



August 2016

Dealer Service Instructions for:

## **Safety Recall S40 / NHTSA 16V-288**

### **Airbag Clockspring**

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#### **Models**

**2011 - 2016 (JK) Jeep® Wrangler**

*NOTE: This recall applies only to the above vehicles equipped with Right Hand Drive (RHD) (sales code 5I9) and built through May 02, 2016 (MDH 050215).*

**IMPORTANT:** Some of the involved vehicles may be in dealer used vehicle inventory. Dealers should complete this recall service on these vehicles before retail delivery. Dealers should also perform this recall on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

#### **Subject**

The airbag clockspring on about 7,200 of the above vehicles may have been built with a steering column clockspring that may ingest dust if the vehicle is subjected to dusty environments. Dust inside the clockspring could compromise airbag circuit(s), cause illumination of the airbag warning light and/or a non-deployment of the driver airbag during a crash.

#### **Repair**

The steering column clockspring, steering wheel back cover, and steering column shrouds must be replaced.

## Parts Information

## Part Number

## Description

**CBAES402AA**

# Clockspring Installation Package

Each package contains the following components:

<u>Quantity</u>	<u>Description</u>
1	Shroud, Upper
1	Shroud, Lower
1	Cover, Steering Wheel Back
1	Screw, Hex Flange

**Each dealer** to whom vehicles in the recall were assigned will receive enough Clockspring Packages to service about 20% of those vehicles.

### Part Number

### Description

**CBAES404AA**

## Clockspring Assembly

## Parts Return

No parts return required for this campaign.

## Special Tools

**The following special tools are required to perform this repair:**

- NPN wiTECH micro pod II
- NPN Laptop Computer
- NPN wiTECH Software

**Service Procedure**

**WARNING: TO AVOID SERIOUS OR FATAL INJURY, DISABLE THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) BEFORE ATTEMPTING THIS SERVICE PROCEDURE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE SRS. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT.**

**NOTE: A service replacement clockspring is shipped with the clockspring pre-centered and with a molded plastic locking pin installed. This locking pin should not be removed until the steering wheel has been installed on the steering column. If the locking pin is removed before the steering wheel is installed, the clockspring centering procedure must be performed.**

**NOTE: When a clockspring is installed into a vehicle without properly centering and locking the entire steering system, the Steering Angle Sensor (SAS) data does not agree with the true position of the steering system and causes the Electronic Stability Program (ESP) system to shut down. This may also damage the clockspring without any immediate malfunction. The SAS does not require calibration.**

**NOTE: Determining if the clockspring/SAS is centered is also possible electrically using the diagnostic scan tool. Steering wheel position is displayed as ANGLE with a range of up to 900 degrees. Refer to the appropriate menu item on the diagnostic scan tool.**

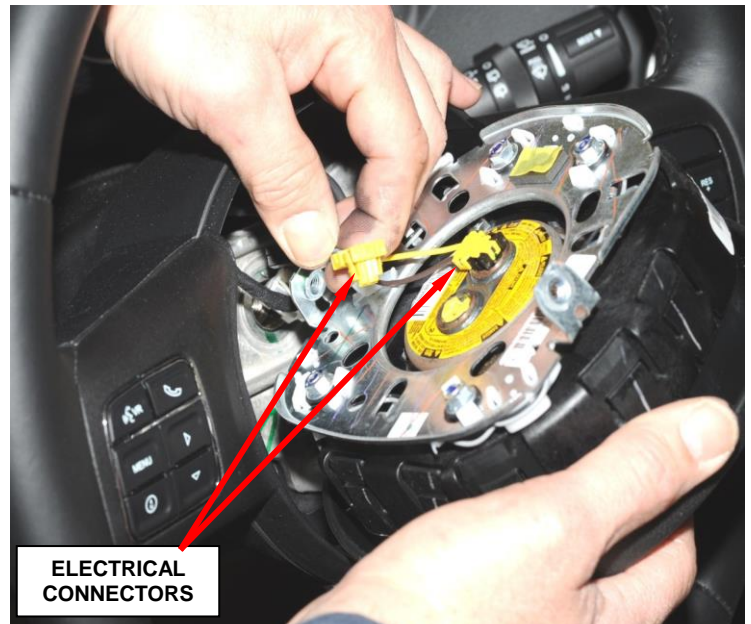
**NOTE: Before starting this procedure, be certain to turn the steering wheel until the front wheels are in the straight-ahead position and that the entire steering system is locked or inhibited from rotation.**

