. Insert bolt into steering column as shown in figure.

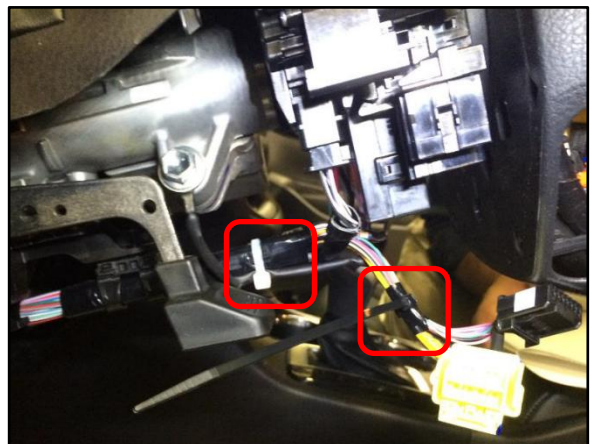
Torque: 5 N*m (50 kgf*cm, 44 in*lb)

Figure 18.



21. Secure repair wires using cable ties in the indicated locations.

Figure 19.



Cruise Control Stalk Illumination Intermittent Operation

Repair Procedure (Continued)

22. Engage the 3 claws to install the lower steering column cover.
 - A. Install the 2 screws in the steering column cover (except for smart key).
 - B. Smart key vehicles, install 2 screws after battery is reconnected.

23. Check that the ignition switch is off.
 - A. Check that the cable is disconnected from the negative (–) battery terminal.

CAUTION

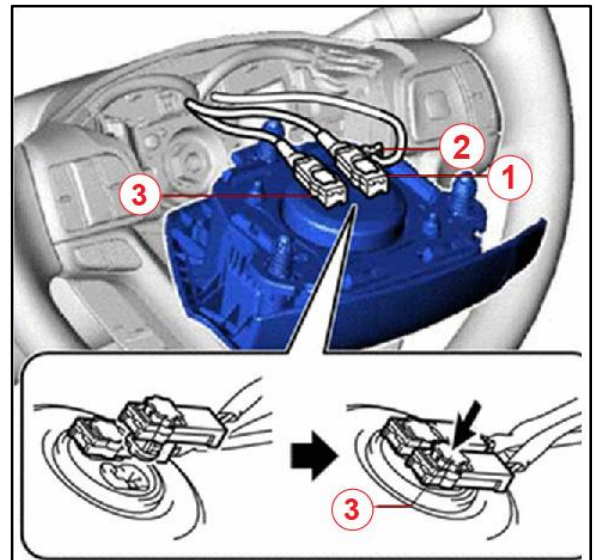
Wait at least 90 seconds after disconnecting the cable from the negative (–) battery terminal to disable the SRS system.

- B. Connect the 2 airbag connectors to the horn assembly.

NOTICE

- When connecting any airbag connector, take care not to damage the airbag wire harness.
- Be sure to only connect the connectors to each corresponding color.

Figure 20.



| | |
|---|-----------------------|
| 1 | Airbag Connector |
| 2 | Horn Connector |
| 3 | Airbag Connector Lock |

- C. Push in the 2 airbag connector locks to install the 2 airbag connectors.
 - D. Connect the horn connector to the horn button assembly.
 - E. Push the horn button assembly to engage the 3 pins carefully.

NOTICE

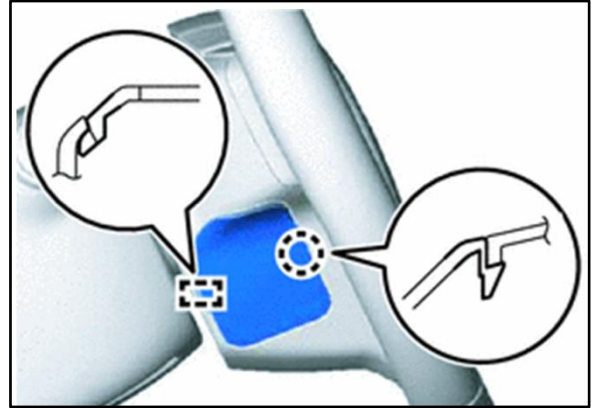
- Make sure that the pins are securely inserted into the steering wheel assembly holes.
- Make sure to engage the 2 uppers pins first.
- Make sure that the horn button assembly is securely installed.

Cruise Control Stalk Illumination Intermittent Operation

Repair Procedure (Continued)

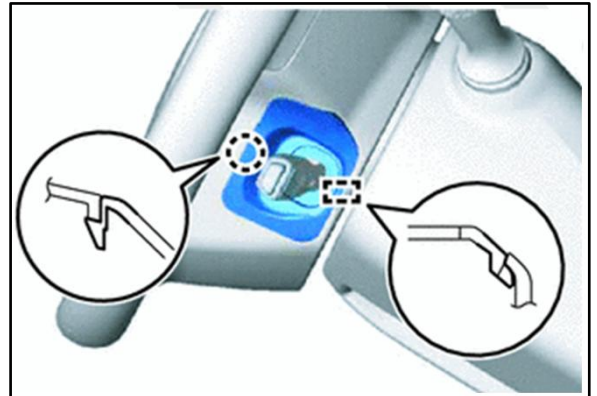
24. Insert the guide and engage the claw to install the lower No. 3 steering wheel cover.

Figure 21.



25. Insert the guide and engage the claw to install the lower No. 2 steering wheel cover.

Figure 22.



26. Connect cable to negative (–) battery terminal and initialize all necessary systems.

NOTICE

After the battery is reconnected, please initialize all necessary components. Step 1 contains links to the initialization sections.

Cruise Control Stalk Illumination Intermittent Operation

Repair Procedure (Continued)

27. Make sure that the horn sounds. If the horn does NOT sound, inspect the horn system.

Refer to TIS, applicable model and model year Repair Manual:

- [2014](#) / [2015](#) / [2016](#) Highlander/HV:
Vehicle Exterior – Horn – “Horn: Horn System: Problem Symptoms Table”
- [2014](#) / [2015](#) / [2016](#) RAV4:
Vehicle Exterior – Horn – “Horn: Horn System: Problem Symptoms Table”

28. Perform Techstream Health Check and confirm no DTCs present.

Refer to TIS, applicable model and model year Repair Manual:

- [2014](#) / [2015](#) / [2016](#) Highlander/HV:
Vehicle Interior – Supplemental Restraint Systems – “Supplemental Restraint Systems: Airbag System: DTC Check/Clear”
- [2014](#) / [2015](#) / [2016](#) RAV4:
Vehicle Interior – Supplemental Restraint Systems – “Supplemental Restraint Systems: Airbag System: DTC Check/Clear”

29. Inspect warning lamp operation.

Refer to TIS, applicable model and model year Repair Manual:

- [2014](#) / [2015](#) / [2016](#) Highlander/HV:
Vehicle Interior – Supplemental Restraint Systems – “Supplemental Restraint Systems: Airbag System: Diagnosis System”
- [2014](#) / [2015](#) / [2016](#) RAV4:
Vehicle Interior – Supplemental Restraint Systems – “Supplemental Restraint Systems: Airbag System: Diagnosis System”