**Service Procedure (Continued)****A. Airbag Clockspring Replacement**

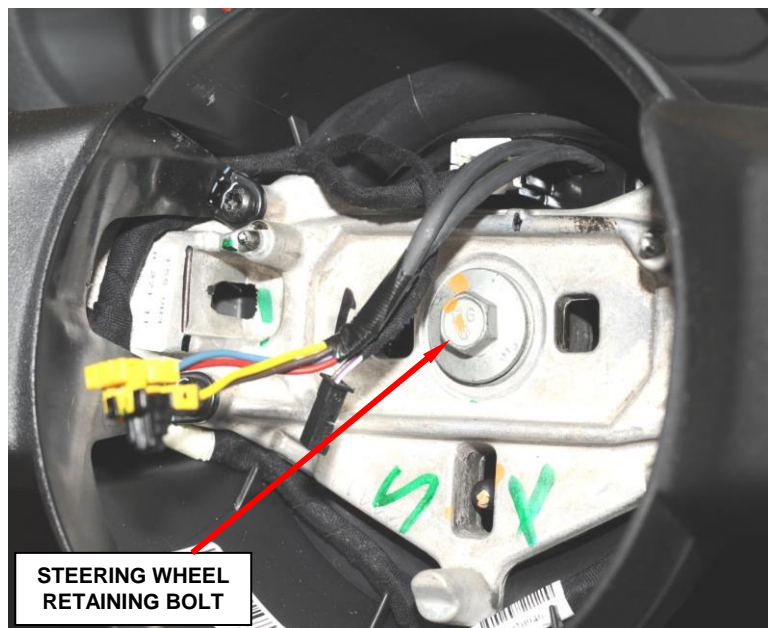
1. Place the front wheels in the straight ahead position and inhibit the steering column shaft from rotation.
2. Disconnect and isolate the battery negative cable.

**WARNING: WAIT TWO MINUTES FOR THE SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE.**

3. Remove and save the driver airbag module retaining screws.
4. Separate the driver airbag module from the steering wheel and disconnect the two airbag electrical connectors (Figure 1) and the one horn electrical connector. Then set the driver airbag module aside.
5. Remove and discard the steering wheel retaining bolt from the steering shaft (Figure 2).
6. Remove and save the steering wheel assembly.
7. Move the steering column to the fully lowered position and leave the tilt release lever in the released (down) position.



**Figure 1 – Airbag Module Electrical Connectors**

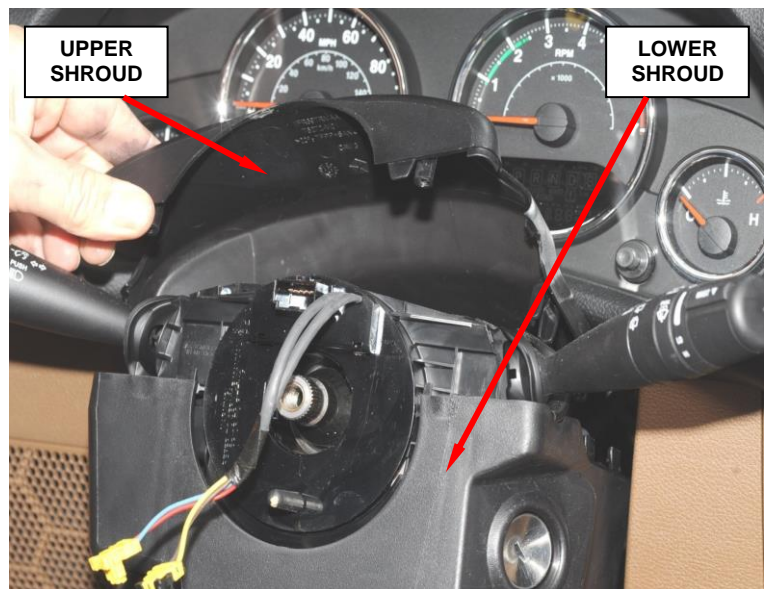


**Figure 2 – Steering Wheel Retaining Bolt**



**Service Procedure (Continued)**

8. Remove and discard the upper and lower steering column shrouds from the steering column (Figure 3).



**Figure 3 – Upper and Lower Steering Column Shrouds**

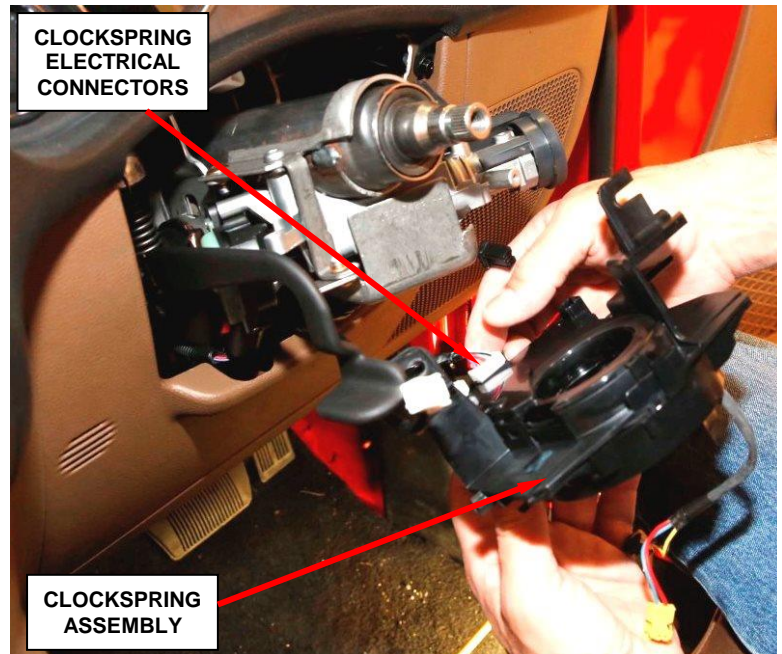
9. Remove and save the right and left multi-function switches (Figure 4).



**Figure 4 – Right and Left Multi-Function Switches**

**Service Procedure (Continued)**

10. Remove the three screws that secure the clockspring to the steering column lock housing.
11. Pull the clockspring away from the steering column lock housing enough to access and disconnect the three instrument panel wire harness electrical connectors from the receptacles on the back of the clockspring (Figure 5).



**Figure 5 – Clockspring Electrical Connections**

12. Remove the clockspring from the steering column.
13. Carefully slide the new clockspring down over the steering column upper shaft far enough to reconnect the three instrument panel wire harness connectors to the receptacles on the back of the clockspring case.
14. Connect the three instrument panel wire harness electrical connectors to the receptacles on the back of the clockspring (Figure 5).
15. Position the clockspring onto the steering column lock housing.

**Service Procedure (Continued)**

16. Install and tighten the three screws that secure the clockspring to the steering column lock housing in the following sequence:
- Lower Right
  - Upper Left
  - Upper Right

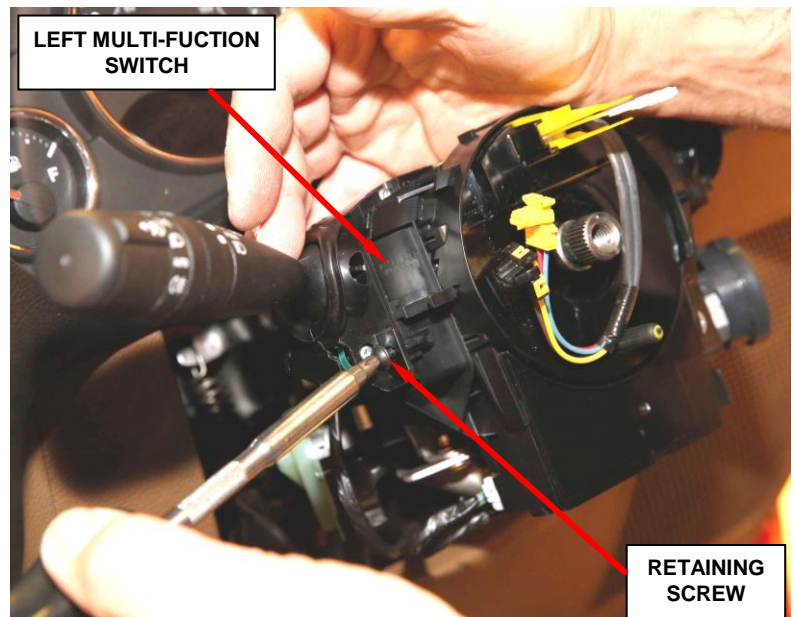
Tighten the screws to 27 in. lbs. (3 N·m).

**CAUTION: Improper sequence when tightening the clockspring mounting screws may result in an audible ticking noise as the steering wheel is rotated.**

17. Place both multi-function switches onto the new clockspring as an assembly and connect the electrical connector.

18. Install the left multi-function switch retaining screw. Tighten the screw to 10 in. lbs. (1 N·m) (Figure 6).

19. Install the right multi-function switch retaining screw. Tighten the screw to 10 in. lbs. (1 N·m).



**Figure 6 – Multi-Function Switch Retaining Screw (left side switch shown)**



**Service Procedure (Continued)**

20. Install the new upper and lower steering column shrouds onto the steering column (Figure 7).
21. Move the steering column back to the fully raised position and move the tilt release lever back to the locked (up) position.



**Figure 7 – Install Steering Column Shrouds**

22. Remove and discard the original steering wheel back cover (Figure 8).



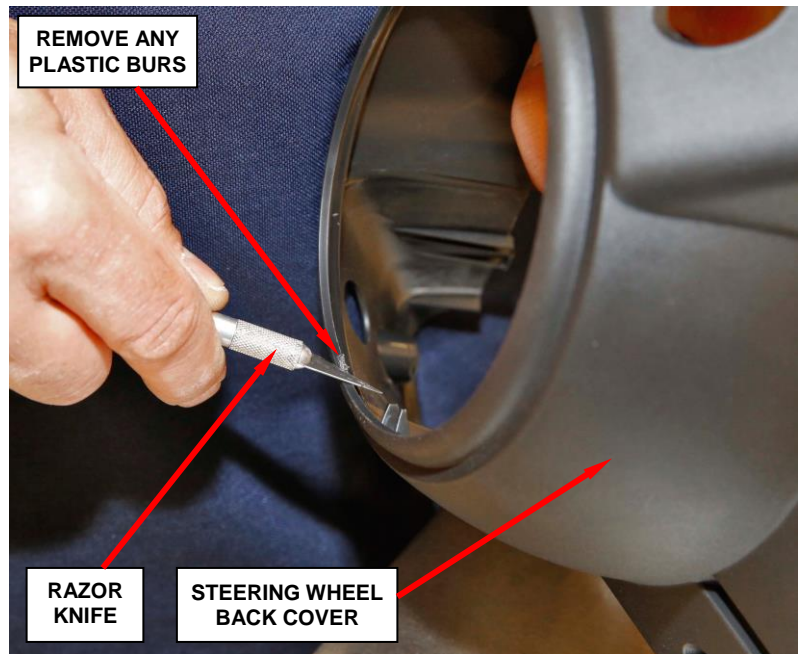
**Figure 8 – Steering Wheel Back Cover**



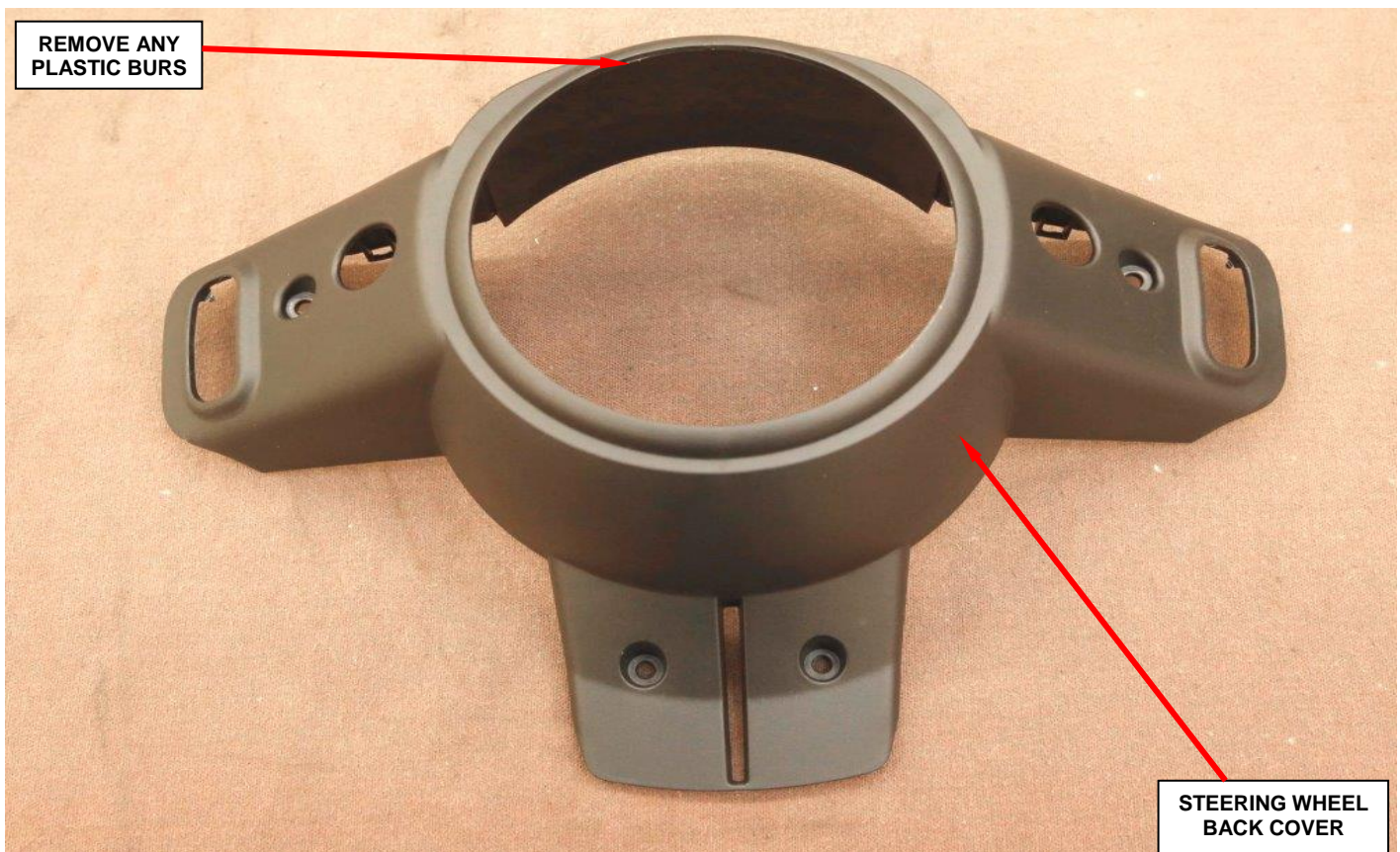
**Service Procedure (Continued)**

23. Remove any burrs from the new steering wheel back cover (Figures 9 and 10).

24. Install the new steering wheel back cover to the original steering wheel (Figure 10).

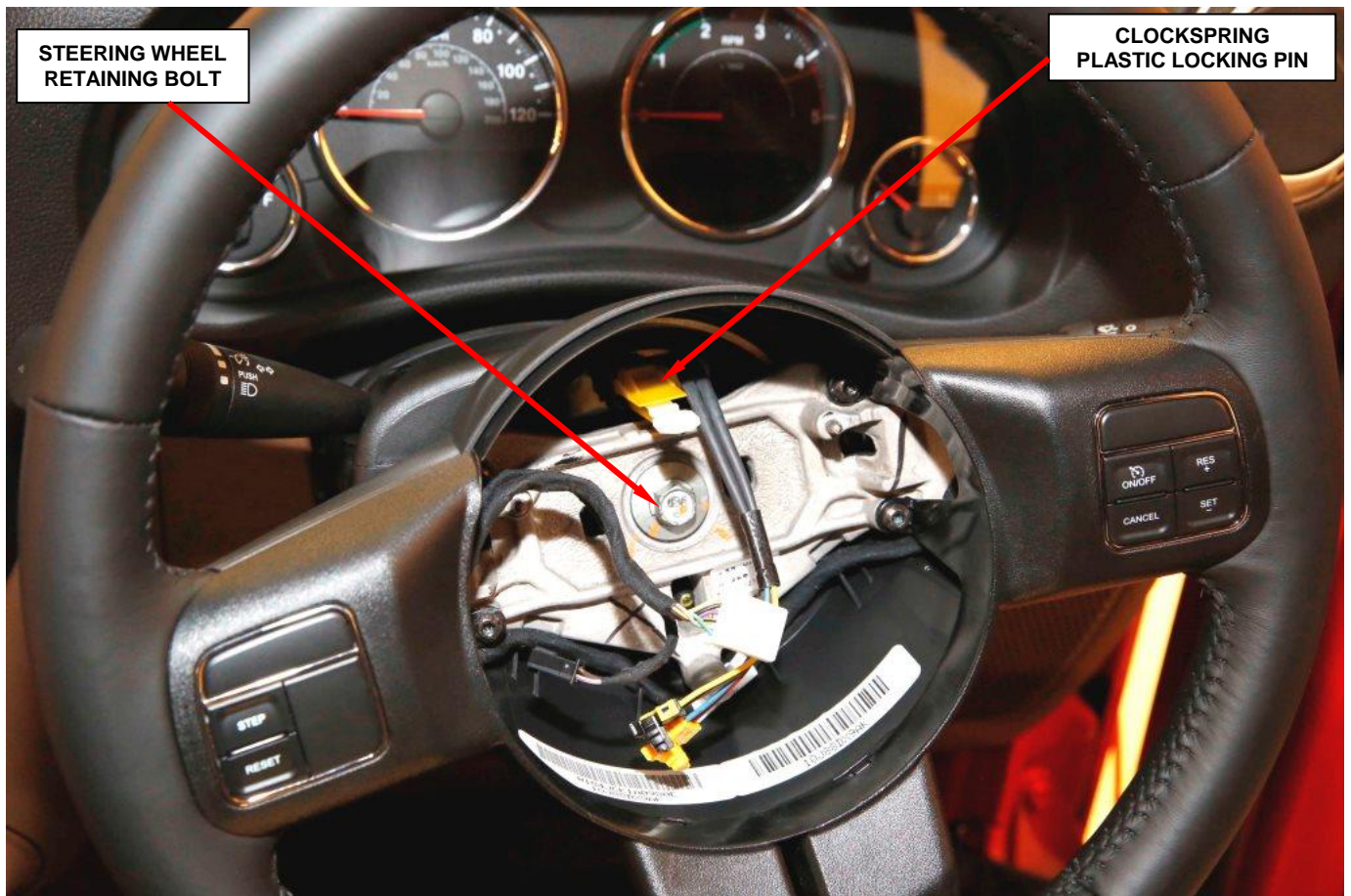


**Figure 9 – Remove any Burs from Opening**



**Figure 10 – Steering Wheel Back Cover**



**Service Procedure (Continued)****Figure 11 – Install New Steering Wheel Retaining Bolt**

25. Install the steering wheel assembly onto the steering column.
26. Install a new steering wheel retaining bolt finger tight (Figure 11).
27. Remove and discard the plastic locking pin that secures the clockspring rotor (Figure 11 and 12).

**Figure 12 – Remove Clockspring Locking Pin**

**Service Procedure (Continued)**

28. Tighten the new steering wheel retaining bolt to 40 ft. lbs. (54 N·m) (Figure 13).
29. Connect the two airbag electrical connectors and the one horn electrical connector to the driver airbag module.



**Figure 13 – Tighten Steering Wheel Retaining Bolt to 40 ft. lbs. (54 N·m)**

30. Install the driver airbag module onto the steering wheel.
31. Install the two steering wheel driver airbag module retaining screws. Tighten the screws to 120 in. lbs. (13 N·m).
32. Do not connect the negative battery cable at this time. Continue with **Section B. Supplemental Restraint System (SRS) Verification Test.**

**Service Procedure (Continued)****B. Supplemental Restraint System (SRS) Verification Test**

**NOTE:** The wiTECH scan tool must be used to perform this recall. The wiTECH software is required to be at the latest release level before performing this procedure.

1. Connect the wiTECH scan tool to the vehicle.
2. Turn the ignition switch to the “ON” position, exit the vehicle and close the doors.
3. **If equipped with an Intelligent Battery Sensor (IBS)**, connect the IBS connector and connect the battery negative cable.
4. Open the wiTECH Diagnostic application.
5. Starting at the “**Select Tool**” screen, select the row/tool for the wiPOD device you are using, then select “Next”.
6. Enter your “**User id**” and “**Password**”, then select “**Finish**”.
7. Clear all DTC’s in all modules using the wiTECH scan tool.

**NOTE:** Any active Diagnostic Trouble Codes (DTC’s) may require an additional key cycle from “ON” to “OFF” to change DTC status from “active” to “stored”.

8. Turn the ignition switch to the “OFF” position for about 15 seconds, and then back to the “ON” position. Observe the airbag indicator in the instrument cluster.
  - The airbag indicator in the instrument cluster should illuminate for six to eight seconds, and then go out. This indicates that the SRS is functioning normally and that the repairs are complete. Turn the ignition to the “OFF” position, remove the wiPOD and return the vehicle to the customer.
  - If the airbag indicator fails to light or the light and stays ON, there is still an active SRS fault or malfunction. Refer to the appropriate diagnostic information to diagnose the problem.
9. Close the hood and remove the wiTECH scan tool from the vehicle.
10. Return the vehicle to the customer.



**Completion Reporting and Reimbursement**

Claims for vehicles that have been serviced must be submitted on the DealerCONNECT Claim Entry Screen located on the Service tab. Claims submitted will be used by FCA to record recall service completions and provide dealer payments.

Use following labor operation number and time allowance:

	<b><u>Labor Operation Number</u></b>	<b><u>Time Allowance</u></b>
Replace clockspring, steering wheel back cover, and steering column shrouds	19-S4-01-83	0.8 hours

Add the cost of the recall parts package plus applicable dealer allowance to your claim.

NOTE: See the Warranty Administration Manual, Recall Claim Processing Section, for complete recall claim processing instructions.

**Dealer Notification**

To view this notification on DealerCONNECT, select “Global Recall System” on the Service tab, then click on the description of this notification.

**Owner Notification and Service Scheduling**

All involved vehicle owners known to FCA are being notified of the service requirement by first class mail. They are requested to schedule appointments for this service with their dealers. A generic copy of the owner letter is attached.

Enclosed with each owner letter is an Owner Notification postcard to allow owners to update our records if applicable.

**Vehicle Lists, Global Recall System, VIP and Dealer Follow Up**

All involved vehicles have been entered into the DealerCONNECT Global Recall System (GRS) and Vehicle Information Plus (VIP) for dealer inquiry as needed.

GRS provides involved dealers with an updated VIN list of their incomplete vehicles. The owner's name, address and phone number are listed if known. Completed vehicles are removed from GRS within several days of repair claim submission.

To use this system, click on the “**Service**” tab and then click on “**Global Recall System.**” Your dealer's VIN list for each recall displayed can be sorted by: those vehicles that were unsold at recall launch, those with a phone number, city, zip code, or VIN sequence.

**Dealers must perform this repair on all unsold vehicles before retail delivery.** Dealers should also use the VIN list to follow up with all owners to schedule appointments for this repair.

*Recall VIN lists may contain confidential, restricted owner name and address information that was obtained from the Department of Motor Vehicles of various states. Use of this information is permitted for this recall only and is strictly prohibited from all other use.*

**Additional Information**

If you have any questions or need assistance in completing this action, please contact your Service and Parts District Manager.

Customer Services / Field Operations  
FCA US LLC

## **IMPORTANT SAFETY RECALL**

**S40 / NHTSA 16V-288**

This notice applies to your vehicle (VIN: xxxxxxxxxxxxxxxxx).

This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act.

Dear: (Name)

FCA has decided that a defect, which relates to motor vehicle safety, exists in certain **2011 through 2016 model year Jeep® Wrangler vehicles**.

In May 2013, FCA notified you, or the previous owner of this vehicle, of Safety Recall M31. Safety Recall S40 replaces Safety Recall M31. Safety Recall M31 will be cancelled. The current Safety Recall S40 notification contains the permanent remedy for this defect. The repair listed below is required even if the vehicle was previously repaired under Safety Recall M31.

***The problem is...***      **The airbag clockspring on your vehicle may have been built with a steering column clockspring that may ingest dust if the vehicle is subjected to dusty environments. Dust inside the clockspring could compromise airbag circuit(s), cause illumination of the airbag warning light and/or a non-deployment of the driver airbag during a crash, increasing the risk of injury.**

***What your dealer will do...***      **FCA will repair your vehicle free of charge.** To do this, your dealer will replace the steering column clockspring, steering wheel back cover, and steering column shrouds. The work will take about two hours to complete. However, additional time may be necessary depending on service schedules.

***What you must do to ensure your safety...***      Simply **contact your Chrysler, Jeep, Dodge or RAM dealer** right away to schedule a service appointment. Ask the dealer to hold the parts for your vehicle or to order them before your appointment. **Please bring this letter with you to your dealer.**

***If you need help...***      If you have questions or concerns which your dealer is unable to resolve, please contact the FCA Group Recall Assistance Center at either **fcarecalls.com** or 1-800-853-1403.

Please help us update our records by filling out the attached prepaid postcard if any of the conditions listed on the card apply to you or your vehicle. If you have further questions go to **fcarecalls.com**.

If you have already experienced this specific condition and have paid to have it repaired, you may visit **www.fcarecallreimbursement.com** to submit your reimbursement request online or you can mail your original receipts and proof of payment to the following address for reimbursement consideration: **FCA Customer Assistance, P.O. Box 21-8004, Auburn Hills, MI 48321-8007, Attention: Recall Reimbursement**. Once we receive and verify the required documents, reimbursement will be sent to you within 60 days. If you've had previous repairs and/or reimbursement you may still need to have the recall repair performed on your vehicle.

If your dealer fails or is unable to remedy this defect without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Ave., S.E., Washington, DC 20590, or you can call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY 1-800-424-9153), or go to **safercar.gov**.

We're sorry for any inconvenience, but we are sincerely concerned about your safety. Thank you for your attention to this important matter.

Customer Services / Field Operations  
FCA US LLC

*Note to lessors receiving this recall: Federal regulation requires that you forward this recall notice to the lessee within 10 days.*